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Faculty of Arts and Sciences
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Core-Curriculum

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on the Core Program

William C. Kirby, Edith and Benjamin Geisinger Professor of History and Dean of the Faculty of Arts and Sciences *(Chair)*
Peter J. Burgard, Professor of German
Jeffry Frieden, Stanfield Professor of International Peace
Benedict H. Gross, George Vasmer Leverett Professor of Mathematics and Dean of Harvard College *(ex officio)*
Thomas Forrest Kelly, Harvard College Professor and Morton B. Knafel Professor of Music *(on leave spring term)*
Robert P. Kirshner, Harvard College Professsor and Clowes Professor of Science
Lino Pertile, Professor of Romance Languages and Literatures *(spring term only)*
Richard Tuck, Frank G. Thomson Professor of Government
Laurel Thatcher Ulrich, Harvard College Professor and the James Duncan Phillips Professor of Early American History

The Core Curriculum Program

The philosophy of the Core Curriculum rests on the conviction that every Harvard graduate should be broadly educated, as well as trained in a particular academic specialty or concentration. It assumes that students need some guidance in achieving this goal, and that the faculty has an obligation to direct them toward the knowledge, intellectual skills, and habits of thought that are the hallmarks of educated men and women.

But the Core differs from other programs of general education. It does not define intellectual breadth as the mastery of a set of Great Books, or the digestion of a specific quantum of information, or the surveying of current knowledge in certain fields. Rather, the Core seeks to introduce students to the major *approaches to knowledge* in areas that the faculty considers indispensable to undergraduate education. It aims to show what kinds of knowledge and what forms of inquiry exist in these areas, how different means of analysis are acquired, how they are used, and what their value is. The courses within each area or subdivision of the program are equivalent in the sense that, while their subject matter may vary, their emphasis on a particular way of thinking is the same.

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Foreign Cultures

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

The goals common to all courses in Foreign Cultures are to expand one's understanding of the importance of cultural factors in shaping people's lives, and to provide fresh perspectives on one's own cultural assumptions and traditions, through study of cultures significantly different from that of the US and the anglophone cultures of the British Isles, Canada, Australia, and New Zealand. These courses also introduce methods of studying a culture, and the issues involved in approaching a culture not one's own. Whether the primary emphasis is on the analysis of key texts and works of art, on historical change, or on other fundamental aspects of individual or social life, Foreign Cultures courses seek to identify the distinctive patterns of thought and action that account for the particular configuration or ethos of another culture.

With the exception of the specific courses listed at the end of this section, departmental courses, including language courses, may not be substituted for Foreign Cultures courses to meet this requirement. Consult the *Introduction to the Core Curriculum* for further details.

Foreign Cultures

[Foreign Cultures 12. Sources of Indian Civilization]
Catalog Number: 8312
Diana L. Eck
Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
An introduction to the ideas and images that shaped classical Indian civilization and which continue to be of significance to the understanding of modern India. Explores three areas of Indian culture: its philosophical perspectives, its social and moral order, and its mythic and visual imagination.
Note: Expected to be given in 2005–06.

Foreign Cultures 21. Cinéma et culture française, de 1896 à nos jours
Catalog Number: 8550
Tom Conley
Half course (fall term). M., W., F., at 11; M., 7:30–9:30, and a weekly section to be arranged. EXAM GROUP: 4
Focuses on relations of cinema to French culture from the silent era to the age of video. Explores film in dialogue with cultural and historical events, development of a national style and signature, a history of criticism. Correlates study of cinema to cultural analysis. Takes up Renoir and poetic realism, unrest in 1930s, France and other filmic idioms (Italy, Hollywood, Russia), new wave directors, feminist and minoritarian cinema after 1980.
Note: Conducted in French.

Foreign Cultures 22a. La critique sociale à travers l'humour
Catalog Number: 0656
Marlies Mueller
Half course (fall term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP:

4
A second-year language course that explores French institutions, values, and traditions of the 17th and 18th centuries as objects of humorous attacks by such authors as Beaumarchais, La Fontaine, Molière, and Voltaire. Comprehensive syntheses of early-modern cultural debates through multi-disciplinary approach. Extensive use of visual material (Cassell, Leconte, Rossellini, Scola, Wajda). Emphasis on all four communication skills so that at the end of the course, students should be able to understand lectures in French, converse on a large variety of topics with native speakers, read material of moderate difficulty, and write correct French.
Note: Conducted in French. Both Foreign Cultures 22a and 22b, not necessarily in sequence, must be taken to fulfill the Foreign Cultures requirement.
Prerequisite: A Harvard placement score of 600 minimum, equivalent preparation, or permission of instructor.

Foreign Cultures 22b. La critique sociale à travers l'humour
Catalog Number: 0591
Marlies Mueller
Half course (spring term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 4
A continuation of Foreign Cultures 22a at a higher level. Explores institutions, values, and traditions in humorous works of 19th- and 20th-century France. Emphasis on the individual's search for wisdom and happiness in a changing social context (Balzac, Beineix, Godard, Renoir, Sartre, and Stendhal).
Note: Conducted in French. Both Foreign Cultures 22a and 22b, not necessarily in sequence, must be taken to fulfill the Foreign Cultures requirement.
Prerequisite: A Harvard placement score of 710 minimum, Foreign Cultures 22a, equivalent preparation, or permission of instructor.

[Foreign Cultures 30. Forging a Nation: German Culture from Luther to Kant and Beyond]
Catalog Number: 0580
Peter J. Burgard
Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
Examines literary, philosophical, religious, and political movements of the period 1500–1775, from the Reformation to the Enlightenment. Analysis of texts from that time and consideration of their literary reception in the 20th century.
Note: Expected to be given in 2006–07. Readings and discussions in German; exams in English; German optional for term paper.
Prerequisite: German D, equivalent preparation, or permission of the instructor.

[Foreign Cultures 32. Jugend gegen Hitler]
Catalog Number: 5463
Judith Ryan
Half course (spring term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 4
The course will treat a series of fictional, cinematic, biographical, autobiographical, and documentary works that depict young people coming to terms with everyday life in Germany during the Nazi regime. Attention will also be paid to the language of Nazi proclamations and

opposition pamphlets and flyers. Topics explored include youth resistance movements, the ubiquitous influence of the Hitler Youth, life in hiding from the Nazis, and the concentration camp experience.
Note: Expected to be given in 2005–06. Readings and discussions in German; papers and exams in English.
Prerequisite: German D, equivalent preparation, or permission of the instructor.

Foreign Cultures 34. Mesoamerican Civilizations
Catalog Number: 3196
William L. Fash
Half course (fall term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 15
This course highlights the distinctive features of the evolving cultural traditions of Mesoamerica, one of the oldest living civilizations in the world. Pre-Columbian religion, arts, cultural ecology, and construction of power and social identity through myth, ritual, and official history are explored first. Continuities and changes in those traditions resulting from the Spanish conquest, colonial rule, and subsequent global change in the 20th century are then analyzed. In Mexico and Central America, the past continues to shape the present, and living cultures help illuminate processes, events, and worldview in the archaeological past.

[Foreign Cultures 35. Barcelona y la modernidad]
Catalog Number: 7634
Bradley S. Epps
Half course (spring term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 5
Examines the construction, expansion, and transformation of Barcelona as cultural capital of Catalonia and as site of political and aesthetic experimentation from the mid-19th century to the present. Drawing on literature, criticism, visual arts, architecture, urban planning, film, and music, we explore national identity, nationalism, and language; bilingualism and multiculturalism; and the relations between art and economics, political conformity and resistance.
Note: Expected to be given in 2005–06. Conducted in Spanish; papers in Spanish, English, or Catalan.

Foreign Cultures 37. Madrid, fin-de-siècle
Catalog Number: 4425
Luis Fernández-Cifuentes
Half course (fall term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 14
Madrid's first turn of the century as a modern city was marked by the intellectual and artistic activity of the so-called Generation of 1898 (the year Spain lost its last colonies); the second turn, by the aftermath of Franco's dictatorship and the country's incorporation into the European Union. This course will explore and compare the cultural identity of the city at both junctures, through architecture and painting, narrative and film, theatre and comic books, politics and journalism.
Note: Conducted in Spanish; papers and exams may be written in English.

Foreign Cultures 46. Caribbean Societies: Socioeconomic Change and Cultural Adaptations
Catalog Number: 6357
Orlando Patterson
Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
Caribbean societies are largely the economic and political creations of Western imperial powers. Though *in* the West, they are only partly *of* it, and their popular cultures are highly original blends of African and European forms. The course examines the area as a system emerging from a situation of great social and cultural diversity to the present tendency toward social and cultural convergence. Patterns of underdevelopment are explored through case studies of Latin and Afro-Caribbean states, as are cultural adaptations through studies of Afro-Caribbean religions, fiction, and music.

[Foreign Cultures 48. The Cultural Revolution]
Catalog Number: 6474
Roderick MacFarquhar
Half course (spring term). M., W., at 10, and a weekly section to be arranged. EXAM GROUP: 3
From 1966 to 1976, the People's Republic of China was wracked by civil strife, student violence, political intrigue, and military plots. What had once seemed the best disciplined and most stable of dictatorial states seemed about to dissolve into disunity, even anarchy, and as a result of the actions of the man who had done more than anyone else to create it: Chairman Mao Zedong. The Cultural Revolution is traced to pinpoint Mao's aims and to explore the deeper political, social, economic, and cultural issues that his actions raised for the Chinese, and for the rest of us as well.
Note: Expected to be given in 2005–06. For students under the Core requirement, counts as either Foreign Cultures or Historical Study B, but not both.

[Foreign Cultures 56. Jewish Life in Eastern Europe]
Catalog Number: 1271
Jay M. Harris
Half course (fall term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 4
An examination of the variegated cultural achievements of Eastern European Jewish society, including its religious and ethical worldviews, its educational institutions, its literature, its politics. Primary focus on the 19th century, the development and continuity of traditional life, and the confrontation between traditional and newer cultural patterns.
Note: Expected to be given in 2006–07.

[Foreign Cultures 60. Individual, Community, and Nation in Vietnam]
Catalog Number: 1976
Hue-Tam Ho Tai
Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
Can a society modernize yet preserve its cultural identity? We will explore this issue with reference to Vietnam, where a Marxist-Leninist political system co-exists with a market economy. Modernization has been accompanied by a revival of tradition, religion, and rituals;

urbanization by renewed stress on village solidarity. Gender roles are being transformed. Family relationships are being reshaped by increased mobility and new means of communications. Migration to the uplands is changing local cultures even as ethnic minorities are offered to global tourists as icons of authenticity. What does it mean to be Vietnamese under these circumstances?
Note: Expected to be given in 2005–06.

[Foreign Cultures 63. China's Two Social Revolutions]
Catalog Number: 1884
Martin K. Whyte
Half course (fall term). M., W., at 12, and a weekly section to be arranged. EXAM GROUP: 5
A general overview of the patterns of social life in China and how these have changed since the revolution in 1949. The socialist transformations led by Mao Zedong after 1949 and the market and other reforms led by Deng Xiaoping after Mao's death receive equal emphasis. Topics covered include political institutions, work organizations, village life, cities, religion, family life, population control, gender relations, inequality, and schooling.
Note: Expected to be given in 2005–06.

[Foreign Cultures 68. Authority and the Claims of the Individual in Chinese Literary Culture]
Catalog Number: 9028
Stephen Owen
Half course (spring term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 15
Examines the role Chinese literary texts have played in articulating the place of the individual as part of, or against, the authority of community and state. Beginning with the celebrations of social integration in the early parts of the *Classic of Poetry* (early first millennium BC), we will follow the increasingly complex role literature came to play, both as a critic of authority and as establishing a domain of private life.
Note: Expected to be given in 2005–06. For students under the Core requirement, counts as either Foreign Cultures or Literature and Arts A, but not both.

[Foreign Cultures 70. Understanding Islam and Contemporary Muslim Societies]
Catalog Number: 1065
Ali S. Asani
Half course (fall term). M., W., F., at 11, and a weekly section to be arranged. EXAM GROUP: 4
Offers an introductory survey of the Islamic world as well as the fundamental concepts and devotional practices of the Islamic faith. Focuses on developing an understanding of the diversity of the Muslim religious worldview and the manner in which it has influenced the political, social, and cultural life of Muslims in various parts of the world, particularly in the modern period. Briefly considers the contemporary situation of Muslims as a religious minority in Europe and the US.
Note: Expected to be given in 2005–06.

[Foreign Cultures 72. Russian Culture from Revolution to Perestroika]
Catalog Number: 5581
Svetlana Boym

Half course (spring term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 14
Explores 20th-century Russian culture through literature, art, and film. Topics include art and revolution, utopian imagination and the authoritarian state, the rewriting of history through literature and film, art of the fantastic and the literature of exile, postcommunism and postmodernism, the search for national identity, and resistance to nationalism. Proceeds from revolutionary avant-garde art and artistic experimentation of the 1920s to the declaration of Socialist Realism and the experience of Stalinism, from dissident art of the 1960s to the culture of the Cold War, perestroika, and beyond. Works by Malevich, Eisenstein, Vertov, Mayakovsky, Babel, Bulgakov, Mandel'shtam, Nabokov, Kundera, and Brodsky.
Note: Expected to be omitted in 2005–06. Expected to be given in 2006–07.

[Foreign Cultures 74. Cultures of Southern Europe]
Catalog Number: 0603
Michael Herzfeld
Half course (spring term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 5
This is a survey of the modern cultures of Cyprus, Greece, Italy, Malta, Portugal, and Spain. Southern Europe has been viewed as both the fount of "Western civilization" and as a poor and crime-ridden backwater; it has been home to imperial powers and humiliated client-states alike. Through the reading of anthropological field studies (urban and rural), literary and historical portrayals, and artistic representations (including film and opera), this course focuses on what such contradictions mean for people in those countries at the level of everyday life, and provides an account of differences as well as similarities among the countries discussed.
Note: Expected to be given in 2005–06.

[Foreign Cultures 76. Nazi Cinema: Fantasy Production in the Third Reich]
Catalog Number: 3396
Eric Rentschler
Half course (fall term). M., W., at 9; screenings, M., 4–6, and a weekly section to be arranged. EXAM GROUP: 2
More than a half-century after Hitler's demise, the legacy of Nazi sights and sounds remains contested and problematic. We analyze seminal films of the Third Reich as ideological constructs, popular commodities, and aesthetic artifacts. How did emanations of Goebbels' Ministry of Propaganda figure within the larger contexts of state terror, world war, and mass murder, and how have Nazi images been presented and recycled since 1945? Sampling of short subjects and documentaries (*Triumph of the Will*, *Olympia*, and *The Eternal Jew*), and narrative films (*Hitler Youth Quex*, *La Habanera*, *Jew Süss*, and *Kolberg*). Readings provide pertinent socio-historical backgrounds and important theoretical perspectives.
Note: Expected to be given in 2005–06. No knowledge of German required.

Foreign Cultures 80. Korean Cultural Identities
Catalog Number: 8798
David McCann
Half course (spring term). M., W., at 10, and a weekly section to be arranged. EXAM GROUP: 3
Examines Korea's often challenged but persistent cultural identity expressed in literature, art,

and history. Begins with the Korean War, turns to the Japanese annexation of Korea, then the late 19th-century Enlightenment Period when Korea and Koreans struggled to respond to a series of internal and external threats. Next, Korean history, from the Unified Silla Kingdom in the 7th century, through the succeeding Koryô and Chosôn dynasties, examining similar moments of cultural challenge and response. Closes with a brief consideration of the re-production of identity issues in the context of recent celebrations of the first century of Korean-American history, 1903–2003.
Note: Expected to be omitted in 2005–06.

Foreign Cultures 82. Modern Arabic Narratives: Self, Society, and Culture
Catalog Number: 2619
William E. Granara
Half course (fall term). M., W., at 12, and a weekly section to be arranged. EXAM GROUP: 5
A historical overview of cultural and social issues in contemporary Arab society as reflected in modern fiction. Attention will be given to the development of the novel and short story as literary media that treat themes such as the conflict between tradition and modernity, anti-colonialism, nationalism, civil war, poverty, alienation, religion and politics, and changing gender roles. Readings will include works of Tayeb Salih, Naguib Mahfouz, Muhammad Choukri, as well as prominent women authors, such as Hanan Shaykh and Sahar Khalifeh.
Note: Expected to be omitted in 2005–06. No knowledge of Arabic required.

Foreign Cultures 84. Tokyo
Catalog Number: 9691
Theodore C. Bestor
Half course (spring term). M., W., (F.), at 1, and a weekly section to be arranged. EXAM GROUP: 6
Tokyo has been one of the world's great metropolitan centers since the 17th century, both the urban hub of Japanese society and culture, and the intersection between Japanese domestic society and trends of global influence. This course examines trajectories of change in Tokyo's urban culture, lifestyles, social structure, and spatial environment across the city's history, using ethnography, history, literature, diaries, architecture, photography, art, cartography, animation, film, and the Internet to explore Tokyo as an urban culture in comparative perspectives drawn from anthropology, history, and other social sciences.
Note: Expected to be omitted in 2005–06.

Foreign Cultures 86. West African Cultures
Catalog Number: 1648
J. Lorand Matory
Half course (fall term). M., W., at 1, and a weekly section to be arranged. EXAM GROUP: 6
We will explore the history and cultures of West and West-Central Africa, taking seriously the ancient involvement of this region in international politics and commerce. Equally important is the cosmopolitan dialogue that has transformed African ethnic identities, gender relations, and religious devotion in the 20th and 21st centuries.
Note: Expected to be omitted in 2005–06.

Foreign Cultures 88. The African Experience: Tradition and Modernity
Catalog Number: 5925
Francis Abiola Irele (Ohio State University)
Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
This course seeks to introduce students to aspects of cultural change in Africa as reflected in the dominant currents of contemporary African thought and literature, centered on a theme from which they derive coherence and significance: that of the tension between tradition and modernity. While concepts from sociology and anthropology will be employed to elucidate the theme, the emphasis of the course will be placed on the literary and intellectual texts that have shaped reflection on modern African experience. The lectures and discussions of the texts will be supplemented by documentary films and feature films by African directors.

Foreign Cultures 90. Tel Aviv: Urban Culture in Another Zion
Catalog Number: 0199
Avi Matalon
Half course (spring term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 5
How to read a city? Tel Aviv was founded under the concept of the "first Hebrew city" and rapidly became the cultural, economic, and political center of Jewish settlement in Palestine. Over the past century it has become a metropolis and the cultural and economic hub of the State of Israel. This course will trace Tel Aviv's historical development and its cultural representation using history, literature, film, urban planning, photography, art, and music.

Cross-listed Core courses that satisfy the Foreign Cultures requirement

The following courses fully listed in the Historical Study A area of the Core Curriculum may be taken to meet the Core requirement in Foreign Cultures or in Historical Study A, but not both.
Historical Study A-13. China: Traditions and Transformations
Historical Study A-14. Japan: Tradition and Transformation
Historical Study A-15. Politics and Society in the Making of Modern India
Historical Study A-16. The Making of Modern South Asia
Historical Study A-23. Democracy, Development, and Equality in Mexico
Historical Study A-53. The Chinese Revolutionary Tradition
The following course fully listed in the Historical Study B area of the Core Curriculum may be taken to meet the Core requirement in Foreign Cultures or in Historical Study B, but not both.
[Historical Study B-64. The Cuban Revolution, 1956-1971: A Self-Debate]
The following courses fully listed in the Literature and Arts C area of the Core Curriculum may be taken to meet the Core requirement in Foreign Cultures or in Literature and Arts C, but not both.
Literature and Arts C-18. Hindu Myth, Image, and Pilgrimage
[Literature and Arts C-51. Revolution and Reaction: The Rise and Fall of the Russian Avant-Garde]

Departmental course that satisfies the Foreign Cultures requirement

The following departmental course may be taken to meet the Foreign Cultures requirement. This course is not necessarily designed for a general audience; it may assume prior experience or more than could be expected of students seeing the subject for the first time.
[Chinese Literature 130. Screening Modern China: Chinese Film and Culture]

Historical Study

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

The common aim of courses in Historical Study is to develop students' comprehension of history as a form of inquiry and understanding. The courses fall into two groups representing two emphases in historical study.

Historical Study A

Courses in Historical Study A are designed to help the student understand, through historical study, the background and development of major issues of the contemporary world. These courses illustrate the way in which historical study helps make sense of some of the great issues—often problematic policy issues—of our own world. The courses focus on the sequential development of issues whose origins may be quite distant from the present but whose significance is still profound in the world in which students live today.

Historical Study B

Courses in Historical Study B focus closely on the documented details of some central historical event or transformation in the deeper past. They aim to develop an understanding of the complexity of human affairs, of the way in which a variety of forces—economic, cultural, religious, political—have interacted with individual aspirations and with the deliberate efforts of individuals to control and shape events in specific contexts and historical moments. They are sufficiently delimited in time to allow concentrated study of primary source materials.

Historical Study A

Historical Study A-12. International Conflict and Cooperation in the Modern World
Catalog Number: 5129
Thomas Oatley (University of North Carolina)
Half course (spring term). Tu., Th., 10–11:30, and a 90-minute weekly section to be arranged.
EXAM GROUP: 12, 13
An introduction to the theory and history of world politics. Why do states wage war? Why do they cooperate? Have the answers changed historically? Are economic globalization, ecological interdependence, and global civil society eroding state sovereignty? Or do nationalism, protectionism, and power politics firmly limit world order? The course begins with the Peloponnesian War, the European state system, imperialism, the rise of free trade, and the two World Wars. It continues after 1945 with the cold war, the spread of democracy and human rights, trade liberalization, international law, and ecological cooperation, nuclear weapons, civil strife, and rogue states.

Historical Study A-13. China: Traditions and Transformations
Catalog Number: 5243
Peter K. Bol and Mark C. Elliott
Half course (fall term). M., W., F., at 11, and a weekly section to be arranged. EXAM GROUP: 4
Modern China presents a dual image: a society transforming itself through economic development and social revolution; and the world's largest and oldest bureaucratic state, coping with longstanding problems of economic and political management. Whatever form of modern society and state emerges in China will bear the indelible imprint of China's historical experience, of its patterns of philosophy and religion, and of its social and political thought. These themes are discussed in order to understand China in the modern world, and as a great world civilization that developed along lines different from those of the Mediterranean.
Note: For students under the Core requirement, counts as either Historical Study A or Foreign Cultures, but not both.

Historical Study A-14. Japan: Tradition and Transformation
Catalog Number: 5373
Andrew Gordon
Half course (spring term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
From the emergence of a court-centered state 1500 years ago to a warrior-dominated society centuries later, Japan's premodern past fascinates people across the world. The people, institutions, and ideas behind these traditions will be the focus of the first half of the course. We then turn to Japan's modern era, which presents one of the more striking transformations in world history. We examine the invention of new traditions as one crucial aspect of the tumultuous changes from the mid-1880s through the present and explore how people in Japan have dealt with the dilemmas of modernity that challenge us all.
Note: For students under the Core requirement, counts as either Historical Study A or Foreign Cultures, but not both.

Historical Study A-15. Politics and Society in the Making of Modern India
Catalog Number: 8301
Devesh Kapur
Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
This course examines the complex dynamics of India's emergence and continuation as a vibrant if contentious democracy. It examines the ways in which the Indian democratic experience has shaped and been shaped by its society and economy by asking questions such as: how do India's "traditional" institutions adapt or fail to adapt to modern circumstances? How does it weave itself together as a nation? What is the relationship between its politics and economic outcomes? What are the strengths and vulnerabilities of its institutions?
Note: Expected to be omitted in 2005–06. For students under the Core requirement, counts as either Historical Study A or Foreign Cultures, but not both.

Historical Study A-16. The Making of Modern South Asia
Catalog Number: 9058
Sugata Bose and Amartya Sen

Half course (fall term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
This course provides the historical depth and the comparative context in which to understand contemporary South Asia through an historical inquiry into the making and multiple meanings of modernity. It explores the history, culture, and political economy of the subcontinent which provides a fascinating laboratory to study such themes as colonialism, nationalism, partition, the modern state, economic development, refashioning of religious identities, center-region problems and relations between Asia and the West. Significant use of primary written sources (in English) and multi-media presentations.
Note: Expected to be omitted in 2005–06. For students under the Core requirement, counts as either Historical Study A or Foreign Cultures, but not both.

[Historical Study A-21. Africa and Africans: The Making of a Continent in the Modern World]
Catalog Number: 5568
Caroline M. Elkins
Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
Understanding Africa as it exists today requires an understanding of the broader historical trends that have dominated the continent's past. This course will provide an historical context for understanding issues and problems as they exist in contemporary Africa. It will offer an integrated interpretation of sub-Saharan African history from the middle of the 19th century and the dawn of formal colonial rule through the period of independence until the present time. Particular emphasis will be given to the continent's major historical themes during this period. Selected case studies will be offered from throughout the continent to provide illustrative examples of the historical trends.
Note: Expected to be given in 2005–06.

Historical Study A-23. Democracy, Development, and Equality in Mexico
Catalog Number: 6861
John H. Coatsworth
Half course (fall term). M., W., (F.), at 1, and a weekly section to be arranged. EXAM GROUP: 6
Mexico has achieved high levels of democratic participation, social equality, and economic growth in the past, but has never managed to achieve all three at the same time. This course explores how history as a mode of inquiry and understanding can illuminate Mexico's contemporary challenge, that of overcoming underdevelopment, inequality, and authoritarianism all at the same time. The course also addresses Mexico's complex and ambivalent relationship to external powers, particularly the US, to the extent that doing so contributes to understanding these three contemporary problems.
Note: Expected to be omitted in 2005–06. For students under the Core requirement, counts as either Historical Study A or Foreign Cultures, but not both.

[Historical Study A-27. Reason and Faith in the West]
Catalog Number: 8149
Ann M. Blair
Half course (fall term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP:

4
Examines from an historical perspective one of the central themes in the Western intellectual tradition: the desire to reconcile rational philosophy with religious and biblical authority. Discusses the transformations in conceptions of reason, science, biblical interpretation, and divine intervention (among other themes) in the context of the long period of change from medieval to modern. Readings emphasize primary sources—including, for example, Augustine, Aquinas, Galileo, Descartes, Newton, and Darwin.
Note: Expected to be given in 2005–06.

Historical Study A-34. Medicine and Society in America
Catalog Number: 1552
Allan M. Brandt
Half course (spring term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 4
Surveys major developments in the history of American medicine since 1500. Emphasis on setting the practice of medicine and the experience of health and disease into broad social, cultural, and political contexts. Topics include the social and cultural impact of epidemic disease; the nature of demographic and epidemiological change; the development of medical therapeutics and technologies; the growth of health care institutions; the rise of the medical profession; and debates about the allocation of health care resources. Evaluates the role of medicine in addressing social needs as well as the social and economic determinants of patterns of health and disease.
Note: Expected to be omitted in 2005–06.

[Historical Study A-35. Democracy in America and Europe]
Catalog Number: 9060
James T. Kloppenberg
Half course (fall term). Tu., Th., 11:30–1, and a weekly section to be arranged. EXAM GROUP: 13, 14
Democracy, for most of Western history reviled as mob rule, now commands almost universal approbation. To understand that transformation, we will examine the history of democracy in theory and practice since the 16th century. Readings will include classic European and American texts that explain, defend, and criticize democracy as a political system and as an ethical ideal. Lectures explore the various contexts—biographical, national, and cultural—surrounding debates over the desirability of democracy and the shifting meanings of freedom and equality in relation to changing attitudes and practices concerning authority, social hierarchy, gender, race, and religion.
Note: Expected to be given in 2005–06.

[Historical Study A-40. The Middle East and Europe since the Crusades: Relations and Perceptions]
Catalog Number: 5423
Cemal Kafadar
Half course (spring term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 5
Nine centuries of interaction between two neighboring world civilizations centered around the Mediterranean basin. Examines the transformation of the terms of coexistence and competition

over time from an asymmetry in favor of the Islamic world to one favoring Europe in terms of power and prestige. Surveys major events and broad patterns of human activity (wars, migrations, conversions, trade, cultural exchange); compares institutions and worldviews; studies the ways in which the two civilizations perceived and imagined each other. Focus on common roots and mutual influences. Analysis of (mis)perceptions as historically constructed cultural categories and of their legacy in the modern world.
Note: Expected to be given in 2005–06.

[Historical Study A-44. Jews in Modern Times: From the French Revolution to the Emergence of Israel]
Catalog Number: 9323
Jay M. Harris
Half course (fall term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 5
This course seeks to understand the transformation of the Jews from a relatively homogeneous group that was readily distinguished from its surrounding cultures, to their current state in which they are neither homogeneous nor readily distinguished from other identifiable groups. The focus will be on the political, social, and economic shifts that led to major changes in Jewish political and cultural aspirations and achievements. Specifically, the course will examine processes of change in France, Germany, Russia, and the US.
Note: Expected to be given in 2005–06.

Historical Study A-51. The Modern World Economy, 1873-2000
Catalog Number: 1263
Jeffry Frieden
Half course (fall term). M., W., 2–3:30, and a 1.5 hour weekly section to be arranged. EXAM GROUP: 7, 8
The past 125 years have seen more rapid economic growth, and more global economic integration, than ever before. Yet the gap between rich and poor countries has widened, and "globalization" has alternated with attempts at national self-sufficiency under fascist, communist, and other banners. The course explores the impact of technological, economic, social, and political trends, at both global and national levels, on the development of the world economy since 1873. Topics include free trade and the gold standard in the 19th century, European colonialism, the depressions of 1873–96 and 1929–39, and the postwar economic order.

Historical Study A-53. The Chinese Revolutionary Tradition
Catalog Number: 1667
Elizabeth J. Perry
Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
The Chinese revolutionary tradition began with peasant uprisings in the mid-19th century and continues to this day. From late imperial times to the present, a steady stream of dramatic revolutionary efforts have exerted a major impact on the direction of Chinese politics. This course examines continuities and changes across successive phases of the process: the quasi-Christian Taipings, the anti-Christian Boxers, the 1911 Revolution, the rise of Communism, Mao's Cultural Revolution, the 1989 Tiananmen Uprising, contemporary tax riots and labor

strikes, etc. It focuses on ways in which earlier repertoires of contentious politics have influenced the aspirations and actions of later generations of protesters.
Note: Expected to be omitted in 2005–06. For students under the Core requirement, counts as either Historical Study A or Foreign Cultures, but not both.

Historical Study A-67. Gendered Communities: Women, Islam, and Nationalism in the Middle East and North Africa
Catalog Number: 0352
Afsaneh Najmabadi
Half course (spring term). M., W., 1:30–3, and a weekly section to be arranged. EXAM GROUP: 6, 7
This course will focus on how concepts of woman and gender have defined meanings of religious and national communities in the Islamic Middle East and North Africa. It will survey changes in these concepts historically through reading a variety of sources—religious texts and commentaries, literary and political writings, books of advice, women's writings, and films—and will look at how contemporary thinkers and activists ground themselves differently in this historical heritage to constitute contesting positions regarding gender and national politics today.
Note: Expected to be omitted in 2005–06.

[Historical Study A-71. Constitutionalism]
Catalog Number: 5202
Cindy Skach
Half course (spring term). Tu., Th., 1–2:30, and a weekly section to be arranged. EXAM GROUP: 15, 16
We live in a time of increasing reliance on rules, codes, and regulations. Recent steps to sketch governance charters for the European Union, the United Nations, and multinational corporations demonstrate our mounting confidence in rules. This course poses general questions regarding rules in order to familiarize students with the importance of historical change and sequential development. In so doing, the course demonstrates the importance of historical framing for understanding how and why certain rules are made, and why and when such rules are broken. It does so through an analysis of one particularly important set of rules: constitutions.
Note: Expected to be given in 2005–06.

Historical Study A-73. The Political Development of Western Europe
Catalog Number: 8261
Peter A. Hall
Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
A survey of the creation of modern politics in Britain, France, Germany, and Italy from the feudal period to the 20th century, focusing on the causes and consequences of crucial developments such as the English and French Revolutions, the Industrial Revolution, 19th-century democratization, and the appearance of fascism. Emphasizes the usefulness of comparative, historical analysis for understanding the origins of contemporary politics and competing approaches to understanding the processes of change associated with the development of the modern state.

[Historical Study A-75. The Two Koreas]
Catalog Number: 0786
Carter J. Eckert
Half course (spring term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 4
This course seeks to provide a broad historical context in which to understand the contemporary political division on the Korean peninsula. It examines key historical forces that have created and shaped the two Koreas before, during, and after the actual partition of the country in 1945. Topics include nascent nation-building efforts between 1876 and 1910, the impact of Japanese colonialism and the Cold War, and North/South development and interaction after 1948. The course interweaves political, socioeconomic, and cultural themes within an historical framework centered on nation-building while also highlighting a number of major historiographical issues in modern Korean history.
Note: Expected to be given in 2005–06.

Historical Study A-76. Germany 1871–1990: From Unification to Reunification
Catalog Number: 3594
David Blackbourn
Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
Examines the forces that have shaped modern German history from the Empire created in 1871, through the Weimar Republic and Third Reich, to division and reunification. The continuities as well as discontinuities of this history provide a major theme, particularly the roots of the Nazi period and the question of how far the two postwar Germanys broke with the past. The course is built around three interrelated themes: politics, economy and society, and culture. The principal focus is domestic affairs, but the nature of the "German question" means that attention is given to the international dimension where appropriate.
Note: Expected to be omitted in 2005–06.

Departmental courses that satisfy the Historical Study A requirement

The following departmental courses may be taken to meet the Historical Study A requirement. These courses are not necessarily designed for a general audience; they may assume prior experience or more than could be expected of students seeing the subject for the first time.
African and African American Studies 10. Introduction to African and African American Studies
[History of Science 175. Madness and Medicine: Themes in the History of Psychiatry]

Historical Study B

Historical Study B-04. Ancient Greek Democracy
Catalog Number: 6791
Eric W. Robinson
Half course (spring term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
This course examines the origin, essential nature, and importance of ancient Greek democracy,

which first took shape in the city-states of Greece over 2500 years ago. The first part of the course looks at the development of democracy, beginning with the earliest signs of pan-Hellenic egalitarianism and ending with the appearance of fully democratic governments in Athens and elsewhere. The second part considers the ideals and institutions of ancient democracy in the context of Greek society as a whole. Herodotus, Thucydides, Aristotle, and other ancient sources will be read in translation along with modern scholarly interpretations.
Note: Expected to be omitted in 2005–06.

Historical Study B-06. The Roman Games
Catalog Number: 2603
Kathleen M. Coleman
Half course (fall term). M., W., F., at 10, and a weekly section to be arranged. EXAM GROUP: 3
Examines the evidence for gladiatorial combat, staged beast-hunts, executions, and aquatic displays in the Roman world. Through analysis of these spectacles the course illuminates the social and political context of the Roman Empire. The evidence to be studied includes literary sources, inscriptions, coins, mosaics, pottery, and selected archaeological sites where the spectacles were performed. A translation is supplied for course material in Greek and Latin.
Note: Expected to be omitted in 2005–06.

Historical Study B-09. The Christian Revolution
Catalog Number: 6389
Christopher P. Jones
Half course (spring term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 5
The course studies the formative period of Christianity as an historical phenomenon. The course begins with the social and political background, and then considers the person of Jesus of Nazareth, how his teaching was developed by his followers, how they built up a “church” of believers, and how Judaism and Christianity were intertwined not only in the person of Jesus but in the history of the two faiths in the decades following the destruction of the Temple. The overall aim is to see how historical methods can be used to explain phenomena which, viewed on their own terms, transcend explanation.
Note: Expected to be omitted in 2005–06.

[Historical Study B-11. The Crusades]
Catalog Number: 0434
Angeliki E. Laiou
Half course (fall term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
Examines the crusades as formative events in the developing relations between Western Christians, Eastern Christians, and Muslims, and in the expansion of Western Europe into both the Middle East and the non-Christian areas of northeastern Europe. Christian and Muslim concepts of holy and just war are elaborated. Topics include: the interaction of political, economic, and religious factors in the elaboration of the crusading movement; the consequences of the crusades; the transformation of East-West relations; the effects on subsequent history; aspects of medieval colonization; conflict and coexistence between the various peoples involved.

Readings focus on sources in translation.
Note: Expected to be given in 2006–07.

Historical Study B-13. Charlemagne and the Birth of Medieval Civilization
Catalog Number: 2567
Michael McCormick
Half course (spring term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 4
For 200 years, the family of Charlemagne welded together the disparate fragments of a fallen Roman Empire and free Germania. The result was a new civilization, called Europe; a new cultural movement, called Renaissance. “Charlemagne” investigates how a new civilization arose in the countryside and in the conquests of the 8th and 9th centuries AD with consequences that endure down to our own time. But “Charlemagne” is also about historical analysis: the techniques by which today’s historians wrest new data and insights from manuscripts, memorandums, and mud to rediscover the lives of the men and women who created the first European civilization.
Note: Expected to be omitted in 2005–06.

Historical Study B-18. The Protestant Reformation
Catalog Number: 0623
Steven Ozment
Half course (spring term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 14
In the 16th century, hundreds of thousands of people surrendered religious beliefs, practices, and institutions that had organized daily life and given it meaning for the greater part of a millennium. “The Protestant Reformation” attempts to explain why this happened and how it changed the course of history. Lectures and readings concentrate on the “causes” of the Reformation; its inception and development in representative cities and lands; competing theologies and social philosophies; the variety of linguistic and visual propaganda; the impact on contemporary society and culture; the Catholic response; the Reformation’s legacy to the modern world.
Note: Expected to be omitted in 2005–06.

[Historical Study B-19. The Renaissance in Florence]
Catalog Number: 4631
James Hankins
Half course (fall term). M., W., (F.), at 1, and a weekly section to be arranged. EXAM GROUP: 6
The Renaissance has been described by historians as a revival of antiquity, as a revolt against the Middle Ages, and as the beginning of the modern world. This course examines these claims in the context of a detailed examination of the society and culture of Florence, the most important Renaissance center, from the time of Dante to the time of Machiavelli.
Note: Expected to be given in 2005–06. For students under the Core requirement, counts as either Historical Study B or Literature and Arts C, but not both.

[Historical Study B-24. Utopia in the Age of the Scientific Revolution]
Catalog Number: 2380
Katharine Park
Half course (spring term). M., W., at 12, and a weekly section to be arranged. EXAM GROUP: 5
16th- and 17th-century Europe saw both the invention of a new literary genre, the utopian treatise, devoted to imagining a different and better society, and the creation of a new set of goals and methods for natural inquiry, often referred to as the Scientific Revolution. This course explores the relationship between these two developments. How did the "new science" of thinkers such as Copernicus, Bacon, and Galileo inspire and shape the worlds imagined by writers such as Thomas More, William Shakespeare, and Margaret Cavendish? We will end by considering the fate of the tradition of utopian thought in the 20th century.
Note: Expected to be given in 2005–06.

Historical Study B-27. The English Revolution
Catalog Number: 5234
Mark A. Kishlansky
Half course (spring term). M., W., (F.), at 1, and a weekly section to be arranged. EXAM GROUP: 6
Explores the causes, development, and consequences of the English Revolution of the 17th century. The English Revolution is one of the pivotal events in Anglo-American and European history. It marks the first constitutional challenge to an absolute monarch and is the crucial forerunner to the American and French Revolutions. Studies the origins of a revolutionary crisis, the dynamics of revolutionary change, and the actions and aspirations of revolutionaries within the context of 17th-century English society. Readings, drawn from contemporary and historical literature, include works by Milton, Hobbes, Clarendon, and Pepys. Discussion sections focus on reading primary materials.
Note: Expected to be omitted in 2005–06.

Historical Study B-34. The World in 1776
Catalog Number: 2507
Sugata Bose, Emma Rothschild (King's College, Cambridge), and Richard Tuck
Half course (fall term). Tu., Th., at 10 and a weekly section to be arranged. EXAM GROUP: 12
The world in 1776 was connected by empire, influence, law, commerce, migration, war, and the exchange of ideas. 1776 also saw the publication of Gibbon's *Decline and Fall of the Roman Empire*, Smith's *Wealth of Nations*, and Bentham's *Fragment on Government*. The course examines ideas and ways of life in 1776, in Europe, Asia, Africa, and the Americas. It considers a pivotal year in American history from the vantage point of world history. Readings will include books and periodicals published in 1776, including translations from French, Spanish, and Persian sources.
Note: Expected to be omitted in 2005–06.

[Historical Study B-35. The French Revolution: Causes, Processes, and Consequences]
Catalog Number: 0525
Patrice Higonnet
Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12

The cultural, social, and political life of France before 1789; the rise of a public sphere; the Revolution in its development from the decentralized "consensus" of 1789 to Jacobin terrorism in 1793–94; the structures of Jacobin thought; the ideological, social, and administrative effects of the Revolution in France. The roles of Mirabeau, the Montagnards, the Girondins, Robespierre, Babeuf, and Napoleon are considered, as well as more general themes such as the effect of public opinion and the redefinition of gender roles.
Note: Expected to be given in 2005–06.

Historical Study B-40. Pursuits of Happiness: Ordinary Lives in Revolutionary America
Catalog Number: 2264
Laurel Thatcher Ulrich
Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
When Thomas Jefferson listed the "pursuit of happiness" as one of the inalienable rights of humankind, he offered future generations an evocative but elusive vision of the good society. This course explores the competing visions of "happiness" that animated political and social life in the half century surrounding the American Revolution. Was happiness best achieved through collective commitment to public good? Through submission to God? Or in the possession of property and the cultivation of private affections? And what happened when happiness became misery or its pursuit provoked political rebellion, riot, scandal, and crime?
Note: Expected to be omitted in 2005–06.

[Historical Study B-41. Inventing New England: History, Memory, and the Creation of a Regional Identity]
Catalog Number: 1713
Laurel Thatcher Ulrich
Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
Much of what we think we know about "colonial New England" was actually a 19th-century invention. Iconic images of the First Thanksgiving, the Salem witch trials, Paul Revere's Ride, and white spired churches overlooking village greens were largely produced by public commemorations, poems, novels, family histories, and exhibits created long after the fact. This course explores these 19th-century inventions in the light of current scholarship on the history of early New England. Students will explore artifacts, images, and landscapes as well as written documents.
Note: Expected to be given in 2005–06.

Historical Study B-52. Slavery and Slave Trade in Africa and the Americas
Catalog Number: 3834
Emmanuel K. Akyeampong
Half course (fall term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 14
This course begins with the question of terminological precision and the definition of slavery and other forms of servile labor—especially in Africa. The course then examines the institution of slavery in Africa and the Americas within this wider historical context, analyzing the political economies and ideologies that underpin slavery and the crucial role of slave trade in reproducing slave communities that were barely able to reproduce themselves naturally. The course explores the impact of slavery on political, economic, social, and cultural life in Africa and the Americas

and ends with a discussion of the legacy of slavery and the global nature of the African diaspora.
Note: Expected to be omitted in 2005–06.

Historical Study B-54. World War and Society in the 20th Century: World War II
Catalog Number: 6497
Charles S. Maier
Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
Examines the failure of the Versailles system, the Pacific conflict after 1937, the continental European war of 1939–41, the vast coalition struggle of 1941–45, and the bipolar postwar settlement. Topics include the strategic demands of multifront warfare; the role of city bombing, intelligence, and partisan warfare; occupation regimes, collaboration, and resistance; America's "good war" —the politics and culture of the home fronts; war costs, including the civilian toll; postwar purges, liberation movements, and commemoration.
Note: Expected to be omitted in 2005–06.

[Historical Study B-57. The Second British Empire]
Catalog Number: 6756
T. Robert Travers
Half course (spring term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
This course explores the course and nature of the British Empire from the late 18th century until the period after World War II. Three main issues are addressed: the establishment and character of British imperial rule, the domestic political and cultural ramifications of empire, and the process of decolonization. Using essays, diaries, political records, fiction, and film, students seek to understand both the experiences of particular colonies (especially Ireland, India, and Kenya) and the consequences of such rule for Britain itself.
Note: Expected to be given in 2005–06.

Historical Study B-61. The Warren Court and the Pursuit of Justice, 1953–1969
Catalog Number: 6840
Morton J. Horwitz (Law School)
Half course (fall term). M., W., F., at 12, and a weekly section to be arranged. EXAM GROUP: 5
Examines the significance of the Supreme Court during the Chief Justiceship of Earl Warren in the broader context of the development of American thought and society. Explores the basic premise that the Warren Era represented not only a major constitutional revolution but that it produced a fundamental transformation in the conception of the role of law in American society. Subjects to be studied are *Brown v. Board of Education*, the Civil Rights Movement, and the history of race relations; McCarthyism and civil liberties; the emergence of a right to privacy in *Griswold v. Connecticut*; and the "rights" revolution in jurisprudence.
Note: Expected to be omitted in 2005–06.

[Historical Study B-64. The Cuban Revolution, 1956-1971: A Self-Debate]
Catalog Number: 6974
Jorge I. Domínguez
Half course (fall term). M., W., F., at 10, and a weekly section to be arranged. EXAM GROUP: 3
Focus on the insurrectionary war, the consolidation of power, Fidel Castro's role, the role of

organized labor and the peasantry, the US-Cuban conflict, the alliance with the Soviet Union, the choice of economic strategy, the "remaking of human beings," the role of intellectuals, the support for revolutions in Africa and Latin America, and the change toward "orthodox" policies. The instructor will debate himself, presenting two or more views on each issue. Readings include original documents in translation.
Note: Expected to be given in 2005–06. For students under the Core requirement, counts as either Historical Study B or Foreign Cultures, but not both.

[Historical Study B-67. Japan's Modern Revolution]
Catalog Number: 4164
Daniel V. Botsman
Half course (spring term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 4
Examines the causes and consequences of one of the most important events in modern world history—Japan's transformation from feudal state to imperialist power. The class begins with a consideration of *samurai* rule during the Tokugawa period (1600–1868) and the social changes that resulted from over two centuries without war. We then examine the impact of Japan's forcible incorporation into a "modern world system" in the mid-19th century, the radical reforms implemented in the wake of the Meiji Restoration of 1868, and the beginning of Japanese imperialism in Asia. Discussion sections focus on a broad array of primary documents in translation.
Note: Expected to be given in 2005–06.

Historical Study B-68. America and Vietnam: 1945-1975
Catalog Number: 3447
Hue-Tam Ho Tai and Ernest R. May
Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
Examines modern conflicts in Vietnam and their implications for the US from 1945–75, from both Vietnamese and American perspectives. Seeks to provide an understanding of the complexity of the war and the ethical dilemmas it raised by examining issues ranging from the power-politics assumptions of decision makers to the personal experiences of those caught in the war. Covers both background and consequences of the war, but the main focus is on the 30-year period during which the fortunes of America and Vietnam became intertwined.
Note: Expected to be omitted in 2005–06.

Cross-listed Core courses that satisfy the Historical Study B requirement

The following course fully listed in the Foreign Cultures area of the Core Curriculum may be taken to meet the Core requirement in Historical Study B or in Foreign Cultures, but not both.
[Foreign Cultures 48. The Cultural Revolution]
The following courses fully listed in the Literature and Arts C area of the Core Curriculum may be taken to meet the Core requirement in Historical Study B or in Literature and Arts C, but not both.
Literature and Arts C-40. The Chinese Literati
Literature and Arts C-42. Constructing the Samurai
[Literature and Arts C-61. The Rome of Augustus]

Departmental courses that satisfy the Historical Study B requirement

The following departmental courses may be taken to meet the Historical Study B requirement. These courses are not necessarily designed for a general audience; they may assume prior experience or more than could be expected of students seeing the subject for the first time.
History 10a. Western Societies, Politics, and Cultures: From Antiquity to 1650
History 1150. The Jews in Muslim and Christian Spain

Literature and Arts

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Courses in Literature and Arts aim to foster a critical understanding of artistic expression, and to exemplify the ways in which the humanities are an arena for scholarly examination and discussion. These courses illustrate and analyze what constitutes knowledge in the various fields—its varieties, forms, scope, uses and abuses, and modes of interpretation—while familiarizing students with major works, major themes, or clusters of creative achievement in particular times and places.

Literature and Arts A

Focuses on literary texts and methods of literary analysis. Courses in this area offer a variety of critical and analytical approaches to literature, and a range of responses to questions such as the following: How does literature function? How are literary genres and traditions constituted and transformed? What are the relations among author, reader, text, and the circumstances in which the text is produced? How is our reading of the literature of the past influenced by the concerns of the present?

Literature and Arts B

Introduces students to a non-literary form of expression, and offers instruction in the elements of either visual or musical understanding, in the discipline of looking or listening. In addition to studying the articulation of visual or musical forms and their meanings, courses may emphasize the relationship between artistic or musical production and the historical/cultural moment in which it takes place.

Literature and Arts C

Studies creative cultural epochs in history, and explores how works of literature and art function within a given society. Focusing on significant periods, styles, or movements, these courses describe and analyze ways in which culture is produced, interpreted, and disseminated.

Literature and Arts A

Literature and Arts A-11. Arthurian Literature: Epic versus Romance
Catalog Number: 0995
James Simpson

Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
A permanent fault-line runs throughout Western literature, between epic and romance. Epic contests territory, while romance discovers the self. Epic focuses on charismatic leaders, represents the rise and fall of societies, and depicts war across a realistic geography. Romance focuses on the energetic young, represents trials of sexual desire ending either in marriage or adultery, and has a symbolic geography. Epic and romance critique each other, without resolving this inevitable conflict. This course focuses on brilliant examples of literature about King Arthur's court, written between the 12th and the 15th centuries, with some reference to 19th-century English and American texts.
Note: Expected to be omitted in 2005–06.

[Literature and Arts A-16. Lives Ruined by Literature: The Theme of Reading in the Novel]
Catalog Number: 0691
Judith Ryan
Half course (spring term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 15
An exploration of the theme of reading as presented in the novel from the 18th century to the present. Topics include misreading and escapist reading, confusing fiction with reality, modeling one's life on fiction, and misusing literature in relations of love and friendship. Attention also paid to narrative point of view; problems of intertextuality; and comedy, tragedy, and parody in the novel. Authors include Goethe, Flaubert, Rilke, Wharton, Sartre, Nabokov, Brookner, and Barnes.
Note: Expected to be given in 2005–06.

[Literature and Arts A-18. Fairy Tales, Children's Literature, and the Construction of Childhood]
Catalog Number: 7478
Maria Tatar
Half course (spring term). M., W., at 10, and a weekly section to be arranged. EXAM GROUP: 3
Analyzes cultural production for children in the larger context of childrearing practices, educational theories, and adult constructions of childhood. Addresses such issues as the representation of the child, the cult of childhood innocence, discipline and education, evil children, the cultivation of fantasy and imagination, canon formation, and the impossibility of children's literature. Authors include Charles Perrault, the Brothers Grimm, Hans Christian Andersen, John Locke, Rousseau, Lewis Carroll, J. M. Barrie, Roald Dahl, Maurice Sendak, Vladimir Nabokov, and others.
Note: Expected to be given in 2005–06.

Literature and Arts A-20. Classics in Christian Literature
Catalog Number: 1177
Robert J. Kiely
Half course (fall term). M., W., at 12, and a weekly section to be arranged. EXAM GROUP: 5
An examination of selected literary forms and thematic preoccupations of post-Biblical texts in the Christian tradition. Focuses on personal representations of religious experience—the search

for faith, narratives of conversion, testimonies of belief, and confessions of doubt. Explores the relationships between aesthetic form (genre, style, voice) and a variety of individual efforts to interpret and reconfigure the claims of the gospels. Authors include Augustine, Teresa of Avila, Juliana of Norwich, Martin Luther, John Donne, Gerard Manley Hopkins, Dietrich Bonhoeffer, and T.S. Eliot.
Note: Expected to be omitted in 2005–06.

Literature and Arts A-22. Poems, Poets, Poetry
Catalog Number: 5808
Helen Vendler
Half course (fall term). M., W., at 1, and a weekly section to be arranged. EXAM GROUP: 6
A study of poetry as the history and science of feeling: readings in major lyric poems of England and America. Emphasis on problems of invention and execution, and on the poet's choice of genre, stance, context, and structure. Other topics to be raised include the process of composition, the situating of a poem in its historical and poetic contexts, the notion of a poet's development, the lyric as dramatic speech, and the experimental lyric of the 20th century.
Note: Expected to be omitted in 2005–06.

Literature and Arts A-26. Dante's *Divine Comedy* and Its World
Catalog Number: 6090
Lino Pertile
Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
Studies Dante's *Divine Comedy* as an enduring work of poetry, a major text of the European literary tradition, and the most comprehensive synthesis of medieval culture. Largely based on textual analysis, the course looks at how literature works in relation to, on the one hand, the language and rhetorical tradition in which it is expressed and, on the other, the culture which it expresses and interprets. Particular attention is paid to the poem's central philosophical concerns, from the role of the individual in history and society to the relationship between progress and happiness, and between politics and morality.

[Literature and Arts A-35. Tragic Drama and Human Conflict]
Catalog Number: 0172
Bennett Simon (Medical School)
Half course (fall term). M., W., F., at 10, and a weekly section to be arranged. EXAM GROUP: 3
Introduces the student to the use of psychoanalytic perspectives in enhancing the understanding and appreciation of tragic drama. Focuses on tragedy as a study of the family, emphasizing the problem of how the family at war with itself can procreate and continue. Also discusses the form of tragic drama, particularly with regard to dialogue and storytelling within the plays. Readings include ancient, Shakespearean, and modern tragedies, as well as secondary sources that assist in understanding psychoanalytic concepts. Films and live performances supplement the readings.
Note: Expected to be given in 2005–06.

Literature and Arts A-45. Theories of Authorship: Russian Case Studies
Catalog Number: 0189
Justin Weir
Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13

Surveys central theories of authorship in the western tradition and considers how they have been realized and transformed by Russian writers. We analyze the process by which different concepts of the self, as shaped by Plato, Descartes, Rousseau, and others, have been creatively appropriated by seminal Russian authors, such as Pushkin, Dostoevsky, Tolstoy, Bulgakov, and Nabokov, in order to articulate their own ideas of the relationship between writing and identity. Concludes with an examination of how new technology and recent copyright laws have affected post-Soviet notions of authorship.
Note: Expected to be omitted in 2005–06.

[Literature and Arts A-48. Modern Jewish Literature]
Catalog Number: 1250
Ruth R. Wisse
Half course (fall term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 14
Studies works in different languages and genres that variously interpret the experience of Jews in the 20th century. Explores such issues as what information literature can provide, the relation of language and historical context to artistic strategy, and personal and national perspectives in narrative. Authors include Sholem Aleichem, Franz Kafka, Isaac Babel, Isaac Bashevis Singer, Shmuel Yosef Agnon, Primo Levi, and Saul Bellow.
Note: Expected to be given in 2005–06.

Literature and Arts A-53. "Athens and Jerusalem": Self and Other in Classical Greek and Hebrew Literature
Catalog Number: 8681
Peter Machinist and Bennett Simon (Medical School)
Half course (fall term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 4
Examines the representation of "self" and "other" in two literatures foundational to Western culture, Classical Greek and Biblical Hebrew. The premise is the necessity of an "other" in order to define the "self." Starts with "Athens" and "Jerusalem" as emblematic of the self/other polarity that the West drew out of these literatures. Then explores in them other manifestations of self and other: group identity and group origins, woman and deity as other, the development of heroic selfhood, and the emergence of self-knowledge. Emphasizes throughout how poetic and narrative forms both shape and are shaped by visions of self and other.
Note: Expected to be omitted in 2005–06.

Literature and Arts A-57. Bilingual Arts
Catalog Number: 1599
Doris Sommer
Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
The intellectual, social, and aesthetic advantages of bilingualism will be explored through significant works of literature and theory. Bilingualism is an increasingly common condition, given transnational movements. But it is often misunderstood as confused or deficient because outdated expectations about identity and belonging prefer simple labels. Normally complex and creative, bilinguals are sophisticated about language. They know it is arbitrary and that

communication is full of risks, mistakes, and pleasures of intermittent contact. This uneasiness about language amounts to a predisposition toward aesthetics and other philosophies.

[Literature and Arts A-58. Ethnicity, Modernity, and Modernism in 20th-Century Literature, Art, and Culture]
Catalog Number: 0287
Werner Sollors
Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
Is the stress on ethnic diversity a form of resistance to, or a feature of modernity? How has aesthetic production been affected by the horrors of modernity, by violence and genocide? What is the relationship of modernism to democracy, fascism, and communism? These questions, complemented by ethnic theory, inform discussions of such texts as *The Life Stories of Undistinguished Americans* and such authors as Mark Twain, Gertrude Stein, Jean Toomer, Eugene O'Neill, Henry Roth, William Faulkner, Hisaye Yamamoto, LeRoi Jones/Amiri Baraka, Maxine Hong Kingston, Richard Rodriguez, and Gerald Vizenor.
Note: Expected to be given in 2005–06.

Literature and Arts A-63. Women Writers in Imperial China: How to Escape from the Feminine Voice
Catalog Number: 8286
Wilt Lukas Idema
Half course (fall term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 14
Despite the dominance of men as authors, subjects, and readers of literature in imperial China (221 BCE–1911), this same period also saw the emergence and development of a rich tradition of women's literature. We will discuss what kinds of women have left literary works, and how the marginal status of women's literature affected the genres women wrote in and the subjects they could deal with. As China's male literature developed its own tradition of writing in the voice of women, we will pay special attention to the question of how women found their own voice despite this pre-existing "feminine" tradition.
Note: Expected to be omitted in 2005–06.

[Literature and Arts A-64. American Literature and the American Environment]
Catalog Number: 4783
Lawrence Buell
Half course (fall term). Tu., Th., at 9, and a weekly section to be arranged. EXAM GROUP: 11
A study of selected traditions in American writing that have been formed by perceptions of the American environment. Topics include the cult of wilderness; white images of the American Indian and vice versa; the pastoral, agrarian, and natural history traditions in American prose; and literary responses to urbanization and environmental endangerment. Readings range from 17th-century Puritan texts to contemporary works, with primary emphasis on narrative and nonfictional prose, but some works of poetry are included as well.
Note: Expected to be given in 2005–06.

Literature and Arts A-68. Poets and Poetry in the Celtic Literary Tradition
Catalog Number: 3957
Patrick K. Ford

Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
Examines the role of poets (i.e., "seers, prophets, satirists, singers of praise") in the development of the Celtic literary tradition from antiquity through the Middle Ages and beyond. The focus is on the social function of literature, broadly defined, in the Celtic world, and the ways in which poets used their powers of praise and satire in the maintenance of social and political power. Of especial importance is the mythology of poetry, those narratives that tell how wisdom and poetry were first acquired and those that promulgate the magical powers of praise and satire.
Note: Expected to be omitted in 2005–06.

[Literature and Arts A-70. The Book of Job and the Joban Tradition]
Catalog Number: 7991
Peter Machinist
Half course (fall term). M., W., at 12, and a weekly section to be arranged. EXAM GROUP: 5
An examination of the biblical book of Job along with related texts, ancient, medieval, and modern, that allow us to establish the literary and philosophical traditions in which Job was composed and the literary and philosophical legacy it has left. Particular focus on the ways the texts play off one another in literary form and expression and in their treatment of such themes as divine justice, human piety, and the nature of the divine-human encounter.
Note: Expected to be given in 2005–06.

Literature and Arts A-72. The Enlightenment Invention of the Modern Self
Catalog Number: 7800
Leo Damrosch
Half course (fall term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 15
A study of major 18th-century autobiographical, fictional, and philosophical texts that explore the paradoxes of the modern self at a time when traditional religious and philosophical explanations were breaking down. Writers to be read include Mme. de Lafayette, Boswell, Voltaire, Gibbon, Diderot, Rousseau, Laclos, Franklin, and Blake.
Note: Expected to be omitted in 2005–06.

[Literature and Arts A-78. The Vikings and the Nordic Heroic Tradition]
Catalog Number: 7919
Stephen A. Mitchell
Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
Examines the heroic legacy resulting from the historical events in northern Europe AD 800 to AD 1100, concentrating on the medieval Icelandic sagas. The course focuses on how these texts present their heroes as warriors, kings, poets, outlaws, and adventurers—as well as, to quote one 19th-century scholar, "farmers at fisticuffs." Several specific heroic traditions (e.g., "the Bear's Son Tale," "the Dragon-Slayer") are considered in depth, as well as how the viking image is received and shaped in later periods (e.g., Victorian England).
Note: Expected to be given in 2005–06.

Literature and Arts A-82. Orpheus: Literary, Artistic, and Cultural Figurations
Catalog Number: 1445
John T. Hamilton

Half course (spring term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 14
The course spans over two thousand years of varying interpretations, settings, and appropriations of the Orpheus myth. The power of music and the fatality of passion, the expropriating effects of language and the regeneration of poetry, are but a few of the themes addressed and elaborated within the myth's threefold configuration of harmony, descent, and dismemberment. In addition to investigating the rich literary tradition, the course also turns to significant versions in opera, ballet, film, and the visual arts.
Note: Expected to be omitted in 2005–06.

Literature and Arts A-86. American Protest Literature from Tom Paine to Tupac
Catalog Number: 7442
John Stauffer
Half course (spring term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 4
This interdisciplinary course examines the rich tradition of protest literature in the US from the American Revolution to the rise of Hip Hop and globalization. Using a broad definition of "protest literature," it focuses on the production and consumption of dissent as a site of progressive social critique, using a wide variety of print, visual, and oral forms. We examine the historical links between modes of protest and meanings of literature, and explore how various expressions of dissent function as aesthetic, performative, rhetorical, and ideological texts within specific cultural contexts. "Readings" range from novels to photographs and music.

Cross-listed Core course that satisfies the Literature and Arts A requirement

The following course fully listed in the Foreign Cultures area of the Core Curriculum may be taken to meet the Core requirement in Literature and Arts A or in Foreign Cultures, but not both.
[Foreign Cultures 68. Authority and the Claims of the Individual in Chinese Literary Culture]

Departmental courses that satisfy the Literature and Arts A requirement

The following courses may be taken to meet the Literature and Arts A requirement. These courses are not necessarily designed for a general audience; they may assume prior experience or more than could be expected of students seeing the subject for the first time.
English 10a. Major British Writers I
English 10b. Major British Writers II
English 150. English Romantic Poets
English 151. The 19th-Century Novel

Literature and Arts B

[Literature and Arts B-16. The Meanings of Abstraction in 20th-Century Art]
Catalog Number: 0257
Yve-Alain Bois
Half course (spring term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 5

This course will explore the diversity of abstract art within modernist culture, covering a period extending from 1910 to 1980. The main question it will address is how abstract art signifies. Exploring this issue, it will establish that no abstract form holds a fixed meaning but that its significations change according to its various historical contexts. The works of artists as different as Piet Mondrian, Casimir Malevich, Alexander Rodchenko, Jackson Pollock, Barnett Newman, Ellsworth Kelly, Lucio Fontana, Cy Twombly, Robert Morris, and Richard Serra, as well as those of many others, will be examined in detail.
Note: Expected to be given in 2005–06.

Literature and Arts B-20. Designing the American City: Civic Aspirations and Urban Form
Catalog Number: 3243
Alex Krieger (Design School)
Half course (spring term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 15
An interpretive look at the American city in terms of changing attitudes toward urban life. City and suburb are experienced as the product of design and planning decisions informed by cultural and economic forces, and in relationship to utopian and pragmatic efforts to reinterpret urban traditions in search of American alternatives. Topics include: persistent ideals such as the single-family home, attitudes toward public and private space, the rise of suburbs and suburban sprawl, cycles of disinvestment and renewed interest in urban centers, and impacts of mobility and technology on settlement patterns.
Note: Expected to be omitted in 2005–06.

Literature and Arts B-21. The Images of Alexander the Great
Catalog Number: 2267
David G. Mitten
Half course (fall term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 14
The images of Alexander the Great are examined within various cultural contexts ranging from 4th-century BCE Greece to 20th-century America. Various art forms (including sculpture, coins, and paintings) illuminate Alexander's personality and career and the development of his legend. Course explores how images reveal the complex relationship between a strong individual personality and artistic conventions. Special attention is paid to the importance of political imagery and how the images of Alexander reflect changing ideas of rulership. Where, if anywhere, is the "truth" in these images? Original objects in the Sackler collection and Boston Museum of Fine Arts are emphasized.

Literature and Arts B-24. Constructing Reality: Photography as Fact and Fiction
Catalog Number: 5649
Robin E. Kelsey
Half course (spring term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 4
Historically, photographs have been exceptionally persuasive records of places, people, and events. This course will consider photographs from a broad range of cultural sites and activities, including battlefields, expeditions, laboratories, slums, farms, factories, political rallies, and crime scenes, to investigate the ways in which photographers, viewers, and institutions have negotiated the interplay of photography's rhetorical and evidentiary dimensions. Featured

photographs and practices will be drawn from various countries and historical moments. Particular attention will be given to fostering skills in visual analysis and historical interpretation.

Literature and Arts B-28. The Arts of Pre-Columbian America: Media and Themes
Catalog Number: 7397
Thomas B. F. Cummins
Half course (spring term). M., W., at 10, and a weekly section to be arranged. EXAM GROUP: 3
This course will study Pre-Columbian visual arts with an aim to understanding their forms, materials, and themes. Covering a time period from 1000 BC to the beginning of the 16th century, we will investigate the art and architecture of the Aztec, Inca, and many earlier cultures in Peru, Mexico, Ecuador, and Columbia. The meaning and appreciation of Pre-Columbian art will be studied both in terms of how things were made and the different forms of expression that sculpture, textiles, and painting took, ranging from life-like portraiture to geometric abstraction and everything in between.

Literature and Arts B-31. The Portrait
Catalog Number: 4240
Henri Zerner
Half course (fall term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 4
The most famous of all works of art is a portrait. Sculptors and painters have made likenesses of individuals since the ancient Kingdom of Egypt. The portrait gives visual form to changing conceptions of individual existence, and its history can make us more conscious of how time-bound, how culturally determined is our own sense of self. The course examines how artistic conventions are established to give visual and tangible form to intuitions, feelings, and thoughts. Examples taken from a variety of periods with greater emphasis on the Western tradition from the Renaissance to the present.
Note: Expected to be omitted in 2005–06.

[Literature and Arts B-35. The Age of Sultan Suleyman the Magnificent: Art, Architecture, and Ceremonial at the Ottoman Court]
Catalog Number: 1678
Gülru Necipoglu-Kafadar
Half course (spring term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 15
"Golden Age" of Ottoman-Islamic visual culture in the 16th century, considered within its ceremonial and historical contexts, focusing on architecture, miniature painting, and decorative arts. Stresses the transformation of Byzantine Constantinople into Ottoman Istanbul, formation of an imperial architectural style, and artistic contacts with contemporary European and Islamic courts. Considers art and architecture of Safavid Iran and Mughal India as a comparative backdrop. Discusses the role of centralized court ateliers in propagating canons of taste, the emphasis on decorative arts in a culture that rejected monumental sculpture and painting, and representations of the East by European artists in the Orientalist mode.
Note: Expected to be given in 2005–06.

Literature and Arts B-43. The Gothic Cathedral
Catalog Number: 1561

Jeffrey F. Hamburger
Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
Coined as a term of contempt, "Gothic" now defines among the most exalted works of art and architecture in the Western tradition. To this day, Gothic cathedrals dominate the urban landscape in much of Europe. In their own time, they represented a revolution in design and in religious and social practice. The course aims to consider the cathedral, principally in France, in all its dimensions: civic, religious, ideological, and historiographical, with the emphasis on the architecture, as well as sculpture, stained glass, metalwork, and manuscript illumination.
Note: Expected to be omitted in 2005–06.

[Literature and Arts B-46. Art in the Wake of the Mongol Conquests: Genghis Khan and His Successors]
Catalog Number: 6029
David J. Roxburgh
Half course (fall term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 4
Genghis Khan's legacy entailed the destruction of social and cultural order. Paradoxically, his empire forged a dynamic relationship between nomadic and sedentary societies; his successors fostered a climate of intense activity in art and architecture, producing complex fusions of artistic traditions between the Middle East and China. Key works of art and architecture are studied as a process of cultural assimilation, as constructions of an evolving political structure and social order in the aftermath of the Mongol conquests (ca.1256–1506). Themes include patronage, production, art as political and ideological tool, tensions between nomadic and sedentary sources of prestige and legitimation.
Note: Expected to be given in 2006–07.

Literature and Arts B-48. Chinese Imaginary Space
Catalog Number: 9186
Eugene Wang
Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
Examines visual representations of imaginary space, i.e., alternative worlds or heightened modes of existence, such as heaven, paradise, numinous afterlife world, utopian land, immortal islets, fictive frontier, and mindscape, etc., as they are evoked in Chinese tombs, cave shrines, sarcophagus design, scroll paintings, calligraphy, gardens, architecture, and films. Modes of analysis are introduced to understand how different media effectively conjure up these other worlds and spaces. Also explores how these imaginary worlds displace social reality and cultural aspirations. The ultimate goal is to enable the student to appreciate the crucial role of space in the making of visual culture.
Note: Expected to be omitted in 2005–06.

Literature and Arts B-51. First Nights: Five Performance Premieres
Catalog Number: 0144
Thomas Forrest Kelly
Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
A study of five famous pieces of music, both as timeless works of art and as moments of cultural history. Close attention is given to techniques of musical listening, and to the details of the first

performance of each work, with a consideration of the problems involved in assembling such a picture. Works studied are Beethoven, *Symphony no. 9;* Berlioz, *Symphonie fantastique;* Stravinsky, *Le sacre du printemps;* Handel, *Messiah;* Monteverdi, *Orfeo.* The course concludes with the first performance of a new work especially commissioned for this course.

[Literature and Arts B-54. Chamber Music from Mozart to Ravel]
Catalog Number: 1487
Robert D. Levin
Half course (spring term). M., W., (F.), at 1, and a weekly section to be arranged. EXAM GROUP: 6
Examines selected masterworks of chamber music from the 1770s, when the distinctive timbres of Baroque instruments shaped composers' imaginations, to the beginning of the 20th century. Follows parallel developments in the technology of instrument making and growing performer virtuosity. Style and rhetoric are central concerns, and attention is given to the evolution in interpretative style through listening to historic, as well as recent, recordings. Selections from the assigned works are demonstrated in live performances.
Note: Expected to be given in 2005–06.

[Literature and Arts B-63. Bach in His Time and Through the Centuries]
Catalog Number: 1520
Christoph Wolff
Half course (spring term). M., W., at 10, and a weekly section to be arranged. EXAM GROUP: 3
A study of the music of J.S. Bach in various contexts, focusing on selected vocal and instrumental compositions (cantatas, motets, oratorios, concertos, sonatas, suites, preludes, and fugues) with particular attention to style, genre, and the music of major contemporaries. Beyond this, the encyclopedic nature of Bach's creative output, which renders him one of the most seminal figures in the history of music, lends itself to an examination of his relationship to musical traditions from the Middle Ages through the Baroque, as well as his influence on compositional techniques and aesthetics from the 18th through the 20th century.
Note: Expected to be given in 2005–06.

Literature and Arts B-68. Opera
Catalog Number: 0940
Anne C. Shreffler
Half course (spring term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
Opera combines dramatic, musical, and visual experiences. It can be intensely moving as well as intellectually stimulating; it offers interior monologues and thrilling virtuosity, a private aesthetic experience and public display. It has flourished in different cultures and has served a wide variety of interests. Our main focus will be on listening to the music of five selected operas and understanding how the music shapes the drama. We shall also reflect on the dramatic content of the librettos and on the operas' historical positions. Students are encouraged to take advantage of live opera in the Boston area.
Note: Expected to be omitted in 2005–06.

[Literature and Arts B-78. Soundscapes: Exploring Music in a Changing World]
Catalog Number: 2093
Kay Kaufman Shelemay
Half course (fall term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
Many musical traditions at the turn of the 21st century cross geographic boundaries. Nowhere are diverse music traditions more prominently represented in public performance and maintained in private practice than in North America, where centuries of immigration and an increasingly multiethnic population have given rise to a complex musical environment. “Soundscapes” explores a cross-section of the different musical styles that coexist and interact in today’s society, examining their relationship to their historical homelands and to their present-day settings.
Note: Expected to be given in 2005–06.

Literature and Arts B-80. The Swing Era
Catalog Number: 1899
Robert D. Levin
Half course (spring term). M., W., F., at 1, and a weekly section to be arranged. EXAM GROUP: 6
Examines American jazz from the early 1930s—by which time the migration of leading musicians from New Orleans and Kansas City to Chicago, New York, and other metropolitan centers precipitated an evolution from the earlier Dixieland style—to the mid-1940s and the emergence of bebop. The essence of this period was swing—an elusive synthesis of foot-tapping rhythmic vitality with rhapsodic, soaring melodic invention. Investigates the relationship between arrangements and improvisation by comparing selected alternate takes. Considers sociological issues and the relationship of swing-era jazz to classical music and popular song, to place swing’s achievements into a broader historical and musical perspective.
Note: Expected to be omitted in 2005–06.

[Literature and Arts B-82. Sayin’ Something: Jazz as Sound, Sensibility, and Social Dialogue]
Catalog Number: 9532
Ingrid Monson
Half course (fall term). M., W., at 1, and a weekly section to be arranged. EXAM GROUP: 6
An examination of jazz improvisation as a musical and social process. Key themes are learning to listen from the “bottom of the band up” and understanding why jazz is a music that is perceived to “say something” about social issues. The social issues addressed are racial segregation, interracial encounter through music, the impact of the struggle for civil rights on the music, and the politics of aesthetic modernism in jazz. Musical examples drawn from throughout the history of the music will illustrate this ongoing dialogue between the musical and the social.
Note: Expected to be given in 2005–06.

Departmental course that satisfies the Literature and Arts B requirement

The following departmental course may be taken to meet the Literature and Arts B requirement. This course is not necessarily designed for a general audience; it may assume prior experience or

more than could be expected of students seeing the subject for the first time.
Music 2. Foundations of Tonal Music I

Literature and Arts C

Literature and Arts C-14. Concepts of the Hero in Greek Civilization
Catalog Number: 3915
Gregory Nagy
Half course (fall term). M., W., at 12, and a weekly section to be arranged. EXAM GROUP: 5
The true "hero" of this course is the logos or "word" of logical reasoning, as activated by Socratic dialogue. The logos of dialogue requires careful thinking, realized in close reading and reflective writing. The last "word" in the course will come from Plato's memories of Socrates' last days. These memories depend on a thorough understanding of heroic concepts in all their historical varieties throughout Greek civilization. This course leads to such an understanding through dialogues, guiding the attentive reader through many ancient Greek Classics, including works by Homer, Hesiod, Sappho, Alcman, Pindar, Theognis, Aeschylus, Sophocles, Euripides, Herodotus, and Plato.
Note: Expected to be omitted in 2005–06.

Literature and Arts C-18. Hindu Myth, Image, and Pilgrimage
Catalog Number: 7384
Diana L. Eck
Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
An exploration of Hindu myths, images, and pilgrimages in the context of classical and modern Hindu culture. Studies the stories of the gods of India: Vishnu, Krishna, Shiva, and Devi; the heroes and heroines of the Ramayana and the Mahabharata; the temples and visual images of the gods and heroes in the classical and folk traditions; and the pilgrimages that link this mythological and artistic complex to the mountains, rivers, and cities of India.
Note: Expected to be omitted in 2005–06. For students under the Core requirement, counts as either Literature and Arts C or Foreign Cultures, but not both.

[Literature and Arts C-20. The Hero of Irish Myth and Saga]
Catalog Number: 7817
Tomás Ó Cathasaigh
Half course (spring term). M., W., at 12, and a weekly section to be arranged. EXAM GROUP: 5
A study of the ways in which the hero is represented in early Irish sources, especially in the saga literature. The texts reflect the ideology and concerns of a society which had been converted to Christianity, but continued to draw on its Indo-European and Celtic heritage. The biographies of the Ulster hero, Cú Chulainn, of his divine father, Lug, and of certain king-heroes are studied in depth. The wisdom literature, and archaeological and historical evidence will be taken into account.
Note: Expected to be given in 2005–06.

Literature and Arts C-22. European Culture in the Middle Ages
Catalog Number: 2020

Jan Ziolkowski
Half course (spring term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 15
Studies the culture—literary, artistic, and musical—that was produced and disseminated in the Middle Ages through the fusion of classical education with Christian scriptures and liturgy. Examines major authors and texts in which this culture took shape and expressed itself (such as Augustine, *Song of Roland*, Chrétien de Troyes, *Tristan*, and Dante's *Inferno*). Relates texts to art, especially manuscript illumination.
Note: Expected to be omitted in 2005–06.

[Literature and Arts C-25. The Medieval Stage]
Catalog Number: 5114
Eckehard Simon
Half course (spring term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
Case studies of major plays from medieval Europe (mainly France and England) and how they were staged in their original settings (churches, marketplaces, streets). Examines theater as worship and revelry in monasteries and cathedrals, as an expression of emerging town culture, and as a mass medium of religious instruction. Explores the architecture of theater spaces, different stage types, the "theater" of medieval art, and the role of music. Illustrated lectures.
Note: Expected to be given in 2006–07.

[Literature and Arts C-28. Icon-Ritual-Text: Reading the Culture of Medieval Rus']
Catalog Number: 2798
Michael S. Flier
Half course (spring term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 4
An introduction to the culture of the medieval East Slavs, precursors of the Russians, Ukrainians, and Belarusians. The course examines icon and fresco painting, architecture, ritual, music, folklore, and literature in historical and social context for clues to the evolution of an apocalyptic worldview, extending from the Christianization of Rus' in the 10th century, through the reign of Ivan the Terrible, to the advent of Peter the Great at the end of the 17th century.
Note: Expected to be given in 2005–06. All readings in English.

Literature and Arts C-30. How and What Russia Learned to Read: The Rise of Russian Literary Culture
Catalog Number: 7952
William Mills Todd III
Half course (spring term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
An exploration in the Russian imperial period (18th–19th centuries) of the development of a secular literary tradition. Focus on institutions of literature, issues of literature and ideology, and the refraction of cultural problems in literary form. Reading of novels by Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky, and Tolstoy in social and historical context.
Note: Expected to be omitted in 2005–06. No knowledge of Russian required.

Literature and Arts C-40. The Chinese Literati
Catalog Number: 5226
Peter K. Bol
Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
Examines from literary, philosophical, and historical perspectives the creation in later imperial China of an enduring national culture, which flourished through dynastic change and foreign conquest. Particular attention is given to the role of the literati and their work as poets, essayists, novelists, painters, moral philosophers, and political thinkers. Themes include the relation of culture to political authority, the search for grounds for individual responsibility, the literary and artistic representation of the self, growing ambivalence toward political service, and the rise of individualism. Introduces Chinese approaches to interpreting literary, artistic, and philosophical works.
Note: For students under the Core requirement, counts as either Literature and Arts C or Historical Study B, but not both.

Literature and Arts C-42. Constructing the Samurai
Catalog Number: 3743
Harold Bolitho
Half course (fall term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 4
Examines the rise and fall of Japan's warrior class and of the *bushido* ethos. Concentrates on two interrelated themes: the historical reality and the construction of a mythology—both positive and negative—in Japanese popular culture and the Western imagination. Themes will include warfare, training, religion, values, art, literature, and family life. Visual materials will be used extensively.
Note: For students under the Core requirement, counts as either Literature and Arts C or Historical Study B, but not both.

Literature and Arts C-43. The Medieval Court
Catalog Number: 5794
Eckehard Simon
Half course (fall term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
In the High Middle Ages (1100–1250), the European aristocracy created a court culture that became a permanent part of the Western heritage. We study this civilization by reading its greatest literature: the Roland epic, lyrics of the troubadours and minnesingers, the tales of Marie de France, the Arthurian and grail-quest romances of Chrétien and Wolfram, Gottfried's *Tristan.* To probe the complex interrelationship between literature and life, we look, in slide lectures, at the historical context: lordship society, castles and castle life, women and marriage, "courtly love," knights and chivalry, court art, major courts, notable lives.

Literature and Arts C-50. Russian Imperial Masterworks and Their Post-Histories
Catalog Number: 2786
Julie A. Buckler
Half course (fall term). M., W., (F.), at 1; and a weekly section to be arranged. EXAM GROUP: 6

Investigates major works of imperial Russian culture (literary, architectural, musical, theatrical) as products of their original historical contexts and in terms of their on-going life as acknowledged "masterworks" in Russia and the West. Works include Rastrelli's Winter Palace, Falconet's monument to Peter the Great, Pushkin's *The Bronze Horseman*, Dostoevsky's *Notes From the Underground*, Tolstoy's *War and Peace*, Mussorgsky's *Boris Godunov*, Tchaikovsky's *Swan Lake*, Chekov's *Uncle Vanya*, and Bely's *Petersburg*, as well as the imperial capital city of St. Petersburg itself. How have these masterworks been variously renewed and reinterpreted since their initial reception?
Note: Expected to be omitted in 2005–06.

[Literature and Arts C-51. Revolution and Reaction: The Rise and Fall of the Russian Avant-Garde]
Catalog Number: 6984
John E. Malmstad
Half course (spring term). M., W., F., at 11, and a weekly section to be arranged. EXAM GROUP: 4
An introduction to the radical transformations of Russian culture between 1890–1930, with particular attention to the "isms," avant-garde and otherwise, that shaped society and the arts during a period of rapid modernization and experimentation: Symbolism, Futurism, Cubo-Futurism, Suprematism, Constructivism. Focuses on developments in literature, art, music, ballet, and film, their interaction and relation to the historical context.
Note: Expected to be given in 2005–06. All readings in English. For students under the Core requirement, counts as either Literature and Arts C or Foreign Cultures, but not both.

Literature and Arts C-55. Surrealism: Avant-Garde Art and Politics between the Wars
Catalog Number: 7818
Susan R. Suleiman
Half course (fall term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 5
An overview of Surrealism in the context of European culture and politics of the 20th century. Focus on major works of writers, artists, and filmmakers associated with the Surrealist movement, chiefly in the period between the two world wars; some attention also paid to earlier works and movements, and to the influence of and reactions to Surrealism after 1945. Discussion of works by Breton, Aragon, Tzara, Lautréamont, Artaud, Eluard, Carrington, Bunuel and Dali, Dulac, Magritte, Tanning, Ernst, Man Ray, Bellmer, and others.
Note: Expected to be omitted in 2005–06.

Literature and Arts C-56. Putting Modernism Together
Catalog Number: 8437
Daniel Albright
Half course (fall term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 14
Just as a pine or a willow is known from the shape of its branching, so human culture can be understood as a growth-pattern, a ramifying of artistic, intellectual, and political action. This course tries to find the center of the Modernist movement (1872–1927) by studying the literature, music, and painting of the period, to see whether some congruence of effort in all these media can be found. By looking at the range of artistic production in a few key years, we come to know

this age of aesthetic extremism, perhaps unparalleled in Western history.
Note: Expected to be omitted in 2005–06.

[Literature and Arts C-61. The Rome of Augustus]
Catalog Number: 1101
R. J. Tarrant
Half course (spring term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 14
Roman culture and society in a period of radical transformation, the lifetime of the first emperor, Augustus (63 BCE–14 CE). Focuses on the interplay between a new set of political realities and developments in literature, the visual arts, and the organization of private and social life. Readings (all in translation) from Catullus, Cicero, Virgil, Horace, Livy, Propertius, Ovid, and Tacitus, with special attention to the two great masterworks of the period, Virgil's *Aeneid* and Ovid's *Metamorphoses.* Most lectures illustrated with slides.
Note: Expected to be given in 2005–06. For students under the Core requirement, counts as either Literature and Arts C or Historical Study B, but not both.

Literature and Arts C-65. Repression and Expression: Literature and Art in *Fin-de-siècle* Germany and Austria
Catalog Number: 4312
Peter J. Burgard
Half course (spring term). Tu., Th., at 10 and a weekly section to be arranged. EXAM GROUP: 12
Examines German and Austrian literature and art of the period 1880–1920 in terms of gender, sexuality, and language. Begins with readings of Nietzsche and Freud that establish the thematic parameters of investigation and that enable an understanding of the extent to which this period in cultural history is grounded in their ideas. Discussions of individual texts and paintings focus on how problems of gender, sexuality, and language both intersect and reflect one another in the literature and art of the age. Readings include Nietzsche, Freud, Wedekind, Schnitzler, Hofmannsthal, Mann, Musil, Kafka. Artists include Klimt, Schiele, Kokoschka, Kirchner, Marc, Kandinsky.
Note: Expected to be omitted in 2005–06. No knowledge of German required.

Literature and Arts C-67. The German Colonial Imagination
Catalog Number: 9369
Judith Ryan
Half course (fall term). Tu., Th., at 1and a weekly section to be arranged. EXAM GROUP: 15
Representations of German colonialism in fiction and film. Consideration of the following topics: Bismarck's colonial policies, late 19th-century critiques of colonialism, controversies about the notion of the noble colonist, turn-of-the-century legal debates, National Socialism and its attempts to revive the idea of German colonialism, recent critiques of German colonialism.
Note: Expected to be omitted in 2005–06.

Cross-listed Core course that satisfies the Literature and Arts C requirement

The following course fully listed in the Historical Study B area of the Core Curriculum may be taken to meet the Core requirement in Literature and Arts C or in Historical Study B, but not both.
[Historical Study B-19. The Renaissance in Florence]

Departmental courses that satisfy the Literature and Arts C requirement

The following departmental courses may be taken to meet the Literature and Arts C requirement. These courses are not necessarily designed for a general audience; they may assume prior experience or more than could be expected of students seeing the subject for the first time.
English 167p. Postcolonial Narratives
[English 175. American Literary Emergence]

Moral Reasoning

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

The common aim of courses in Moral Reasoning is to discuss significant and recurrent questions of choice and value that arise in human experience. They seek to acquaint students with the important traditions of thought that have informed such choices in the past and to enlarge the students' awareness of how people have understood the nature of the virtuous life. The courses are intended to show that it is possible to reflect reasonably about such matters as justice, obligation, citizenship, loyalty, courage, and personal responsibility.

Moral Reasoning

[Moral Reasoning 17. Democracy and Inequality]
Catalog Number: 6085
Harvey C. Mansfield
Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
In what ways are we equal, in what ways unequal or different? Which are more essential? How much should moral reasoning be guided by our equality, how much by inequality? Can democracy do justice to both? These questions are considered and answered by reading Plato's *Republic*, Hobbes' *Leviathan*, and Tocqueville's *Democracy in America*: three beautiful books presenting the best argument for aristocracy, the most realistic basis for equality, and the best analysis of democracy.
Note: Expected to be given in 2005–06.

[Moral Reasoning 22. Justice]
Catalog Number: 3753
Michael J. Sandel
Half course (fall term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 4
A critical analysis of selected classical and contemporary theories of justice, with discussion of present-day practical applications. Topics include affirmative action, income distribution, surrogate motherhood, free speech vs. hate speech, debates about rights (human rights and property rights), arguments for and against equality, debates about political obligation and the

claims of community. Readings include Aristotle, Locke, Kant, Mill, and Rawls.
Note: Expected to be given in 2005–06.

[Moral Reasoning 28. Ethics and International Relations]
Catalog Number: 0642
Stanley Hoffmann
Half course (spring term). M., W., 2–3:30, and a weekly section to be arranged. EXAM GROUP: 7, 8
Is ethical action in international affairs possible—or does the absence of global moral consensus and a central world government doom states and citizens to the amoral pursuit of clashing national interests? The course considers contrasting arguments by philosophers and social thinkers (e.g., Thucydides, Machiavelli, Kant, and Weber) as well as specific issues in contemporary international politics: intervention and the use of force, the morality of nuclear deterrence, human rights, distributive justice, and the moral responsibilities of leaders and citizens.
Note: Expected to be given in 2005–06.

[Moral Reasoning 32. Reason and Evaluation]
Catalog Number: 5909
Thomas M. Scanlon, Jr.
Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
Can moral judgments and other forms of evaluation be defended on rational and objective grounds? Do they need to be? Considers various positive and negative answers to these questions and examines the ways in which these answers are supported by differing views of the nature of persons and of the will. Readings include works by Plato, Hume, Kant, Nietzsche, and some contemporary writers.
Note: Expected to be given in 2005–06.

[Moral Reasoning 33. Issues in Ethics]
Catalog Number: 2255
Thomas M. Scanlon, Jr.
Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
Is pleasure the only ultimate good? Are individuals' preferences the only basis for assessing the quality of their lives? What makes acts wrong? Is moral blame applicable only to agents who have free will? Should we accept moral relativism? Readings mainly from contemporary philosophers.
Note: Expected to be given in 2005–06.

Moral Reasoning 50. The Public and the Private in Politics, Morality, and Law
Catalog Number: 1262
Glyn Morgan
Half course (fall term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 14
The line between what is considered "private" and what belongs to the "public" varies culturally, historically, and socially. The aim of the class is to introduce students to central issues in Western moral, legal, and political thought by examining the ways that this distinction has been drawn and justified by major thinkers. The class also discusses a number of contemporary

controversies concerning the public/private divide, including abortion, contraception, private schools, racial and genetic profiling, and cyberspace. Readings will include Plato, Augustine, Hobbes, Rousseau, John Stuart Mill, Robert Nozick, John Rawls, and Michel Foucault.

Moral Reasoning 54. "If There is No God, All is Permitted": Theism and Moral Reasoning
Catalog Number: 1321
Jay M. Harris
Half course (fall term). M., W., (F.), at 12 and a weekly section to be arranged. EXAM GROUP: 5
This course will examine the ways in which a concept of God has informed Western moral discourse trying to help students engage the literature as they consider why one might think "if there is no God, all is permitted" and why one might think if there is a God, human moral achievement is impossible.
Note: Expected to be omitted in 2005–06.

[Moral Reasoning 56. Self, Freedom, and Existence]
Catalog Number: 6507
Richard Moran
Half course (spring term). M., W., (F.), at 2, and a weekly section to be arranged. EXAM GROUP: 7
How is human freedom possible? Does acting freely mean acting in accordance with reasons or acting arbitrarily, or neither? Are values chosen, discovered, or invented? How is self-knowledge possible and how is it different from the knowledge of others? Specific issues to be discussed include: self-deception and bad faith; the nature of freedom and autonomy; subjectivity and our relation to others; rationality and irrationality. Readings, which will provide an introduction to a few of the major texts of Existentialism, will be drawn from Kant, Sartre, Dostoevsky, and various contemporary writers.
Note: Expected to be given in 2005–06.

[Moral Reasoning 58. Slavery in Western Political Thought]
Catalog Number: 8892
Richard Tuck
Half course (spring term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
The ownership of one man by another is an obvious and profound affront to many of our fundamental ideas about morality, and yet for much of human history it was defended—and often by the greatest moral and political philosophers. How was this possible? The course will trace the theme of slavery through the arguments of political theorists from the ancient world to the present and will study the way in which the rejection of slavery became intellectually possible. These theoretical arguments will be considered in the context of the changing history of slavery as an institution.
Note: Expected to be given in 2005–06.

Moral Reasoning 64. Ethics and Everyday Life: Work and Family
Catalog Number: 7803
Russell Muirhead

Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
How should I live? Can moral reasoning help us answer this, or is it restricted to a smaller part of life? Topics include the ethics-morality distinction, the examined life, virtue ethics, and rights morality, with special attention on issues of work and family such as work ethic, alienation, ideals of family, and same-sex marriage. Readings from Plato, Aristotle, Locke, Kant, Weber, and contemporary writers.
Note: Expected to be omitted in 2005–06.

[Moral Reasoning 66. Moral Reasoning about Social Protest]
Catalog Number: 7778
Susanna Siegel
Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
An examination of moral questions that arise in the context of social protest in the US during the 20th century, including the central question of political philosophy: How can political authority be justified? After studying the Attica prison revolt of 1971, we will consider the following questions: Is there an obligation to obey the law? What, if any, are the moral limits to this obligation? Can civil disobedience be justified, and does it always need to be? Texts include classic excerpts from Plato, Hobbes, Rawls, and Marx.
Note: Expected to be given in 2005–06.

[Moral Reasoning 68. Legalism: Ruly and Unruly Thought and Practices]
Catalog Number: 1631
Nancy Lipton Rosenblum
Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
“Legalism” refers to rule-making, rule-following, and legal reasoning. This course considers the omnipresence of legalism in every aspect of our lives—from criminal due process to Harvard course requirements to the rules made and enforced by voluntary associations like the Boy Scouts. We will explore: the distinctive characteristics of legalistic modes of thought; moral justifications offered for legalism; moral objections to legalism and the power of romantic resistance to rule-making and rule-following; and what happens when the various systems of law under which we live conflict. Readings from literature, court cases, and moral and political theory.
Note: Expected to be given in 2005–06.

[Moral Reasoning 70. Rights]
Catalog Number: 6413
Sharon R. Krause
Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
This course investigates the meaning and moral significance of rights in contemporary liberal societies and considers how a rights-based ethic affects our broader understanding of morality and political life. We shall compare different philosophical justifications for rights within the tradition of classical liberalism; examine several classical and contemporary critiques of rights;

and engage in current debates in ethics and politics as to the scope, content, and application of rights in the US and in the international context. Readings are drawn from classical and contemporary thinkers in moral and political philosophy.
Note: Expected to be given in 2005–06.

Moral Reasoning 72. Are There Any Moral Truths?
Catalog Number: 4389
Niko Kolodny
Half course (spring term). M., W., at 1, and a weekly section to be arranged. EXAM GROUP: 6
Are there any objective moral truths, which we might hope to find by reasoning? Some philosophers, as well as some strains of contemporary culture, answer "no." Our moral judgments, on this view, express only our feelings or our upbringing. What might support the view that there are no moral truths? How would accepting it affect what we think and do?
Note: Expected to be omitted in 2005–06.

Moral Reasoning 74. The Theory and Practice of Republican Government
Catalog Number: 1489
Daniel P. Carpenter
Half course (spring term). Tu., Th., at 10 , and a weekly section to be arranged. EXAM GROUP: 12
A theoretical and historical survey of the evolution of republican (representative) government, with a particular focus upon Anglo-American institutions. We will alternate between philosophical treatments and empirical studies of republican regimes. Questions include: How did republican government evolve centuries before mass elections? Did arguments for legislative supremacy prefigure the rise of parliamentary authority? If so, how? What is the role of virtue in a democratic republic? How can government ensure the "rule of the wise" without fostering autocratic power? What institutions besides elections keep the ruled attuned to the people? What critique might republican theory advance of emerging "populist" arrangements?

Departmental course that satisfies the Moral Reasoning requirement

The following departmental course may be taken to meet the Moral Reasoning requirement. This course is not necessarily designed for a general audience; it may assume prior experience or more than could be expected of students seeing the subject for the first time.
Philosophy 168. Kant's Ethical Theory

Quantitative Reasoning

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

The aim of courses in this area is to introduce students to mathematical and quantitative modes of thought. Some courses emphasize theoretical aspects of mathematics or statistical reasoning: a course on number theory or deductive logic, for example, would fall under this heading. Other courses in this area explore the application of quantitative methods to questions in the natural sciences, social sciences, or humanities: courses on making decisions under uncertainty, or on analyzing demographic trends are examples of such applications.

Quantitative Reasoning

Quantitative Reasoning 20. Computers and Computing
Catalog Number: 5430
William H. Bossert
Half course (spring term). M., W., F., at 9, and a weekly section to be arranged. EXAM GROUP: 2
An algorithm is an unambiguously stated procedure for accomplishing a specific task on the basis of the given information in a given environment. The term is often associated with computer programs. The course will examine a number of algorithms with regard to their design and analysis of their relative efficiency. A central theme is the close interaction between the form of an algorithm and the representation and format of information with which it works. Students will learn to design and implement programs of modest complexity in a modern programming language.
Note: Previous programming experience is not required.

Quantitative Reasoning 22. Deductive Logic
Catalog Number: 2508
Richard G. Heck, Jr.
Half course (fall term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
The concepts and principles of symbolic logic: valid and invalid arguments, logical relations of statements and their basis in structural features of those statements, the analysis of complex statements of ordinary discourse to uncover their structure, the use of a symbolic language to display logical structure and to facilitate methods for assessing arguments. Analysis of reasoning with truth-functions (“and”, “or”, “not”, “if...then”) and with quantifiers (“all”, “some”). Attention to formal languages and axiomatics, and systems for logical deduction. Throughout, both the theory underlying the norms of valid reasoning and applications to particular problems will be investigated.

[Quantitative Reasoning 24. Health Economics]
Catalog Number: 4667
David M. Cutler
Half course (fall term). Tu., Th., 10–11:30, and a weekly section to be arranged. EXAM GROUP: 12, 13
Analysis of the medical care system is integral to a number of disciplines, including economics, philosophy, sociology, demography, and statistics, as well as four professional schools (medicine, public health, law, and public policy). This course uses quantitative methods (graphical analysis, algebra, survey design) to examine the organization and operation of the medical system. The course will cover the medical and non-medical determinants of health, markets for medical care services and health insurance, and proposed reforms of medical care. Techniques, including the required use of a computer spreadsheet, will be developed and demonstrated in class and section.
Note: Expected to be given in 2005–06.

[Quantitative Reasoning 26. Decisions, Games, and Negotiation]
Catalog Number: 4123
Daniel L. Goroff and Howard Raiffa (Business School)
Half course (spring term). M., W., (F.), at 1, and a weekly section to be arranged. EXAM GROUP: 6
This course develops quantitative reasoning skills that help individuals and groups make better choices. We study decisions whose results are perfectly predictable as well as situations with incomplete information, uncertainty about the future, or outcomes that depend on other people's actions. Based on examples that range from everyday career conundrums to the politics of public policy, and from household financial strategies to professional school cases, our discussions cover: the mathematics of ideal rationality; the pragmatic use of spreadsheets, data, heuristics, and other tools; and behavorial research on surprising ways that people estimate, wager, and bargain in practice.
Note: Expected to be given in 2005–06.
Prerequisite: High school algebra and a willingness to think hard.

Quantitative Reasoning 28. The Magic of Numbers
Catalog Number: 4764
Barry C. Mazur and Noam D. Elkies
Half course (spring term). M., W., F., at 10, and a weekly section to be arranged. EXAM GROUP: 3
This course will explore the beauty and mystery of mathematics through a study of the patterns and properties of the natural numbers 1, 2, 3, ... We will discuss various special classes of numbers, like Fibonacci numbers, factorials, and binomial coefficients, and the many ways they arise in mathematics. We'll also investigate the distribution of prime numbers and discuss coding systems based on modular arithmetic.
Note: No mathematical background beyond high school algebra assumed. Emphasis is placed on discovery through conjecture and experimentation.

Quantitative Reasoning 32. Uncertainty and Statistical Reasoning
Catalog Number: 2228
Carl N. Morris
Half course (fall term). Tu., Th., 10–11:30, and a weekly section to be arranged. EXAM GROUP: 12, 13
Individuals continually must make decisions under uncertainty in their personal and in their professional lives. This course develops probability as the appropriate language for describing uncertainty and shows how statistical data and planned studies can be crucial when evaluating probabilities and associated risks. Students will learn how others think about uncertainty and risk and how better to assess uncertainty in their own lives. The course introduces concepts and the language of probability and statistics with an emphasis on its relationship to quantifying uncertainty for use in daily life. Examples will be drawn from the media, science, law, medicine, and government.
Note: Expected to be omitted in 2005–06.

[Quantitative Reasoning 33. Causal Inference]
Catalog Number: 0424

Donald B. Rubin
Half course (spring term). Tu., Th., 11:30–1, and a weekly section to be arranged. EXAM GROUP: 13, 14
Do private schools do a better job than their public counterparts? Does the existence of the QRR improve the quantitative literacy of the undergraduates at Harvard? Such questions dominate many decision-making processes, but only rarely are their "answers" based on the careful collection and analysis of empirical data. This course confronts such causal questions and how to reach inferentially valid answers that summarize uncertainty using formal probabilistic statements.
Note: Expected to be given in 2005–06.

Quantitative Reasoning 34. Counting People
Catalog Number: 4329
Peter T. Ellison
Half course (spring term). Tu., Th., 1:30–3, and a weekly section to be arranged. EXAM GROUP: 15, 16
The size, composition, distribution, and dynamics of human populations arise as important variables in many domains of inquiry spanning traditional academic boundaries, including sociology, history, economics, government, public health, and environmental science. This course seeks to introduce students to the field of human demography as both an area of study and a mode of inquiry. Emphasis is placed on understanding the methods by which inferences concerning the nature, distribution, and dynamics of human populations are made. Students analyze real demographic data from a country of their choice.
Note: Expected to be omitted in 2005–06.

Quantitative Reasoning 36. Statistics and Public Policy
Catalog Number: 7412
Christopher Winship
Half course (fall term). M., W., F., at 9, and a weekly section to be arranged. EXAM GROUP: 2
Statistics are used ubiquitously in the support of various public policy claims. The purpose of this course is to examine the statistical methods used in making such claims and understand their potential strengths and weaknesses. The course examines Sampling, Characteristics of Distributions, Basic Probability, Statistical Reference, Measurement and Scaling, Measures of Association, Experiments, Quasi-Experiments, and Causal Inference. The goal is to acquire a clear, conceptual understanding of methods as opposed to the ability to manipulate formulas.

[Quantitative Reasoning 38. The Strategy of International Politics]
Catalog Number: 7119
Lisa L. Martin
Half course (spring term). Tu., Th., 10–11:30, and a weekly section to be arranged. EXAM GROUP: 12, 13
International politics is often about strategic interaction among states. When governments make choices about economic, military, or environmental policies, they take into account the likely responses and actions of others. This course introduces the logic of strategic interaction by way of game theory. The principles of game theory are introduced, and students learn how to solve simple games. Mathematical topics covered include probabilities, set theory, linear equations,

and quadratic equations. The games are motivated and illustrated with examples drawn from international politics. The logic and techniques developed in this class have wide applications outside the field of international relations.
Note: Expected to be given in 2005–06.

Quantitative Reasoning 43. Introduction to Investments
Catalog Number: 4629
Samuel B. Thompson
Half course (fall term). Tu., Th., 10–11:30, and a weekly section to be arranged. EXAM GROUP: 12, 13
This course introduces students to the basic mathematical tools and economic concepts needed to analyze financial investments. The course discusses the measurement of asset prices and returns, arbitrage, interest rates and discounting, quantitative measures of risk, portfolio choice, risk management, and derivative securities. Students are asked to apply these ideas to real financial data.

Quantitative Reasoning 44. Greek Geometry and its Aftermath
Catalog Number: 7964
Paul G. Bamberg
Half course (spring term). Tu., Th., 11:30–1, and a weekly section to be arranged. EXAM GROUP: 13, 14
Using modern concepts of algebra and trigonometry, we investigate why the ancient Greeks could carry out some geometric constructions with a compass and an unmarked straightedge, other constructions only by putting marks on the straightedge, and still others only by carrying out an infinite number of operations. We explore the history of "squaring the circle" from the time of Archimedes up through the recent calculation of a trillion digits of pi, and we trace the evolution of the concept of number from the purely geometric view of ancient times to the digital view of the computer age.

Quantitative Reasoning 46. The Visual Display of Information: The Art of Numbers
Catalog Number: 9479
Alyssa A. Goodman
Half course (spring term). Tu., Th., 1–2:30, and a weekly section to be arranged. EXAM GROUP: 15, 16
This course focuses on the insight into quantitative information offered by graphs, tables, charts, maps, and other illustrations. We analyze which of these tools are best for communicating what kinds of data, and why. Ideas about causality, approximation, statistical significance, credibility, and dimensionality will be addressed by analyzing real data and their display. The data will be drawn from medical, astronomical, social-science, aerospace, financial, and geographic examples. Approximately one-quarter of the course will focus on web and live presentations of data. Much of the course's philosophy is based on the work of Edward Tufte.
Note: Expected to be omitted in 2005–06.

Quantitative Reasoning 48. Bits
Catalog Number: 2793
Harry R. Lewis

Half course (spring term). M., W., F., at 11, and a weekly section to be arranged. EXAM GROUP: 4
Information as quantity, resource, and property. Application of quantitative methods to understanding how information technologies inform issues of public policy, regulation, and law. How are music, images, and telephone conversations represented digitally, and how are they moved reliably from place to place through wires, glass fibers, and the air? Who owns information, who owns software, what forms of regulation and law restrict the communication and use of information, and does it matter? How can personal privacy be protected at the same time as society benefits from communicated or shared information? Glitches, bugs, viruses, design flaws, and other failures, risks, and limitations of information systems.
Note: Mathematical methods will be developed in the context of the course material. No mathematical background beyond high-school algebra is required.

Quantitative Reasoning 50. Medical Detectives
Catalog Number: 5707
Karin B. Michels (Medical School, Public Health)
Half course (fall term). M., W., F., at 9, and a weekly section to be arranged. EXAM GROUP: 2
Why is there confusion in the scientific community as to whether butter or margarine is worse for your health? How do researchers find out whether cell phone use increases your risk for brain cancer? What is your risk of contracting colon cancer? Discover how researchers draw on quantitative skills to detect causes of acute disease outbreaks and chronic diseases. This course introduces the techniques and methods for empirically based decisions, analyses, and actions in the context of current public health problems.

Departmental courses that satisfy the Quantitative Reasoning requirement

The following departmental courses may be taken to meet the Quantitative Reasoning requirement. These courses are not necessarily designed for a general audience; they may assume prior experience or more than could be expected of students seeing the subject for the first time.
Applied Mathematics 21a. Mathematical Methods in the Sciences
Computer Science 50. Introduction to Computer Science I
Mathematics 1a. Introduction to Calculus
Mathematics 1b. Calculus, Series, and Differential Equations
Mathematics 19. Mathematical Modeling
Mathematics 20. Introduction to Linear Algebra and Multivariable Calculus
Mathematics 21a. Multivariable Calculus
Mathematics 21b. Linear Algebra and Differential Equations
Mathematics 23a. Theoretical Linear Algebra and Multivariable Calculus I
Mathematics 23b. Theoretical Linear Algebra and Multivariable Calculus II
Mathematics 25a. Honors Multivariable Calculus and Linear Algebra
Mathematics 25b. Honors Multivariable Calculus and Linear Algebra
***Mathematics 55a. Honors Advanced Calculus and Linear Algebra**
Mathematics 55b. Honors Advanced Calculus and Linear Algebra
Statistics 100. Introduction to Quantitative Methods
Statistics 101. Introduction to Quantitative Methods
Statistics 102. Fundamentals of Biostatistics

Statistics 104. Introduction to Quantitative Methods
Statistics 110. Introduction to Probability

The following departmental courses taken together may be used to meet the Quantitative Reasoning requirement.

Mathematics Xa. Introduction to Functions and Calculus I
Mathematics Xb. Introduction to Functions and Calculus II

Science

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

The common aim of the courses in Science is to explore the phenomena, ways of observing and understanding them, theories that synthesize them, and the undergirding methodology that, taken together, result in the scientific perception of our world. This world encompasses the very small—elementary particles, nuclei, atoms, molecules, genes, and cells; the very large—the Earth, the solar system, and the universe; and living things, including human beings in the past and present. Each course addresses one or several of these topics in some depth. Students participate by solving problems, and by observing or by experimenting in the laboratory. This exposure helps to develop scientific literacy and numeracy, thereby leading to a better understanding of today's technologically and scientifically oriented society.

Science A

Courses in this section, largely concerned with the physical sciences, deal with the analysis of natural phenomena through quantitative descriptions and synthesis of their simple elements.

Science B

Courses in this section, emphasizing biological, evolutionary, and environmental science, present semiquantitative and frequently descriptive accounts of complex systems that cannot yet be fully analyzed on the basis of their simple elements.

Science A

Science A-24. The Dynamic Earth
Catalog Number: 3744 Enrollment: Limited to 100.
Richard J. O'Connell
Half course (spring term). M., W., F., at 10, a weekly section to be arranged, and one three-day camping field trip during Reading Period. EXAM GROUP: 3
A discussion of physical processes that formed the Earth and govern its continuing evolution. How internal workings shape the planet's surface, producing volcanism, earthquakes, and the uplift of mountains. The course describes the theory of plate tectonics; reviews the observations and phenomena that led to the hypothesis; describes methods of deducing the present state, composition, and structure of the Earth's interior; discusses the age and the thermal state of the

Earth and the evidence for the flow and mobility of the interior. Students are encouraged to think critically, and to appreciate the uncertainties in current models and hypotheses.

Science A-29. The Nature of Light and Matter
Catalog Number: 1706
Roy J. Glauber
Half course (fall term). M., W., F., at 12, and a weekly section to be arranged. EXAM GROUP: 5
Explores the ultimate nature of light and develops closely related insights into the structure of matter. An excursion through the physical world that proceeds by means of colorful lecture demonstrations drawn from several areas of optics, acoustics, electricity, and magnetism. The course concentrates on describing natural laws in terms of vivid and useful images emphasizing, for example, the common features of musical instruments, broadcast transmitters, and radiating atoms. The behavior of waves of various sorts is used to explain the limitations on knowledge imposed by the uncertainty principle.

[Science A-30. The Atmosphere]
Catalog Number: 0477 Enrollment: Limited to 60.
Steven C. Wofsy and Daniel J. Jacob
Half course (fall term). Tu., Th., 1–2:30, and a weekly section to be arranged. EXAM GROUP: 15, 16
The physical and chemical processes that regulate climate and the composition of the atmosphere are introduced, including mechanics, thermodynamics, radiation, and chemical kinetics. Atmospheric temperature and precipitation, weather and climate, human activity as a factor for change, influence of carbon dioxide from fossil fuel on the climate, modification of stratospheric ozone by industrial chemicals, air pollution, acid rain.
Note: Expected to be given in 2005–06.

Science A-35. Matter in the Universe
Catalog Number: 5923 Enrollment: Limited to 325.
Robert P. Kirshner
Half course (spring term). Tu., Th., 12–1:30, and a weekly section to be arranged. EXAM GROUP: 14, 15
The nature and history of matter revealed by astronomical observation and experimental physics. Explores the Big Bang and models of the universe, stellar evolution and supernova explosions, evidence for invisible matter, and the development of structure in the universe. Demonstrates the physical principles used to interpret astronomical data and to construct a model for the evolution of the universe on the microscopic and cosmic scales. Examines the way microscopic properties of matter determine properties of people, stars, galaxies, and the universe as a whole.

Science A-36. Observing the Sun and the Stars
Catalog Number: 4775
Jonathan E. Grindlay
Half course (fall term). Tu., Th., 11:30–1, and two one-hour laboratory sessions (daytime and evening) to be arranged. EXAM GROUP: 13, 14
Direct observations of the Sun and the stars, to learn how we can understand the Galaxy and the Universe from stars, the basic building blocks. Students conduct visual observations to measure

apparent motions of the Sun and stars, laboratory experiments with light and spectra, and make telescopic observations of the Sun and stars using modern instrumentation to explore their energy output, relative distances, temperatures and chemical composition, and something of their life histories. Lectures and readings discuss the physical nature and evolution of stars as well as how stars are organized in our Milky Way Galaxy, and in the Universe.

[Science A-39. Time]
Catalog Number: 0077
Gary J. Feldman
Half course (spring term). Tu., Th., 1:30–3, and a weekly section to be arranged. EXAM GROUP: 15, 16
Studies the evolution, over the past three centuries, of our concept of time and of related questions, such as the predictability of the future. Newtonian mechanics envisions a universal time, symmetric between past and future. The distinction between past and future emerges in the 19th century from considerations of statistical processes. In the 20th century, the theory of relativity forces fundamental changes in the concept of time. Time ceases to be universal and becomes entangled with space and gravity. Quantum mechanics limits the predictability of the future and introduces verified effects so weird that Einstein wrote of them, “No reasonable definition of reality could be expected to permit this.”
Note: Expected to be given in 2005–06.
Prerequisite: Some knowledge of secondary school physics useful, but not required.

Science A-41. The Einstein Revolution
Catalog Number: 3581
Peter L. Galison
Half course (spring term). Tu., Th., 9–10:30, and a 90-minute weekly section to be arranged. EXAM GROUP: 11, 12
Albert Einstein has become the icon of modern science. Following his scientific, cultural, philosophical, and political trajectory, this course aims to track the changing role of physics in this century. Addresses Einstein and his engagement with relativity, quantum mechanics, Nazism, nuclear weapons, philosophy, and technology, and raises basic questions about what it means to understand physics and its history.
Note: Expected to be omitted in 2005–06.

[Science A-43. Environmental Risks and Disasters]
Catalog Number: 6001
Göran Ekström
Half course (fall term). M., W., F., at 11, and a 90-minute weekly section to be arranged. EXAM GROUP: 4
An introduction to risks in the environment. Different types of hazards are analyzed and compared: natural disasters, such as tornados, earthquakes, and meteorite impacts; adverse health effects caused by exposure to radiation and toxic substances such as radon, asbestos, and arsenic; long-term effects due to environmental change, such as sea level rise and global warming. Emphasizes the basic physical principles controlling the hazardous phenomena and develops simple quantitative methods for making scientifically reasoned assessments of the threats posed by hazardous events, processes, and exposures. Discusses methods of risk mitigation and

sociological, psychological, and economic aspects of risk control and management.
Note: Expected to be given in 2005–06.

Science A-45. Reality Physics
Catalog Number: 4562
Gerald Gabrielse
Half course (spring term). M., W., 1–2:30, and a weekly section to be arranged. EXAM GROUP: 6, 7
What flows from electrical wall sockets, cell phones, and power lines? What are the risks? How do magnetic resonance imaging, X-rays, and CT scans take pictures within our bodies, and with what danger? What are the lasers that inhabit grocery store checkout counters and CD players? What are atomic clocks? How have they and GPS satellites revolutionized navigation for backpackers and ships? How does Einstein's famous formula describe the energy release from nuclei? What are nuclear reactors and nuclear waste? This quantitative study of the physics of daily life is intended to enable more informed choices in our society.

Science A-47. Cosmic Connections
Catalog Number: 6940
Lars Hernquist
Half course (fall term). M., W., F., at 10, and a weekly section to be arranged. EXAM GROUP: 3
This course will examine the origin and evolution of stars and planets, and will consider connections between astronomical events and the conditions that seem necessary for life to develop. The underlying theme is that humans are a part of an evolving Universe and that our presence is linked to the cosmos at large. To tell this story, we must talk about how the Earth and the Sun came about, and ultimately how the Milky Way and the Universe were created.

[Science A-49. The Physics of Music and Sound]
Catalog Number: 8987
Eric J. Heller
Half course (spring term). M., W., 1–2:30, and a weekly section to be arranged. EXAM GROUP: 6, 7
Sound and music are integral parts of all human cultures, and play critical roles in communications and social interactions. In this course, we explore the science of the production, transmission, and perception of sound, with the aim of expanding both scientific and artistic horizons. Topics will include the nature of vibrations, resonance, interference, harmony, dissonance, musical instruments, and human auditory response. Principles of physics are slowly worked into the course as topics arise. The mathematical background of students is assumed to be at the level of high school algebra and trigonometry.
Note: Expected to be given in 2005–06.

Science A-50. Invisible Worlds: Micro- and Nanothings. Science, Technology, and Public Policy
Catalog Number: 5565
George M. Whitesides and Mara Prentiss
Half course (fall term). M., W., F., at 10, and a weekly section to be arranged. EXAM GROUP: 3
What we perceive as "reality" is the best effort of our senses to interpret a deeper, largely

invisible, reality that is unnervingly strange. This course will survey the world of very small things, objects with dimensions of nanometers and micrometers. The behaviors of these objects are often entirely counterintuitive; they can also be quite useful. Micro- and nanostructures are the basis both of fundamentally new science, and of ubiquitous technologies: quantum dots, computers, the biological nanomotors that power muscle, buckyballs, tools for examining single mammalian cells, lasers. The course will describe these objects and how they function; it will also touch on issues of commercialization, economics, public policy, and ethics that spring from the avalanche of discovery and invention in this area.

Science A-52. Energy, Environment, and Industrial Development
Catalog Number: 1387
Frederick H. Abernathy and Michael B. McElroy
Half course (spring term). M., W., 1:30–3 and a weekly section to be arranged. EXAM GROUP: 6, 7
Uses the historical background of industrial development from the New England industrial revolution as the framework for studying the technical aspects of succeeding waves of industrial development. Study and understanding of the underlying technologies will develop the technical knowledge and computational skills to prepare citizens to make informed numerical estimates of energy use and environmental consequences of current and proposed energy and industrial systems. Principles of physics and chemistry are worked into the course as dictated by the topics. Students are expected to have a background of high school algebra and trigonometry.

Departmental courses that satisfy the Science A requirement

The following departmental courses may be taken to meet the Science A requirement. These courses are not necessarily designed for a general audience; they may assume prior experience or more than could be expected of students seeing the subject for the first time.
Chemistry 5. Introduction to Principles of Chemistry
Chemistry 7. Principles of Chemistry
Chemistry 15. Inorganic Chemistry
Chemistry 17. Principles of Organic Chemistry
Chemistry 20. Organic Chemistry
Chemistry 27. Organic Chemistry of Life
Chemistry 30. Organic Chemistry
Earth and Planetary Sciences 5. Introduction to Environmental Science: Atmosphere, Ocean, and Biosphere
Earth and Planetary Sciences 7. Introduction to Geological Sciences
Physics 11a. Mechanics
Physics 11b. Electricity, Magnetism, and Waves
Physics 15a. Introductory Mechanics and Relativity
Physics 15b. Introductory Electromagnetism
Physics 15c. Wave Phenomena
Physics 16. Mechanics and Special Relativity

The following departmental courses taken together may be used to meet the Science A requirement.

Physics 1a. Principles of Physics: Mechanics
Physics 1b. Principles of Physics: Electricity and Magnetism, Circuits and Optics

Science B

Science B-23. The Human Organism
Catalog Number: 6581
Joseph D. Brain (Public Health), Stephanie A. Shore (Public Health), and Richard L. Verrier (Medical School)
Half course (spring term). M., W., F., at 12, plus two two-hour laboratories and periodic section meetings to explore special topics in depth. EXAM GROUP: 5
The physiology and pathophysiology of the human body will be presented with special emphasis on cardiovascular, respiratory, endocrine, and reproductive biology. Besides learning human biology, students will identify critical determinants of their health as well as the health status of diverse communities. Topics include not only the normal functioning of these systems but also their responses to infection, injury, and environmental stress. Through lectures and laboratories, students will explore how their own body functions. The relative power of diagnosis and treatment of disease (medicine) versus primary prevention of disease (public health) in promoting health will be emphasized.
Note: Expected to be omitted in 2005–06.

Science B-27. Human Evolution
Catalog Number: 0470
Daniel E. Lieberman, David Pilbeam, and Maryellen Ruvolo
Half course (spring term). Tu., Th., 10–11:30, and a 90-minute weekly section to be arranged. EXAM GROUP: 12, 13
A survey of human evolution as a particular example of important issues in biological anthropology and evolutionary biology. Some principles of evolutionary theory, primate behavioral ecology, molecular evolution, and functional morphology are used to interpret the fossil record of the hominids (humans and their direct ancestors and collaterals), from hominid origins to the appearance of modern humans through to the present day. Emphasis is on the dynamic (behavioral, populational, and ecological) interpretation of the records.

Science B-29. Evolution of Human Nature
Catalog Number: 0152 Enrollment: Limited to 400.
Richard W. Wrangham and Marc D. Hauser
Half course (fall term). M., W., F., at 1 and a 90-minute weekly section/laboratory to be arranged. Additional meeting times for two required film showings to be announced. EXAM GROUP: 6
Human biology and behavior are considered in a broad evolutionary context, showing how the facts of development, physiology, neurobiology, reproduction, cognition, and especially behavior are informed by evolutionary theory and comparative evidence. Field and experimental data on other species are introduced with the aim of illuminating human behavior. Behavior is traced from its evolutionary function as adaptation, through its physiological basis and associated psychological mechanisms, to its expression. The role of ecology and social life in shaping human behavior is examined through the use of ethnographies and cross-cultural materials on a

variety of human cultures. Topics include basic genetics, neural and neuroendocrine systems, behavioral development, sex differences, kinship and mating systems, ecology, language, and cognition.

Science B-35. How to Build a Habitable Planet
Catalog Number: 7621
Charles H. Langmuir
Half course (spring term). Tu., Th., 1–2:30, and a weekly section to be arranged. EXAM GROUP: 15, 16
The steps involved in creation of our habitable planet: the Big Bang, origin of the elements, formation of minerals, origin of the solar system, formation of planets, origin of life, co-evolution of ocean, atmosphere, solid earth and biosphere, development of plate tectonics, operation of the modern whole earth system, and climate regulation. Finally we consider the arising of intelligent life that can understand and influence the planetary system, and whether Earth may be a microcosm reflecting laws of planetary evolution that are common to a class of planets throughout the universe, or alternatively may be a low probability accident.

Science B-40. The Biology of Trees and Forests
Catalog Number: 2635
Donald H. Pfister
Half course (spring term). Tu., Th., 11:30–1, and a weekly section/laboratory to be arranged. EXAM GROUP: 13, 14
Trees are prominent and important organisms in the ecosystem. By photosynthesis, trees convert carbon dioxide into organic molecules that are used as energy reserves and as structural components of these plants. Oxygen is also released. Trees, carbon cycling, and the greenhouse effect are intimately intertwined. This course uses trees as examples to explore several facets of plant biology as they relate to identification, growth, reproduction, physiology of transport, ecology, management, and use of plant products.
Note: Expected to be omitted in 2005–06.

[Science B-44. Vision and Brain]
Catalog Number: 4722
Patrick Cavanagh
Half course (fall term). M., W., 1–2:30, and a weekly section to be arranged. EXAM GROUP: 6, 7
Focuses on the mechanisms by which the brain understands the visual world. Topics include the nature of light in the environment, physical properties of the eye, techniques of depiction in art, structure and function of the normal visual system, and deficits arising from damage to the eye or the brain. The course will survey interdisciplinary material from physics, physiology, medicine, psychology, and art.
Note: Expected to be given in 2005–06.

[Science B-46. Molecular Biology and the Structure of Life]
Catalog Number: 3395
Gregory L. Verdine
Half course (fall term). M., W., F., at 9, and a 90-minute weekly section to be arranged. EXAM

GROUP: 2
Describes the applications of molecular biology to medicine, evolution, forensics, and biotechnology. Modern biology is based on a view of life in which a small set of key molecules—DNA, RNA, and proteins—play central roles. This view makes it possible to discuss a remarkable range of characteristics of living organisms using a common set of principles. Also considers the implications of molecular genetics and the human genome project.
Note: Expected to be given in 2005–06.

Science B-47. Molecules of Life
Catalog Number: 3330
Stuart L. Schreiber and Jon Clardy (Medical School)
Half course (fall term). Tu., Th., 10–11:30, and a weekly section to be arranged. EXAM GROUP: 12, 13
DNA, RNA, and proteins play central roles in life. By considering the relationships of these molecules, many of the foundations of life can be understood. Nevertheless, another family of molecules, named "small molecules," is key not only to understanding the principles and origins of life, but also to ensuring the highest quality of healthcare for humans. Small molecules are powerful probes of the circuitry of cells and the wiring of genomes. They are also the link between chemistry, biology, and medicine. These links, the principles of living organisms, and modern genomic medicine are explored.

[Science B-53. Marine Biology]
Catalog Number: 7050
Robert M. Woollacott
Half course (fall term). Tu., Th., 10–11:30, and a two-hour weekly section to be arranged. Three field trips will substitute for three weeks of section. EXAM GROUP: 12, 13
Explores the life histories and adaptations of marine life and the ecosystems of the sea. Centers on the complex interrelationships of organisms, the diversity of various habitats, reproductive strategies, and speciation as well as the interplay of currents, light, temperature, and nutrient supply on the distribution of life in the sea.
Note: Expected to be given in 2005–06.
Prerequisite: Secondary school biology.

Science B-57. Dinosaurs and Their Relatives
Catalog Number: 0793
Charles R. Marshall
Half course (spring term). Tu., Th., 11:30–1, and a weekly section to be arranged. EXAM GROUP: 13, 14
Comprehensive exploration of the biology, evolution, and extinction of the dinosaurs and their closest relatives. Through this exploration, core concepts in paleontology, evolutionary biology, and geology will be introduced. Weekly sections center on the examination of fossil material.

Science B-60. Origins of Knowledge
Catalog Number: 8280
Susan E. Carey and Elizabeth S. Spelke
Half course (fall term). M., W., F., at 11, and a weekly section to be arranged. EXAM GROUP: 4

This course explores the origins and development of knowledge in the human child, in relation to two larger time scales: biological evolution and historical/cultural change. Drawing on evidence from experimental, comparative, and developmental psychology, cultural anthropology, linguistics, cognitive neuroscience, and history of science, it focuses on knowledge development in the domains of number, space, mind, biology, physics, and language. Questions include: How does human biology constrain and support human cognition? How variable are human knowledge systems across different cultures and times? What aspects of knowledge are unique to humans? How does knowledge change as children grow and adults gain expertise?

Science B-62. The Human Mind
Catalog Number: 3167
Steven Pinker
Half course (spring term). Tu., Th., 1:30–3, and a weekly section to be arranged. EXAM GROUP: 15, 16
An introduction to the workings of the human psyche. The course will introduce major approaches to the study of the mind such as psychoanalysis, behaviorism, cognitive neuroscience, and evolutionary psychology; controversies such as nature-nurture, consciousness, and free will; and specific topics such as perception, reasoning, language, emotion, sexuality, cooperation, love, violence, humor, beauty, religion, and the self. Research from numerous disciplines will be discussed: primarily scientific psychology, but also neuroscience, genetics, evolution, artificial intelligence, philosophy, and the social sciences.

Departmental courses that satisfy the Science B requirement

The following departmental courses may be taken to meet the Science B requirement. These courses are not necessarily designed for a general audience; they may assume prior experience or more than could be expected of students seeing the subject for the first time.
Biological Sciences 50. Genetics and Genomics
Biological Sciences 51. Integrative Biology of Organisms
Biological Sciences 52. Introductory Molecular Biology
Biological Sciences 53. Evolutionary Biology
Biological Sciences 54. Introductory Cell Biology
Biological Sciences 57. Animal Behavior
Biological Sciences 80. Behavioral Neuroscience
Earth and Planetary Sciences 6. Introduction to Environmental Science: The Solid Earth
Earth and Planetary Sciences 8. History of the Earth
Engineering Sciences 6. Environmental Science and Technology
OEB 124 (formerly Biology 124). Biology of Plants

Social Analysis

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

The common aim of courses in Social Analysis is to acquaint students with some of the central concepts and methods of the social sciences and to show how these approaches can enhance our understanding of contemporary human behavior. Social Analysis courses are not intended to provide a survey of a particular discipline, but rather to show how, by the use of formal theories

that are systematically related to empirical data, one can better understand the application of analytical methods to important problems involving the behavior of people and institutions.

Social Analysis

Social Analysis 10. Principles of Economics
Catalog Number: 3660
Martin Feldstein, Silvia Ardagna, and members of the Economics Department
Full course (indivisible). M., W., F., at 12. Sections also meet at 9, 10, 11, 12, 1, or 2. EXAM GROUP: 5
Introduction to economic issues and basic economic principles and methods. Fall term focuses on labor and financial markets, taxation, and social economic issues of health care, poverty, the environment, and income distribution. Spring term focuses on the impact of both monetary and fiscal policy on inflation, unemployment, interest rates, investment, the exchange rate, and international trade. Studies role of government in the economy, including Social Security, the tax system, and economic change in Eastern Europe, Latin America, and Asia.
Note: Must be taken as a full course. Taught in a mixture of lectures and small sections. No calculus is used, and there is no mathematics background requirement. Designed for both potential economics concentrators and those who plan no further work in the field. The Department of Economics strongly encourages students considering concentration to take this course in their freshman year. This is a required course for all economics concentrators and a prerequisite for higher level courses in economics.

Social Analysis 28. Culture, Illness, and Healing: An Introduction to Medical Anthropology
Catalog Number: 4247
Arthur Kleinman
Half course (spring term). Tu., Th., at 10 and a weekly section to be arranged. EXAM GROUP: 12
An inquiry into the role of health and medicine in society that demonstrates how anthropological analysis can be applied to the study of illness and care. Compares medical systems across societies to understand the experience and treatment of sickness. Analyzes how practitioners and patients construe sickness and suffering as distinctive social realities, and how those realities are organized in local cultural systems. Assesses varieties of suffering as social phenomena in order to appreciate the social sources of global social problems, the cross-cultural variety of illness experiences, the reform of services, and the global moral and political-economic crisis in health care.
Note: Expected to be omitted in 2005–06.

Social Analysis 34. Knowledge of Language
Catalog Number: 2069
Cedric Boeckx
Half course (fall term). M., W., at 1, and a weekly section to be arranged. EXAM GROUP: 6
What does our ability to acquire and use a language tell us about our essential human nature? This course examines the view of modern linguistics that knowledge of language is best characterized as an unconsciously internalized set of abstract rules and principles. Evidence is drawn from a variety of signed and spoken languages, language universals, child language

acquisition, language change, language disorders, and language games. The course also addresses central issues in psycholinguistics, sociolinguistics, and speech recognition.

Social Analysis 36. Religion and Modernization: Cultural Revolutions and Secularism
Catalog Number: 2027
Nur Yalman
Half course (fall term). M., W., F., at 11, and a weekly section to be arranged. EXAM GROUP: 4
Theoretical studies on major social and ideological changes concerning religion in modern society with special reference to France, Russia, repercussions in Asia (Hinduism, Buddhism) and the Middle East (Islam). Changes in intellectual attitudes in France and the French Revolution. The Enlightenment, the Russian and Turkish Revolutions, and religious revivalism in Iran are considered. Comparative studies from India and Sri Lanka. Marxist and structuralist theories concerning religion are examined in historical contexts. Students can specialize in regions and topics.
Note: Expected to be omitted in 2005–06.

Social Analysis 43. Psychological Trauma
Catalog Number: 9983
Richard J. McNally
Half course (spring term). M., W., at 1, and a weekly section to be arranged. EXAM GROUP: 6
Few topics in contemporary American culture have sparked as much controversy as has psychological trauma. Although clinical interest in trauma waxed and waned since the 1890s when Freud proposed that people repress memories of childhood sexual assault, interest has markedly increased since 1980 when the American Psychiatric Association ratified the diagnosis of posttraumatic stress disorder (PTSD) to describe the problems of troubled combat veterans of the Vietnam War. The purpose of this course is to survey the clinical, historical, cultural, and political aspects of psychological trauma.

[Social Analysis 46. Thinking about Politics: A Rational Choice Approach]
Catalog Number: 3544
Kenneth A. Shepsle
Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
A commonsensical survey of rational theories of politics, comprised of four segments: (1) individual choice, (2) group choice, (3) collective action, and (4) institutions. The underlying theme is that politics may be described and understood in terms of rational, goal-seeking behavior by citizens, politicians, bureaucrats, and interest groups in various institutional settings. Students are encouraged to think deeply and with sophistication about current events, history, and public life generally, as well as to analyze the politics of private life—in families, clubs, firms, churches, universities, even Harvard Houses—since private politics, like public politics, may be understood in terms of rational behavior.
Note: Expected to be given in 2005–06.

Social Analysis 50. Urban Revolutions: Archaeology and the Investigation of Early States
Catalog Number: 4409
C. C. Lamberg-Karlovsky

Half course (fall term). Tu., Th., at 10, and a 90-minute weekly section to be arranged. EXAM GROUP: 12
Examines the development and structure of the earliest state-level societies in the ancient world. Archaeological approaches are used to analyze the major factors behind the processes of urbanization and state formation in Mesopotamia, Egypt, Central Asia, the Indus Valley, and Mesoamerica. The environmental background as well as the social, political, and economic characteristics of each civilization are compared to understand the varied forces that were involved in the transitions from village to urbanized life. Discussion sections utilize archaeological materials from the Peabody Museum and Semitic Museum collections to study the archaeological methods used in the class.
Note: No previous knowledge of archaeology is necessary.

[Social Analysis 52. The Political Economy of Development]
Catalog Number: 1879
Robert H. Bates
Half course (fall term). M., W., (F.), at 1, and a weekly section to be arranged. EXAM GROUP: 6
Growth and development imply a transformation in the politics and economics of nations. How does this transformation take place? What economic forces and political struggles propel it? Drawing on anthropology, political science, and economics, the course explores the process of urbanization, state formation, war-making, and development.
Note: Expected to be given in 2005–06.

Social Analysis 54. American Society and Public Policy
Catalog Number: 6661
Theda Skocpol and Mary C. Waters
Half course (spring term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 4
How do social problems get redefined over time; why do they appear differently to various groups; and how are public policies about problematic social conditions debated, devised, and changed? Looking over modern US history, this course combines demographic data on societal trends, ethnographic data on people's everyday lives and outlooks, and evidence about changing institutional structures. This combination of approaches often pursued separately in the social sciences is used to explore recurrent yet shifting controversies about the well-being of families and children, about immigration and citizenship, and about access to health care in the US.

Social Analysis 66. Race, Ethnicity, and Politics in the United States
Catalog Number: 0916
Jennifer L. Hochschild
Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
How are racial divisions and American political structures related? Is racial/ethnic hierarchy built into American politics so deeply that the nation must change dramatically to eradicate it? Or is racial/ethnic hierarchy a flaw in an essentially fair society that we can eradicate without major dislocation? Half of the course addresses this set of questions. How do African Americans, Anglos, Latinos, and Asian Americans relate to one another? The second half of the course considers interracial coalitions, identity politics, multiracialism, and the history of particular

racial or ethnic groups. We conclude with several visions of racial and ethnic politics in America's future.

[Social Analysis 68. Race, Class, and Poverty in Urban America]
Catalog Number: 7451
William Julius Wilson
Half course (spring term). Hours to be arranged.
The purpose of this course is to familiarize students with some of the major empirical, theoretical, and social policy issues concerning race, class, and urban poverty in America. The focus is on contemporary society, but the course provides an historical context for understanding how current patterns of urban inequality have evolved.
Note: Expected to be given in 2006–07.

Social Analysis 70. Food and Culture
Catalog Number: 3940
James L. Watson
Half course (spring term). M., W., at 10, and a weekly section to be arranged. EXAM GROUP: 3
Food is examined for its social and cultural implications; nutritional or dietetic concerns are of secondary interest. Topics include food taboos and restrictions, gift giving and reciprocity, food symbolism and social boundaries, food panics, globalization of food industries, and the world standardization of food preferences. Examples are drawn from China, Japan, Korea, India, Latin America, Africa, Europe, the Pacific, and the US.

Social Analysis 72. Economics: A Critical Approach
Catalog Number: 1885
Stephen A. Marglin
Half course (fall term). M., W., 2–3:30, and a weekly section to be arranged. EXAM GROUP: 7, 8
This course critically examines the assumptions of modern economics and how these assumptions mold the ideas and conclusions of the discipline. A recurrent question is the appropriate scope of the market. Examples will be drawn from both microeconomics and macroeconomics, including minimum wage and "living wage" legislation, health care, the environment, international trade, social security, and macroeconomic stabilization.
Note: Primarily taught in lectures, with section meetings offering a chance both to clarify concepts and to discuss applications. Calculus is not used, and there is no mathematics prerequisite. Unlike Social Analysis 10, this course does not fulfill the introductory course requirement for the Economics Department. Moreover, most upper level courses in Economics normally require Social Analysis 10 as a prerequisite; without this prerequisite, enrollment is at the discretion of the instructor. This course is open to students with no previous coursework in economics and to students who have completed or are enrolled concurrently in Social Analysis 10.

Social Analysis 74. Visible Language: Writing Systems, Scripts, and Literacy
Catalog Number: 3835
John Huehnergard
Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP:

13
Cn u rd ths? Why? How is it possible to record speech and thoughts in visible form, and to understand what others have recorded? Writing may be the most important human invention, yet it has been invented only a handful of times. We will investigate how writing represents speech and thought in visual form, origins of writing five millennia ago, types of writing (pictographic, syllabic, alphabetic), decipherment, the cultural impact of literacy. We will consider scripts such as Mesopotamian cuneiform, Egyptian hieroglyphs, Chinese, Mayan glyphs, Japanese, Korean, recently-invented scripts, and alphabets, including our own, that arose from Semitic consonant systems.

Social Analysis 76. Global Health Challenges
Catalog Number: 2178
Christopher Murray (Public Health)
Half course (fall term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 3
Social Analysis 76 explores the main challenges for improving global health. Section 1 outlines global health problems and trends, health inequalities within countries, and concepts, definitions and measurement of health. Section 2 explores major diseases and risk factors including basic biology, individual, social, economic and cultural factors, and strategies to tackle the problem. Section 3 studies systemic factors that determine how societies deal with these challenges including financing of health systems, human resource, quality of care, regulation and accountability systems. Section 4 explores global actors and mechanisms such as the United Nations system, trade negotiations, and intellectual property rights.

Social Analysis 78. Globalization and Its Critics
Catalog Number: 4359
Michael J. Sandel and Lawrence H. Summers
Half course (spring term). M., 2–4 and a weekly section to be arranged. EXAM GROUP: 7, 8
The course explores the economic, political, and cultural aspects of globalization. It examines the consequences of globalization for poverty and development, labor and the environment, national sovereignty, international conflict, political identity, cultural diversity, and democratic governance. It considers competing perspectives on issues such as outsourcing, free trade versus protectionism, the relation between democracy and capitalism, and the backlash against globalization.

Departmental courses that satisfy the Social Analysis requirement

The following departmental courses may be taken to meet the Social Analysis requirement. These courses are not necessarily designed for a general audience; they may assume prior experience or more than could be expected of students seeing the subject for the first time.
Economics 1010a. Microeconomic Theory
Economics 1010b. Macroeconomic Theory
Economics 1011a. Microeconomic Theory
Economics 1011b. Macroeconomic Theory

Freshman Seminars and General Education Electives

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Freshman Seminars

Benedict H. Gross, George Vasmer Leverett Professor of Mathematics and Dean of Harvard College *(Chair)*
Julie A. Buckler, Professor of Slavic Languages and Literatures
Gerard Francis Denault, Associate Director of the Freshman Seminar Program *(ex officio)*
Elizabeth Doherty, Senior Lecturer on Social Studies and Associate Dean for Academic Programs *(ex officio)*
Joseph C. Harris, Francis Lee Higginson Professor of English Literature and Professor of Folklore
John W. Hutchinson, Abbott and James Lawrence Professor of Engineering and Gordon McKay Professor of Applied Mechanics *(on leave fall term)*
David I. Laibson, Professor of Economics
Daniel E. Lieberman, Professor of Anthropology
Lisa L. Martin, Clarence Dillon Professor of International Affairs *(on leave fall term)*
Sandra Naddaff, Senior Lecturer on Literature *(Director of the Freshman Seminar Program, ex officio)*

Other Faculty Offering Instruction in the Freshman Seminar Program

Arthur I. Applbaum, Professor of Ethics and Public Policy *(Kennedy School)*
Nima Arkani-Hamed, Professor of Physics
David R. Armitage, Professor of History
Ali S. Asani, Professor of the Practice of Indo-Muslim Languages and Cultures
Paul G. Bamberg, Senior Lecturer on Mathematics
Julia Bekman Chadaga, Lecturer on History and Literature
Sacvan Bercovitch, Powell M. Cabot Research Professor of American Literature
Sadhana Bery, Lecturer on Social Studies
Deborah L. Blacker, Associate Professor of Epidemiology *(Medical School)*
Jonathan H. Bolton, Assistant Professor of Slavic Languages and Literatures
Sue Brown, Associate Professor of Slavic Languages and Literatures
Rory A. W. Browne, Lecturer on History and Literature
Peter Buck, Senior Lecturer on the History of Science
Julie A. Buckler, Professor of Slavic Languages and Literatures
Audrey H. Budding, Lecturer on Social Studies
Davíd L. Carrasco, Neil L. Rudenstine Professor for the Study of Latin America in the Faculty of Divinity and the Faculty of Arts and Sciences

Arachu Castro, Assistant Professor of Medical Anthropology *(Medical School)*
Oona Britt Ceder, Lecturer on Social Studies
Alexander Cohen, Assistant Professor of Social Medicine *(Medical School)*
Marjorie B. Cohn, Senior Lecturer on History of Art and Architecture
Richard N. Cooper, Maurits C. Boas Professor of International Economics *(on leave spring term)*
Leo Damrosch, Harvard College Professor and Ernest Bernbaum Professor of Literature
Sarah Dix, Lecturer on Social Studies
Frank Dobbin, Professor of Sociology
Elizabeth Doherty, Senior Lecturer on Social Studies and Associate Dean for Academic Programs
Kathleen Donohue, Assistant Professor of Biology
Jonathan R. Eastwood, Lecturer on Social Studies
Noam D. Elkies, Professor of Mathematics
Paul Farmer, The Maude and Lillian Presley Professor of Social Medicine *(Medical School)*
William L. Fash, Bowditch Professor of Central American and Mexican Archaeology and Ethnology
Jan L. Feldman, Visiting Associate Professor of Social Studies *(University of Vermont)*
Philip J. Fisher, Felice Crowl Reid Professor of English and American Literature
Rena Fonseca, Lecturer on History and Literature
David R. Foster, Senior Lecturer on Biology
Robert France, Adjunct Associate Professor of Landscape Ecology *(Design School)*
Paul Aaron Garfinkel, Lecturer on History and Literature
Laura Garwin, Lecturer on Molecular and Cellular Biology
Susanne J. Goldie, Associate Professor of Health Decision Science *(Public Health)*
Claudia Goldin, Henry Lee Professor of Economics
Jene A. Golovchenko, Gordon McKay Professor of Applied Physics and Professor of Physics
Virginie Greene, John L. Loeb Associate Professor of the Humanities
Jerome Elliot Groopman, Dina and Raphael Recanati Professor of Medicine *(Medical School)*
Karl S. Guthke, Kuno Francke Professor of German Art and Culture *(on leave fall term)*
Peter Dobkin Hall, Lecturer on History
Jay M. Harris, Harvard College Professor and Harry Austryn Wolfson Professor of Jewish Studies
Joseph C. Harris, Francis Lee Higginson Professor of English Literature and Professor of Folklore
J. Woodland Hastings, Paul C. Mangelsdorf Professor of Natural Sciences
Dudley R. Herschbach, Frank B. Baird, Jr. Research Professor of Science
Evelyn Brooks Higginbotham, Victor S. Thomas Professor of History and of African and African American Studies
Jennifer Eve Hoffman, Assistant Professor of Physics
N. Michele Holbrook, Charles Bullard Professor of Forestry
David H. Hubel, Research Professor of Neurobiology *(Medical School)*
John P. Huchra, Robert O. and Holly Thomis Doyle Professor of Cosmology
John Huehnergard, Professor of Semitic Philology
Steven E. Hyman, Professor of Neurobiology *(Medical School)* and Provost of Harvard University
Francis Abiola Irele, Visiting Professor of African and African American Studies and of

Romance Languages and Literatures *(Ohio State University)*
Jay Jasanoff, Diebold Professor of Indo-European Linguistics and Philology
Laura K. Johnson, Lecturer on History and Literature
William Klemperer, Erving Research Professor of Chemistry
James T. Kloppenberg, Harvard College Professor and David Woods Kemper '41 Professor of American History
Jeremy R. Knowles, Harvard University Distinguished Service Professor and Amory Houghton Professor of Chemistry and Biochemistry
Courtney Bickel Lamberth, Lecturer on the Study of Religion
Jennifer Leaning, Professor of International Health *(Public Health)*
Myron Lecar, Lecturer on Astronomy
Jill M. Lepore, Professor of History
Jonathan Ian Levy, Assistant Professor of Environmental Health and Risk Assessment *(Public Health)*
Stanley Lieberson, Abbott Lawrence Lowell Professor of Sociology *(on leave spring term)*
Kevin J. Madigan, Associate Professor of the History of Christianity *(Divinity School)*
L. Mahadevan, Gordon McKay Professor of Applied Mathematics and Mechanics
James N. Mancall, Lecturer on History and Literature
Avi Matalon, Assistant Professor of Near Eastern Languages and Civilizations
José Antonio Mazzotti, Gardner Cowles Associate Professor of Romance Languages and Literatures
Maureen N. McLane, Lecturer on History and Literature
Jens Meierhenrich, Lecturer on Government, Contin Ed/Spec Prog Instructor
David J. Meskill, Lecturer on Social Studies
Ann-Marie Mikkelsen, Lecturer on History and Literature
Ralph Mitchell, Gordon McKay Professor of Applied Biology *(on leave spring term)*
Nancy Mitchnick, Rudolf Arnheim Lecturer on Studio Arts
Robb Moss, Rudolf Arnheim Lecturer on Filmmaking
Andrew R. Muldoon, Lecturer on History and Literature
Megan Blanche Murray, Assistant Professor of Epidemiology *(Public Health)*
Afsaneh Najmabadi, Professor of History and of Studies of Women, Gender, and Sexuality
Gesemia Nelson, Lecturer on Sociology
Nicole Dejong Newendorp, Lecturer on Social Studies
Joanna Nizynska, Assistant Professor of Slavic Languages and Literatures
John T. O'Keefe, Lecturer on History and Literature
Judith Palfrey, T. Berry Brazelton Professor of Pediatrics *(Medical School)*
Gloria Pastorino, Lecturer on History and Literature
John M. Picker, Assistant Professor of English and American Literature and Language
David Pilbeam, Henry Ford II Professor of the Social Sciences
Samantha J. Power, Lecturer on Government
Michael Robin Reich, Taro Takemi Professor of International Health Policy *(Public Health)*
Alan Richardson, Visiting Professor of English and American Literature and Language *(Boston College)*
Amelie Rorty, Visiting Professor of Social Studies *(Yale University)*
Charles E. Rosenberg, Ernest E. Monrad Professor of the Social Sciences
Robert J. Sampson, Henry Ford II Professor of the Social Sciences

Stephanie Sandler, Professor of Slavic Languages and Literatures
Elaine Scarry, Walter M. Cabot Professor of Aesthetics and the General Theory of Value
Daniel L. Schacter, William R. Kenan, Jr. Professor of Psychology
Steven Shapin, Franklin L. Ford Professor of the History of Science *(on leave spring term)*
Gwendolyn DuBois Shaw, Assistant Professor of History of Art and Architecture and of African and African American Studies
Kay Kaufman Shelemay, G. Gordon Watts Professor of Music and Professor of African and African American Studies
Stuart M. Shieber, Harvard College Professor and James O. Welch, Jr. and Virginia B. Welch Professor of Computer Science
Anne C. Shreffler, James Edward Ditson Professor of Music
Cindy Skach, Assistant Professor of Government
P. Oktor Skjaervo, Aga Khan Professor of Iranian *(on leave fall term)*
Christine Smith, Robert C. and Marian K. Weinberg Professor of Architectural History *(Design School)*
William A. Stein, Benjamin Peirce Assistant Professor of Mathematics
Sarah Stewart-Mukhopadhyay, Assistant Professor of Planetary Science
Philip Stone, Professor of Psychology
Christopher Stubbs, Professor of Physics and of Astronomy
Maureen E. Sullivan, Visiting Assistant Professor of Social Studies *(Northern Illinois University)*
Maria Tatar, Harvard College Professor, John L. Loeb Professor of Germanic Languages and Literatures and Dean for Humanities
Richard F. Thomas, Professor of Greek and Latin
Gary Urton, Dumbarton Oaks Professor of Pre-Columbian Studies
Farzin Vahdat, Lecturer on Social Studies
Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies
Helen Vendler, Arthur Kingsley Porter University Professor
Rubie S. Watson, Senior Lecturer on Anthropology
Adam Webb, Lecturer on Social Studies
Daniel I. Wikler, Professor of Population and International Health *(Public Health)*
Endymion Porter Wilkinson, Lecturer on East Asian Languages and Civilizations
Richard Wilson, Mallinckrodt Professor of Physics, *Emeritus*
Ruth R. Wisse, Harvard College Professor, Martin Peretz Professor of Yiddish Literature, and Professor of Comparative Literature
Jeffrey Wolcowitz, Senior Lecturer on Economics and Associate Dean of Harvard College

Other Faculty Offering Instruction in General Education Electives and House Seminars

Donald M. Berwick, Associate Professor in the Department of Health Policy and Management (*Public Health*) and Clinical Professor of Pediatrics and Health Care Policy in the Department of Pediatrics (*Medical School)*
David Blumenthal, Samuel O. Thier Professor of Medicine *(Medical School)*
Richard G. Frank, Margaret T. Morris Professor of Health Economics *(Medical School)*
Howard H. Hiatt, Professor of Social Medicine (*Medical School*) and Professor of Medicine (*Public Health*)

Joseph P. Kalt, Ford Foundation Professor of International Political Economy *(Kennedy School) (on leave 2004-2005)*
Shahram Khoshbin, Associate Professor of Neurology *(Medical School)*
Clifford Lo, Assistant Professor of Pediatrics (*Medical School*) and Assistant Professor of Nutrition (*Public Health*)
Armand M. Nicholi II, Associate Clinical Professor of Psychiatry *(Medical School)*
Anthony G. Oettinger, Gordon McKay Professor of Applied Mathematics and Professor of Information Resources Policy *(on leave 2004-05)*
Warner V. Slack, Professor of Medicine *(Medical School)*

Freshman Seminars

Students entering Harvard College with freshman standing may apply for a freshman seminar during the first two terms of residence. Freshman Seminars may not be audited. For a complete description of the Freshman Seminar Program and 2004-05 offerings, please consult the current Freshman Seminar catalog. Catalogs may be obtained from the Freshman Seminar Office, 6 Prescott Street, Cambridge, MA 02138 (telephone: 617-495-1523; email: seminars@fas.harvard.edu). Additional information can be obtained from the Freshman Seminar website: www.fas.harvard.edu/~seminars.

Freshman Seminars 2004-05

***Freshman Seminar 21j. Human Evolution**
Catalog Number: 0746 Enrollment: Limited to 12.
David Pilbeam
Half course (fall term). Tu., 1:30–3:30.
Note: Open to Freshmen only.

***Freshman Seminar 21o. The Neurophysiology of Visual Perception**
Catalog Number: 7584 Enrollment: Limited to 12.
David H. Hubel (Medical School)
Half course (spring term). Tu., 2–5.
Note: Open to Freshmen only. Meets at Medical School.

***Freshman Seminar 21s. Germs**
Catalog Number: 2067 Enrollment: Limited to 12.
Ralph Mitchell
Half course (fall term). W., 1–4.
Note: Open to Freshmen only.

***Freshman Seminar 21u. Calculating Pi**
Catalog Number: 4737 Enrollment: Limited to 12.
Paul G. Bamberg
Half course (fall term). W., 3–6.
Note: Open to Freshmen only.

***Freshman Seminar 21w. Research at the Harvard Forest**
Catalog Number: 0060 Enrollment: Limited to 11.
David R. Foster
Half course (spring term). Hours to be arranged.
Note: Open to Freshmen only. Four weekends at the Harvard Forest in Petersham, MA to be arranged.

***Freshman Seminar 21x. Galaxies and the Universe**
Catalog Number: 4075 Enrollment: Limited to 12.
John P. Huchra
Half course (fall term). M., 2:20–5:20.
Note: Open to Freshmen only.

***Freshman Seminar 22e. Molecular Motors and Pumps**
Catalog Number: 6565 Enrollment: Limited to 12.
Dudley R. Herschbach
Half course (spring term). Th., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 22j. Seeing by Spectroscopy**
Catalog Number: 4039 Enrollment: Limited to 12.
William Klemperer
Half course (spring term). W., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 22k. Can Machines Think? The Turing Test and the Possibility of Natural-Language Interaction with Computers**
Catalog Number: 1997 Enrollment: Limited to 12.
Stuart M. Shieber
Half course (spring term). Th., 2:30-5:30, and occasional meetings at other times.
Note: Open to Freshmen only.

***Freshman Seminar 22n. Addiction**
Catalog Number: 1801 Enrollment: Limited to 12.
Steven E. Hyman
Half course (fall term). Tu., 1–3:30.
Note: Open to Freshmen only.

***Freshman Seminar 22u. The Genome and Society**
Catalog Number: 9509 Enrollment: Limited to 12.
Laura Garwin
Half course (spring term). M., 3–6.
Note: Open to Freshmen only.

***Freshman Seminar 22x. Bioluminescence**
Catalog Number: 9569 Enrollment: Limited to 12.

J. Woodland Hastings
Half course (fall term). M., 5–7:30 pm.
Note: Open to Freshmen only.

***Freshman Seminar 22z. Quantitative Methods in Public Policy Decisions**
Catalog Number: 8839 Enrollment: Limited to 12.
Richard Wilson
Half course (fall term). W., 2:30–5:45.
Note: Open to Freshmen only.

***Freshman Seminar 23g. Darwin's Finches**
Catalog Number: 1902 Enrollment: Limited to 12.
Kathleen Donohue
Half course (fall term). Tu., 2–5.
Note: Open to Freshmen only.

***Freshman Seminar 23j. Chess and Mathematics**
Catalog Number: 5445 Enrollment: Limited to 12.
Noam D. Elkies
Half course (fall term). M., 2–5.
Note: Open to Freshmen only.

***Freshman Seminar 23k. Writing the Narrative of Illness**
Catalog Number: 1904 Enrollment: Limited to 12.
Jerome Elliot Groopman (Medical School)
Half course (spring term). Th., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 23p. When Antibiotics Fail: From Sore Throats to Tuberculosis to Anthrax**
Catalog Number: 4133 Enrollment: Limited to 12.
Jeremy R. Knowles
Half course (spring term). Th., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 23s. The Seven Sins of Memory**
Catalog Number: 8910 Enrollment: Limited to 12.
Daniel L. Schacter
Half course (spring term). M., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 23y. Applied Microfluidics: Structure, Function, and Evolution of Trees**
Catalog Number: 5848 Enrollment: Limited to 12.
N. Michele Holbrook

Half course (fall term). M., 1–5.
Note: Open to Freshmen only.

***Freshman Seminar 24e. The Physics and Applied Physics Freshman Research Laboratory**
Catalog Number: 3573 Enrollment: Limited to 12.
Jene A. Golovchenko
Half course (spring term). Tu., Th., 3:30–5.
Note: Open to Freshmen only.

***Freshman Seminar 24g. Fermat's Last Theorem**
Catalog Number: 5475 Enrollment: Limited to 12.
William A. Stein
Half course (fall term). F., 1–4.
Note: Open to Freshmen only.

***Freshman Seminar 24j. Planets Around Other Stars**
Catalog Number: 2697 Enrollment: Limited to 12.
Myron Lecar
Half course (fall term). Tu., 4:30–6:30.
Note: Open to Freshmen only.

***Freshman Seminar 24k. Building a Scanning Tunneling Microscope**
Catalog Number: 0624 Enrollment: Limited to 8.
Jenny Hoffman
Half course (spring term). Tu., Th., at 1 with laboratory sessions Tu., Th., 2–4. . EXAM GROUP: 15
Note: Open to Freshmen only.

***Freshman Seminar 24n. Child Health in America**
Catalog Number: 6367 Enrollment: Limited to 12.
Judith Palfrey (Medical School)
Half course (fall term). M., 4–6.
Note: Open to Freshmen only.

***Freshman Seminar 24p. How Epidemics Happen**
Catalog Number: 6489 Enrollment: Limited to 12.
Megan Murray (School of Public Health)
Half course (fall term). M., 3:30–6.
Note: Open to Freshmen only.

***Freshman Seminar 24s. AIDS in the Caribbean**
Catalog Number: 0308 Enrollment: Limited to 12.
Arachu Castro (Medical School) and Paul Farmer (Medical School)
Half course (spring term). Tu., 7–9:30 pm.
Note: Open to Freshmen only.

***Freshman Seminar 24t. Water on Mars**
Catalog Number: 6360 Enrollment: Limited to 12.
Sarah Stewart-Mukhopadhyay
Half course (fall term). W., 3–5:30.
Note: Open to Freshmen only.

***Freshman Seminar 24u. The Science of Everyday Life**
Catalog Number: 6667 Enrollment: Limited to 12.
L. Mahadevan
Half course (spring term). W., 1–4.
Note: Open to Freshmen only.

***Freshman Seminar 24w. Health and the Poor: Analytic Tools for Decision Makers**
Catalog Number: 3254 Enrollment: Limited to 12.
Susanne J. Goldie (Public Health)
Half course (fall term). W., 4–6.
Note: Open to Freshmen only.

***Freshman Seminar 24x. Global Mental Health**
Catalog Number: 7270 Enrollment: Limited to 12.
Alexander Cohen (Medical School)
Half course (fall term). Tu., 3–5.
Note: Open to Freshmen only.

***Freshman Seminar 24y. Pharmaceuticals and Global Health**
Catalog Number: 8729 Enrollment: Limited to 12.
Michael Robin Reich (Public Health)
Half course (fall term). M., 4:30–6:30.
Note: Open to Freshmen only.

***Freshman Seminar 24z. The Hidden Universe: Dark Matter, Dark Energy, and Extra Dimensions**
Catalog Number: 9264 Enrollment: Limited to 12.
Christopher Stubbs and Nima Arkani-Hamed
Half course (spring term). Hours to be arranged.
Note: Open to Freshmen only.

***Freshman Seminar 32n. Renewal of Poetry in the Hispanic World: Vallejo, Huidobro, Neruda, and Paz**
Catalog Number: 2718 Enrollment: Limited to 12.
José Antonio Mazzotti
Half course (fall term). Th., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 32p. Charles Dickens**
Catalog Number: 4256 Enrollment: Limited to 12.

John M. Picker
Half course (fall term). Th., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 32w. African Musical Traditions**
Catalog Number: 2465 Enrollment: Limited to 12.
Kay Kaufman Shelemay
Half course (fall term). M., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 32x. Topics in Indo-Tibetan Buddhism**
Catalog Number: 2937 Enrollment: Limited to 12.
Leonard W. J. van der Kuijp
Half course (fall term). W., 1–4.
Note: Open to Freshmen only.

Freshman Seminar 32y. Goethe's *Faust
Catalog Number: 0139 Enrollment: Limited to 12.
Karl S. Guthke
Half course (spring term). M., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 33s. Rebellion, Violence, and Symbols of Grace: Religious Themes in American Literature**
Catalog Number: 4224 Enrollment: Limited to 12.
Courtney Bickel Lamberth
Half course (fall term). Th., 1–3.
Note: Open to Freshmen only.

Freshman Seminar 33x. Complexity in Works of Art: *Ulysses* and *Hamlet
Catalog Number: 6673 Enrollment: Limited to 12.
Philip J. Fisher
Half course (fall term). Tu., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 34g. Saint Peter's and the Vatican from Antiquity to the Baroque**
Catalog Number: 8796 Enrollment: Limited to 12.
Christine Smith (Design School)
Half course (spring term). M., 1–4.
Note: Open to Freshmen only.

***Freshman Seminar 34p. Literature and the Possibility of Justice**
Catalog Number: 9604 Enrollment: Limited to 12.
Avi Matalon
Half course (fall term). Th., 3–5:30.
Note: Open to Freshmen only.

***Freshman Seminar 34w. American Biography**
Catalog Number: 9773 Enrollment: Limited to 12.
Laura K. Johnson
Half course (spring term). M., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 34x. Language and Prehistory**
Catalog Number: 9905 Enrollment: Limited to 12.
Jay Jasanoff
Half course (fall term). M., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 35g. Jean-Jacques Rousseau**
Catalog Number: 8897 Enrollment: Limited to 12.
Leo Damrosch
Half course (fall term). W., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 35w. Language, Sex, and Culture**
Catalog Number: 2788 Enrollment: Limited to 12.
Sue Brown
Half course (fall term). M., 2–5.
Note: Open to Freshmen only.

***Freshman Seminar 36g. The Grail and the Rise of Fiction**
Catalog Number: 5130 Enrollment: Limited to 12.
Virginie Greene
Half course (spring term). Th., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 36n. Portrait of the Artist: Issues of Biography and Art History**
Catalog Number: 1232 Enrollment: Limited to 12.
Gwendolyn DuBois Shaw
Half course (spring term). Th., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 36p. Film and Autobiography**
Catalog Number: 2394 Enrollment: Limited to 12.
Robb Moss
Half course (fall term). Tu., 1–4, Th., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 36s. Provocative Truths: The Role of the Fool in European Drama**
Catalog Number: 2562 Enrollment: Limited to 12.
Gloria Pastorino

Half course (fall term). Tu., 2–5.
Note: Open to Freshmen only.

***Freshman Seminar 36w. Tribal Memories: Myth, Epic, and History**
Catalog Number: 7842 Enrollment: Limited to 12.
P. Oktor Skjaervo
Half course (spring term). Th., 3–5.
Note: Open to Freshmen only.

***Freshman Seminar 36z. Utopia and Anti-Utopia**
Catalog Number: 6375 Enrollment: Limited to 12.
Francis Abiola Irele (Ohio State University)
Half course (fall term). Tu., 4–6.
Note: Open to Freshmen only. First meeting Monday, September 20, 3–5 in Emerson 108.

***Freshman Seminar 37g. The Simple Art of Murder**
Catalog Number: 5929 Enrollment: Limited to 12.
James N. Mancall
Half course (spring term). Th., 3–5.
Note: Open to Freshmen only.

Freshman Seminar 37p. Reading Tolstoy's *War and Peace
Catalog Number: 3826 Enrollment: Limited to 12.
Julie A. Buckler
Half course (spring term). Th., 1–4.
Note: Open to Freshmen only.

***Freshman Seminar 37s. Jews in Central European Literature in the 20th Century**
Catalog Number: 6730 Enrollment: Limited to 12.
Jonathan Hughes Bolton
Half course (fall term). Tu., 1–4.
Note: Open to Freshmen only.

***Freshman Seminar 37t. Poems, Films, States of Mind**
Catalog Number: 3252 Enrollment: Limited to 12.
Stephanie Sandler
Half course (spring term). Tu., 1:30–4.
Note: Open to Freshmen only.

***Freshman Seminar 37u. Bob Dylan**
Catalog Number: 7520 Enrollment: Limited to 12.
Richard F. Thomas
Half course (fall term). Th., 2–5.
Note: Open to Freshmen only.

***Freshman Seminar 37w. Becoming J.R.R. Tolkien: Life and Medieval Sources**
Catalog Number: 1688 Enrollment: Limited to 12.
Joseph C. Harris
Half course (spring term). W., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 37x. The Poetry of Emily Dickinson**
Catalog Number: 2632 Enrollment: Limited to 12.
Helen Vendler
Half course (fall term). M., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 37y. Muslim Voices in Contemporary World Literatures**
Catalog Number: 8901 Enrollment: Limited to 12.
Ali S. Asani
Half course (fall term). W., 4–6:30.
Note: Open to Freshmen only.

***Freshman Seminar 37z. The Moral Virtues: Socrates and His Critics**
Catalog Number: 1725 Enrollment: Limited to 12.
Amelie Rorty (Yale University)
Half course (fall term). W., 1–4.
Note: Open to Freshmen only.

***Freshman Seminar 38e. Madness and the Creative Imagination: Literary and Biomedical Perspectives**
Catalog Number: 8981 Enrollment: Limited to 12.
Deborah L. Blacker (Medical School) and Alan Richardson (Boston College)
Half course (spring term). Tu., 2:30–4:30.
Note: Open to Freshmen only. First meeting on Wed., 2/2, 3:30–4:30 in Emerson 108.

***Freshman Seminar 38g. Lost Languages and Decipherment**
Catalog Number: 2671 Enrollment: Limited to 12.
John Huehnergard
Half course (fall term). M., 3–5.
Note: Open to Freshmen only.

***Freshman Seminar 38j. Medicine and Literature**
Catalog Number: 0116 Enrollment: Limited to 12.
Elaine Scarry
Half course (spring term). Tu., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 38k. The Road to Zion**
Catalog Number: 4484 Enrollment: Limited to 12.
Ruth R. Wisse

Half course (fall term). M., 3–5.
Note: Open to Freshmen only.

[*Freshman Seminar 38n. Three Modern Jewish Writers]
Catalog Number: 6695 Enrollment: Limited to 12.
Sacvan Bercovitch
Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06. Open to Freshmen only.

***Freshman Seminar 38p. The Idea of a University**
Catalog Number: 1291 Enrollment: Limited to 12.
Jay M. Harris
Half course (fall term). M., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 38s. What Are Poets For? Poetry and Its Function**
Catalog Number: 8596 Enrollment: Limited to 12.
Joanna Nizynska
Half course (fall term). W., 1–3:30.
Note: Open to Freshmen only.

***Freshman Seminar 38t. Beethoven's String Quartets**
Catalog Number: 1651 Enrollment: Limited to 12.
Anne C. Shreffler
Half course (fall term). W., 1–4.
Note: Open to Freshmen only.

***Freshman Seminar 38u. Wrongdoing in Russian Literature**
Catalog Number: 8253 Enrollment: Limited to 12.
Julia Bekman Chadaga
Half course (fall term). Tu., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 38w. Balladeering, 1750-2004: Poetry, Culture, Ethnography, History**
Catalog Number: 1633 Enrollment: Limited to 12.
Maureen N. McLane
Half course (spring term). W., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 38x. Versions of Pastoral: Love, Politics, and Nature**
Catalog Number: 1222 Enrollment: Limited to 12.
Ann-Marie Mikkelsen
Half course (fall term). Th., 3–5.
Note: Open to Freshmen only.

***Freshman Seminar 38y. Painting and Painters**
Catalog Number: 2823 Enrollment: Limited to 12.
Nancy Mitchnick
Half course (spring term). W., at 11 and a studio session W., 1-4.

***Freshman Seminar 39e. Connoisseurship and the Art Museum**
Catalog Number: 9942 Enrollment: Limited to 7.
Marjorie B. Cohn
Half course (fall term). M., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 44g. Public Policy Approaches to Global Climate Change**
Catalog Number: 1032 Enrollment: Limited to 12.
Richard N. Cooper
Half course (fall term). W., 1:30–4.
Note: Open to Freshmen only.

***Freshman Seminar 44j. The Aztecs and Maya**
Catalog Number: 7826 Enrollment: Limited to 12.
Davíd L. Carrasco and William L. Fash
Half course (spring term). W., 1–4.
Note: Open to Freshmen only.

***Freshman Seminar 44k. A History of Zoos**
Catalog Number: 6327 Enrollment: Limited to 12.
Rory A. W. Browne
Half course (spring term). W., 2–5.
Note: Open to Freshmen only.

***Freshman Seminar 44p. Contemporary India: Fact and Fiction**
Catalog Number: 0019 Enrollment: Limited to 12.
Rena Fonseca
Half course (fall term). Tu., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 44w. Health and Inequality**
Catalog Number: 2973 Enrollment: Limited to 12.
Jonathan Ian Levy (Public Health) and Daniel I. Wikler (Public Health)
Half course (spring term). W., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 46g. Changing Conceptions of Leadership**
Catalog Number: 1779 Enrollment: Limited to 12.
Philip Stone
Half course (fall term). W., 1:30–3:30.
Note: Open to Freshmen only.

***Freshman Seminar 46j. Science, Technology, and the Good Society**
Catalog Number: 7678 Enrollment: Limited to 12.
Peter Buck
Half course (spring term). W., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 46p. Human Rights**
Catalog Number: 8408 Enrollment: Limited to 12.
Jennifer Leaning (Public Health)
Half course (fall term). W., 3–5:30.
Note: Open to Freshmen only.

***Freshman Seminar 46s. The Idea of Crime**
Catalog Number: 5122 Enrollment: Limited to 12.
Robert J. Sampson
Half course (fall term). M., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 46u. The Northern Side of the Civil Rights Movement**
Catalog Number: 4311 Enrollment: Limited to 12.
Evelyn Brooks Higginbotham
Half course (fall term). M., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 46w. Affirmative Action at Work**
Catalog Number: 4603 Enrollment: Limited to 12.
Frank Dobbin
Half course (spring term). Tu., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 46x. Religion, Liberalism, and Democracy**
Catalog Number: 5360 Enrollment: Limited to 12.
Jan L. Feldman (University of Vermont)
Half course (spring term). Th., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 46y. An Orwellian World: George Orwell and the Twentieth Century**
Catalog Number: 1490 Enrollment: Limited to 12.
Andrew R. Muldoon
Half course (fall term). Th., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 46z. Islam and Modernity**
Catalog Number: 0950 Enrollment: Limited to 12.
Farzin Vahdat

Half course (fall term). W., 4–6.
Note: Open to Freshmen only.

***Freshman Seminar 47e. The Politics of Love and Friendship: The Sources of Human Affiliation in the Family, Society, and the State**
Catalog Number: 0557 Enrollment: Limited to 12.
Oona Britt Ceder
Half course (spring term). Th., 1–4.
Note: Open to Freshmen only.

***Freshman Seminar 47g. Genocide**
Catalog Number: 4910 Enrollment: Limited to 12.
Jens Meierhenrich
Half course (fall term). Th., 4–6.
Note: Open to Freshmen only.

***Freshman Seminar 47j. The Ethics of War**
Catalog Number: 1924 Enrollment: Limited to 12.
Elizabeth Doherty
Half course (fall term). Th., 3–5.
Note: Open to Freshmen only.

***Freshman Seminar 47k. The Invention of Nature**
Catalog Number: 6260 Enrollment: Limited to 12.
Robert France (Design School)
Half course (fall term). Th., 1–4.
Note: Open to Freshmen only.

***Freshman Seminar 47u. Declarations of Independence: The Political Philosophy of the American Revolution**
Catalog Number: 4718 Enrollment: Limited to 12.
David R. Armitage
Half course (fall term). M., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 47w. The Spirit and Soul of American Economic History**
Catalog Number: 3533 Enrollment: Limited to 12.
Claudia Goldin
Half course (fall term). W., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 47x. Electing Thomas Jefferson**
Catalog Number: 4071 Enrollment: Limited to 12.
Jill M. Lepore
Half course (fall term). Th., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 47y. Food, Eating, and Diet**
Catalog Number: 1853 Enrollment: Limited to 12.
Steven Shapin
Half course (fall term). Tu., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 47z. Museums, Cultural Property, and Repatriation**
Catalog Number: 3261 Enrollment: Limited to 12.
Rubie S. Watson
Half course (fall term). Tu., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 48e. Reading, Writing, and Arithmetic in the Ancient World**
Catalog Number: 2496 Enrollment: Limited to 12.
Gary Urton
Half course (fall term). Tu., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 48g. Madness and Society**
Catalog Number: 8855 Enrollment: Limited to 12.
Charles E. Rosenberg
Half course (fall term). W., 2–4.
Note: Open to Freshmen only.

[*Freshman Seminar 48j. Race and Ethnic Relations Outside the United States]
Catalog Number: 3433 Enrollment: Limited to 12.
Stanley Lieberson
Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06. Open to Freshmen only.

***Freshman Seminar 48k. Political Legitimacy and Resistance: What Happened in Montaigne's Library on the Night of October 23, 1587, and Why Should Political Philosophers Care?**
Catalog Number: 4798 Enrollment: Limited to 12.
Arthur I. Applbaum (Kennedy School)
Half course (spring term). W., 2:30–5.
Note: Open to Freshmen only.

***Freshman Seminar 48n. American Dreams**
Catalog Number: 2426 Enrollment: Limited to 12.
James T. Kloppenberg
Half course (fall term). F., 12–2.
Note: Open to Freshmen only.

***Freshman Seminar 48p. Harem Fictions from Montesquieu to Mernissi**
Catalog Number: 8263 Enrollment: Limited to 12.

Afsaneh Najmabadi
Half course (spring term). Tu., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 48s. Crime, Madness, and Degeneration in 19th-Century Europe**
Catalog Number: 9234 Enrollment: Limited to 12.
Paul Aaron Garfinkel
Half course (fall term). Tu., 2–5.
Note: Open to Freshmen only.

***Freshman Seminar 48t. Hey Kids: American Childhood in Historical Perspective**
Catalog Number: 7814 Enrollment: Limited to 12.
John T. O'Keefe
Half course (fall term). W., 4–6.
Note: Open to Freshmen only.

***Freshman Seminar 48u. Race and Nation: The White Experience in Post-Apartheid South Africa**
Catalog Number: 5119 Enrollment: Limited to 12.
Sadhana Bery
Half course (fall term). W., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 48w. Imagining the Nation in Germany and Yugoslavia**
Catalog Number: 5361 Enrollment: Limited to 12.
Audrey H. Budding
Half course (fall term). Tu., 2–4:30.
Note: Open to Freshmen only.

***Freshman Seminar 48x. Nationalism in Modern Western Europe**
Catalog Number: 5377 Enrollment: Limited to 12.
Jonathan Eastwood
Half course (fall term). W., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 48y. The "Rise of the West," Conflicting Explanations**
Catalog Number: 0605 Enrollment: Limited to 12.
David J. Meskill
Half course (spring term). M., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 48z. Asian Women and Migration**
Catalog Number: 7568 Enrollment: Limited to 12.
Nicole Dejong Newendorp
Half course (spring term). W., 1–3.
Note: Open to Freshmen only

***Freshman Seminar 49e. Globalization: Critical Perspectives**
Catalog Number: 5230 Enrollment: Limited to 12.
Adam Webb
Half course (fall term). W., 3–5.
Note: Open to Freshmen only.

***Freshman Seminar 49g. The Holocaust, History and Reaction**
Catalog Number: 1208 Enrollment: Limited to 12.
Kevin J. Madigan (Divinity School)
Half course (fall term). Tu., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 49j. Interpreting Chinese History**
Catalog Number: 6664 Enrollment: Limited to 12.
Endymion Porter Wilkinson
Half course (fall term). Th., 1–3.
Note: Open to Freshman only.

***Freshman Seminar 49k. Wealth and Leadership: Two Centuries of Boston Philanthropy (formerly titled "Hub of the Solar System": Boston's Philanthropic and Nonprofit Institutions since 1800)**
Catalog Number: 5767 Enrollment: Limited to 12.
Peter Dobkin Hall
Half course (spring term). Hours to be arranged.
Note: Open to Freshmen only.

***Freshman Seminar 49m. Gay Marriage and Families**
Catalog Number: 6264 Enrollment: Limited to 12.
Maureen E. Sullivan (Northern Illinois University)
Half course (spring term). M., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 49p. Childhood and Its Literary Culture**
Catalog Number: 4622 Enrollment: Limited to 12.
Maria Tatar
Half course (fall term). Tu., 2–4.
Note: Open to Freshmen only.

***Freshman Seminar 49s. The United Nations, Past and Present: Can the UN Be Fixed? Is the UN the Problem?**
Catalog Number: 5692 Enrollment: Limited to 12.
Samantha J. Power
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
Note: Open to Freshmen only.

***Freshman Seminar 49u. The Future of Social Security**
Catalog Number: 5973 Enrollment: Limited to 12.
Jeffrey Wolcowitz
Half course (spring term). M., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 49w. Latin American Social Movements**
Catalog Number: 8512 Enrollment: Limited to 12.
Sarah Dix
Half course (spring term). W., 1–3.
Note: Open to Freshmen only.

***Freshman Seminar 49x. Talking to Humans: Ethnographic Method in the Social Sciences**
Catalog Number: 0762 Enrollment: Limited to 12.
Gesemia Nelson
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Note: Open to Freshmen only.

General Education Courses

[*General Education 157. Intelligence, Command, and Control: Conference Course]
Catalog Number: 9630 Enrollment: Limited to 15.
Anthony G. Oettinger
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Examines evolution of concepts, technologies, and institutions of US intelligence and military communities since WWII. Studies linkages with international security and domestic policies. Develops and evaluates similarities between functions and support systems of intelligence staff and the command-and-control line on the one hand, and business management information and decision-making functions and support systems on the other. Term paper in lieu of final examination; extensive research expected of graduate students.
Note: Expected to be given in 2005–06. Students with political, legal, economic, civilian, military, technical, or other backgrounds welcome. Cross-registration by Law, Business, or Kennedy School students encouraged.

[General Education 175. Native Americans in the 21st Century: Nation-Building I]
Catalog Number: 5587
Joseph P. Kalt (Kennedy School) and guest lecturers
Half course (fall term). Hours to be arranged.
Uses a hands-on, interdisciplinary approach to examine major issues faced by today's Native American bands, tribes, and nations. Includes: sovereignty, economic development, constitutional reform, cultural and language continuity, land and water rights, religious freedom, health and social welfare, and education. Concepts of "nation-building," identity, and leadership, taken from tribal viewpoints, form central themes of the course. All aspects of course placed in a cross-cultural context. Guest presentations are made by Native American students, visiting scholars, and Native American leaders.

Note: Expected to be given in 2006–07. Offered jointly with the Kennedy School as PED-501, and with the Graduate School of Education as A-101.

General Education 186. Introduction to Health Care Policy
Catalog Number: 4045
Richard G. Frank (Medical School)
Half course (fall term). Tu., Th., 1–2:30; and a weekly section to be arranged. EXAM GROUP: 15, 16
Provides overview of US health care delivery system, components, and policy challenges. Health care system considered from an organizational perspective: analysis of roles of patients, providers (doctors and hospitals), health plans, and payers. Considers objectives, constraints, incentives, knowledge, and conduct. Evaluates problems faced by each component using both "insider" and "outsider" perspectives. What makes health care so hard to reform? How shall we understand recent proposals? Reading includes selections from medical sociology, economics, politics, and ethics.
Note: Offered jointly with the Kennedy School as HCP-100.

***General Education 187. The Quality of Health Care in America**
Catalog Number: 4832 Enrollment: Limited to 35.
Donald M. Berwick, David Blumenthal (Medical School), Howard H. Hiatt, and Warner V. Slack (Medical School)
Half course (spring term). Tu., Th., 4:30–6:30. EXAM GROUP: 18
Offers information and experiences regarding the most important issues and challenges in health care quality. Overview of the dimensions of quality of care, including outcomes, overuse, underuse, variation in practice patterns, errors and threats to patient safety, service flaws, and forms of waste. Each session focuses on one specific issue, exploring patterns of performance, data sources, costs, causes, and remedies. Explores desirable properties of health care systems that perform at high levels in many dimensions of quality.

House Seminars

Primarily for Undergraduates

All House Seminars are offered for degree credit. House Seminars are normally graded with letter grades; as with other letter-graded courses students may, with the instructor's permission, take House Seminars pass/fail. All House Seminars require the permission of the instructor (*). Information concerning enrollment in House Seminars should be sought from the appropriate House Office. House Seminars are frequently not repeated from year to year.

Currier

***Currier 79 (formerly *Currier 129). Medicine, Law, and Ethics: An Introduction**
Catalog Number: 9614 Enrollment: Limited to 20.
Shahram Khoshbin (Medical School)
Half course (spring term). Hours to be arranged.
Explores medical, legal, and ethical aspects of medical care, with particular attention to medical

decision-making at the beginning and end of life, participants in research on human subjects, mental illness, and experimentation on animals. Historical background of present-day medical practices and relevant law to be discussed.
Note: All students are welcome, but this seminar is particularly geared to pre-medical and pre-law students.

Eliot

***Eliot 79 (formerly *Eliot 129). Nutrition and Public Health**
Catalog Number: 1497 Enrollment: Limited to 20.
Clifford Lo
Half course (spring term). Tu., 5:30–7:30 pm. EXAM GROUP: 18
Introduction to the critical reading of technical nutrition and medical literature; surveys current issues in public health and public policy relating to nutrition. Critical analysis of different types of medical literature: historical monographs, metabolic laboratory observations, clinical case reports, epidemiological surveys, prospective randomized controlled trials, metaanalyses, and literature reviews. Prepares science and non-science concentrators to examine critically current controversies for themselves; requires active participation and presentation by students.
Note: Clinical rounds with Nutrition Support Services at Children's Hospital are optional.

Leverett

***Leverett 74 (formerly *Leverett 104). Sigmund Freud and C. S. Lewis: Two Contrasting World Views**
Catalog Number: 0773 Enrollment: Limited to 20.
Armand M. Nicholi II (Medical School)
Half course (spring term). Tu., 7–9 pm. EXAM GROUP: 18
Focuses on "scientific" Weltanschauung (world view) of Freud as a key to his life and work. Examines the world view Freud attacks through readings from C. S. Lewis and letters between Freud and Oskar Pfister, Swiss psychoanalyst and theologian. Themes: source of morality and ethics, human sexuality, problem of pain and human suffering, definition of happiness and reason that unhappiness prevails, role of different categories of love in human relationships, and "the painful riddle of death."

African and African American Studies

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of African and African American Studies

Henry Louis Gates, Jr., W.E.B. Du Bois Professor of the Humanities *(Chair)*
Emmanuel K. Akyeampong, Harvard College Professor and Professor of History and of African and African American Studies
Homi K. Bhabha, Anne F. Rothenberg Professor of English and American Literature and Language *(on leave 2004-05)*
Suzanne P. Blier, Allen Whitehill Clowes Professor of Fine Arts and Professor of African and African American Studies
Lawrence D. Bobo, Norman Tishman and Charles M. Diker Professor of Sociology and of African and African American Studies *(Director of Graduate Studies)*
Glenda R. Carpio, Assistant Professor of African and African American Studies and English and American Literature and Language *(on leave spring term)*
Kimberly McClain DaCosta, Assistant Professor of African and African American Studies and of Social Studies *(on leave 2004-05)*
Michael C. Dawson, Professor of Government *(on leave 2004-05)*
Drew Gilpin Faust, Lincoln Professor of History
Marla F. Frederick, Assistant Professor of African and African American Studies and of the Study of Religion
Evelynn M. Hammonds, Professor of the History of Science and of African and African American Studies
Evelyn Brooks Higginbotham, Victor S. Thomas Professor of History and of African and African American Studies *(Director of Undergraduate Studies)*
Jennifer L. Hochschild, Henry LaBarre Jayne Professor of Government and Professor of African and African American Studies
Francis Abiola Irele, Visiting Professor of African and African American Studies and of Romance Languages and Literatures *(Ohio State University)*
Jamaica Kincaid, Visiting Lecturer on African and African American Studies and on English and American Literature and Language
Michael R. Kremer, Gates Professor of Developing Societies
Nike S. Lawal, Preceptor in African and African American Studies
J. Lorand Matory, Professor of Anthropology and of African and African American Studies
Ingrid Monson, Quincy Jones Professor of African-American Music, Supported by the Time Warner Endowment *(on leave 2004-05)*
Marcyliena Morgan, Associate Professor of African and African American Studies
John M. Mugane, Senior Preceptor in African and African American Studies *(Director of the African Language Program)*
Susan E. O'Donovan, Assistant Professor of African and African American Studies and of History
Gwendolyn DuBois Shaw, Assistant Professor of History of Art and Architecture and of African and African American Studies
Tommie Shelby, John L. Loeb Associate Professor of the Social Sciences
Kay Kaufman Shelemay, G. Gordon Watts Professor of Music and Professor of African and African American Studies
Werner Sollors, Henry B. and Anne M. Cabot Professor of English Literature and Professor of African and African American Studies
Jeffrey C. Stewart, Visiting Professor of African and African American Studies
William Julius Wilson, Lewis F. and Linda L. Geyser University Professor

Other Faculty Offering Instruction in African and African American Studies

Ali S. Asani, Professor of the Practice of Indo-Muslim Languages and Cultures
Vincent Brown, Assistant Professor of History
Barbara E. Johnson, Fredric Wertham Professor of Law and Psychiatry in Society *(on leave 2004-05)*
Elvis Mitchell, Visiting Lecturer on African and African American Studies and on Visual and Environmental Studies *(spring term only)*
Orlando Patterson, John Cowles Professor of Sociology *(on leave spring term)*
Elisabeth Schüssler Fiorenza, Krister Stendahl Professor of Divinity *(Divinity School)*
Ronald Thiemann, Professor of Theology and of Religion and Society *(Divinity School)*
Roberto Mangabeira Unger, Roscoe Pound Professor of Law *(Law School)*

Primarily for Undergraduates

African and African American Studies 10. Introduction to African and African American Studies
Catalog Number: 0802
Evelynn M. Hammonds
Half course (fall term). M., W., at 11. EXAM GROUP: 4
An exploration of some of the key texts and issues in African and African American Studies from a range of disciplinary perspectives. Members of the faculty deliver guest lectures in their own areas of specialization.
Note: Required of concentrators. Students who transfer into the concentration after their sophomore year may substitute another African and African American Studies course already taken if they satisfy the Director of Undergraduate Studies that it establishes a basic familiarity with the materials covered in African and African American Studies 10. This course, when taken for a letter grade, meets the Core area requirement for Historical Study A.

African and African American Studies 20. Introduction to African Languages and Cultures
Catalog Number: 2048
John M. Mugane
Half course (fall term). M., W., F., at 2. EXAM GROUP: 7
An introduction to African languages and cultures. Explores language use by sub-Saharan Africans to understand, organize, and transmit indigenous knowledge to successive generations. Language serves as a road map to understanding how social, political, and economic institutions and processes develop: from kinship structures, the evolution of political offices, trade relations, to the transfer of environmental knowledge.

African and African American Studies 90r. African Language Tutorials
Catalog Number: 7010
John M. Mugane and Nike S. Lawal
Half course (fall term; repeated spring term). Hours to be arranged.
Individualized study of an African language at the elementary level. Contact hours with language coach. Emphasis on written expression, reading comprehension and oral fluency. The following

languages can be taken: Igbo, Kikuyu, Twi, Hausa, Yoruba, and Zulu.
Note: Not open to auditors.

***African and African American Studies 91r. Supervised Reading and Research**
Catalog Number: 1269
Evelyn Brooks Higginbotham and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Students wishing to enroll must petition the Director of Undergraduate Studies for approval, stating the proposed project, and must have permission of the proposed instructor. Ordinarily, students are required to have taken some coursework as background for their project.

African and African American Studies 97a. Introduction to African and African American Studies: Black Utopias
Catalog Number: 1439
Francis Abiola Irele (Ohio State University)
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
The theme of African renewal was first elaborated in the black diaspora where it had an inspirational value for movements of emancipation among black people in America. It later functioned as a formative influence on African nationalism and has today assumed a new significance with the concept of "African Renaissance." Our examination of black utopias will focus on the force fields of ideas and internal tensions that have marked their development since the 18th century.

African and African American Studies 97b. Topics in African American History and Society: Mass Incarceration and the Future of Black America
Catalog Number: 2393
Jeffrey C. Stewart
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
This course introduces a social scientific approach to African American Studies by taking up the urgently important questions of the link between race and crime, and the mass incarceration of African Americans that has occurred over the past two decades. The course will examine research on gangs, youth culture and violence; on the politics of the "war on drugs"; on felon disenfranchisement and re-integration issues; and the role of the media in reinforcing (or creating) negative racial stereotypes.

***African and African American Studies 98. African American Tutorial**
Catalog Number: 6272
Evelyn Brooks Higginbotham and members of the tutorial staff
Half course (fall term; repeated spring term). Hours to be arranged.
Students wishing to enroll must petition the Director of Undergraduate Studies for approval, stating the proposed project, and must have the permission of the proposed instructor. Ordinarily, students are required to have taken some coursework as background for their project.
Prerequisite: Completion of African and African American Studies 10, or a substitute course approved by the Head Tutor.

***African and African American Studies 98a. African Tutorial**
Catalog Number: 3070
Emmanuel K. Akyeampong and members of the tutorial staff
Half course (fall term; repeated spring term). Hours to be arranged.
Students wishing to enroll must petition the Director of Undergraduate Studies for approval, stating the proposed project, and must have the permission of the proposed instructor. Ordinarily, students are required to have taken some coursework as background for their project.
Prerequisite: Completion of African and African American Studies 10 or a substitute course approved by the Head Tutor.

***African and African American Studies 99. Senior Thesis Workshop**
Catalog Number: 8654 Enrollment: Limited to honors candidates.
Evelyn Brooks Higginbotham and members of the Department
Full course (fall term; repeated spring term). Hours to be arranged.
Thesis supervision under the direction of a member of the Department.

For Undergraduates and Graduates

African and African American Studies 116. Autobiography and Literary Imagination
Catalog Number: 8935
Jamaica Kincaid
Half course (fall term). M., W., at 11. EXAM GROUP: 4
Looks at how subject people imagine themselves. Reading Walcott, Rhys, Soyinka and Fanon, among others.

African and African American Studies 118. African-American History from the Slave Trade to 1900
Catalog Number: 7429
Susan E. O'Donovan
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
An introduction to African-American history and the role black men and women have played in the cultural, economic, and political life of the US. Topics will include the rise of slavery; the American Revolution and the problem of slavery; African-American social, economic, and cultural life in the antebellum North and South; the struggle for freedom during the Civil War and Reconstruction; and African-Americans in the age of segregation and disenfranchisement.

African and African American Studies 121. Elementary Swahili
Catalog Number: 1878
John M. Mugane
Full course (indivisible). Fall: M., W., F., at 10; W., at 12; Tu., at 5; Th., at 11; Th., at 3; Spring: M., W., F., at 10. EXAM GROUP: 3
A study of the *lingua franca* of East Africa at the elementary level. Contact hours supplemented by language lab sessions. Emphasis on written expression, reading comprehension, and oral fluency.
Note: Not open to auditors.

African and African American Studies 121a (formerly African and African American Studies 121ar). Readings in Swahili
Catalog Number: 8503
John M. Mugane and assistant
Half course (fall term). Hours to be arranged.
Prerequisite: Elementary Swahili or equivalent.

African and African American Studies 121b (formerly African and African American Studies 121br). Readings in Swahili
Catalog Number: 7746
John M. Mugane and assistant
Half course (spring term). Th., 4–6. EXAM GROUP: 18
Prerequisite: African and African American Studies 121a or equivalent.

[African and African American Studies 122. Caribbean Women Writers]
Catalog Number: 5897
Jamaica Kincaid
Half course (spring term). Hours to be arranged.
Focusing primarily on the women writers from the English-speaking region of the West Indies: The readings include fiction, nonfiction, and poetry.
Note: Expected to be given in 2005–06.

African and African American Studies 127. Marxist Theories of Racism
Catalog Number: 3133
Tommie Shelby
Half course (spring term). W., 2–4 and a weekly section to be arranged. EXAM GROUP: 7, 8
Marx himself doesn't say much about racism. However, many social scientists and historians have attempted to extend Marx's ideas to explain the phenomena of racial oppression and racial antagonism. We critically examine several Marxist and neo-Marxist accounts of racial ideology, the construction of racial identities, the relationship between class exploitation and racial subordination, and the role of capitalist development and expansion in creating racial inequality.

African and African American Studies 129. African American Philosophy
Catalog Number: 8380
Tommie Shelby
Half course (fall term). W., 2–4; Tu., at 4; Th., at 1. EXAM GROUP: 7, 8
An examination of several vexing questions that arise when one reflects philosophically on the black experience in America. Topics include the perplexities of black identity, the moral and political significance of communal solidarity, racial justice and reparations, aesthetic judgment and cultural authenticity, the ethics of interracial intimacy, and the very idea of a distinctive African American philosophical tradition.

African and African American Studies 131. African-American Literature to the 1920s
Catalog Number: 2589
Glenda R. Carpio
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13

Close readings of major writers in the context of cultural history. I) Literature and folk culture in the slavery period: Phillis Wheatley, Olaudah Equiano, Omar Ibn Said, Victor Séjour, Lydia Maria Child, Fredrick Douglass, Harriet Beecher Stowe, William Wells Brown, Frank Webb, Martin Robison Delany, and Harriet Jacobs. II) "Post-bellum, pre-Harlem": Charles W. Chesnutt, Paul Laurence Dunbar, Pauline Hopkins, Du Bois, Booker T. Washington, and James Weldon Johnson. We examine diverse genres--from slave narratives, novels and poems to plays, speeches and song lyrics.

African and African American Studies 134z. Reading Thomas Jefferson and The African in America
Catalog Number: 9959
Jamaica Kincaid
Half course (spring term). M., W., at 11. EXAM GROUP: 4
"We hold these truths to be self-evident: that all men are created equal...." The author of those words was Thomas Jefferson, third president of the United States; but who might have needed them more, the author and President or a contemporary of his, a man he owned named Jupiter. A look through his writings into the world of Thomas Jefferson and the influence the enslaved African had upon him. Special attention will be paid to "The Declaration of Independence," "Notes on the State of Virginia," and "The Farm and Garden Book."

African and African American Studies 136. Black and White in Drama and Film
Catalog Number: 7974
Werner Sollors
Half course (spring term). Tu., 2–4 and weekly film screenings on M., at 9 pm. EXAM GROUP: 16, 17
Focus is on the development of "serious" dramas and problem films in their relationship to the traditions of tragedy and melodrama. Readings from Aeschylus to Rita Dove accompanied by film screenings from *Veiled Aristocrats* to *Anna Lucasta*.
Note: First meeting will be a film screening on Monday, February 7, at 9 pm in the Carpenter Center Main Lecture Hall.

[African and African American Studies 140z. The Other African Americans]
Catalog Number: 0300
J. Lorand Matory
Half course (fall term). Hours to be arranged.
We survey the history and contemporary experiences of self-identified "mixed-race" groups, as well as voluntary immigrant groups from Africa and the Caribbean, such as Cape Verdeans, Nigerians, Jamaicans, Afro-Puerto Ricans, and Haitains in the US. Students are introduced to arguments central to the social scientific study of modern societies generally, such as the invention of ethnicity, and negotiation of identity, and the social constructedness of race.
Note: Expected to be given in 2005–06.

African and African American Studies 141. Afro-Atlantic Religions
Catalog Number: 3336
J. Lorand Matory
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18

Investigates the spiritual, political, and economic lives of millions around the Atlantic perimeter who worship African gods: West and Central Africans, Cubans, Brazilians, Haitians, and North Americans. For them, the gods are sources of power, organization, and healing amid the local political dominance of Muslims and Christians and the seismic expansion of international. capitalism—conditions which themselves require significant attention. Lectures focus on such themes as women's empowerment and the construction of gender in these religions, while a series of in-class discussions with priests will propose its own themes.
Note: Offered jointly with the Divinity School as 3692.

[African and African American Studies 143. African-Americans and a New Racial Divide]
Catalog Number: 9321
Lawrence D. Bobo
Half course (fall term). Hours to be arranged.
An engagement of the debate over racism in post-civil rights America. It provides a contemporary assessment of whether, how much, and why racial dynamics influence education, the economy, politics, and broader social relations. Special attention is devoted to matters of general intellectual and cultural trends as well as to the hard politics of the welfare reform, the criminal justice system, and the HIV/AIDs epidemic in Black communities. It seeks a critical assessment of the future of African-Americans in the post-civil rights, post-affirmative action US.
Note: Expected to be given in 2005–06.

[African and African American Studies 152. Language Use in African American Culture: Seminar]
Catalog Number: 3137
Marcyliena Morgan
Half course (spring term). Hours to be arranged.
This course answers the question of what is African American English (AAE) and why it is important. It focuses on its role in literature, education, film and public and popular culture. The issues explored include the linguistic, social, educational, historical and political arguments concerning AAE, including the Ebonics debate. The course is divided into six sections: The African American Speech Community, Verbal Styles, Discourse and Interaction, Language Norms and Practices, Women's Voices, Urban Youth Language, Educational Policy and Politics, Popular Culture.
Note: Expected to be given in 2005–06.

[African and African American Studies 153. Hip Hop America: Power, Politics and the Word]
Catalog Number: 3152
Marcyliena Morgan
Half course (spring term). Hours to be arranged.
An examination of the development of hip hop in the US as a cultural, political, and artistic resource. In particular, we examine hip hop literacy, language and learning, art, performance, and dress. Topics include: culture, community, crime and injustice, economics, education, family, history, identity, language, politics, sports, race and racism, sex and sexism. Emphasis is placed on hip hop in a variety of contexts including schools, religious organizations, and political

movements.
Note: Expected to be given in 2005–06.

African and African American Studies 154. Language and Discourse, Race, Class, and Gender: Seminar
Catalog Number: 9990
Marcyliena Morgan
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
Our purpose is to study, analyze, and critique theories concerning the discursive construction of identity(s) and forms of representation of cultures. We explore the relationship between power and powerful speech through reviews and critiques of theories of language, culture, and identity as they relate to ethnicity, race, and social class. Our focus is on language, ideology, and analysis of discourse styles used in the construction of regional, national, and global communities.

African and African American Studies 155. After Africa: Languages and Other Englishes: Seminar
Catalog Number: 2388
Marcyliena Morgan
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
This course explores the history and social consequences of contact languages in the African Diaspora from a linguistic, artistic, political, social and cultural perspective. Focus will be on language contact resulting from plantation slavery in the Atlantic. In particular, we will explore their function in national movements and identity, art and education. We will also examine the spread of pidgin and creole languages in urban areas of the US, England and Canada, especially the use of Caribbean creoles in literature and poetry and educational debates in the US.

[African and African American Studies 168. Visual Culture of Latina and African-American Women]
Catalog Number: 5551
Gwendolyn DuBois Shaw
Half course (spring term). Hours to be arranged.
Examines contemporary art made by African-American and Latina women working in North America. Special attention is given to various approaches to writing about raced and gendered artistic production taken over the last three decades. Throughout the course, we contrast critical with academic essays and traditional artistic approaches with post-modern practices.
Note: Expected to be given in 2005–06.

[African and African American Studies 169. Visualizing Africa]
Catalog Number: 6598
Suzanne P. Blier and Henry Louis Gates, Jr.
Half course (fall term). Hours to be arranged.
An examination of the various ways in which Africa historically has been conceptualized and visualized in art and illustrative materials. Emphasis is given to the critical reading of actual works of art and documents. Construction of self and others as seen through images is discussed. The interface between Africa and the Christian and Islamic Worlds, as well as larger concerns of

Slavery, Colonialism, and contemporary art are examined.
Note: Expected to be given in 2005–06.

[African and African American Studies 172. Changing Concept of Race in America: Science and Medicine]
Catalog Number: 6634
Evelynn M. Hammonds
Half course (fall term). Hours to be arranged.
Examines the history of concepts of race in science and medicine from the 17th century to the present. Topics include: debates about the origins of races, racial classification, race and disease, race and evolution, race and anthropology, race and eugenics, and race and genetics. We compare various conceptions of scientific and medical racism and challenges to these ideas by scientists and physicians.
Note: Expected to be given in 2005–06.

African and African American Studies 173. African Art and Colonialism: King Leopold's Congo
Catalog Number: 0307
Suzanne P. Blier
Half course (fall term). M., 3–5. EXAM GROUP: 8, 9
This class will explore African colonialism from the vantage of late 19th to early 20th century Congo, and specifically an extraordinatry corpus of indigenousivory carvings— some in local Boston collections—that present Europeans and Africans in this era. Slavery, trade, tourism, literary tropes, and religion (both Christian and traditional) are among the issues that will be examined, as students work toward the creation of a real or virtual exhibition of this material.

[African and African American Studies 182. Rhythm and Blues, Soul and Funk]
Catalog Number: 4282
Ingrid Monson
Half course (spring term). Hours to be arranged.
Focuses on the history of African American popular music from R&B, to Funk, with particular attention to the interplay among music and African American cultural and political consciousness. A variety of critical approaches to the study of popular music are also introduced.
Note: Expected to be given in 2005–06.

African and African American Studies 183. The African-American Experience in Film: 1930-1970
Catalog Number: 6790
Elvis Mitchell
Half course (spring term). Th., 5–7 pm. EXAM GROUP: 18
A social and cultural survey of the black American in film, assuming the point of view that much of the performance functioned as a subversive form of communication. The pride widely believed to have launched these films was actually a façade for the formidable voltage of rage that fueled the charisma of black screen presences from Bill "Bojangles" Robinson to Bill Cosby.

African and African American Studies 184. Women and Religious Expression in 20th-Century African-American History
Catalog Number: 1857
Marla F. Frederick
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
From Jonestown to the Nation of Islam to Buddhism and the Baptist Church, this course explores the various ways in which African American women have used religion as a means of interpreting their American experience. By a close examination of ethnographies of religious performance, spiritual autobiographies, historical texts and documentary film, this course gives special attention to the different methodologies employed in the study of religious experience.

[African and African American Studies 185. The African Novel]
Catalog Number: 6764
Francis Abiola Irele (Ohio State University)
Half course (spring term). Hours to be arranged.
We examine a representative selection of African novels with a view to grasping the development of the genre from the double heritage of the oral tradition and the literate conventions of the West. The African novel will be studied in relation to the dominant themes—colonialism, social and cultural change, the post-colonial dilemma—and the textual strategies adopted by the novelists in their rendering of the African experience in modern times.
Note: Expected to be given in 2005–06.

African and African American Studies 186. The Art of the Harlem Renaissance
Catalog Number: 5483
Gwendolyn DuBois Shaw
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
This course explores the creative artistic production (painting, sculpture, film, and theatre) of African Americans between the World Wars in several cities including New York, Paris, San Francisco, and Chicago. Artists examined include Sargent Johnson, William H. Johnson, Lois M. Jones, Josephine Baker, and Aaron Douglas. Contemporary writing on the arts by Alain Locke, Langston Hughes, Gertrude Stein and others will be read.

[African and African American Studies 190. African-American Families: Politics, Culture, Experience]
Catalog Number: 9440
Kimberly McClain DaCosta
Half course (spring term). Hours to be arranged.
"The Black Family" has often been at the center of political debates about social policy, including welfare reform and crime. Such debates tend to obscure the particular historical, social, and economic circumstances that shape African American family life and posit a unidimensional black family experience. We explore the diversity of black family life—by class, region, family composition, and gender—and link social structure to how families form, function, and change.
Note: Expected to be given in 2005–06.

African and African American Studies 191. The Civil Rights Movement: Seminar
Catalog Number: 0897

Jeffrey C. Stewart
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Explores the movement from its integrationist period in the 1950s and early 1960s to the heyday of militant black power in the late 1960s and early 1970s. Attention given to grassroots community activism, the contribution of nationally prominent individuals and organizations, and the changing of American laws, society, and the state.

African and African American Studies 193. Religion and Social Change in Black America
Catalog Number: 8058
Marla F. Frederick
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
Religion, as experienced in churches and mosques alike, has inspired new meanings of black subjectivity, history, and politics. From protest oriented struggles for civil rights to the personal responsibility calls of the Million Man March, religion has informed how Blacks engage the challenges of everyday life in America. Through ethnography, auto/biography and documentary film, this class examines the influence that the social reality of blackness and the religious expression of faith have had on the day to day existence of people of African descent in the US.

[*African and African American Studies 196. Sociological Perspectives on Racial Inequity in America: Seminar]
Catalog Number: 7202
William Julius Wilson
Half course (spring term). Hours to be arranged.
Examines classical and contemporary works on racial inequality in America. Different conceptions of the social, economic, and political situations that affect the state and nature of race relations are critically analyzed, as well as the different views on race and social policy.
Note: Expected to be given in 2005–06. Offered jointly with the Kennedy School as HLE-209. Students must attend the first meeting to enroll.

Primarily for Graduates

African and African American Studies 218. Topics in African American History
Catalog Number: 9951
Susan E. O'Donovan
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Explores new perspectives on Afro-American History from the slave trade to 1900. Central themes include black people's lives and labor in slavery and freedom, black culture, and African American influences on national political discourse. Special attention will be paid to the changing dynamics of class, gender, and race.

Graduate Courses

***African and African American Studies 301. Graduate Seminar**
Catalog Number: 3120
Werner Sollors 7424 and members of the Department
Half course (fall term). Tu., 12–2.

Students are introduced to major themes, debates, and texts in the broad interdisciplinary field of African-American Studies. We focus on humanities and literary and cultural studies.
Note: Required for all graduates in African and African American Studies in their first year. Ordinarily only graduate students affiliated with the program are permitted to attend.

***African and African American Studies 302. Graduate Seminar**
Catalog Number: 7559
Evelyn Brooks Higginbotham 3517
Half course (spring term). Tu., 12–2.
Students are introduced to major themes, debates and texts in the broad interdisciplinary field of African-American Studies. African and African American Studies 302, in the spring term, focuses on the social sciences.
Note: Required for all graduates in African and African American Studies in their first year and ordinarily only graduate students affiliated with the program will be permitted to attend.

***African and African American Studies 310. Individual Reading Tutorial**
Catalog Number: 1374
Henry Louis Gates, Jr. 2899, Emmanuel K. Akyeampong 3421, Homi K. Bhabha 4100 (on leave 2004-05), Suzanne P. Blier 3472, Lawrence D. Bobo 2919 (fall term only), Vincent Brown 4638, Glenda R. Carpio 4408 (on leave spring term), Kimberly McClain DaCosta 4182 (on leave 2004-05), Michael C. Dawson 4434 (on leave 2004-05), Marla F. Frederick 4728, Evelynn M. Hammonds 4545, Evelyn Brooks Higginbotham 3517, Jennifer L. Hochschild 3785, J. Lorand Matory 3098, Ingrid Monson 1591 (on leave 2004-05), Marcyliena Morgan 2212 (fall term only), Susan E. O'Donovan 3962, Orlando Patterson 1091 (on leave spring term), Elisabeth Schüssler Fiorenza (Divinity School) 3193, Gwendolyn DuBois Shaw 3799, Tommie Shelby 3863, Kay Kaufman Shelemay 3483, Werner Sollors 7424, Ronald Thiemann (Divinity School) 3395, Roberto Mangabeira Unger (Law School) 4609, and William Julius Wilson 2401
Allows students to work with an individual member of the faculty in a weekly tutorial.
Note: Students may not register for this course until their adviser and the faculty member with whom they plan to work have approved a program of study.

***African and African American Studies 390. Individual Research**
Catalog Number: 4046
Emmanuel K. Akyeampong 3421, Homi K. Bhabha 4100 (on leave 2004-05), Suzanne P. Blier 3472, Lawrence D. Bobo 2919 (fall term only), Michael C. Dawson 4434 (on leave 2004-05), Marla F. Frederick 4728, Henry Louis Gates, Jr. 2899, Evelynn M. Hammonds 4545, Evelyn Brooks Higginbotham 3517, Jennifer L. Hochschild 3785, J. Lorand Matory 3098, Ingrid Monson 1591 (on leave 2004-05), Marcyliena Morgan 2212 (fall term only), Susan E. O'Donovan 3962, Orlando Patterson 1091 (on leave spring term), Elisabeth Schüssler Fiorenza (Divinity School) 3193, Gwendolyn DuBois Shaw 3799, Tommie Shelby 3863, Kay Kaufman Shelemay 3483, Werner Sollors 7424, Ronald Thiemann (Divinity School) 3395, Roberto Mangabeira Unger (Law School) 4609, and William Julius Wilson 2401
Requires students to identify a research project and carry it out under the guidance of a member of the faculty. Graduate students may use this course to begin to work on the research paper that is a requirement of admission to candidacy.

***African and African American Studies 391. Directed Writing**
Catalog Number: 4587
William Julius Wilson 2401, Emmanuel K. Akyeampong 3421, Homi K. Bhabha 4100 (on leave 2004-05), Suzanne P. Blier 3472, Lawrence D. Bobo 2919 (fall term only), Michael C. Dawson 4434 (on leave 2004-05), Francis Fiorenza (Divinity School) 2735, Marla F. Frederick 4728, Henry Louis Gates, Jr. 2899, Evelynn M. Hammonds 4545, Evelyn Brooks Higginbotham 3517, Jennifer L. Hochschild 3785, J. Lorand Matory 3098, Ingrid Monson 1591 (on leave 2004-05), Marcyliena Morgan 2212 (fall term only), Susan E. O'Donovan 3962, Orlando Patterson 1091 (on leave spring term), Gwendolyn DuBois Shaw 3799, Tommie Shelby 3863, Kay Kaufman Shelemay 3483, Werner Sollors 7424, Ronald Thiemann (Divinity School) 3395, and Roberto Mangabeira Unger (Law School) 4609
Requires students to identify a major essay and carry it out under the guidance of a member of the faculty. Graduate students may use this course to begin to work on the research paper that is a requirement of admission to candidacy.

***African and African American Studies 399. Direction of Doctoral Dissertations**
Catalog Number: 8411
Emmanuel K. Akyeampong 3421, Homi K. Bhabha 4100 (on leave 2004-05), Suzanne P. Blier 3472, Lawrence D. Bobo 2919 (fall term only), Michael C. Dawson 4434 (on leave 2004-05), Marla F. Frederick 4728, Henry Louis Gates, Jr. 2899, Evelynn M. Hammonds 4545, Evelyn Brooks Higginbotham 3517, Jennifer L. Hochschild 3785, J. Lorand Matory 3098, Ingrid Monson 1591 (on leave 2004-05), Marcyliena Morgan 2212 (fall term only), Susan E. O'Donovan 3962, Orlando Patterson 1091 (on leave spring term), Elisabeth Schüssler Fiorenza (Divinity School) 3193, Gwendolyn DuBois Shaw 3799, Tommie Shelby 3863, Kay Kaufman Shelemay 3483, Werner Sollors 7424, Ronald Thiemann (Divinity School) 3395, Roberto Mangabeira Unger (Law School) 4609, and William Julius Wilson 2401

Cross-listed Courses of Interest to Students Pursuing the African Track

[Anthropology 1750. Syncretism: Seminar]
Anthropology 2770 (formerly Anthropology 277). Development Dilemmas
[Ethiopic A. Introduction to Classical Ethiopic (Ge'ez)]
Ethiopic 120ar. Readings in Classical Ethiopic (Ge'ez) Texts I
Ethiopic 120br. Readings in Classical Ethiopic (Ge'ez) Texts II
***Ethiopic 300. Ethiopian Semitic Language and Literature**
Foreign Cultures 86. West African Cultures
French 70c. Introduction to French Literature III: The Francophone World
French 181. African Orality and the Francophone Novel
French 189. Francophone Poetry and Drama
French 194. Francophone Film and Literature
French 277 (formerly French 195). The African and Caribbean Novel in French: Comparative Perspectives
French 289r. French African Literature: Seminar
***Freshman Seminar 32w. African Musical Traditions**
[Government 2162. Perspectives on Political Economy]
[Historical Study A-21. Africa and Africans: The Making of a Continent in the Modern

World]
Historical Study B-52. Slavery and Slave Trade in Africa and the Americas
***History 90g. Major Themes in World History: Colonialism, Imperialism, and Post-Colonialism**
History 1906. West Africa from the Earliest Times to 1800
History 1912. Health, Disease, and Ecology in African History: Conference Course
History of Art and Architecture 19m. African Architecture and City Planning - An Introduction
History of Art and Architecture 196. Contemporary Art in Africa
[Literature and Arts B-78. Soundscapes: Exploring Music in a Changing World]
***Social Studies 98gh. Economic Development in Africa**

Cross-listed Courses of Interest to Students Pursuing the African American Track

Anthropology 1600 (formerly Anthropology 110). Introduction to Social Anthropology
[*Economics 1357. Historical Perspectives on American Economic Ascendancy]
Economics 1812. The US Labor Market
Economics 1815. Social Problems of the American Economy
[*English 90vh. Harlem Renaissance]
English 167p. Postcolonial Narratives
[*English 276x. African-American Literary Tradition: Graduate Seminar]
Folklore and Mythology 114. Embodied Expression/Expressive Body: Dance as a Medium of Cultural and Personal Meaning
Foreign Cultures 86. West African Cultures
French 42. Introduction au monde francophone
[Government 90km. The Political Economy of Africa]
Government 90oa. Inequality and American Democracy
[Government 90qv. Democracy and the Information Technology Revolution]
[Government 1572. Black Americans and the Political System]
***Government 1968. International Politics in the Middle East**
Government 2335. Power in American Society
[Government 2392. American Political Ideologies]
Historical Study B-52. Slavery and Slave Trade in Africa and the Americas
[History 1611. American Revolutions in the Atlantic World]
History 1612. African Diaspora in the Americas
History 1664. African American Intellectual History: Conference Course
History 1912. Health, Disease, and Ecology in African History: Conference Course
[History 2908. Sources, Methodology, and Themes in African History: Seminar]
History of Art and Architecture 19m. African Architecture and City Planning - An Introduction
[History of Art and Architecture 19x. Introduction to African American Art History]
[History of Art and Architecture 19y (formerly History of Art and Architecture 19). Introduction to the Art of Africa]
[History of Art and Architecture 193. Painting Traditions in Africa]
History of Art and Architecture 196. Contemporary Art in Africa
History of Art and Architecture 293. Ideologies of Race in 19th Century American Art

[History of Science 149. Medical Technologies in Historical Perspective: Conference Course]
[History of Science 155. Science, Race, and Society in the US: Conference Course]
History of Science 259. Theories of Race and/in Science: Seminar
[Literature and Arts B-82. Sayin' Something: Jazz as Sound, Sensibility, and Social Dialogue]
[Moral Reasoning 58. Slavery in Western Political Thought]
Music 194r. Special Topics: Proseminar
Religion 1549. Media, Religion and Social Meaning
[Religion 1631. Hindu Traditions of Devotion]
[Social Analysis 52. The Political Economy of Development]
Social Analysis 66. Race, Ethnicity, and Politics in the United States
Sociology 185. Race and Crime in America: Seminar
[*Sociology 221. Immigration, Identity and Assimilation: Seminar]
[Sociology 248. Race, Politics, and Social Inequality: Seminar]
***Visual and Environmental Studies 152r. Intermediate Video Workshop: Studio Course**
Visual and Environmental Studies 173x. American Film Criticism

African Studies

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on African Studies

Emmanuel K. Akyeampong, Harvard College Professor and Professor of History and of African and African American Studies *(Chair)*
Rawi Abdelal, Assistant Professor of Business Administration *(Business School)*
Leila Ahmed, Victor S. Thomas Professor of Divinity *(Divinity School)*
Ali S. Asani, Professor of the Practice of Indo-Muslim Languages and Cultures
Robert H. Bates, Eaton Professor of the Science of Government *(on leave fall term)*
Suzanne P. Blier, Allen Whitehill Clowes Professor of Fine Arts and Professor of African and African American Studies
Prudence L. Carter, Assistant Professor of Sociology
Samba Diop, Assistant Professor of Romance Languages and Literatures
Felton James Earls, Professor of Social Medicine and Professor of Human Behavior and Development in the School of Public Health and Child Psychiatry *(Medical School)*
Caroline M. Elkins, Assistant Professor of History *(on leave spring term)*
Majid Ezzati, Assistant Professor of International Health *(Public Health)*
Wafaie W. Fawzi, Associate Professor of Nutrition and Epidemiology *(Public Health)*

Deborah D. Foster, Senior Lecturer on Folklore and Mythology
Henry Louis Gates, Jr., W.E.B. Du Bois Professor of the Humanities
Suzanne Grant Lewis, Assistant Professor of Education *(School of Education)*
Allan G. Hill, Andelot Professor of Demography *(Public Health)*
Francis Abiola Irele, Visiting Professor of African and African American Studies and of Romance Languages and Literatures *(Ohio State University)*
Calestous Juma, Professor of the Practice of International Development *(Kennedy School)*
Saidi H. Kapiga, Assistant Professor of International Health *(Public Health)*
Sanjeev Khagram, Assistant Professor in Public Policy *(Kennedy School) (on leave 2004-2005)*
Michael R. Kremer, Gates Professor of Developing Societies
Harry S. Martin III, Professor of Law and Library *(Law School)*
J. Lorand Matory, Professor of Anthropology and of African and African American Studies
Ingrid Monson, Quincy Jones Professor of African-American Music, Supported by the Time Warner Endowment *(on leave 2004-05)*
John M. Mugane, Senior Preceptor in African and African American Studies
Pauline E. Peters, Lecturer on Anthropology
Matthias Maria Schuendeln, Assistant Professor of Economics and of Social Studies
Kay Kaufman Shelemay, G. Gordon Watts Professor of Music and Professor of African and African American Studies
Deborah L. Spar, Spangler Family Professor of Business Administration *(Business School)*
Lucie E. White, Lewis A. Horvitz Professor of Law *(Law School)*
Richard K. Wolf, Harris K. Weston Associate Professor of the Humanities *(on leave 2004-05)*

The Committee on African Studies is a multidisciplinary group of scholars appointed to coordinate teaching and research on Africa within Harvard's departments and faculties. It is primarily concerned with the planned development of African studies in the University as a whole. Since it is also the Committee's goal to advance knowledge and understanding of African peoples throughout the University, it sponsors lectures, seminars, conferences, films, and exhibitions on Africa. Its non-credit Africa Seminar is open to all students and faculty members. The Committee offers undergraduate summer grants for senior honors thesis study and graduate dissertation research grants for travel to Africa.

The courses listed below deal either directly or indirectly with the study of Africa. A more detailed description of these courses may be found in this catalog under the appropriate department or committee. Students interested in topics in African studies will find a number of courses among the offerings of the Department of African and African American Studies. In particular, instruction in several African languages is available, and interested students should consult the Director of that department's African language program.

In addition to the departmental offerings in the Faculty of Arts and Sciences listed in this publication, courses on Africa can also be found in the catalogs of the Schools of Public Health, Education, Law, Divinity, Business, and the Kennedy School of Government. Each September, the Committee publishes "African Studies at Harvard: A University-wide Guide to Courses and Faculty. "The guide is posted at our website: www.fas.harvard.edu/~cafrica. A printed version is available at the Committee's administrative office in 1033 Massachusetts Ave, Room 216A,

Cambridge, MA, 02138, or by calling 617-495-5265. The fax number is 617-496-5183, and email is cafrica@fas.harvard.edu.

Courses of Interest

African and African American Studies 20. Introduction to African Languages and Cultures
African and African American Studies 90r. African Language Tutorials
African and African American Studies 97b. Topics in African American History and Society: Mass Incarceration and the Future of Black America
African and African American Studies 121. Elementary Swahili
African and African American Studies 121a (formerly African and African American Studies 121ar). Readings in Swahili
African and African American Studies 121b (formerly African and African American Studies 121br). Readings in Swahili
[African and African American Studies 140z. The Other African Americans]
African and African American Studies 141. Afro-Atlantic Religions
[African and African American Studies 169. Visualizing Africa]
[African and African American Studies 185. The African Novel]
***African and African American Studies 310. Individual Reading Tutorial**
[Anthropology 1320 (formerly Anthropology 131). Hunter-Gatherers]
Anthropology 1600 (formerly Anthropology 110). Introduction to Social Anthropology
[Anthropology 1620 (formerly Anthropology 123). Environment and Environmentalism: Anthropological Perspectives: Conference Course]
[Anthropology 1750. Syncretism: Seminar]
[*Anthropology 1830 (formerly *Anthropology 193). Social Suffering: An Introduction to Medical Anthropology]
[Anthropology 1860 (formerly Anthropology 136). Colonial Departures]
[Anthropology 2730 (formerly Anthropology 234). Postcoloniality and Ethnography]
Anthropology 2770 (formerly Anthropology 277). Development Dilemmas
***Comparative Literature 283. Language War: Seminar**
Economics 2390b. Development Economics I: Microeconomic Issues
Economics 2390c. Development Economics II: Growth
Economics 2390d. The Economic Growth and Development Workshop
***Economics 3390hf. Research in Economic Development**
English 167p. Postcolonial Narratives
Ethiopic 120ar. Readings in Classical Ethiopic (Ge'ez) Texts I
Ethiopic 120br. Readings in Classical Ethiopic (Ge'ez) Texts II
***Ethiopic 300. Ethiopian Semitic Language and Literature**
[Foreign Cultures 70. Understanding Islam and Contemporary Muslim Societies]
Foreign Cultures 86. West African Cultures
French Cb. Intermediate French II: La Francophonie
French 27. Oral Expression I: Le Français parlé
French 42. Introduction au monde francophone
French 70c. Introduction to French Literature III: The Francophone World
French 181. African Orality and the Francophone Novel

French 189. Francophone Poetry and Drama
French 194. Francophone Film and Literature
French 277 (formerly French 195). The African and Caribbean Novel in French: Comparative Perspectives
French 289r. French African Literature: Seminar
*Freshman Seminar 32w. African Musical Traditions
[Government 90km. The Political Economy of Africa]
Government 1197. The Political Economy of Africa
[Government 2114. Analysis of the Political Economy of Development]
[Government 2162. Perspectives on Political Economy]
***Government 3007. Research Workshop in Political Economy**
[Historical Study A-21. Africa and Africans: The Making of a Continent in the Modern World]
Historical Study B-52. Slavery and Slave Trade in Africa and the Americas
[Historical Study B-57. The Second British Empire]
*History 90g. Major Themes in World History: Colonialism, Imperialism, and Post-Colonialism
[History 1904. The History of Sub-Saharan Africa to 1860]
History 1906. West Africa from the Earliest Times to 1800
[History 1911. A History of Southern Africa]
History 1912. Health, Disease, and Ecology in African History: Conference Course
[History 1922. Protest, Rebellion and Power in East African History: Conference Course]
[History 2908. Sources, Methodology, and Themes in African History: Seminar]
History 2909. Themes in Modern Sub-Saharan African History: Proseminar
History of Art and Architecture 19m. African Architecture and City Planning - An Introduction
[History of Art and Architecture 19y (formerly History of Art and Architecture 19). Introduction to the Art of Africa]
History of Art and Architecture 196. Contemporary Art in Africa
[History of Science 180. Science, Medicine, and Imperialism]
[Literature and Arts B-78. Soundscapes: Exploring Music in a Changing World]
[*Music 178r. Performing Music]
[Religion 1017. New Religious Movements and Society: Conference Course]
Religion 2040. Religion and Human Rights
Religion 2042. Religion, Nationalism, and Peace
[Social Analysis 52. The Political Economy of Development]
*Social Studies 98gh. Economic Development in Africa
*Social Studies 98gn. Poverty, Inequality, and Economic Policy
[Visual and Environmental Studies 189r. (Trans)Cultural Cinema: Aesthetics, Ideology, and Cultural Difference in Nonfiction Filmmaking]

Anthropology

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Anthropology

Arthur Kleinman, Esther and Sidney Rabb Professor of Anthropology *(FAS)* and Professor of Psychiatry and Medical Anthropology *(Medical School) (Chair)*
Daniel S. Adler, Lecturer on Anthropology
Ofer Bar-Yosef, George Grant MacCurdy and Janet G. B. MacCurdy Professor of Prehistoric Archaeology
John C. Barry, Lecturer on Anthropology
Theodore C. Bestor, Professor of Anthropology
Davíd L. Carrasco, Neil L. Rudenstine Professor for the Study of Latin America in the Faculty of Divinity and the Faculty of Arts and Sciences
Steven C. Caton, Professor of Contemporary Arab Studies
Jocelyne Cesari, Visiting Associate Professor of Anthropology *(Sorbonne, France)*
Judith F. Chapman, Lecturer on Anthropology
Paulette G. Curtis, Lecturer on Anthropology
Peter T. Ellison, John Cowles Professor of Anthropology and Dean of the Graduate School of Arts and Sciences
William L. Fash, Bowditch Professor of Central American and Mexican Archaeology and Ethnology
Rowan K. Flad, Assistant Professor of Anthropology
Michael Herzfeld, Professor of Anthropology *(on leave spring term)*
Engseng Ho, Associate Professor of Anthropology and of Social Studies, Post-Doctoral Fellow in the Weatherhead Center for International Affairs *(on leave 2004-05)*
Carole K. Hooven, Lecturer on Anthropology
Cheryl D. Knott, Associate Professor of Anthropology *(on leave spring term)*
Smita Lahiri, Assistant Professor of Anthropology *(on leave 2004-05)*
C. C. Lamberg-Karlovsky, Stephen Phillips Professor of Archaeology and Ethnology
Catalina Laserna, Lecturer on Anthropology
Daniel E. Lieberman, Professor of Anthropology
Susan F. Lipson, Lecturer on Anthropology
Carole A. Mandryk, Lecturer on Anthropology
Frank W. Marlowe, Associate Professor of Anthropology *(on leave spring term)*
J. Lorand Matory, Professor of Anthropology and of African and African American Studies
Robert C. McCarthy, Lecturer on Anthropology, Teaching Assistant in Anthropology, Teaching Assistant in the Core Curriculum
Richard H. Meadow, Senior Lecturer on Anthropology
Pauline E. Peters, Lecturer on Anthropology
David Pilbeam, Henry Ford II Professor of the Social Sciences
Maryellen Ruvolo, Professor of Anthropology
Mary M. Steedly, Professor of Anthropology *(on leave 2004-05)*
Karen Strassler, Lecturer on Anthropology
Ajantha Subramanian, Assistant Professor of Anthropology and of Social Studies *(on leave fall*

term)
Kimberly Theidon, Assistant Professor of Anthropology
Noreen Tuross, Landon T. Clay Professor of Scientific Archaeology
Gary Urton, Dumbarton Oaks Professor of Pre-Columbian Studies
James L. Watson, Harvard College Professor and John King and Wilma Cannon Fairbank Professor of Chinese Society *(Head Tutor)*
Rubie S. Watson, Senior Lecturer on Anthropology
Richard W. Wrangham, Ruth Moore Professor of Biological Anthropology
Nur Yalman, Professor of Social Anthropology and of Middle Eastern Studies
Marc U. Zender, Lecturer on Anthropology

Other Faculty Offering Instruction in Anthropology

Irven DeVore, Ruth Moore Research Professor of Biological Anthropology
Byron J. Good, Professor of Medical Anthropology *(Medical School)*
Theodore Macdonald, Lecturer on Social Studies
David H. P. Maybury-Lewis, Edward C. Henderson Research Professor of Anthropology
Sally F. Moore, Victor S. Thomas Professor of Anthropology, *Emeritus*
Lawrence E. Stager, Dorot Professor of the Archaeology of Israel
Stanley J. Tambiah, Esther and Sidney Rabb Research Professor of Anthropology

Within the field of concentration there are three special fields: Archaeology, Biological Anthropology, and Social Anthropology. For the requirements in these special fields, consult the Undergraduate Office of the department.

Department of Anthropology course listings are numerically ordered as follows:

1000-1299 and 2000-2299: Archaeology

1300-1599 and 2300-2599: Biological Anthropology

1600-1999 and 2600-2999: Social Anthropology

Primarily for Undergraduates

***Anthropology 91r. Supervised Reading and Research**
Catalog Number: 2537
James L. Watson
Half course (fall term; repeated spring term). Hours to be arranged.
Special study of selected topics in Anthropology, given on an individual basis and directly supervised by a member of the Department. May be taken for a letter grade or Pass/Fail. To enroll, a student *must submit a petition form* (available from the Anthropology Undergraduate Office, William James 352, or downloadable from the department's website), signed by the adviser under whom he or she wishes to study, and a proposed plan of study.

***Anthropology 92r. Research Methods in Museum Collections**
Catalog Number: 7712
James L. Watson
Half course (fall term; repeated spring term). Hours to be arranged.
Special (individual) study of Peabody Museum collections directly supervised by a faculty member and a member of the curatorial staff. Requires a project involving a Harvard Museum collection, developed in consultation with the supervisors.
Note: Must be taken for a letter grade. Priority given to students in Anthropology and related departments. To enroll, *submit a petition form* (available from the Undergraduate Office, William James 352), signed by both supervisors, a proposed research agenda, during the term preceding the term of enrollment. Information sheets with Museum contacts available in William James 352.

***Anthropology 99. Tutorial — Senior Year**
Catalog Number: 5830
James L. Watson
Full course. Hours to be arranged.
Research and writing of the Senior Thesis. Limited to honors candidates. Signature of the faculty adviser required.

Archaeology

Primarily for Undergraduates

***Anthropology 97x. Sophomore Tutorial in Archaeology**
Catalog Number: 0400
Daniel S. Adler
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
The sophomore tutorial provides a background in archaeological method and theory, particularly focusing on small-scale societies. Specific topics include the origin of anatomically modern humans, the peopling of the New World, and the nature of small-scale societies in both modern and ancient contexts. Weekly readings (drawn from the current journal literature), discussions, several short writing assignments.
Note: Required of all concentrators.

***Anthropology 98xa. Junior Tutorial in Archaeology**
Catalog Number: 2959
Daniel S. Adler
Half course (fall term). M., 2–4.
The junior tutorial provides a background in archaeological method and theory through critical analysis of selected issues and debates particularly focusing on more complex societies. Specific topics include the origins of agriculture and the domestication of animals, the development of complexity and "civilization", post-colonial and historical archaeology, and related ethical and theoretical issues. Weekly readings (drawn from current journal literature), discussions, several short writing assignments.
Note: Required of all concentrators in Archaeology.

***Anthropology 98xb. Junior Tutorial in Archaeology**
Catalog Number: 3568
James L. Watson
Half course (spring term). Hours to be arranged.
This individual tutorial for archaeology students intending to write a senior thesis is normally undertaken with a member of the faculty during the second term of junior year. To enroll, a student *must submit a petition form* (available from the Anthropology Undergraduate Office, William James 352, or downloadable from the department's website) with a proposed course plan of study and the tutorial adviser's signature.
Note: Required of candidates for honors in Archaeology.

For Undergraduates and Graduates

Anthropology 1000 (formerly Anthropology 100). Rediscovering Past Societies: A Survey of World Prehistory
Catalog Number: 7182
Daniel S. Adler and Rowan Flad
Half course (fall term). M., W., at 11, and laboratory hours to be arranged. EXAM GROUP: 4
An introduction to world prehistory. We explore the major themes from our human past, beginning with the evolution and behavior of our closest hominid ancestors from over five million years ago and continuing up through the formation of the great civilizations of the Old and New Worlds. A sub-text of the course is how archaeological knowledge is constructed.
Note: Open to freshmen.

Anthropology 1010 (formerly Anthropology 101). Introduction to Archaeology
Catalog Number: 8727
Daniel S. Adler
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
We are concerned with the actual practice of archaeology: How do archaeologists know where to dig? Why do we dig square holes? How do we analyze and understand what we find? The lecture/laboratory format integrates methods and theory to provide an overview of mapping, excavation strategy, stratigraphy, chronology, and analytic and interpretive techniques to reconstruct ancient diet, trade, and political systems. Peabody Museum collections provide hands-on experience with various methods of analysis.
Prerequisite: Anthropology 100 suggested but not required.

[Anthropology 1040 (formerly Anthropology 140). Origins of the Food We Eat]
Catalog Number: 1837
Ofer Bar-Yosef and Richard H. Meadow
Half course (fall term). Hours to be arranged.
Evaluates ideas concerning the transition from hunting-gathering to agriculture and pastoralism in key areas (West Asia, East Asia, Latin America). Discusses the emergence of cultivation, adoption of plant foods, and domestication of animals. Considers mechanisms for the spread of foods across the world during pre- and early history as well as beginning ca 1500 AD. Discusses the "green revolution" and genetically modified foods, together with the impact of global

warming on the future of agriculture.
Note: Expected to be given in 2005–06.

Anthropology 1060 (formerly Anthropology 166). Archaeological Science
Catalog Number: 2013
Noreen Tuross
Half course (spring term). M., 7–10 p.m. EXAM GROUP: 9
Focus on physical science and engineering methods and techniques used by archaeologists in the reconstruction of time, space, and human paleocology, and analysis of archaeological materials. Topics include 14C dating, ice core and palynological analysis, stable isotope chemistry of palaeodietary foodwebs, soil micromorphology and site formation, Pb isotope sourcing of metal artifacts, and microstructural and mechanical analyses of cementitious materials used in ancient monumental buildings.
Note: Meets at MIT.
Prerequisite: One year of college-level chemistry or physics.

Anthropology 1080. North American Prehistory
Catalog Number: 5190
Carole A. Mandryk
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
Archaeology and culture history of Native North America, from first colonization over 12,000 years ago, to the arrival of Europeans. Topics include intellectual and scientific contexts of the discipline's development; theories and debates over the arrival of modern humans in the New World; adaptations to changing Holocene environmental conditions; trends in cultural evolution on a continental scale; the development of agriculture and emergence of complexity; dynamic contact period interactions; current political relationships and ethical issues.

Anthropology 1090. Ethnography and Archaeology
Catalog Number: 8716
Gary Urton
Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7
Archaeologists often draw on ethnographic investigations of Western and non-Western societies as sources of explanation for ancient cultural practices. But the questions remain: How useful is ethnoarchaeology and how valid is the appeal to ethnographic analogy in the study of the past? What assumptions (explicit and implicit) do archaeologists make about socio-cultural processes in their uses of ethnographic studies? These are some of the questions addressed in this course in which there is frequent use of materials from the Peabody Museum collections.

[Anthropology 1110 (formerly Anthropology 135). The Archaeology of the American Southwest]
Catalog Number: 8755
Steven A. LeBlanc
Half course (spring term). Hours to be arranged.
Considers the prehistory of the American Southwest from Paleo-Indian times to European contact. Topics include the adoption of agriculture, the development and then collapse of social complexity, and how and why regional differences appeared. A basic familiarity with the

artifacts—pottery, stone tools, etc.—will be developed, as well as a working knowledge of the major sites in the region, such as Mesa Verde, Chaco Canyon, and Casas Grandes. Some early ethnographies are also discussed.
Note: Expected to be given in 2005–06. Open to upper-division and graduate students.

Anthropology 1120. Comparative Analysis of Ancient Civilizations
Catalog Number: 7474
C. C. Lamberg-Karlovsky
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
An analysis of the similarities and differences in the emergence of Mesopotamia, Egypt, Central Asia, and the Indus Valley. Economic, political, and religious systems are compared as are technology and demography.

***Anthropology 1140. Human Modification of the Landscape**
Catalog Number: 5898
Noreen Tuross
Half course (fall term). Hours to be arranged.
Northern New England provides the archaeologist and environmental scientist with a natural experiment in land clearing due to the agricultural practices of humans and the subsequent reforestation of the ecosystem. This course will concentrate on laboratory methods usable onsite to uncover evidence of past land use and change. The following approaches will be explored in the context of a historic farm site: soil phosphate composition and distribution, FTIR (Fourier-transform infrared spectroscopy), pollen and phytolith analysis, and an introduction to mobile molecular biology.
Note: This course has a 10-day residential component prior to the start of the semester (September 9-19, 2004).

Anthropology 1170. Mesoamerican Writing Systems
Catalog Number: 3706
Marc U. Zender
Half course (spring term). W., F., 3–4:30. EXAM GROUP: 8, 9
This course presents a survey of selected writing systems from the Precolumbian civilizations of Mexico, Guatemala and Belize, sampling the results of recent decipherments and examining what historical writings can tell us about the past. Although all of the known writing systems of Mesoamerica will be touched upon, emphasis will be on the fully phonetic scripts of this region (i.e., the Maya, Aztec and Isthmian scripts), specifically their origins, development and sociopolitical uses.

[Anthropology 1174 (formerly Anthropology 174). The Incas]
Catalog Number: 5311
Gary Urton
Half course (spring term). Hours to be arranged.
An introduction to the archaeology of the Incas beginning with an overview of pre-Inca civilizations of Andean South America. Attempts to understand how the Inca integrated the varied peoples and resources of the Andes into a unified empire. Ends with an overview of the destruction and transformation of Inka society and culture under Spanish colonialism. Studies

Inka materials in the Peabody Museum collection.
Note: Expected to be given in 2006–07.

[Anthropology 1175 (formerly Anthropology 175). The Archaeology of Ethnicity]
Catalog Number: 1022
Gary Urton
Half course (spring term). Hours to be arranged.
Ethnic identity and conflict are among the most powerful processes and relations shaping the world we live in today. Questions addressed include: What can we understand about ethnic identity and relations in the prehistoric world on the basis of the archaeological record? For example, how might differences in material culture represent and reflect markers of ethnic identity? The Peabody Museum collections will provide materials for study and analysis.
Note: Expected to be given in 2005–06.

[Anthropology 1177 (formerly Anthropology 177). South American Archaeology]
Catalog Number: 6996
Gary Urton
Half course (fall term). Hours to be arranged.
Provides an overview of Pre-Columbian civilizations on the continent of South America from the earliest record of human habitiation to the time of the European invasion, in the sixteenth century. Focuses on the archaeology of the Amazon and Orinoco rivers, the Andes, and the Pacific coast of Peru and Chile. Extensive use will be made of the South American collections in the Peabody Museum.
Note: Expected to be given in 2006–07.

Anthropology 1210. Chinese Archeology: Paleolithic to Shang
Catalog Number: 1793
Rowan K. Flad
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
An intensive survey of the archaeology of China from the Paleolithic (ca. 1 million years before present) up to and including the Shang Dynasty (ca. 1050 BC), with an emphasis on the emergence of complex society during the late Neolithic and Early Bronze Age. We survey many of the most important archaeological finds from these periods in China and examine various issues in anthropological archaeology as they relate to data from early Chinese contexts.

Anthropology 1220. Human Evolution: The Record of the Material Culture
Catalog Number: 4504
Ofer Bar-Yosef
Half course (spring term). F., 1–3. EXAM GROUP: 6, 7
Discussions and presentations of archaeological finds (stone, bone and wooden tools, hearths, site spatial organization, etc.) from the earliest Stone Age some 2.5 million years ago through the transition to Neolithic farming and herding communities.

Primarily for Graduates

***Anthropology 2000 (formerly *Anthropology 200). Osteoarchaeology Lab**
Catalog Number: 0363 Enrollment: Limited to 12.
Richard H. Meadow
Half course (fall term). Hours to be arranged.
Introduction to the osteoarchaeological analysis. Identification of animal bones and teeth from archaeological sites using comparative materials and their characterization employing visual, metric, and microscopic methods.
Note: Given in alternate years. Open to qualified undergraduates. Fulfills laboratory course requirement for archaeology graduate students.

[Anthropology 2010r (formerly Anthropology 266r). Materials in Ancient Societies: Metals]
Catalog Number: 7163

Half course (fall term; repeated spring term). Hours to be arranged.
The scientific analysis of stone used for tools, luxury goods, and construction. Laboratory techniques for identifying rock types and determining rock properties, tool manufacturing sequences. Investigation of prehistoric technologies and economies based on stone.
Note: Expected to be given in 2005–06. Open to senior undergraduates with permission of instructor.

***Anthropology 2040. Introduction to Archaeological Biochemistry Techniques**
Catalog Number: 6715
Noreen Tuross
Half course (spring term). Tu., 1:30–3:30. EXAM GROUP: 15, 16, 17
Note: Enrollment restricted to graduate students and upper level undergraduates with approved projects ongoing in the Archaeological Sciences Laboratory.

[Anthropology 2050 (formerly Anthropology 252). Introduction to Maya Hieroglyphs]
Catalog Number: 3684

Half course (fall term). Hours to be arranged.
Examines the pre-Hispanic literary traditions of Mayan civilization through an intensive examination of its hieroglyphic writing system. Emphasizes recent advances in the decipherment and interpretation of ancient Maya inscriptions, providing a basic reading knowledge of the script through exercises and case studies. Broader issues addressed include the social and political contexts of writing systems and the uses and limits of textual data in archaeological interpretation.
Note: Expected to be given in 2005–06.

Anthropology 2060. Holy War, the Aztec Empire, and the Spanish Conquest
Catalog Number: 4170
Davíd L. Carrasco
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
This course focuses on the cultural constructions of “holy war” in the Aztec Empire and the Spanish conquest of Mexico. We utilize religious studies and archaeology to compare the

religious dimensions of Aztec and Spanish holy warfare.
Note: Offered jointly with the Divinity School as 3839.

[*Anthropology 2080r (formerly *Anthropology 288r). Zooarchaeology: Seminar]
Catalog Number: 5453
Richard H. Meadow
Half course (fall term). Hours to be arranged.
Topics relating to the analysis and interpretation of faunal remains from archaeological sites covered. The domains of taphonomy, assemblage characterization, quantification, environmental and dietary reconstruction, and human/nonhuman animal interaction, and genetic studies considered using case studies.
Note: Expected to be given in 2005–06. Given in alternate years. Does not fulfill laboratory requirement for Archaeology graduate students.

[Anthropology 2110r (formerly Anthropology 211r). Issues in Mesoamerican Archaeology: Seminar]
Catalog Number: 7276

Half course (fall term). Hours to be arranged.
Considers current topics and debates in the archaeology of Mesoamerica, with special emphasis on ancient Maya civilizations. Readings and discussions focus on aspects of social process, political history, and their interplay with ritual and ideology.
Note: Expected to be given in 2005–06.

Anthropology 2175. The Inca Quipu
Catalog Number: 0329
Gary Urton
Half course (spring term). Tu., Th., 1:30–3. EXAM GROUP: 15, 16
An examination of the principal Inca record-keeping device. We read studies on quipu record keeping from Pre-Columbian through early colonial times, and study the quipus in the Peabody Museum.

Anthropology 2240. Archaeology of Production: Seminar
Catalog Number: 8589
Rowan K. Flad
Half course (spring term). Th., 3–6. EXAM GROUP: 17, 18
An exploration of production in archaeological contexts. Topics include specialization, craft production, production and power, the practice/performance of production, production and gender, ritualized production, and the production of memory.

Cross-listed Courses

Ancient Near East 105. History of the Ancient Near East: The Levant (up to Alexander the Great)
Ancient Near East 109r. History and Historiography in the Ancient Near East: Seminar
Ancient Near East 115. Archaeology of the Levant (Syria-Palestine)

[Ancient Near East 117. Biblical Archaeology]
[Ancient Near East 118. Syro-Palestinian Pottery]
***Ancient Near East 215r. Problems in the Archaeology of Bronze and Iron Age Levant: Seminar**
Foreign Cultures 34. Mesoamerican Civilizations
***Freshman Seminar 48e. Reading, Writing, and Arithmetic in the Ancient World**
[Indian Studies 117 (formerly *Indian Studies 216). Early History of South Asia]
Social Analysis 50. Urban Revolutions: Archaeology and the Investigation of Early States

Biological Anthropology

Primarily for Undergraduates

***Anthropology 97y. Sophomore Tutorial in Biological Anthropology**
Catalog Number: 3170
Daniel E. Lieberman
Half course (spring term). Hours to be arranged.
An introduction to the issues and methods of biological anthropology, including evolutionary theory and its application to humans. Focuses on the comparison of primate and human physiology and social behavior as ecological adaptations and their application to understanding human evolution. Weekly readings, discussions, and short writing assignments, with a final research paper and presentation.
Note: Required of and limited to biological anthropology concentrators.

For Undergraduates and Graduates

[Anthropology 1310 (formerly Anthropology 111). Behavioral and Reproductive Endocrinology]
Catalog Number: 2265
Judith F. Chapman
Half course (fall term). Hours to be arranged.
An introduction to the interaction between hormones and behavior, emphasizing research in primates, especially humans. General principles of endocrine physiology are presented. Next, the course focuses on sexual differentiation and the organizing and activation effects of hormones on the brain. Then we will explore the ecology of human reproduction, including the hormonal regulation of life history strategy, energy metabolism, mating, seasonality, and parental behavior. Delves into the hormones and the psyche.
Note: Expected to be given in 2005–06.
Prerequisite: Science B-29, Science B-17, Biology 1, Biology 2, or Anthropology 138.

[Anthropology 1320 (formerly Anthropology 131). Hunter-Gatherers]
Catalog Number: 5359
Frank W. Marlowe
Half course (fall term). Hours to be arranged.
The ethnographic literature on hunter-gatherers is examined from an evolutionary, ecological perspective. Cross-cultural variation in diet, foraging practices, technology, residence,

reproduction, and cooperation are analyzed.
Note: Expected to be given in 2005–06.

[Anthropology 1330 (formerly Anthropology 106). Primate Social Behavior]
Catalog Number: 4332
Richard W. Wrangham
Half course (spring term). Hours to be arranged.
A review of the behavioral interactions in natural primate populations, drawing on experimental, observational, and theoretical studies. Discussion of ecological, physiological, and developmental bases of primate social behavior, with special attention to the evolution of patterns of behavioral interactions among individuals of different age, sex, relatedness, and status. Topics include sexual conflict, sexual selection, and mating systems; care of offspring and other aid-giving; manipulative and cooperative aspects of communication; competition, dominance, and territoriality; and the evolution of social relationships.
Note: Expected to be given in 2005–06.
Prerequisite: Introductory biology or Science B-29.

[Anthropology 1340 (formerly Anthropology 134). Race and Racism in Evolutionary Perspective]
Catalog Number: 3916
Frank W. Marlowe
Half course (spring term). Hours to be arranged.
A cross-species and cross-cultural examination of the roots of group conflict and cooperation that today manifest themselves in human ethnocentism, racism, and religious and class conflicts. To this end, human biological variation and its causes are surveyed, and the formation of ethnic groups investigated.
Note: Expected to be given in 2005–06.

Anthropology 1365. Sex Differences in Humans
Catalog Number: 3432 Enrollment: Limited to 15.
Carole K. Hooven
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
Why are men and women different? This course will use an evolutionary perspective to investigate the significance of sex differences in human physiology, behavior and cognition. Students will gain a grounding in the biological processes that lead to differences in male and female bodies and brains. We'll then discuss topics such as sex differences in cognition and dominance behavior, emphasizing the role of sex hormones.

[Anthropology 1370 (formerly Anthropology 137). Evolution and Human Behavior]
Catalog Number: 6675
Frank W. Marlowe
Half course (spring term). Hours to be arranged.
Human behavior is examined across modes of substence and in relation to other species. Topics include life history, optimal foraging, parental care, mating systems, cooperation, morality, social stratification, and cultural evolution.

Note: Expected to be given in 2005–06.
Prerequisite: Science B-29 or permission of instructor.

***Anthropology 1375. Testosterone and Human Behavior**
Catalog Number: 6933 Enrollment: Limited to 15.
Judith Flynn
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
An exploration of current research in human behavior and testosterone, including the relationships between normal variation in testosterone and variation in traits such as cognition, aggression, personality traits, and sexual behavior within both males and females. Medical uses of testosterone, such as anabolic steroids, hormone replacement therapy, and reassignment, are explored.
Note: Preference given to biological anthropology concentrators.

Anthropology 1380 (formerly Anthropology 138). The Behavioral Biology of Women
Catalog Number: 8721
Cheryl D. Knott
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
An exploration of female behavior focusing on evolutionary, physiological, and biosocial aspects of women's lives from puberty, through reproductive processes such as pregnancy, birth, lactation, to menopause and aging. Also explores female life history strategies in different cultural settings. Topics include cognitive and behavioral differences between men and women; violence against women; and women's reproductive health choices. Examples are drawn from traditional and modern human societies and data from nonhuman primates are considered.

Anthropology 1410 (formerly Anthropology 114). Evolution of Human Sexuality: Research Seminar
Catalog Number: 8546 Enrollment: Limited to 10. Preference given to anthropology undergraduates.
Frank W. Marlowe
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
An examination of human sexuality in evolutionary perspective. Topics include sexual selection, mate preferences, mating systems, sex differences, and sexual orientation, among other things. Students collect original data and analyze them for their research projects, with feedback from the class.
Note: Fulfills the research seminar requirement for anthropology concentrators.
Prerequisite: Science B-29 or permission of instructor.

[Anthropology 1415 (formerly Anthropology 115). Primate Evolutionary Ecology: Research Seminar]
Catalog Number: 6341
Cheryl D. Knott
Half course (spring term). Hours to be arranged.
An exploration of interactions between primates and their environments in an evolutionary context. Lectures discuss the influence of ecological processes on primate behavioral and morphological adaptations. Topics include environmental influences on social structure, mating

systems, ranging and intergroup spacing, diet and nutrition, juvenile development, and reproductive and energetic physiology. Comparisons between the great apes are emphasized. Projects will involve learning methods of primate observation, energetic analysis and ecological investigation to explore socioecological questions using local vertebrates.
Note: Expected to be given in 2005–06.
Prerequisite: An introductory course in Biology, Science B-29, or permission of instructor.

***Anthropology 1418 (formerly *Anthropology 118). Endocrinology and Behavior: Research Seminar**
Catalog Number: 1437 Enrollment: Limited to 8. Preference given to anthropology graduate and undergraduate students.
Susan F. Lipson
Half course (spring term). M., W., at 11 and a weekly laboratory either M. or W. 2-5. EXAM GROUP: 4
An introduction to laboratory techniques and research design in behavioral endocrinology. Students develop and conduct pilot research projects.
Note: Fulfills research seminar requirement for anthropology concentrators.
Prerequisite: Anthropology 111.

Anthropology 1420 (formerly Anthropology 142). Human Anatomy
Catalog Number: 6233
Daniel E. Lieberman
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
An integrative overview of human anatomy, with a focus on the musculo-skeletal system, including aspects of developmental biology, functional morphology, and physiology. Topics include: muscle and skeletal development, anatomy, and histology; the biomechanics of muscles and bones; craniofacial growth and development; the functional morphology of chewing, respiration, vocalization, locomotion, and other activities. Special attention paid to the unique aspects of human anatomy.
Note: No prior knowledge of anatomy is required.

Anthropology 1425 (formerly Anthropology 125). Primate and Human Nutrition: Research Seminar
Catalog Number: 7064
Cheryl D. Knott and Nancy Lou Conklin-Brittain
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
An introduction to laboratory study in the biochemical analysis of plant and animal foods, and of human and animal digestive physiology and feeding behavior. Topics include nutritional requirements, primate and human dietary adaptations and the nature of early hominid diets. Projects may include laboratory analyses of plant and animal foods, including samples collected from ongoing wild primate field projects or modern hunter/gatherer projects.

Anthropology 1430. Comparative Methods in Biological Anthropology
Catalog Number: 6434
Robert C. McCarthy
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18

Provides the student with an understanding of several key quantitative techniques used in comparative research, applicable to ecological, behavioral, morphological, or physiological data. Topics covered include experimental design; basic logic of statistical inference; scaling and allometry; data reduction; and phylogenetic comparative methods. Also covers issues in the philosophy of science related to causation, function, and explanation; and reviews controversies concerning testing for adaptation and constraint.

Anthropology 1440. Primate Life History and Development
Catalog Number: 9049
Robert C. McCarthy
Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 3
Examines the impact of life history on morphology, ecology, physiology and social behavior in the major groups of primates. Emphasis is placed on a comparative framework for studying growth and development; evolution of sexual dimorphism and primate social systems; and interrelationships among key life history attributes such as dental eruption, brain and body growth and weaning. In addition, this course examines the expanding contribution of evolutionary and developmental biology to life history theory.

[Anthropology 1445. The Hominoidea]
Catalog Number: 1391
David Pilbeam
Half course (fall term). Hours to be arranged.
A lecture-seminar course on the hominoid primates focusing on both the living and the fossil records, within genetical, morphological, and behavioral-ecological frameworks of the living apes.
Note: Expected to be given in 2005–06.
Prerequisite: Science B-27, Anthropology 1330 and 1420.

***Anthropology 1463 (formerly *Anthropology 163). Molecular Evolution of the Primates**
Catalog Number: 3359
Maryellen Ruvolo
Half course (fall term). W., 1–4. EXAM GROUP: 6, 7
Introduction to the primates, emphasizing their molecular evolutionary history and the forces that mold their genomes. Topics include the neutral theory of molecular evolution, molecular clock concept and its applications, evolution of multigene families, relationships between primate morphological and molecular evolution, molecular convergences, evidence for horizontal gene transfer in primate genomes, and evolution of simian and human immunodeficiency viruses, color vision genes.
Prerequisite: Biological Sciences 50.

Anthropology 1465. Human Origins
Catalog Number: 7735
David Pilbeam and Daniel E. Lieberman
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
A seminar course discussing recent developments and literature in human evolution.
Prerequisite: Science B-27 and Anthropology 1420.

[*Anthropology 1494r (formerly *Anthropology 194r). The Hominid Fossil Record]
Catalog Number: 2462
David Pilbeam
Half course (fall term). Hours to be arranged.
A lecture-laboratory course on the fossil record of Hominidae, focusing on analysis and interpretation of the record based on casts.
Note: Expected to be given in 2005–06. Fulfills the research seminar requirement for anthropology concentrators.
Prerequisite: Science B-27

Anthropology 1550. Bones and Teeth: Seminar
Catalog Number: 0236
Daniel E. Lieberman and Noreen Tuross
Half course (fall term). M., 1–4. EXAM GROUP: 6, 7, 8
A review of the biology of bones and teeth at multiple levels of organization and function. Topics include genetics of development and growth, physiology, function, composition, structure (from the ultra-structural to macroscopic levels), and age-related changes. Bone and tooth diagenesis are also considered.

Anthropology 1560r (formerly Anthropology 181r). Biology of Aggression
Catalog Number: 6107
Richard W. Wrangham
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
Discussion will focus on primate inter-group aggression, with particular attention to humans and chimpanzees. The course will be based around a behavioral-ecological perspective but will include readings from various disciplines, including behavioral ecology, behavioral genetics, social psychology, developmental psychology, neurobiology, social anthropology, political science and international relations.

***Anthropology 1580 (formerly *Anthropology 158). The Fossil Record and Primate Evolution: Research Seminar**
Catalog Number: 3509 Enrollment: Limited to 8.
John C. Barry
Half course (fall term). Tu., 1:30–3. EXAM GROUP: 15, 16
An introduction to the analysis of fossils and interpretation of the fossil record. Reading and discussion focuses on two topics: 1) the possibilities and limitations of the fossil record and 2) the origin and extinction of species, and the role of limate in shaping life's history. Students will have individual or group research projects.
Prerequisite: Science B-27 or permission of instructor.

Primarily for Graduates

[*Anthropology 2330 (formerly *Anthropology 203). Human Genetic Diversity: Seminar]
Catalog Number: 0775
Maryellen Ruvolo
Half course (fall term). Hours to be arranged.

Note: Expected to be given in 2005–06. Limited to biological anthropology graduate students with a genetics background.

***Anthropology 2337r (formerly *Anthropology 237br). Advanced Laboratory Methods in Human Endocrinology II**
Catalog Number: 5345
Susan F. Lipson
Half course (spring term). Hours to be arranged.
Note: Intended for students engaged in laboratory research on human endocrinology.

Anthropology 2350ar (formerly Anthropology 235ar). Laboratory Methods in Primate and Human Nutrition I
Catalog Number: 2187
Cheryl D. Knott
Half course (fall term). Hours to be arranged.
Independent laboratory study in the biochemical analysis of plant and animal foods, and of human and animal digestive physiology and feeding behavior.

[Anthropology 2350br (formerly Anthropology 235br). Laboratory Methods in Primate and Human Nutrition II]
Catalog Number: 3292
Cheryl D. Knott
Half course (spring term). Hours to be arranged.
Independent laboratory study in the biochemical analysis of plant and animal foods, and of human and animal digestive physiology and feeding behavior.
Note: Expected to be given in 2005–06.

[Anthropology 2360r (formerly Anthropology 206r). Topics in Paleolithic Archaeology and Human Evolution]
Catalog Number: 8630
Ofer Bar-Yosef and David Pilbeam
Half course (fall term). Hours to be arranged.
Selected topics in Old World paleoanthropology. Topics include Homo erectus and modern human dispersions, Eurasian colonization, survival strategies of the Neanderthals and their demise, radiometric techniques, transition to Upper Paleolithic, strategies of past foragers.
Note: Expected to be given in 2006–07.

Anthropology 2390ar (formerly Anthropology 239ar). Advanced Laboratory Methods in Primate Endocrinology I
Catalog Number: 9945
Cheryl D. Knott
Half course (fall term). Hours to be arranged.
Intended for students engaged in laboratory research on non-human primate endocrinology.

[Anthropology 2390br (formerly Anthropology 239br). Advanced Laboratory Methods in Primate Endocrinology II]

Catalog Number: 8585
Cheryl D. Knott
Half course (spring term). Hours to be arranged.
Intended for students engaged in laboratory research on non-human primate endocrinology.
Note: Expected to be given in 2005–06.

[Anthropology 2410 (formerly Anthropology 219). Cross-Cultural Evolutionary Analysis]
Catalog Number: 9639
Frank W. Marlowe
Half course (spring term). Hours to be arranged.
Cross-cultural variation in a broad range of traits, from kinship to mating systems to social stratification and warfare, will be analyzed using data from the Standard Cross-Cultural Sample and the Human Relations Area Files.
Note: Expected to be given in 2005–06. Open to graduate students and upper-division undergraduates in anthropology.

Anthropology 2420. Apes and Human Foragers
Catalog Number: 7212
Frank W. Marlowe, David Pilbeam, and Richard W. Wrangham
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
A comparison of the ecology, life history, and social behavior of human foragers with our closest relatives.

[Anthropology 2430 (formerly Anthropology 229). Behavioral Biology Seminar]
Catalog Number: 3777
Frank W. Marlowe
Half course (fall term). Hours to be arranged.
Reading and discussion of current research in behavioral biology of primates (including humans) in parallel with Science B-29.
Note: Expected to be given in 2005–06. Required of entering graduate students in biological anthropology. Open to other graduate students with permission of instructor. Limited to graduate students. Given in alternate years.

***Anthropology 2595ar (formerly *Anthropology 295ar). Laboratory Methods in Evolutionary Genetics**
Catalog Number: 7934
Maryellen Ruvolo
Half course (fall term). Hours to be arranged.
Note: Limited to graduate students and undergraduates conducting senior thesis research.

***Anthropology 2595br (formerly *Anthropology 295br). Laboratory Methods in Evolutionary Genetics**
Catalog Number: 6468 Enrollment: Limited to graduate students and undergraduates conducting senior thesis research.
Maryellen Ruvolo
Half course (spring term). Hours to be arranged.

Cross-listed Courses

Biological Sciences 50. Genetics and Genomics
***Freshman Seminar 21j. Human Evolution**
***OEB 121a (formerly *Biology 121a). Advanced Structure and Physiology of the Vertebrates**
OEB 174r (formerly Biology 174r). Topics in Behavioral Ecology: Learning and Memory
Quantitative Reasoning 34. Counting People
Science B-27. Human Evolution
Science B-29. Evolution of Human Nature

Social Anthropology

Primarily for Undergraduates

***Anthropology 97z. Sophomore Tutorial in Social Anthropology**
Catalog Number: 5832
John M. Norvell
Half course (spring term). Hours to be arranged. EXAM GROUP: 7
The sophomore tutorial provides an in-depth exploration and critique of major theoretical approaches in social and cultural anthropology, the historical context of their emergence, and their contribution and relation to the discipline as a whole. Seminar members will have a chance to read and discuss selected works by key theorists, and to see how their ideas have shaped ethnographic description and analysis.
Note: Required of all concentrators.

***Anthropology 98z. Junior Tutorial in Social Anthropology**
Catalog Number: 4503
James L. Watson
Half course (fall term). Hours to be arranged.
Junior tutorials in Social Anthropology explore critical theoretical issues related to a single ethnographic region (eg. South Asia, Africa, Latin America). The issues and areas change from year to year, but the purpose remains the same: to give students a chance to grapple with advanced readings and to experience the ways that ideas and theories can be applied and critically analyzed in ethnographic studies.

For Undergraduates and Graduates

Anthropology 1600 (formerly Anthropology 110). Introduction to Social Anthropology
Catalog Number: 8296
Michael Herzfeld (fall term) and J. Lorand Matory (spring term)
Half course (fall term; repeated spring term). Fall: M., W., (F.), at 10; Spring: M., W., (F.), at 1. EXAM GROUP: Fall: 3; Spring: 6
An introductory exploration of anthropological approaches to society, culture, language, and history. Lectures, readings, and recent ethnographic films give an in-depth look at social and cultural diversity. Students are given the opportunity to grapple with the intellectual and ethical

challenges that confront all anthropologists in making sense of human difference, experience, and complexity. From year to year, this basic course may be taught by different instructors, all of whom bring insights from their own ethnographic fieldwork in other societies and share their theoretical expertise in examining a wide range of topics, including kinship, social and political hierarchy, exchange, subsistence patterns, gender, language, ideology, religion, and global political economic systems.
Note: Open to freshmen.

***Anthropology 1610. Ethnographic Research Methods**
Catalog Number: 2622
Theodore C. Bestor
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
Introduction to methodology for contemporary ethnographic field research in anthropology. Students complete assigned and independent research projects relying on a variety of ethnographic methods, under supervision of department faculty.
Note: Priority to students preparing for senior thesis research. Open to undergraduates only.

Anthropology 1615 (formerly Anthropology 108). Anthropology and Human Rights: Contextualizing Universals
Catalog Number: 8509
Theodore Macdonald
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Introduces theory and practice of human rights, with emphasis on increasing roles of anthropologists in analyzing cases and contextualizing rights and duties. Accepting that rights and duties must often be negotiated, course illustrates why and how rights work draws on ethnographic research. Case studies focus on ethnic groups, minorities, development, land, natural resources, and participatory processes in developing States, where cases and debates stand in high relief and demonstrate use of ethnography in interpreting human rights cases and establishing norms.

[Anthropology 1620 (formerly Anthropology 123). Environment and Environmentalism: Anthropological Perspectives: Conference Course]
Catalog Number: 0889 Enrollment: Limited to 25.
Pauline E. Peters
Half course (fall term). Hours to be arranged.
An anthropological exploration of current debates on environment and environmentalism. Through readings on a range of countries and peoples, considers the following themes: the ways in which different groups in different times and places produce cultural constructions of nature, landscape, wilderness, and environment; contestations over the use, knowledge, and meanings of natural resources; movements between the culturalization of nature and the naturalization of culture; environmentalism as discourse; environmental social movements and cults; landscape as commodity.
Note: Expected to be given in 2005–06.

[Anthropology 1630 (formerly Anthropology 132). Anthropology of Religion]
Catalog Number: 9598

Smita Lahiri
Half course (fall term). Hours to be arranged.
From its inception as a discipline addressing non-Western cultures, anthropology has examined the religious beliefs and practices of people who are "not us." Yet the cross-cultural study of phenomena such as "ritual," "sacrifice," and the "sacred" also renders absolute distinctions between "us" and "them" untenable. At a time when religion is in resurgence from the Americas to Asia, Africa, and the Middle East, we survey the contribution of anthropology to understanding its complexity and resilience.
Note: Expected to be given in 2005–06.

Anthropology 1640 (formerly Anthropology 104). Language and Culture
Catalog Number: 5844
Steven C. Caton
Half course (fall term). Tu., Th., at 1, and a section to be arranged. EXAM GROUP: 15
Examines the ways forms of speaking can constitute cultural life and vice versa. A comprehensive overview of linguistic theories of structuralism and their criticism will form the basis on which to proceed to an ethnography of speaking in different societies. Topics will include: the structuralism of Ferdinand de Saussure, the Sapir-Whorf Relativity Hypothesis and its modern evocations, pragmatics, performativity, Bakhtinian dialogicality, and poetry and poetics.
Note: No previous knowledge of linguistics or of anthropology is required. Graduate students attend lectures and enroll in Anthroplogy.

Anthropology 1650 (formerly Anthropology 159). Museums and Representations: Seminar
Catalog Number: 4185 Enrollment: Limited to 12.
Rubie S. Watson
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
Treats the ethnographic museum as a focus for historical and cultural study. By analyzing one early Peabody Museum collection, students will consider the different ways in which material culture is collected, housed, and exhibited. Readings and discussions include issues of art/artifact distinctions, ownership and display, and history of collecting. Students will be asked to work with objects in the Peabody Museum's collections and archival documentation.

Anthropology 1660 (formerly Anthropology 155). Anthropology of Islam in Comparative Perspective
Catalog Number: 3837 Enrollment: Limited to 15.
Jocelyne Cesari (Sorbonne, France)
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
This comparative course analyzes anthropological literature on Islam. Its aim is to clarify what is meant by Islam in the American context by comparing with research on Islam in other cultural and national arenas. Small scale events, such as preaching, ritual observance, and Islamic teaching are considered as a step toward broadening knowledge and understanding of Islam and Muslim communities.

Anthropology 1670 (formerly Anthropology 157). Muslims in Multicultural America
Catalog Number: 9822

Jocelyne Cesari (Sorbonne, France)
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Describes the ethnic and religious variety of Islamic communities in America, immigrant and indigenous. Provides analyses of the ways in which both migrants and African American Muslims are maintaining or reactivating their cultural, ethnic and religious identity in post-9/11 America.
Note: Offered jointly with the Divinity School as 3637.

Anthropology 1675. Global Islam
Catalog Number: 9136 Enrollment: Limited to 30.
Jocelyne Cesari (Sorbonne, France)
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
The course will analyze the emergence, development and increasing influence of contemporary forms of Islamic engagement and thinking such as the Muslim Brothers, Al Qaeda, or Sufi orders that are not limited to a particular country or ethnic/cultural group. The capacity of either conflic or peace carried by these movements at the international level will also be discussed.
Note: Offered jointly with the Divinity School as 3634.

[Anthropology 1680 (formerly Anthropology 133). From Lost Eden to Perfumed Nightmare: Themes in the Anthropology of the Philippines]
Catalog Number: 9492
Smita Lahiri
Half course (spring term). Hours to be arranged.
As a Southeast Asian nation with a history of double colonization by Spain and the US, the Philippines eludes easy categorization within anthropology's regionalist traditions. We use the Philippines to probe some of anthropology's blind spots, and as a springboard for analyzing hierarchy, political culture, religion, and performance through comparisons within and beyond Southeast Asia. Recent topical concerns in anthropology, such as nationalism, marginality, and globalization, will also be explored using Philippine materials.
Note: Expected to be given in 2005–06.

Anthropology 1685 (formerly Anthropology 121). Humans, Aliens, and Future Home Worlds: An Anthropologist Looks at Science Fiction
Catalog Number: 2300
Paulette G. Curtis
Half course (spring term). M., W., (F.), at 11. EXAM GROUP: 4
Science fiction is an entertaining, but also thought provoking, medium that examines attitudes, mores, ideals, and desires concerning culture and society. Through our analysis of largely American sci-fi novels, movies, and television series, we explore these major themes: exploration and contact with 'the alien'; earth invasions, interstellar battles, and other galactic military adventures; the culture and community of space travelers; robots, androids, and other near-humans; and the sci-fi fandom phenomenon.

[Anthropology 1690 (formerly Anthropology 178). Consuming Passions: Cultures of Materialism in Asia]
Catalog Number: 1201

Smita Lahiri
Half course (spring term). Hours to be arranged.
How do objects tell the story of people's lives? How do historical relations of exchange constitute inter-community boundaries and communal identities? What can we read into the explosion of new consumer desires, opportunities and fantasies currently seen in the Asia-Pacific region? Anthropological ideas about "material culture" used to work through contemporary formations of national, gender, sexual, and ethnic identity, primarily but not exclusively in South and Southeast Asia.
Note: Expected to be given in 2006–07.

Anthropology 1699 (formerly Anthropology 199). Life On-line: Culture, Technology, and Democracy
Catalog Number: 2674
John M. Norvell
Half course (spring term). Tu., 3–5. EXAM GROUP: 17, 18
Do human interactions in cyberspace differ only in degree from non-virtual social spaces or has this technology created a truly novel cultural realm? Through recent ethnographic and critical writing on cyberspace, we will explore notions of community, the phenomenology of online experience, the politics and ethics of the Internet, the anthropology of technology, and ethnographic research methods. Reading and discussion will be complemented by student research on the Internet.

Anthropology 1710. Memory Politics
Catalog Number: 3793
Kimberly Theidon
Half course (fall term). Tu., Th., 11:30–1; W., at 2; Tu., at 4; W., at 12. EXAM GROUP: 13, 14
An engagement with an interdisciplinary set of readings that analyze the relationship between memory and social reconciliation, and the role that theories of truth, justice, and redress play in this equation. We analyze truth commissions, forms of justice, and debates regarding reparations, and the points of conjuncture and disjuncture between national discourses and subaltern concepts of truth, justice, and reconciliation. Case studies include Rwanda, South Africa, Guatemala, Peru, and El Salvador.

[Anthropology 1720 (formerly Anthropology 120). Anthropology, Cultural Studies, and Film]
Catalog Number: 1522
Steven C. Caton
Half course (fall term). Hours to be arranged.
Focuses on feature-length commercial film (rather than ethnographic or documentary film) and some of the culture industries (Hollywood and Iran) that produce them. What might an anthropology of film look like? Film theory and cultural studies will be examined for their contributions to the answer to that question. Topics include the culture industry, critical theory, the ethnographic gaze, media studies, modernity, nationalism, and transnationalism.
Note: Expected to be given in 2005–06. Graduate students may enroll and make arrangements for specialized readings and assignments.

Anthropology 1730. Media and Mediation: Anthropology of Communication Technologies
Catalog Number: 9974
Karen Strassler
Half course (fall term). Tu., 4–6. EXAM GROUP: 18
Communications technologies mediate our knowledge of the world, interactions with others, and modes of self-expression. McLuhan's famous dictum that "the medium is the message" suggests that intrinsic semiotic and material qualities of media shape their social and political effects. Through ethnographic and historical readings on such media as writing, books, radio, photography, television, and the Internet, we explore how media trains sensory perceptions and gives rise to novel forms of sociality and imagination.
Note: Undergraduates must have taken introductory anthropology.

Anthropology 1735. Troubles in Paradise: Brazil though Ethnography and Fiction
Catalog Number: 1965
John M. Norvell
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
This course offers an introduction to contemporary Brazilian society and culture through paired ethnographies and Brazilian novels (in translation). We focus on themes of inequality and disillusion in a society which often imagines itself as a natural and social paradise. The course also introduces students to key problems in cultural anthropology by contrasting ethnography and fiction as forms of representation.

Anthropology 1740. Transformations of Mind: The Role of Orality, Literacy and Cybercy
Catalog Number: 2918 Enrollment: Limited to 20.
Catalina Laserna
Half course (spring term). Tu., 11:30–1, Th., 4–5:30, and a lab W., 4–6. EXAM GROUP: 13, 14, 18
How do transformations of modes of knowledge production and reproduction relate to specific language and communication media? Drawing upon research on the transformation of primary oral into literate cultures, this course engages three trends associated with computer mediated communication: the production of knowledge workers, the use simulations in science and, more broadly, the emergence of intentional virtual communities. During lab-time, students experience and reflect on how knowledge building in cyber-environments is both distinct and related to face-to-face and literacy-mediated communication.

[Anthropology 1750. Syncretism: Seminar]
Catalog Number: 3633
J. Lorand Matory
Half course (fall term). Hours to be arranged.
We address hotly debated methods in the study of African-American lifeways. Syncretism is the convergence of practices and beliefs of diverse origins, culminating in the synthesis of new cultural forms, such as Jazz and Cuban *Santeria*. We examine the cultural prefigurations and political conditions that determine local syntheses and complicate conventional models of cultural retention and purity, acculturation, assimilation, pluralism, multiculturalism, hybridity, and *mestizaje*.
Note: Expected to be given in 2005–06.

[Anthropology 1760 (formerly Anthropology 153). Nationalism and Bureaucracy]
Catalog Number: 0291 Enrollment: Limited to 20.
Michael Herzfeld
Half course (spring term). Hours to be arranged.
Explores the ideological and practical foundations and effects of nationalism. Particular attention focused on how nationalism is reproduced by bureaucrats in daily practice, and how rituals of national identity are organized and invested with meaning. Cases include systems of taxation, historic conservation, health care, and immigration. This comparative course covers several different countries and systems, and is designed to highlight the contribution of ethnography to the analysis of national bureaucracies.
Note: Expected to be given in 2005–06.

[Anthropology 1770 (formerly Anthropology 169). Greece and Rome, the Modern Version]
Catalog Number: 1883
Michael Herzfeld
Half course (spring term). Hours to be arranged.
Classical Greece and Rome are usually seen as the twin Classical founts of "Western Civilization." We examine the cultural and political implications of that premise through the lens of the modern cultures of both places and its consequences for their present inhabitants, as well as through uses made of the ancient and more recent past both there and around the world. Readings include ethnographies, historical, and political writings.
Note: Expected to be given in 2005–06.

[Anthropology 1780. Transgressive Texts: Contemporary Latin American Ethnography]
Catalog Number: 3347
Kimberly Theidon
Half course (spring term). Hours to be arranged.
In this course we will read a selection of contemporary ethnographies that destabilize traditional categories of inquiry and transgress a variety of boundaries: ethnic, racial, geographic, and gendered. Readings include ethnographic accounts of globalization, identity formation, and political action in Latin America. We are interested in both cultural forms and material conditions, locating the politics of representation within fields of power and conflict.
Note: Expected to be given in 2005–06.

Anthropology 1790. Violence in the Andes: Coca, Conflict, and Control
Catalog Number: 2224
Kimberly Theidon
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
In this course we address the politics of coca and conflict in the Andean Region. We will engage an interdisciplinary set of readings that allow us to examine the structures of conflict and historicize the current violence in the region, as well as explore the complex dynamics of coca production, counter-narcotics and counter-insurgency efforts in the Andes. We will address the rise of indigenous movements and their potential to redefine political agendas in Colombia, Ecuador, Peru and Bolivia.

Anthropology 1820. Japan in the Ethnographic Gaze: Seminar
Catalog Number: 1267 Enrollment: Limited to 15.
Theodore C. Bestor
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
We examine ethnographies of Japan from the 1930s to the present to illuminate how Japan, as a cultural and social "whole," has been ethnographically problematized and re-problematized in different eras, as different theoretical interests—such as culture-and-personality, modernization, and tradition—have been ascendant.

[*Anthropology 1830 (formerly *Anthropology 193). Social Suffering: An Introduction to Medical Anthropology]
Catalog Number: 1330
Arthur Kleinman
Half course (spring term). Hours to be arranged.
Course considers social suffering as an entry point to the study of medical anthropology. It analyzes the AIDS pandemic, chronic illness and political violence, among other examples of suffering, and issues in medical anthropology, such as: the social and political roots of disease and illness; the intersection of the individual body, the community and the state; patient narrations of pain, and how public policy and intervention aimed at alleviating suffering can actually intensify it.
Note: Expected to be given in 2006–07.

[Anthropology 1840 (formerly Anthropology 183). Comparative Liberation Theologies]
Catalog Number: 6458
Ajantha Subramanian
Half course (fall term). Hours to be arranged.
Considers the role of religion as an idiom of social critique and a vehicle of social transformation. Offers a comparative perspective on religious consciousness, practice, and politics by comparing the grounds for the rise of faith-based social movements in different cultural and historical contexts. Cases include: the mass conversion of Indian low castes to Christianity and Buddhism, Jamaican Rastafarianism, Catholic liberation theology in El Salvador, and the Islamic Revolution in Iran.
Note: Expected to be given in 2005–06.

[Anthropology 1850. Deep China: What Medical Anthropology and Psychiatry Contribute to the Study of China Today]
Catalog Number: 1679
Arthur Kleinman
Half course (spring term). Hours to be arranged.
What do accounts of depression, suicide, substance abuse, sexually transmitted diseases, SARS, HIV/AIDS, starvation and the personal and family trauma of political violence teach us about China and the Chinese over the last few decades? Readings are drawn from ethnographies, psychiatric research, biographies, and works of fiction to examine the effects of societal transformation on moral, psychological, and interpersonal processes.
Note: Expected to be given in 2005–06.

[Anthropology 1860 (formerly Anthropology 136). Colonial Departures]
Catalog Number: 9540
Mary M. Steedly
Half course (fall term). Hours to be arranged.
Following World War II, the fabric of European empire in Asia and Africa began to unravel. Some through revolutionary violence, others through peaceful negotiation, new nations declared themselves free of colonial domination. We examine colonialism's 20th century heyday, decline, and aftermath from an anthropological perspective, giving particular attention to local decolonizing practices and to the many forms the postcolonial condition may take.
Note: Expected to be given in 2006–07.

Anthropology 1880. Chinese Culture and Society
Catalog Number: 5917
James L. Watson
Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12
A detailed examination of Chinese social institutions, with emphasis on life in the countryside. Topics include: family and kinship organization, marriage and inheritance patterns, ritual and local religion, pre- and post-socialist cultural systems, and the effects of economic reforms on local life.

[*Anthropology 1920 (formerly *Anthropology 192). Globalization and Food: Seminar]
Catalog Number: 7677
James L. Watson
Half course (fall term). Hours to be arranged.
A research seminar exploring historical and contemporary issues of globalization, taking food as the lens of analysis. Seminar participants will be assigned a specific commodity or food category for analysis and discussion. Each student will be expected to give a class presentation, attend weekly discussions, and write a research paper.
Note: Expected to be given in 2005–06. Preference given to students who have taken Anthropology 105.

Anthropology 1980 (formerly Anthropology 168). Anthropology at Home: Doing Fieldwork Among the Familiar
Catalog Number: 2145
Paulette G. Curtis
Half course (fall term). Th., 2–3:30. EXAM GROUP: 16, 17
Through close readings of ethnographies and other culturally informed texts, this seminar will examine the knowledge generated by anthropologists working in their 'own' communities (whether geographically, racially, economically, or ritually defined), the lenses through which they generate that knowledge, and the issues they face in doing so. The contemporary US is the home to which the title refers, though some attention will be paid to other times and places.

Primarily for Graduates

[Anthropology 2620 (formerly Anthropology 214). Ethnographic Encounters with Christianity]

Catalog Number: 7267
Smita Lahiri
Half course (spring term). Hours to be arranged.
Examines Christianity's impact upon anthropology, secularism, and modernity through close readings of ethnographic texts. Develops a comparative perspective on Christianity's global forms, including Protestant evangelicalisms, "folk" Catholicisms, and heretical offshoots.
Note: Expected to be given in 2005–06.

[*Anthropology 2626 (formerly *Anthropology 226t). Research Design]
Catalog Number: 9193 Enrollment: Limited to 12.
Theodore C. Bestor
Half course (spring term). Hours to be arranged.
Seminar focuses on weekly writing assignments leading to complete dissertation research proposals; defining theoretical and ethnographic contexts of research problem; reviewing literature; explaining site selection, methodology, timetable, human subjects protection; preparing budget; identifying grant sources.
Note: Expected to be given in 2005–06. Limited to doctoral candidates, with preference given to advanced students in Anthropology.

Anthropology 2640. Interventions: Ethics, Logics, Intentions (formerly titled Humanitarianism and Human Rights)
Catalog Number: 3237
Kimberly Theidon
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
We trace the rise of the humanitarian narrative and examine how humanitarianism, in conjunction with other keywords such as crisis, emergency, and intervention, has become one of the organizing categories of political action and order.

***Anthropology 2650a (formerly *Anthropology 205a). History and Theory of Social Anthropology: Proseminar**
Catalog Number: 1752
Michael Herzfeld
Half course (fall term). W., 3–6. EXAM GROUP: 8, 9
A critical review of the major theoretical approaches in social anthropology.
Note: Required of candidates for the PhD in Social Anthropology. Limited to and aimed at doctoral candidates. Not open to undergraduates.

Anthropology 2650b (formerly Anthropology 205b). History and Theory of Social Anthropology: Proseminar
Catalog Number: 7971
Steven C. Caton
Half course (spring term). W., 3–6. EXAM GROUP: 8, 9
Continuation of Anthropology 205a.
Note: Limited to, and aimed at, doctoral candidates. Not open to undergraduates.

[Anthropology 2660 (formerly Anthropology 221). The Anthropology of Knowledge: Seminar]
Catalog Number: 7070
Michael Herzfeld
Half course (fall term). Hours to be arranged.
Comparative exploration of local epistemologies from craft apprentices and skilled manual workers to schoolchildren and scientists, emphasizing the embodiment, inculcation, and transmission of practical knowledge and the relationships among cosmology, social context, and pragmatic understanding.
Note: Expected to be given in 2005–06.

[Anthropology 2670 (formerly Anthropology 264). Anthropology and the Uses of History]
Catalog Number: 9103
Michael Herzfeld
Half course (fall term). Hours to be arranged.
Examines political and social uses of history, especially nationalism, opposition to state power, and local perspectives that ordinarily escape "official" historians. Gender, political affiliation, and status are examined for impact on interpretations of the past.
Note: Expected to be given in 2006–07. Given in alternate years. May count for graduate ethnography.

Anthropology 2680 (formerly Anthropology 263). Globalization and Culture
Catalog Number: 5127
James L. Watson
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Examines recent theories of transnationalism and globalism, with emphasis on popular culture (music, TV, entertainment, food systems, etc.). Focus on debates regarding cultural imperialism and the effects of transnational corporations on "local" cultures.

Anthropology 2704. Linguistic Pragmatics and Cultural Analysis in Anthropology
Catalog Number: 4411
Steven C. Caton
Half course (fall term). Hours to be arranged.
A theory of linguisitc pragmatics (Peirce, Benveniste, etc.) will be developed from a critique of structuralism (Saussure) whose relevance to the analysis of "culture" will be illustrated through ethnographies of language.
Note: Limited to graduate students, who will also be expected to attend all Anthropology 1640 lectures.

[Anthropology 2720. Contentious Subjects]
Catalog Number: 9077
Kimberly Theidon
Half course (spring term). Hours to be arranged.
We address theories and forms of subjectivity. From spectacle to subjectification to transparency, we explore both the liberating potential of post-modern subjectivities and the fields of power and

inequality in which those subjectivities are forged.
Note: Expected to be given in 2005–06.

Anthropology 2725. Race in the History of Anthropology
Catalog Number: 1046
John M. Norvell
Half course (fall term). Th., 4–6. EXAM GROUP: 18
Examines the career of the race concept in the history of anthropology.

[Anthropology 2730 (formerly Anthropology 234). Postcoloniality and Ethnography]
Catalog Number: 9404
Smita Lahiri
Half course (spring term). Hours to be arranged.
Close readings of ethnographic works on the postcolonial predicament in Asia, Latin America, and Africa. Prominent themes will include hybridity and creolization; social memory and forgetting; state power, hegemony, and subalternity; deterritorialization and locality.
Note: Expected to be given in 2006–07.

[Anthropology 2740 (formerly Anthropology 245). Culture, Mental Illness, and the Body]
Catalog Number: 6013
Byron J. Good (Medical School)
Half course (spring term). Hours to be arranged.
Briefly reviews the figure of mental illness in Western thought and the social sciences, then focuses on themes in cross-cultural studies of psychopathology: culture and diagnosis; cultural influences on depression, schizophrenia, and dissociation; madness in non-Euroamerican healing systems; and transnational aspects of psychiatry.
Note: Expected to be given in 2005–06.

[Anthropology 2750 (formerly Anthropology 250). Local Biologies: Perspectives on the Interaction Between Culture and Biology]
Catalog Number: 8267
Arthur Kleinman
Half course (fall term). Hours to be arranged.
Reviews the variety of anthropological perspectives on the interactions between culture and biology. Topics include mind-brain-society interaction in pain; cross-cultural studies of menopause; sociosomatics of depression; the new genetics and eugenics; research on stress and trauma.
Note: Expected to be given in 2005–06. Open to advanced undergraduates with permission of instructor.

Anthropology 2770 (formerly Anthropology 277). Development Dilemmas
Catalog Number: 8724
Pauline E. Peters
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Discusses theories and practices of development, under-development, and anti-development; explores approaches of sustainable, participatory, and green development, and examples of

resistance and reappropriation of development. The emphasis is on the cultural politics of development encounters.

Anthropology 2780 (formerly Anthropology 283). Culture and Citizenship
Catalog Number: 4769
Ajantha Subramanian
Half course (spring term). Th., 3–5; M., 5:30–7:30 p.m.; F., 5:30–7:30 p.m. EXAM GROUP: 17, 18
Considers the dynamics of differentiated citizenship in postcolonial nation-states. Challenges the concept of the abstract citizen by tracing the ways that race, religion, region, and language have mediated particular histories of citizenship.

Anthropology 2785. Theories of Subjectivity in Current Anthropology
Catalog Number: 1995
Byron J. Good (Medical School)
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
Theoretical positions and anthropological debates concerning subjectivity. Freud, Lacan, Butler, Agamben, Zizek, Foucault, and Mbembe read alongside ethnographic texts on violence, suffering, governmentality, and the state.

Anthropology 2820 (formerly Anthropology 222). New Directions in Political Thought: The Islamic World in Asia
Catalog Number: 9042
Nur Yalman
Half course (fall term). W., 5–7 pm. EXAM GROUP: 9
We examine the most recent developments concerning the political role of Islamic intellectuals in a number of key countries, including Turkey, Iran, Indonesia, Malaysia, Thailand, and others.

[Anthropology 2830 (formerly Anthropology 223). Mobility]
Catalog Number: 6998
Engseng Ho
Half course (spring term). Hours to be arranged.
Seminar explores theories (e.g. Locke on portable property), vehicles (boats), travelers (pirates, pilgrims, migrants), media (books, money, gravestones, genealogies) to recognize the phenomenon of mobility and its consequences. Emphasizes external rather than internal social relations.
Note: Expected to be given in 2005–06.

[Anthropology 2840 (formerly Anthropology 268). Ethnography and Personhood]
Catalog Number: 3560
Michael Herzfeld
Half course (fall term). Hours to be arranged.
Intensive, critical review of major ethnographies, exploring the relationship between society and personhood, examining ethnographic writing and its relation to other genres (including biography); and tracing anthropological theory through changes in descriptive and analytic

practice.
Note: Expected to be given in 2005–06. Given in alternate years.

***Anthropology 2850r (formerly *Anthropology 271r). Practicum in Foreign-Language Ethnography**
Catalog Number: 9856
Michael Herzfeld and members of the Department
Half course (fall term). Hours to be arranged.
Readings in ethnographic and related theoretical works written in a selected foreign language; discussion, class presentations, and final papers will be in that language also.
Note: Primarily for doctoral students.

[Anthropology 2858 (formerly Anthropology 258). What is a Disease? History and Ethnography]
Catalog Number: 5622
Arthur Kleinman
Half course (fall term). Hours to be arranged.
Advanced graduate seminar concerned with anthropological, historical, and other critical social science accounts of medical classification and disease diagnosis. Contrasts global medical science with indigenous ethnomedical systems and popular lay interpretations based on cultural, religious, and moral categories.
Note: Expected to be given in 2006–07.

[Anthropology 2860 (formerly Anthropology 246). Maincurrents in Anthropological Thought]
Catalog Number: 9980
Nur Yalman
Half course (fall term). Hours to be arranged.
Developments in social theory in the British, French, German, and American traditions. Positivism, Marxism, Structuralism, Post-modernism reconsidered. Comparisons with Asian traditions of just societies.
Note: Expected to be given in 2005–06. Limited to graduate students.

Anthropology 2876 (formerly Anthropology 276). New Ethnographies in the Anthropology of Social Experience
Catalog Number: 5029
Arthur Kleinman
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
New ethnographies of social experience and subjectivity are remaking anthropology. Students critically examine studies of illness, violence, and cultural responses to other human problems. Emphasis is on the methodology, writing, and ethics of such ethnographies.
Note: Open to advanced undergraduates.

[Anthropology 2880 (formerly Anthropology 238). Reorienting Southeast Asia]
Catalog Number: 7727
Mary M. Steedly and Smita Lahiri

Half course (fall term). Hours to be arranged.
Revisits some classic themes in Southeast Asian ethnography (e.g. "culture" and "charisma") in the wake of the Asian financial crisis. Topics include: violence and criminality, technology and technocultural mediations, political predation and reform, (trans) local activisims.
Note: Expected to be given in 2005–06.

***Anthropology 2920 (formerly *Anthropology 292). Japanese Urbanism**
Catalog Number: 9559
Theodore C. Bestor
Half course (spring term). One two-hour weekly seminar to be arranged.
A research seminar on selected topics in the anthropological analysis of Japanese urban culture and society.
Note: Students enrolled in this course are required to attend the lectures for Foreign Cultures 84.

[*Anthropology 2950 (formerly *Anthropology 290). Other Others: New Ethnographic Orientations: Seminar]
Catalog Number: 4205
Mary M. Steedly
Half course (spring term). Hours to be arranged.
In its early years, anthropology was defined as a discipline by its focus on isolated or primitive societies. Lately anthropologists have taken a turn toward other forms of "otherness". Through close readings of recent ethnographies, we will explore a variety of new orientations through which anthropologists are moving beyond the primitive.
Note: Expected to be given in 2005–06. Open to advanced undergraduates and graduate students.

[Anthropology 2960r (formerly Anthropology 296r). Chinese Social Anthropology: Seminar]
Catalog Number: 4633
James L. Watson
Half course (fall term). Hours to be arranged.
Examines current developments in the social anthropology of Chinese society, with emphasis on popular culture and historical ethnography. Each year a general topic is chosen as the subject of joint research.
Note: Expected to be given in 2005–06. Limited to graduate students.

[Anthropology 2980 (formerly Anthropology 280). Culture]
Catalog Number: 1114
Mary M. Steedly
Half course (spring term). Hours to be arranged.
"Culture" is one of anthropology's key concepts, but there has never been agreement as to the term's meaning. We tour the work of culture's key theorists. Is culture still a useful concept in anthropological analysis?
Note: Expected to be given in 2005–06.

[Anthropology 2985. Sociocultural Space and Time: Seminar]
Catalog Number: 8385

Engseng Ho
Half course (fall term). Hours to be arranged.
We revisit the development of social theory (structure, practice, subject, domination) through cultivating an eye for the sensuous properties of spatiotemporal media/phenomena (landscape painting, built form, imperial and industrial mobility, travel narratives, genealogy, fame, diaspora).
Note: Expected to be given in 2005–06.

Cross-listed Courses

African and African American Studies 141. Afro-Atlantic Religions
Foreign Cultures 34. Mesoamerican Civilizations
[Foreign Cultures 74. Cultures of Southern Europe]
Foreign Cultures 84. Tokyo
Foreign Cultures 86. West African Cultures
Social Analysis 28. Culture, Illness, and Healing: An Introduction to Medical Anthropology
Social Analysis 36. Religion and Modernization: Cultural Revolutions and Secularism
Social Analysis 50. Urban Revolutions: Archaeology and the Investigation of Early States
Social Analysis 70. Food and Culture
Studies of Women, Gender, and Sexuality 1264 (formerly Women's Studies 164). Is Another World Possible?: Gender, Sexuality, and Citizenship

Graduate Courses of Reading and Research

***Anthropology 3000 (formerly *Anthropology 300). Reading Course**
Catalog Number: 3454
Members of the Department
Special reading in selected topics under the direction of members of the Department.
Note: Consult the appropriate member of the Department.

***Anthropology 3001 (formerly *Anthropology 301). Reading for General Examination**
Catalog Number: 5689
Members of the Department
Individual reading in preparation for the General Examination for the PhD degree.
Note: Restricted to candidates for the PhD degree and ordinarily to those who have completed at least one year in residence.

***Anthropology 3003 (formerly *Anthropology 303). Readings on Southeast Asia**
Catalog Number: 7935
Stanley J. Tambiah 4692
Half course (fall term). Hours to be arranged.

***Anthropology 3100 (formerly *Anthropology 3023). Old World Archaeology (Europe, Asia, and Africa)**
Catalog Number: 3463
Ofer Bar-Yosef 1887, C. C. Lamberg-Karlovsky 2387, and Richard H. Meadow 1572

***Anthropology 3111 (formerly *Anthropology 3024). Asiatic Archaeology and Ethnography**
Catalog Number: 5398
C. C. Lamberg-Karlovsky 2387, Rowan K. Flad 5059, Lawrence E. Stager 1468, Stanley J. Tambiah 4692, and Nur Yalman 3780

***Anthropology 3120 (formerly *Anthropology 3027). Scientific Archaeology**
Catalog Number: 0284
Richard H. Meadow 1572

***Anthropology 3130 (formerly *Anthropology 3029). Archaeology and Ethnography of the Near and Middle East**
Catalog Number: 3787
Ofer Bar-Yosef 1887, C. C. Lamberg-Karlovsky 2387, and Nur Yalman 3780

***Anthropology 3140 (formerly *Anthropology 3110). Methods and Theory in Archaeology**
Catalog Number: 5440
Ofer Bar-Yosef 1887, C. C. Lamberg-Karlovsky 2387, Carole A. Mandryk 1037, and Richard H. Meadow 1572

***Anthropology 3300 (formerly *Anthropology 330). Supervised Field Work in Anthropology**
Catalog Number: 5683
Members of the Department
General instruction in field methods and practice in the various divisions of anthropology, including archaeology, ethnography, and physical anthropology. Instructional personnel and location of course vary with the research program of the staff. Lectures, conferences, field and laboratory work.
Note: May be taken by graduate students for academic credit, but since it is tuition-free, does not count for residence credit leading to reduced tuition. Open to students with adequate previous training in the subject.

***Anthropology 3310 (formerly *Anthropology 3005). Experimental Methods in Biological Anthropology**
Catalog Number: 9602
Daniel E. Lieberman 3980

***Anthropology 3320 (formerly *Anthropology 320). Advanced Biological Anthropology: Laboratory and Theses**
Catalog Number: 2092
John C. Barry 1892, Peter T. Ellison 7413, Cheryl D. Knott 3717 (on leave spring term), Daniel E. Lieberman 3980, Frank W. Marlowe 757 (on leave spring term), David Pilbeam 7224, Maryellen Ruvolo 2512, and Richard W. Wrangham 2349

***Anthropology 3400 (formerly *Anthropology 340). Reading and Research**
Catalog Number: 6699

John C. Barry 1892, Theodore C. Bestor 2292, Steven C. Caton 2307, David J. Cohen 4778 (fall term only), Rosemary Coombe 4759, Paulette G. Curtis 4474, Peter T. Ellison 7413, William L. Fash 1512, Byron J. Good (Medical School) 7648, Michael Herzfeld 3122 (on leave spring term), Engseng Ho 3094 (on leave 2004-05), Arthur Kleinman 7473, Cheryl D. Knott 3717 (on leave spring term), C. C. Lamberg-Karlovsky 2387, Daniel E. Lieberman 3980, Carole A. Mandryk 1037, Frank W. Marlowe 757 (on leave spring term), J. Lorand Matory 3098, David H. P. Maybury-Lewis 2391, Richard H. Meadow 1572, Sally F. Moore 7225, John M. Norvell 4813 (fall term only), Pauline E. Peters 2911, David Pilbeam 7224, Maryellen Ruvolo 2512, Mary M. Steedly 2783 (on leave 2004-05), Ajantha Subramanian 4618 (on leave fall term), Stanley J. Tambiah 4692, Kay B. Warren 2388, James L. Watson 2172, Rubie S. Watson 3326, Richard W. Wrangham 2349, and Nur Yalman 3780

***Anthropology 3500 (formerly *Anthropology 351). Direction of Doctoral Dissertations**
Catalog Number: 1864
Members of the Department
Note: Consult the appropriate member of the Department.

***Anthropology 3600 (formerly *Anthropology 3004). Current Issues in Biological Anthropology**
Catalog Number: 9373
David Pilbeam 7224, Peter T. Ellison 7413, Cheryl D. Knott 3717 (on leave spring term), Daniel E. Lieberman 3980, Frank W. Marlowe 757 (on leave spring term), Maryellen Ruvolo 2512, Richard W. Wrangham 2349, and members of the Department.
Half course (fall term; repeated spring term). Hours to be arranged.
Weekly seminars in biological anthropology.

Applied Mathematics

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Division of Engineering and Applied Sciences Offering Instruction in Applied Mathematics

Donald G. M. Anderson, Gordon McKay Professor of Applied Mathematics *(Director of Undergraduate Studies) (on leave spring term)*
William H. Bossert, David B. Arnold, Jr. Professor of Science *(on leave fall term)*
Michael P. Brenner, Gordon McKay Professor of Applied Mathematics and Applied Physics *(on leave fall term)*

Roger W. Brockett, An Wang Professor of Electrical Engineering and Computer Science
Benjamin Davidovitch, Lecturer on Applied Mathematics
John W. Hutchinson, Abbott and James Lawrence Professor of Engineering and Gordon McKay Professor of Applied Mechanics *(on leave fall term)*
Efthimios Kaxiras, Gordon McKay Professor of Applied Physics and Professor of Physics
Navin Khaneja, Assistant Professor of Electrical Engineering on the Gordon McKay Endowment
Amala K. Mahadevan, Visiting Associate Professor of Applied Mathematics *(Boston University)*
L. Mahadevan, Gordon McKay Professor of Applied Mathematics and Mechanics
Venkatesh Narayanamurti, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, Professor of Physics, Dean of the Division of Engineering and Applied Sciences and Dean for Physical Sciences
James R. Rice, Mallinckrodt Professor of Engineering Sciences and Geophysics
Howard A. Stone, Harvard College Professor and Vicky Joseph Professor of Engineering and Applied Mathematics *(on leave spring term)*
Vahid Tarokh, Gordon McKay Professor of Electrical Engineering
Eli Tziperman, Pamela and Vasco McCoy, Jr. Professor of Oceanography and Applied Physics
Leslie G. Valiant, T. Jefferson Coolidge Professor of Computer Science and Applied Mathematics

Other Faculty Offering Instruction in Applied Mathematics

Jeremy Bloxham, Harvard College Professor and Mallinckrodt Professor of Geophysics
Allan R. Robinson, Gordon McKay Research Professor of Geophysical Fluid Dynamics
Aravinthan D. T. Samuel, Assistant Professor of Physics

The Division of Engineering and Applied Sciences offers undergraduate and graduate courses in Applied Mathematics, Applied Physics, Computer Science, Earth and Planetary Sciences, and Engineering Sciences. Recommended course programs at the undergraduate level may be obtained from the Academic Office, Pierce Hall 110. Division faculty also offer several courses in the section entitled General Education Electives.

For information concerning the concentration in Applied Mathematics please consult the Director of Undergraduate Studies or the Academic Office, Division of Engineering and Applied Sciences, Pierce Hall 110. Many additional courses of interest to applied mathematicians can be found in the Computer Science, Engineering Sciences, Mathematics, and Statistics sections of the catalog.

Primarily for Undergraduates

Applied Mathematics 21a. Mathematical Methods in the Sciences
Catalog Number: 6395
Jeremy Bloxham and Amala K. Mahadevan (Boston University)
Half course (fall term). M., W., F., at 11; Tu., at 10. EXAM GROUP: 4
Complex numbers. Multivariate calculus: partial differentiation, directional derivatives, techniques of integration and multiple integration. Vectors: dot and cross products, parameterized curves, line and surface integrals. Vector calculus: gradient, divergence and curl,

Green's, Stokes' and Gauss' theorems, including orthogonal curvilinear coordinates.
Note: May not be taken for credit by students who have passed Mathematics 21a. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: Mathematics 1b or equivalent.

Applied Mathematics 21b. Mathematical Methods in the Sciences
Catalog Number: 5074
Jeremy Bloxham and Amala K. Mahadevan (Boston University)
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
Linear algebra: matrices, determinants, eigenvalues, eigenvectors, Markov processes. Optimization and least-squares analysis. Ordinary differential equations. Infinite series and Fourier series. Orthogonality and completeness. Introduction to partial differential equations.
Note: May not be taken for credit by students who have passed Mathematics 21b.
Prerequisite: Applied Mathematics 21a or equivalent.

***Applied Mathematics 91r. Supervised Reading and Research**
Catalog Number: 7607
Donald G. M. Anderson
Half course (fall term; repeated spring term). Hours to be arranged.
An individual project of guided reading and research culminating in a substantial paper or other piece of work which can be meaningfully evaluated to assign a letter grade; may not be taken on a PA/FL basis. Students engaged in preparation of a senior thesis ordinarily should take Applied Mathematics 99r instead.
Note: May be taken as a half course in either term; normally may not be taken for more than two terms. Applications may be obtained at Pierce Hall 110. Students should consult their advisers and concentration literature for further information and guidance. Applications must be signed by the student, by the faculty member supervising the project (who will assign the grade), and by the Director of Undergraduate Studies, who will sign the student's study card once the project and its method of evaluation have been approved.

***Applied Mathematics 99r. Thesis Research**
Catalog Number: 4648
Donald G. M. Anderson
Half course (fall term; repeated spring term). Hours to be arranged.
Provides an opportunity for students to engage in preparatory research and the writing of a senior thesis. Graded on a SAT/UNS basis by the thesis supervisor. The thesis is evaluated by the supervisor and by two additional readers.
Note: May be taken as a half course in either term; normally may not be taken for more than two terms. The Director of Undergraduate Studies will sign the student's study card once a faculty member has agreed in writing to supervise preparation of the thesis, and reaffirmed this agreement if the course is to be repeated. Applications may be obtained at Pierce Hall 110. Students should consult their advisers and concentration literature for further information and guidance.

For Undergraduates and Graduates

Applied Mathematics 105a. Complex and Fourier Analysis
Catalog Number: 7732
Aravinthan D. T. Samuel and Benjamin Davidovitch
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Functions of a complex variable: mapping, integration, branch cuts, series. Fourier series; Fourier and Laplace transforms; transforms applied to differential equations and data analysis; convolution and correlation; elementary probability theory.
Note: Applied Mathematics 105a and 105b are independent courses, and may be taken in any order.
Prerequisite: Applied Mathematics 21a and 21b, or Mathematics 21a and 21b.

Applied Mathematics 105b. Ordinary and Partial Differential Equations
Catalog Number: 6316
John W. Hutchinson and Eric Lauga
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
Ordinary differential equations: power series solutions; special functions; eigenfunction expansions. Algebra and calculus of vectors, dyadics, and tensors. Elementary partial differential equations: separation of variables and series solutions; similarity solutions; comparison of elliptic, parabolic and hyperbolic systems. Asymptotics.
Note: Applied Mathematics 105a and 105b are independent courses, and may be taken in any order.
Prerequisite: Applied Mathematics 21a and 21b, or Mathematics 21a and 21b.

Applied Mathematics 106. Applied Algebra and Combinatorics
Catalog Number: 3871
Vahid Tarokh
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Introduction to abstract algebra and its applications. Topics covered include sets, subsets, and partitions; mappings, operations, and equivalence relations; groups, rings, and fields; counting and number systems; and polynomials. Though the primary aim of the course is to establish the mathematical formalism and conceptual apparatus necessary for some future mathematics and engineering courses, examples will be given from applications such as finite automata, encryption, computer coding, and modular arithmetic.

Applied Mathematics 107. Graph Theory and Combinatorics
Catalog Number: 6411
Leslie G. Valiant
Half course (spring term). Tu., Th., 10–11:30 with one one-hour section weekly. EXAM GROUP: 12, 13
Topics in combinatorial mathematics that find frequent application in computer science, engineering, and general applied mathematics. Specific topics taken from graph theory, enumeration techniques, optimization theory, combinatorial algorithms, and discrete probability.

Applied Mathematics 111. Introduction to Scientific Computing
Catalog Number: 7000
Efthimios Kaxiras

Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Many complex physical problems defy simple analytical solutions or even accurate analytical approximations. Scientific computing can address certain of these problems successfully, providing unique insight. This course introduces some of the widely used techniques in scientific computing through examples chosen from physics, chemistry and biology. Traditional deterministic methods as well as more recent stochastic approaches are presented.
Prerequisite: Applied Mathematics 21a and 21b, or Mathematics 21a and 21b. Ability to program in some high-level computer language.

Applied Mathematics 115. Mathematical Modeling
Catalog Number: 1768
William H. Bossert and L. Mahadevan
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Abstracting the essential components and mechanisms from a natural system to produce a mathematical model, which can be analyzed with a variety of formal mathematical methods, is perhaps the most important, but least understood, task in applied mathematics. This course approachs a number of problems without the prejudice of trying to apply a particular method of solution. Topics drawn from mechanics, biology, economics and the behavioral sciences.
Prerequisite: Mathematics at least at the level of Applied Mathematics 21a,b. Additional skills in analysis, algebra, probability, statistics and computer programming will increase the value of the course to students.

[Applied Mathematics 120. Applicable Linear Algebra]
Catalog Number: 4378
Donald G. M. Anderson
Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
An algorithmic approach to topics in matrix theory which arise frequently in applied mathematics: linear equations, pseudoinverses, quadratic forms, eigenvalues and singular values, linear inequalities and optimization, linear differential and difference equations.
Note: Expected to be given in 2005–06. Offered in alternate years.
Prerequisite: Applied Mathematics 21b, or Mathematics 21b, or equivalent.

Applied Mathematics 147. Nonlinear Dynamical Systems
Catalog Number: 7708
Eli Tziperman
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An introduction to nonlinear dynamical phenomena, chaos and fractals. The behavior of systems described by ordinary differential equations such as oscillations or population dynamics; bifurcations; approximations by maps; routes to chaos; universality in nonlinear systems. Techniques for analyzing theoretical and experimental nonlinear systems are introduced with applications to physical and biological systems.
Prerequisite: Mathematics 21a and 21b, or Applied Mathematics 21a and 21b.

Cross-listed Courses

MCB 211 (formerly MCB 111). Mathematics in Biology

Primarily for Graduates

Applied Mathematics 201. Physical Mathematics I
Catalog Number: 3241
L. Mahadevan
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Introduction to methods for developing accurate approximate solutions for problems in the physical sciences that cannot be solved exactly. Topics include: complex function theory, approximate solution of integrals, algebraic equations, nonlinear differential equations, and qualitative methods.
Prerequisite: Applied Mathematics 105a, b or equivalent.

Applied Mathematics 202. Physical Mathematics II
Catalog Number: 6559
Benjamin Davidovitch
Half course (spring term). M., W., F., at 9. EXAM GROUP: 2
Theory and techniques for finding exact and approximate analytical solutions of partial differential equations, and related topics: eigenfunction expansions, Green functions, variational calculus, transform techniques, perturbation methods, characteristics, linear stability analysis, dispersion relations, non-linear PDE's, asymptotic scaling solutions.
Prerequisite: Applied Mathematics 105a and 105b, or equivalent.

[Applied Mathematics 203 (formerly Applied Mathematics 203r). Nonlinear Dynamics and Chaos]
Catalog Number: 6336
Eli Tziperman
Half course (fall term). M., W., F., at 9. EXAM GROUP: 2
Basic concepts of nonlinear physics, dynamical system theory, and chaos, demonstrated using simple model systems, ODEs, discrete maps, and examples from applications. Analytical and geometrical methods for both experimental and model nonlinear systems.
Note: Expected to be given in 2005–06.
Prerequisite: Knowledge of ordinary differential equations.

Applied Mathematics 205. Practical Scientific Computing
Catalog Number: 1370
Alan W. Rempel
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Computational methods at a sophisticated analytic level. Practical exercises emphasized. A wide range of topics from linear algebra to Fourier analysis will be covered.
Prerequisite: Mathematics at the level of Applied Mathematics 105b. A previous course in computing is not required.

Applied Mathematics 210. Elementary Functional Analysis
Catalog Number: 2781
Donald G. M. Anderson
Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17

An introduction to functional analysis and its applications: metric, Banach and Hilbert spaces; linear operators, spectral theory; differentiation and integration.
Note: Expected to be omitted in 2005–06. Offered in alternate years.
Prerequisite: Applied Mathematics 105a and 105b; and Applied Mathematics 120 or Mathematics 121, or equivalent.

[Applied Mathematics 211. Introduction to Numerical Mathematics]
Catalog Number: 1894
Donald G. M. Anderson
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Principles and techniques of numerical analysis, synthesis and computation: interpolation and approximation, numerical quadrature and differentiation, linear and nonlinear equations, optimization, differential and integral equations.
Note: Expected to be given in 2005–06. Offered in alternate years.
Prerequisite: Applied Mathematics 105a and 105b; Applied Mathematics 111 and 120 would be helpful.

[Applied Mathematics 212. Numerical Solution of Differential Equations]
Catalog Number: 6127
Donald G. M. Anderson
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
The development, study and implementation of numerical methods for the approximate solution of ordinary and partial differential equation initial and boundary value problems, and related topics.
Note: Expected to be given in 2005–06. Offered in alternate years.
Prerequisite: Applied Mathematics 211, or equivalent; Applied Mathematics 202 or 210 would be helpful.

Applied Mathematics 213. Topics in Numerical Mathematics
Catalog Number: 1048
Donald G. M. Anderson
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Topic for 2004-05: analytical and numerical methods for the approximate solution of integral equations.
Note: Expected to be omitted in 2005–06. Offered in alternate years.
Prerequisite: Applied Mathematics 211, or equivalent; Applied Mathematics 202 or 210 would be helpful.

Applied Mathematics 299r. Special Topics in Applied Mathematics
Catalog Number: 5798
John W. Hutchinson (spring term) and Howard A. Stone (fall term)
Half course (fall term; repeated spring term). Hours to be arranged.
Supervision of experimental or theoretical research on acceptable applied mathematics problems and supervision of reading on topics not covered by regular courses of instruction.
Note: Open to graduate students and AB/SM candidates only. Students must arrange such work with a member of the Division. This course is graded and is ordinarily taken with the approval of

the Committee on Higher Degrees. Applicants must file a project sheet before study cards are filed. Project sheets may be obtained from the Academic Office, Pierce Hall 110.

Graduate Courses of Reading and Research

Reading courses are odd-numbered; research courses are even-numbered.

***Applied Mathematics 311,312. Numerical Mathematics and Scientific Computing**
Catalog Number: 7333,6118
Donald G. M. Anderson 1061 (on leave spring term)

***Applied Mathematics 315,316. Stochastic Processes, Dynamical Systems, Applied Differential Geometry**
Catalog Number: 2458,2459
Roger W. Brockett 3001

***Applied Mathematics 317,318. Special Topics in Physical Mathematics**
Catalog Number: 9160,2166
Michael P. Brenner 4101 (on leave fall term)

***Applied Mathematics 319,320. Topics in Continuum Mechanics and Biological Physics**
Catalog Number: 2084,4567
L. Mahadevan 4758

***Applied Mathematics 321,322. Biological Applications of Mathematics and Automatic Computers**
Catalog Number: 7615,4243
William H. Bossert 1049 (on leave fall term)

***Applied Mathematics 323,324. Applied Mathematics in Physical Sciences**
Catalog Number: 1149,5221
Howard A. Stone 2073 (on leave spring term)

***Applied Mathematics 331,332. Theoretical Mechanics in the Earth and Engineering Sciences**
Catalog Number: 0112,0251
James R. Rice 7270

***Applied Mathematics 333,334. Dynamics of the Ocean; Interdisciplinary Modeling; Geophysical Fluid Dynamics**
Catalog Number: 4947,4948
Allan R. Robinson 2133

***Applied Mathematics 341,342. Applied Probability and Statistical Inference, Classical and Quantum Information Theory**
Catalog Number: 0970,6033
Navin Khaneja 4192

Harvard University
Faculty of Arts and Sciences
Office of the Registrar

Applied Physics

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Division of Engineering and Applied Sciences Offering Instruction in Applied Physics

Michael J. Aziz, Gordon McKay Professor of Materials Science
Michael P. Brenner, Gordon McKay Professor of Applied Mathematics and Applied Physics *(on leave fall term)*
Federico Capasso, Robert L. Wallace Professor of Applied Physics
Kenneth B. Crozier, Assistant Professor of Electrical Engineering on the Gordon McKay Endowment
Daniel S. Fisher, Professor of Physics and Professor of Applied Physics
Cynthia M. Friend, Theodore William Richards Professor of Chemistry and Professor of Materials Science
Jene A. Golovchenko, Gordon McKay Professor of Applied Physics and Professor of Physics
Lene V. Hau, Gordon McKay Professor of Applied Physics and Professor of Physics
Efthimios Kaxiras, Gordon McKay Professor of Applied Physics and Professor of Physics
Charles M. Lieber, Mark Hyman, Jr. Professor of Chemistry
Paul C. Martin, John Hasbrouck Van Vleck Professor of Pure and Applied Physics
Eric Mazur, Gordon McKay Professor of Applied Physics and Professor of Physics
Warren J. Moberlychan, Lecturer on Applied Physics
Venkatesh Narayanamurti, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, Professor of Physics, Dean of the Division of Engineering and Applied Sciences and Dean for Physical Sciences
David R. Nelson, Mallinckrodt Professor of Physics and Professor of Applied Physics *(on leave 2004-05)*
Peter S. Pershan, Frank B. Baird, Jr. Professor of Science *(on leave spring term)*
James R. Rice, Mallinckrodt Professor of Engineering Sciences and Geophysics
Frans A. Spaepen, John C. and Helen F. Franklin Professor of Applied Physics
Howard A. Stone, Harvard College Professor and Vicky Joseph Professor of Engineering and Applied Mathematics *(on leave spring term)*
Patrick Thaddeus, Robert Wheeler Willson Professor of Applied Astronomy *(on leave spring term)*
Michael Tinkham, Rumford Professor of Physics and Gordon McKay Professor of Applied Physics
Eli Tziperman, Pamela and Vasco McCoy, Jr. Professor of Oceanography and Applied Physics
David A. Weitz, Gordon McKay Professor of Applied Physics and Professor of Physics *(on leave 2004-05)*

Robert M. Westervelt, Mallinckrodt Professor of Applied Physics and of Physics
Tai T. Wu, Gordon McKay Professor of Applied Physics and Professor of Physics *(on leave spring term)*

Other Faculty Offering Instruction in Applied Physics

Henry Ehrenreich, Clowes Research Professor of Science
R. Victor Jones, Robert L. Wallace Research Professor of Applied Physics
Allan R. Robinson, Gordon McKay Research Professor of Geophysical Fluid Dynamics

The Division of Engineering and Applied Sciences offers undergraduate and graduate courses in Applied Mathematics, Applied Physics, Computer Science, Earth and Planetary Sciences, and Engineering Sciences. Division faculty also offer several courses in the section entitled General Education Electives.

For Undergraduates and Graduates

Applied Physics 195. Introduction to Solid State Physics
Catalog Number: 1842
Robert M. Westervelt
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Fundamental physical properties of crystalline solids discussed in terms of the basic principles of classical and quantum physics. Crystal structure, lattice vibrations, specific heat, energy band theory of metals and semiconductors and insulators, electrical transport in metals and semiconductors, optical and magnetic properties, superconductivity.
Note: Designed as a first course in solid state physics for students with knowledge of elementary quantum mechanics (Physics 143a). Some knowledge of statistical physics (Physics 181) is also helpful, but not a formal prerequisite. Students who propose to take Applied Physics 295a in the spring term, and who have not previously taken a formal course in solid state physics, are strongly advised to take this course first. Students may wish to take Physics 195, whose content is very similar, when this course is bracketed.

Cross-Listed Courses

Applied Mathematics 147. Nonlinear Dynamical Systems
[Earth and Planetary Sciences 131. Introduction to Physical Oceanography]

Primarily for Graduates

Additional courses of interest to graduate students in Applied Physics include: Applied Mathematices 203r, Engineering Sciences 220, 225r, 240, 241, 242r, 246, 247, and 274.
[Applied Physics 216. Modern Optics and Quantum Electronics]
Catalog Number: 4691

Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Optical systems and lasers have recently revolutionized both communication and basic research.

We cover the fundamental physics, and topics include Fourier optics, optical cavities and lasers including solid state and pulsed lasers. Electro- and acousto-optical modulation. Non-linear optics. Optical fiber propagation, solitons. Photonic bandgap materials. Frequency metrology.
Note: Expected to be given in 2005–06.
Prerequisite: Graduate level class in electromagnetism/electrodynamics: Physics 232a, for example.

Applied Physics 269r. Topics in Statistical Physics and Quantitative Biology
Catalog Number: 5063
Daniel S. Fisher
Half course (spring term). M., W., 10–11:30. EXAM GROUP: 3, 4
Develops theoretical basis for modeling, analysis, and understanding of a spectrum of physical and biological problems. Spring 2005 focus will be dynamical and stochastic phenomena in biology at molecular, cellular, organismic, and population levels.
Prerequisite: Applied mathematics at level of 105a and 105b and some background in statistical mechanics or probability/combinatorics.

Applied Physics 282. Solids: Structure and Defects
Catalog Number: 5737
Frans A. Spaepen
Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11
Bonding, crystallography, diffraction, phase diagrams, microstructure, point defects, dislocations, grain boundaries.
Note: Intended for students planning to specialize in applied mechanics, materials science, solid state physics, and chemistry.

[Applied Physics 284. Statistical Thermodynamics]
Catalog Number: 2257

Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Basic principles of statistical physics and thermodynamics, with applications including: the equilibrium properties of classical and quantum gases; phase diagrams, phase transitions and critical points, as illustrated by the gas-liquid transition and simple magnetic models; fluctuations about equilibrium, Langevin equations and Fokker-Planck descriptions of time-dependent phenomena.
Note: Expected to be given in 2005–06. Students may wish to take Physics 262 when this course is bracketed.
Prerequisite: Ordinarily, Physics 143a,b and Physics 181 or Engineering Sciences 181.

Applied Physics 291. Electron Microscopy Laboratory
Catalog Number: 1761 Enrollment: Limited to 12.
Warren J. Moberlychan
Half course (spring term). M., 2–3:30 and a laboratory to be arranged. EXAM GROUP: 7, 8
Laboratory instruction in and lectures on transmission electron microscopy and related instrumentation for materials analysis. Students perform experiments on alignment, electron diffraction, bright and dark field imaging, X-ray spectroscopy, high-resolution imaging and

sample preparation.
Note: Primarily for graduate students planning to use materials analysis in their research.

Applied Physics 292. Kinetics of Condensed Phase Processes
Catalog Number: 3733
Michael J. Aziz
Half course (spring term). M., W., F., at 11, and occasional laboratory to be arranged. EXAM GROUP: 4
Kinetic principles underlying atomic motions, transformations, and other atomic transport processes in condensed phases. Applies these and the principles of thermodynamics to the interpretation of diffusion, continuous transformations, nucleation, growth, coarsening, and other kinetic phenomena in bulk, thin film, and surface states. Fundamental principles are emphasized which are broadly applicable to a wide range of current research problems in atomic transport and in materials synthesis and processing. Selected applications will be discussed as time permits.
Prerequisite: An undergraduate-level course in thermodynamics.

[Applied Physics 293. Deformation of Solids]
Catalog Number: 6796
Frans A. Spaepen
Half course (spring term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11
Phenomenology and theory of the mechanisms by which solids can deform, including elastic deformation, microscopic dislocation glide and the kinetics of slip, creep by dislocation motion, creep by diffusion of single ions, twinning, and fracture. The results are applied to several case studies using deformation mechanism maps.
Note: Expected to be given in 2005–06.
Prerequisite: Knowledge of thermodynamics and elements of crystal structure.

***Applied Physics 294hfr. Materials Science Seminar**
Catalog Number: 4924
Frans A. Spaepen and Michael J. Aziz
Half course (throughout the year). Th., at 1. EXAM GROUP: 15
Special topics in materials science.
Prerequisite: Check with one of the instructors.

Applied Physics 295a. Introduction to Quantum Theory of Solids
Catalog Number: 6937
Efthimios Kaxiras
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Properties of solids, electrical, optical, thermal, magnetic, mechanical, are treated based on an atomic scale picture and using the single electron approximation. Metals, semiconductors, and insulators are covered, including special topics such as superconductivity.
Prerequisite: Applied Physics 195 or equivalent, and one full quantum mechanics graduate level course similar to Physics 251a. Physics 251b may be taken concurrently.

Applied Physics 295b. Quantum Theory of Solids
Catalog Number: 3610
Paul C. Martin
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
Theoretical description of solids focusing on the effects of interactions between electrons, including dielectric response, Fermi liquid theory, magnetism, and superconductivity.
Prerequisite: Applied Physics 295a, Physics 251a & 251b, or permission of instructor.

Applied Physics 296r. Superconductivity
Catalog Number: 0219
Michael Tinkham
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Introduction to theoretical and applied superconductivity: BCS and Ginzburg-Landau theories, type I and II superconductors, Josephson effect, flux motion and dissipation, high-temperature superconductors, macroscopic quantum tunneling, Coulomb blockade and the single-electron tunneling transistor, superconducting qubits.

Applied Physics 298r. Interdisciplinary Chemistry, Engineering and Physics: Seminar
Catalog Number: 7500
Robert M. Westervelt and members of the Faculty
Half course (spring term). M., W., 12–1:30. EXAM GROUP: 5, 6
Lectures on Nanoscale Science and Engineering present the fundamental concepts, with examples from current research: Synthesis and Growth of Nanoscale Structures, Imaging Electrons in Nanostructures, and Spins and Charges in Coherent Electronics.
Note: A paper and oral presentation are required. Taught in 2005 by faculty associated with the Nanoscale Science and Engineering Center. In 2006, Materials Research Science and Engineering will be presented.

Applied Physics 299r. Special Topics in Applied Physics
Catalog Number: 2103
Venkatesh Narayanamurti
Half course (fall term; repeated spring term). Hours to be arranged.
Supervision of experimental or theoretical research on acceptable applied physics problems and supervision of reading on topics not covered by regular courses of instruction.
Note: Open to graduate students and AB/SM candidates only. Students must arrange such work with a member of the Division. This course is graded and is ordinarily taken with the approval of the Committee on Higher Degrees. Applicants must file a project sheet before study cards are filed. Project sheets may be obtained from the Academic Office, Pierce Hall 110.

Cross-Listed Courses

Physics 232 (formerly Physics 232a). Advanced Electromagnetism

Graduate Courses of Reading and Research

Reading courses are odd-numbered; research courses are even-numbered.

***Applied Physics 325,326. Optics with Cold Atoms**
Catalog Number: 0488,7669
Lene V. Hau 2151

***Applied Physics 327,328. Optical and Optoelectronic Information Systems and Technology**
Catalog Number: 8209,4795
R. Victor Jones 1107

***Applied Physics 331,332. Experimental Condensed Matter Physics**
Catalog Number: 0467,1560
Robert M. Westervelt 6148

***Applied Physics 333,334. Condensed Matter and X-Ray Physics**
Catalog Number: 1033,6126
Jene A. Golovchenko 1986

***Applied Physics 335,336. Theoretical Study of the Structure and Electronic Properties of Nanoscale Materials and Biological Macromolecules**
Catalog Number: 7902,7903
Efthimios Kaxiras 3050

***Applied Physics 337,338. Growth and Properties of Nanostructures and Nanostructure Assemblies; Development and Application of New Probe Microscopies; Biophysics**
Catalog Number: 3050,3051
Charles M. Lieber 3102

***Applied Physics 339,340. Topics in Electromagnetic Theory**
Catalog Number: 4258,3127
Tai T. Wu 1051 (on leave spring term)

***Applied Physics 343,344. Topics in Electromagnetic Theory and Molecular Spectroscopy**
Catalog Number: 2695,4213
Patrick Thaddeus 1398 (on leave spring term)

***Applied Physics 347,348. Solid Mechanics in Seismology and Materials Physics**
Catalog Number: 4033,3514
James R. Rice 7270

***Applied Physics 351,352. Statistical and Condensed Matter Theory**
Catalog Number: 3992,3993
Paul C. Martin 2103

***Applied Physics 353,354. Theoretical Statistical Physics and Biology**
Catalog Number: 5186,5941
Daniel S. Fisher 2600

***Applied Physics 355,356. Special Topics in Theoretical Engineering**
Catalog Number: 4864,9197
Michael P. Brenner 4101 (on leave fall term)

***Applied Physics 357,358. Photonics: Scanning Near-Field Optical Microscopy and Photonic Crystals**
Catalog Number: 3865,5593
Kenneth B. Crozier 5146

***Applied Physics 359,360. Quantum Optics and Molecular Physics**
Catalog Number: 5760,3525
Eric Mazur 7952

***Applied Physics 361,362. Photonics, Quantum Devices and Nanostructures**
Catalog Number: 9431,9506
Federico Capasso 4571

***Applied Physics 363,364. Experimental Soft Condensed Matter Physics**
Catalog Number: 8975,7242
David A. Weitz 2497 (on leave 2004-05)

***Applied Physics 365,366. Experimental Condensed Matter: Ballistic Transport in Semiconductors, Nanostructures, and Tunneling Microscopy**
Catalog Number: 9195,0425
Venkatesh Narayanamurti 5445

***Applied Physics 367,368. Topics on Condensed Matter Physics**
Catalog Number: 6975,4173
David R. Nelson 5066 (on leave 2004-05)

***Applied Physics 369,370. Experimental Condensed Matter: Synchrotron X-Ray Scattering Studies of Interfacial Phenomena (Liquids and Solid)**
Catalog Number: 2442,7532
Peter S. Pershan 1105 (on leave spring term)

***Applied Physics 375,376. Superconductivity and Mesoscopic Physics**
Catalog Number: 8203,4912
Michael Tinkham 2131

***Applied Physics 381,382. Special Topics in Fluid Dynamics**
Catalog Number: 4554,2668
Howard A. Stone 2073 (on leave spring term)

***Applied Physics 385,386. Dynamics of the Ocean; Interdisciplinary Modeling; Geophysical Fluid Dynamics**
Catalog Number: 2878,2879
Allan R. Robinson 2133

***Applied Physics 387,388. Climate Dynamics and Physical Oceanography**
Catalog Number: 3549,8599
Eli Tziperman 4748

***Applied Physics 389,390. Electronic Theory of Condensed Matter**
Catalog Number: 5425,1600
Henry Ehrenreich 2411

***Applied Physics 393,394. Experimental Studies of Interfaces and Surfaces**
Catalog Number: 1331,5451
Cynthia M. Friend 7446

***Applied Physics 395,396. Topics in Materials Science**
Catalog Number: 4012,5003
Michael J. Aziz 1337

***Applied Physics 397,398. Materials Science**
Catalog Number: 4266,5010
Frans A. Spaepen 4991

Archaeology

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Archaeology

Gary Urton, Dumbarton Oaks Professor of Pre-Columbian Studies *(Chair)*
Suzanne P. Blier, Allen Whitehill Clowes Professor of Fine Arts and Professor of African and African American Studies
William L. Fash, Bowditch Professor of Central American and Mexican Archaeology and Ethnology
Ioli Kalavrezou, Dumbarton Oaks Professor of Byzantine Art
Peter Machinist, Hancock Professor of Hebrew and other Oriental Languages
Richard H. Meadow, Senior Lecturer on Anthropology
Lawrence E. Stager, Dorot Professor of the Archaeology of Israel

Irene J. Winter, William Dorr Boardman Professor of Fine Arts

The Committee on Archaeology is a multidisciplinary group of scholars appointed to coordinate the teaching of archaeology among Harvard's departments. It is designed to advance knowledge of archaeological activity, research, fieldwork, and scientific techniques in the many and varied fields where archaeology is an established and desirable approach to past cultures and histories around the world. It holds a monthly interdepartmental seminar on archaeological themes, and encourages students in the several departments to join together outside their specialties for the advancement of knowledge. It publishes an electronic calendar of forthcoming archaeological lectures and activities in the Boston area.

Some of the courses listed in the following departments may deal either directly or indirectly with the study of archaeology. These departments include: Anthropology, The Classics, History of Art and Architecture, Near Eastern Languages and Civilizations, and Religion.

Asian Studies Programs

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Council on Asian Studies

Dwight H. Perkins, Harold Hitchings Burbank Professor of Political Economy *(Chair) (on leave fall term)*
William P. Alford, Henry L. Stimson Professor of Law *(Law School)*
Theodore C. Bestor, Professor of Anthropology
Homi K. Bhabha, Anne F. Rothenberg Professor of English and American Literature and Language *(on leave 2004-05)*
Peter K. Bol, Charles H. Carswell Professor of East Asian Languages and Civilizations
Harold Bolitho, Professor of Japanese History
Sugata Bose, Gardiner Professor of Oceanic History and Affairs
Mary C. Brinton, Reischauer Institute Professor of Sociology *(on leave spring term)*
James K.M. Cheng, Librarian of the Harvard-Yenching Library
Diana L. Eck, Professor of Comparative Religion and Indian Studies
Carter J. Eckert, Yoon Se Young Professor of Korean History *(on leave spring term)*
Mark C. Elliott, Mark Schwartz Professor of Chinese and Inner Asian History
Shengli Feng, Professor of the Practice of Chinese Language
Andrew Gordon, Lee and Juliet Folger Fund Professor of History
Janet Gyatso, Hershey Professor of Buddhist Studies *(Divinity School)*
Helen Hardacre, Reischauer Institute Professor of Japanese Religions and Society

William C. Hsiao, K. T. Li Professor of Economics *(Public Health)*
Wilt Lukas Idema, Professor of Chinese Literature
Akira Iriye, Charles Warren Professor of American History *(on leave spring term)*
Wesley M. Jacobsen, Professor of the Practice of the Japanese Language
Devesh Kapur, Frederick S. Danziger Associate Professor of Government
William C. Kirby, Edith and Benjamin Geisinger Professor of History and Dean of the Faculty of Arts and Sciences
Arthur Kleinman, Esther and Sidney Rabb Professor of Anthropology *(FAS)* and Professor of Psychiatry and Medical Anthropology *(Medical School)*
Philip A. Kuhn, Francis Lee Higginson Professor of History and of East Asian Languages and Civilizations
Wai-yee Li, Professor of Chinese Literature
Roderick MacFarquhar, Leroy B. Williams Professor of History and Political Science *(on leave 2004-2005)*
David McCann, Korea Foundation Professor of Korean Literature
Michael B. McElroy, Gilbert Butler Professor of Environmental Studies
F. Warren McFarlan, Albert H. Gordon Professor of Business *(Business School)*
Robert D. Mowry, Senior Lecturer on History of Art and Architecture
Stephen Owen, James Bryant Conant University Professor
Elizabeth J. Perry, Henry Rosovsky Professor of Government
Susan J. Pharr, Edwin O. Reischauer Professor of Japanese Politics
Michael James Puett, Professor of Chinese History
John Mark Ramseyer, Mitsubishi Professor of Japanese Legal Studies *(Law School)*
Michael Robin Reich, Taro Takemi Professor of International Health Policy *(Public Health)*
Peter G. Rowe, Raymond Garbe Professor of Architecture and Urban Design and Dean of the Graduate School of Design *(Design School) (on leave 2004-05)*
Jay Rubin, Takashima Professor of Japanese Humanities *(on leave fall term)*
Anthony Saich, Daewoo Professor of International Affairs *(Kennedy School) (on leave 2004-2005)*
Mary M. Steedly, Professor of Anthropology *(on leave 2004-05)*
Hue-Tam Ho Tai, Kenneth T. Young Professor of Sino-Vietnamese History *(on leave fall term)*
Wei-Ming Tu, Harvard-Yenching Professor of Chinese History and Philosophy and of Confucian Studies *(on leave spring term)*
Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies
Richard H. K. Vietor, Senator John Heinz Professor of Environmental Management *(Business School)*
James L. Watson, Harvard College Professor and John King and Wilma Cannon Fairbank Professor of Chinese Society
Rubie S. Watson, Senior Lecturer on Anthropology
Martin K. Whyte, Professor of Sociology

The Council on Asian Studies was created by resolutions of the Faculty of Arts and Sciences of April 12, 1972, and April 25, 2001. It exists to coordinate, advise, and promote teaching and research on Asia. It is comprised of faculty members from different departments of the FAS and from several schools of the University who study East Asia, Southeast Asia, South Asia, and Inner Asia. It oversees or advises several academic programs mentioned below, and it provides

faculty oversight to the Harvard University Asia Center.

The AM program in Regional Studies—East Asia and the PhD program in History and East Asian Languages are supervised by the Council and are described below.

The AB Concentration in East Asian Studies is advised and supported by the Council, and is described under East Asian Languages and Civilizations. Courses on East Asian languages, early history, literature, and thought are listed under East Asian Languages and Civilizations.

Programs in South Asian Studies and in Inner Asian and Altaic Studies are advised and supported by the Council and are listed separately in the catalog.

Other courses in Asian Studies are listed under the Core Curriculum, Anthropology, Economics, History of Art and Architecture, Government, History, Linguistics, Psychology, Sociology, the Study of Religion, and other departments.

The Harvard University Asia Center was created in 1997. Its Steering and Executive Committees are drawn from the Faculty of the Council on Asian Studies. The Center coordinates and supports research, teaching, and public programs on Asia throughout the University. The Center sponsors lectures, seminars, and conferences; supports faculty and student research; publishes books and journals; funds research and travel grants to undergraduate and graduate students; administers Harvard's National Resource Center for East Asian Studies, and manages the competition for Title VI Foreign Language and Area Studies Fellowships for graduate and professional students. The Center publishes a bi-weekly calendar of events during the Academic Year. The Center's main office is located in Coolidge Hall, on the third floor.

Faculty of the Standing Committee on the Degree of Master of Arts in Regional Studies–East Asia

Hue-Tam Ho Tai, Kenneth T. Young Professor of Sino-Vietnamese History *(Chair) (on leave fall term)*
Edwin A. Cranston, Professor of Japanese Literature *(Acting Chair, fall term)*
Mikael Adolphson, Associate Professor of Japanese History *(on leave 2004-05)*
Daniel V. Botsman, Associate Professor of History *(on leave 2004-05)*
Eileen Cheng-yin Chow, Assistant Professor of Chinese Literary and Cultural Studies
Mark C. Elliott, Mark Schwartz Professor of Chinese and Inner Asian History
Sun Joo Kim, Assistant Professor of Korean History
David McCann, Korea Foundation Professor of Korean Literature

The program in Regional Studies–East Asia, leading to a Master of Arts degree, is a basic preparation (1) for students who intend to go on to PhD work in an East Asian specialization; and (2) for students who wish to equip themselves for nonacademic work. The program, which normally requires two years for completion, aims to make the student broadly conversant with the societies of the region, and also to give him or her a sound knowledge of one of the languages of the area. Details may be obtained from the Committee's offices at 9 Kirkland Place, Cambridge, MA, 02138 or 617-495-3777.

Faculty of the Standing Committee on the Degree of Doctor of Philosophy in History and East Asian Languages

Mark C. Elliott, Mark Schwartz Professor of Chinese and Inner Asian History *(Chair)*
Peter K. Bol, Charles H. Carswell Professor of East Asian Languages and Civilizations
Harold Bolitho, Professor of Japanese History
Carter J. Eckert, Yoon Se Young Professor of Korean History *(on leave spring term)*
Andrew Gordon, Lee and Juliet Folger Fund Professor of History
William C. Kirby, Edith and Benjamin Geisinger Professor of History and Dean of the Faculty of Arts and Sciences
Philip A. Kuhn, Francis Lee Higginson Professor of History and of East Asian Languages and Civilizations
Michael James Puett, Professor of Chinese History
Hue-Tam Ho Tai, Kenneth T. Young Professor of Sino-Vietnamese History *(on leave fall term)*

The Committee, drawn from the two departments of History and of East Asian Languages and Civilizations, administers a program leading to the PhD degree. The program in general combines study of the Chinese and Japanese languages (and sometimes other East Asian languages such as Korean, Mongolian, or Vietnamese) with advanced study and research in East Asian history. Normally this requires four courses (or equivalent) in the primary language, two and one-half in the secondary, and preparation for an oral examination in three history fields, of which two are ordinarily East Asian, and one Western, depending on the individual's preparation and program. In some cases, fulfilling these requirements may entail taking a fourth field. Further information may be obtained from the office of the Committee, at Vanserg 206, 10 Divinity Avenue, Cambridge, MA, 02138.

Graduate Courses of Reading and Research

***Regional Studies — East Asia 300. Reading and Research**
Catalog Number: 4614
Hue-Tam Ho Tai 6079 and members of the Committee
Designed to provide students with the opportunity to do reading and research in an approved area of their choice under the direction of a member of the Committee.
Note: Limited to students affiliated with the Regional Studies-East Asia program.

***Regional Studies — East Asia 310. Thesis Development**
Catalog Number: 8453
Hue-Tam Ho Tai 6079 and members of the Committee
Designed to allow students to develop previous research or a previously written paper into the AM thesis, under the direction of an appropriate faculty advisor.
Note: Limited to students affiliated with the Regional Studies-East Asia program. Counts as course credit, but not towards the basic course requirements for the degree.

Astronomy

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Astronomy

Lars Hernquist, Professor of Astronomy *(Chair)*
Charles Alcock, Professor of Astronomy
Raymond Blundell, Lecturer on Astronomy
David Brian Charbonneau, Assistant Professor of Astronomy
Alexander Dalgarno, Phillips Professor of Astronomy
Thomas M. Dame, Lecturer on Astronomy
Ralph H. Donnelly, Lecturer on Astronomy, Teaching Assistant in Astronomy
Daniel G. Fabricant, Lecturer on Astronomy
Giovanni G. Fazio, Lecturer on Astronomy, Associate of the Harvard College Observatory
Bryan M. Gaensler, Assistant Professor of Astronomy *(Head Tutor)*
Alyssa A. Goodman, Professor of Astronomy
Lincoln Jared Greenhill, Lecturer on Astronomy
Jonathan E. Grindlay, Paine Professor of Practical Astronomy
Paul T. P. Ho, Lecturer on Astronomy
Matthew Holman, Lecturer on Astronomy
John P. Huchra, Robert O. and Holly Thomis Doyle Professor of Cosmology
Kate Kirby, Lecturer on Astronomy
Robert P. Kirshner, Harvard College Professsor and Clowes Professor of Science
Myron Lecar, Lecturer on Astronomy
Abraham Loeb, Professor of Astronomy
Jeffrey E. McClintock, Lecturer on Astronomy
James M. Moran, Donald H. Menzel Professor of Astrophysics
Stephen S. Murray, Lecturer on Astronomy
Ramesh Narayan, Thomas Dudley Cabot Professor of the Natural Sciences
George B. Rybicki, Professor of the Practice of Astronomy
Philip M. Sadler, Frances W. Wright Senior Lecturer on Celestial Navigation
Dimitar D. Sasselov, Professor of Astronomy, Associate of Eliot House
Irwin I. Shapiro, Timken University Professor
Krzysztof Z. Stanek, Assistant Professor of Astronomy, Associate Professor of Astronomy
Christopher Stubbs, Professor of Physics and of Astronomy
Patrick Thaddeus, Robert Wheeler Willson Professor of Applied Astronomy *(on leave spring term)*
Matias Zaldarriaga, Professor of Astronomy
Qizhou Zhang, Lecturer on Astronomy

Astronomy 1, 2, and Science A-35, A-36, A-47 provide a variety of approaches toward introducing the substance of astronomy and astrophysics to interested students. They are aimed

at nonconcentrators with curiosity about the contents of the universe and its underlying organization. None of these courses presumes a knowledge of algebra more extensive than that used in a high school physics course. Astronomy 16 is aimed at freshman (and others) who are taking (or have taken) Physics 15a and are considering the concentration. Astronomy 97hf (the Introductory Tutorial) is open to sophomores and freshmen who are taking (or have taken) Physics 15a or the equivalent and are considering the concentration or a combined concentration. Astronomy 98hf and 99, Junior and Senior Tutorials, are intended for concentrators in Astronomy and Astrophysics, but are open in special cases to concentrators in other physical sciences. They provide an opportunity for close contact with the faculty and often result in significant research experience. Astronomy 45, 135, 145, 150, 191, 192, and 193 are intended primarily for concentrators in the physical sciences. Each of these courses uses the tools of mathematics and physics to reach an understanding of astronomical phenomena. Since the prerequisites for these courses include substantial preparation in physics and mathematics, students with an interest in taking them or intending to concentrate in Astronomy and Astrophysics should make an effort to take Physics 15a,b,c and Mathematics 21a,b (or Mathematics 22a,b) at the earliest opportunity.

Primarily for Undergraduates

Astronomy 1. The Astronomical Universe
Catalog Number: 4287
Abraham Loeb and Ralph H. Donnelly
Half course (spring term). M., W., 9–10:30. EXAM GROUP: 2, 3
A general introductory course for nonscience concentrators. Topics include observational astronomy, the nature of the Sun and stars, the evolution of the universe from a hot big bang, its composition (including a discussion of what is currently understood about dark matter) and structure, the nature of space and time and current theories of quasars and black holes. Where possible, basic principles of physics are explained and then applied to astronomical phenomena, but no mathematics beyond elementary algebra is used.

Astronomy 2. Celestial Navigation
Catalog Number: 2179 Enrollment: Limited to 30.
Philip M. Sadler and assistants
Half course (fall term). Tu., 11:30–1:30, Tu., 7–10 p.m. EXAM GROUP: 13, 14
Never be lost again! Find your way on sea, land, or air by employing celestial and terrestrial techniques. Acquire expertise in using navigators' tools (sextant, compass, and charts) while learning the steps to the celestial dance of the sun, moon, stars, and planets. This 107-year-old course continues to rely on practical skills and collaborative problem-solving, while utilizing historical artifacts (instruments, maps, captains' logs) and student-built devices.
Note: Minimum lecturing; predominantly practical laboratory activities with individual attention from teaching staff. Math beyond high school trigonometry and geometry unnecessary. Some familiarity with sailing and/or astronomy is helpful.

Astronomy 16. Stars and Gas in the Milky Way
Catalog Number: 8813
Bryan M. Gaensler

Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Introduction to the astronomical principles underlying the behavior of our Galaxy and its components. Basic physical concepts will be applied to orbits, the solar system, stellar spectra, stellar evolution, supernovae, black holes, interstellar gas and Galactic structure. Involves a significant observational component: the Knowles Telescope at the Science Center will be used to study binary stars and star clusters, while the CfA millimeter telescope will be used to measure the mass of the Milky Way.
Prerequisite: Physics 15a, or equivalent, may be taken concurrently.

Astronomy 45. Introduction to Extragalactic Astrophysics and Cosmology
Catalog Number: 5375
Matias Zaldarriaga
Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7, 8
Aims to provide a theoretical understanding of galaxies, black holes, quasars, dark matter, the expansion of the universe and its large scale structure, dark energy, and other aspects of the Big Bang model. Emphasizes the way in which physics is applied to astronomy, including mechanics, gravitation, the properties of radiation, thermodynamics, and special and general relativity.
Prerequisite: Physics 15a, b (Physics 15b may be taken concurrently).

***Astronomy 91r. Supervised Reading and Research**
Catalog Number: 1545
Lars Hernquist and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised reading and research in subjects not normally included in the regular course offerings of the department.
Note: Students must arrange for course supervision with an individual member of the department. The course may not be counted for the concentration requirements except by special permission and may not be taken more than twice.

***Astronomy 97hf. Introductory Tutorial**
Catalog Number: 6604
Matias Zaldarriaga and members of the Department
Half course (throughout the year). F., 2–4. EXAM GROUP: 7, 8
Introduction to methods of problem solving in astrophysics. Contact with Department of Astronomy faculty and their research programs. Students meet in small groups with a faculty member for two weeks to work through a problem as an introduction to astronomical questions and research methods. Through the year, each student meets with approximately 10 members of the department.
Note: Open to sophomore concentrators and others (including freshmen with Physics 15a or advanced placement) considering the concentration or a combined concentration.
Prerequisite: Physics 15a, b or equivalent (can be taken concurrently).

***Astronomy 98hf. Tutorial — Junior Year**
Catalog Number: 3121
Ramesh Narayan and members of the Department

Half course (throughout the year). F., 2–4. EXAM GROUP: 7, 8
Note: Normally a required course for junior concentrators in Astronomy. Open in special cases to concentrators in other physical sciences. Weekly lectures, assigned reading, and discussion meetings during the fall term, individually supervised program of reading and research leading to a paper and lecture on a chosen topic during the spring term.

***Astronomy 99. Tutorial — Senior Year**
Catalog Number: 5413
Ramesh Narayan and members of the Department
Full course. F., 2–4.
Note: For honors candidates in Astronomy. Individually supervised reading and research leading to the honors thesis.
Prerequisite: Astronomy 98hf.

Cross-listed Courses

Science A-35. Matter in the Universe
Science A-36. Observing the Sun and the Stars
Science A-47. Cosmic Connections

For Undergraduates and Graduates

***Astronomy 135. Planetary System Astronomy**
Catalog Number: 4850
Krzysztof Z. Stanek and Matthew Holman
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Uses our solar system as an example to understand the origin and evolution of planetary systems in general. Topics include the formation and evolution of the sun; origin, structure, and evolution of solar system planets; planetary satellites; small bodies of the solar system (comets, asteroids, and meteorites); solar magnetic activity and its influence on the Earth and planets; planets orbiting other stars; and the possibilities of habitable environments in other planetary systems.
Prerequisite: Physics 15a, b, c, or Physics 11a, b, and permission of the instructor.

Astronomy 145. Topics in Astrophysics
Catalog Number: 0212
John P. Huchra
Half course (spring term). M., W., 9:30–11. EXAM GROUP: 2, 3
Discussion of a wide range of astrophysical systems and the physical processes and the observational properties that describe them. Topics include cosmology and the Big Bang, galaxies and their formation and evolution, the formation of structure in the universe, star formation, energy generation in stars, white dwarfs, neutron stars, black holes, and the interstellar medium.
Prerequisite: Physics 143a (may be taken concurrently).

Astronomy 150. Radiative Processes in Astrophysics
Catalog Number: 8993

George B. Rybicki
Half course (fall term). M., W., 10–11:30. EXAM GROUP: 3, 4
Survey of radiative processes of astrophysical importance from radio waves to gamma rays. Thermal and non-thermal processes, including bremsstrahlung, synchrotron radiation, and Compton scattering. Radiation in plasmas. Atomic and molecular structure and spectra.
Prerequisite: Physics 143a (may be taken concurrently).

Astronomy 191. Astrophysics Laboratory
Catalog Number: 3615 Enrollment: Limited to 16.
Jonathan E. Grindlay
Half course (spring term). Hours to be arranged. First class meeting will be on Friday, February 4 from 2-4 in the Pratt Conference Room.
Laboratory and observational projects in astrophysics. Students choose two projects from a selection including: measurement of the cosmic microwave background radiation, molecules in interstellar clouds, the rotation of the galaxy, radio galaxies with the VLA, stars and clusters with the Knowles Telescope; and laboratory experiments including super-conducting submillimeter detectors, x-ray CCDs, and hard x-ray imaging detectors and telescopes.
Note: Primarily for concentrators in Astronomy and Astrophysics or combined concentrators with Physics. Students with Physics as their primary concentration, but with a serious interest in astrophysics, may take this to satisfy their laboratory requirement (in lieu of Physics 191) upon petition to the Head Tutor in Physics.
Prerequisite: Physics 15c or equivalent.

[Astronomy 192. Tools and Techniques of Astronomical Measurements]
Catalog Number: 4741
Christopher Stubbs
Half course (spring term). Hours to be arranged.
Presentation of physical principles and techniques used for detection across the frequency domain of both electromagnetic and gravitational radiation. Description and analysis of the corresponding tools used for detection, including telescopes and basic instrumentation, present and (near-term) future. Discussion of different types of measurements—intensity, imaging, spectroscopic, polarimetric, astrometric, and interferometric—throughout the electromagnetic spectrum, including related parameter estimation and error analyses.
Note: Expected to be given in 2005–06.
Prerequisite: Physics 15a, b, c and Applied Mathematics 105 (or equivalents).

Astronomy 193. Noise and Data Analysis in Astrophysics
Catalog Number: 4495
James M. Moran
Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
How to design experiments and get the most information from noisy, incomplete, flawed, and biased data sets. Basics of probability theory; Bernouli trials; Bayes theorem; random variables; distributions; functions of random variables; moments and characteristic functions; Fourier transform analysis; Stochastic processes; estimation of power spectra. Digital data processing: sampling theorem, filtering; fast Fourier tranform; spectrum of quantized data sets. Weighted least mean squares analysis and nonlinear parameter estimation. Noise processes in periodic

phenomena. Image processing and restoration techinques.
Prerequisite: Mathematics 21b or equivalent.

Cross-listed Courses

Applied Mathematics 111. Introduction to Scientific Computing
[Earth and Planetary Sciences 121. Terrestrial Planets]
[Earth and Planetary Sciences 238. Spectroscopy and Radiative Transfer of Atmospheres]
Earth and Planetary Sciences 250. Topics in Planetary Sciences
Earth and Planetary Sciences 264r. Topics in Planetary Magnetism
Physics 191r. Advanced Laboratory

Primarily for Graduates

These courses are primarily aimed at graduate students in astronomy, although properly prepared undergraduates and graduate students from other fields are welcome. The required graduate core course are Astronomy 150, 201a & b and 202a & b, while a wide range of advanced courses is available for further work. Courses may be available as reading courses at times other than those shown, by arrangement with the instructor. Graduate students in Astronomy are required to take one graduate Physics course selected from Physics 210 or 251a (or Astronomy 251) More advanced Physics courses may be substituted upon petition to the Comittee on Academic Studies.

Astronomy 200hf. Seminar in Modern Astrophysics and Cosmology
Catalog Number: 8574
Krzysztof Z. Stanek
Half course (throughout the year). W., at 3. EXAM GROUP: 8
Graduate seminar on topical areas in modern astrophysics and cosmology. Each term a different topic of current special interest is selected. Participants in this seminar discuss papers given by seminar members (in rotation). Several faculty members also participate.
Note: Participation for two terms is required to obtain credit

Astronomy 201a. Stellar and Planetary Astrophysics
Catalog Number: 4303
Dimitar D. Sasselov
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Stars are studied as the elementary baryonic building blocks of the Universe, and the main source of the evolution of baryonic matter (nucleosynthesis). Planetary systems are studied in terms of the stellar environments for their formation and survival.

Astronomy 201b. Interstellar Medium
Catalog Number: 4206
Irwin I. Shapiro
Half course (spring term). W., F., 3:30–5. EXAM GROUP: 8, 9
Nature of the Interstellar Medium (ISM), throughout composition-density-temperature parameter space; sources and sinks for ISM materials. Emphasis on physical processes and measurements relevant to characterizing the ISM.

[Astronomy 202a. Galaxies and Dynamics]
Catalog Number: 8237
John P. Huchra
Half course (fall term). Hours to be arranged.
An observational and theoretical overview of extragalactic astronomy with emphasis on dynamics. The cosmological framework, galaxy morphology and structure, galactic dynamics, galactic content, gas dynamics, galaxy formation and evolution, galaxy populations and properties and clustering.
Note: Expected to be given in 2005–06.

[Astronomy 202b (formerly Astronomy 207). Cosmology]
Catalog Number: 2446
Lars Hernquist and Matias Zaldarriaga
Half course (spring term). Hours to be arranged.
The cosmological principle: isotropy and homogeneity, cosmological world models, thermal history of the Big Bang, the microwave background, growth of density fluctuations, formation and evolution of galaxies, active galactic nuclei, large scale structure, structure of galaxies and clusters of galaxies, gravitational lensing, candidates for dark matter, measurements of cosmological parameters.
Note: Expected to be given in 2005–06.

[Astronomy 218. Radio Astronomy]
Catalog Number: 2883
James M. Moran
Half course (spring term). Hours to be arranged.
Historical development; theory of antennas and interferometers; signal detection and measurement techniques. Thermal, synchrotron and spectral-line emission in the context of radio observations of the sun, planets, pulsars, masers, hydrogen clouds, molecular clouds, ionized regions, active galaxies, quasars, and the cosmic background.
Note: Expected to be given in 2005–06.
Prerequisite: Astronomy 150 or Physics 153 recommended.

Astronomy 219. High Energy Astrophysics
Catalog Number: 1858
Jonathan E. Grindlay and Ramesh Narayan
Half course (spring term). M., W., 2–3:30. EXAM GROUP: 7, 8
Discussion of relativistic and high-energy astrophysical phenomena and observational techniques. Accretion onto compact stars (white dwarfs, neutron stars, black holes); active galactic nuclei, galaxy clusters. Gamma-ray bursts and cosmic rays. X-ray and gamma-ray background.

[Astronomy 225. Formation of Stars and Planets]
Catalog Number: 0983
Alyssa A. Goodman
Half course (fall term). Hours to be arranged.
Physical properties of the interstellar medium, molecular clouds and their cores, young stellar

objects in isolation and in clusters, dynamical processes in star formation and circumstellar disk evolution, properties of the primitive solar nebula and solar system development, extrasolar planetary systems.
Note: Expected to be given in 2005–06.

Astronomy 251. Quantum Mechanics for Astrophysics
Catalog Number: 5381
Alexander Dalgarno and Kate Kirby
Half course (fall term). M., W., 2–3:30. EXAM GROUP: 7, 8
Quantum mechanics with applications to atomic and molecular processes important in astronomical environments. Atomic and molecular structure; spectroscopy (selection rules, oscillator strengths, photoionization); scattering theory (elastic, inelastic, approximate methods); line broadening; collision processes (cross sections, rate coefficients) involving electrons, ions, atoms, and molecules.
Prerequisite: Physics 143a or the equivalent, or permission of instructor.

Cross-listed Courses

Applied Mathematics 205. Practical Scientific Computing
Physics 210. General Theory of Relativity
Physics 251a. Advanced Quantum Mechanics I

Graduate Courses of Reading and Research

Unless otherwise specified, these courses are given fall term, repeated spring term.
***Astronomy 300. Topics in Modern Astrophysics**
Catalog Number: 7915
Raymond Blundell 2753, Charles Alcock 5194, David Brian Charbonneau 5225 (spring term only), Alexander Dalgarno 1157, Thomas M. Dame 2755, Daniel G. Fabricant 3711, Giovanni G. Fazio 1143, Bryan M. Gaensler 4493, Alyssa A. Goodman 3348, Lincoln Jared Greenhill 4490, Jonathan E. Grindlay 4593, Lars Hernquist 4250, Paul T. P. Ho 7532, Matthew Holman 1260 (spring term only), John P. Huchra 6271, Robert P. Kirshner 1071, David W. Latham 3716, Myron Lecar 1026, Abraham Loeb 3349, Jeffrey E. McClintock 2108, James M. Moran 4090, Stephen S. Murray 3707, Ramesh Narayan 2871, Robert W. Noyes 1651, George B. Rybicki 3734, Dimitar D. Sasselov 1020, Irwin I. Shapiro 7660, Krzysztof Z. Stanek 3906, Christopher Stubbs 4856, Patrick Thaddeus 1398 (on leave spring term), Matias Zaldarriaga 4603, and Qizhou Zhang 4477
A seminar, reading, or research course may be arranged with any of the faculty listed. Students can also arrange to obtain Astronomy 300 credit for reading or research with scientific staff members of the Harvard-Smithsonian Center for Astrophysics; consult Astronomy Department office.

***Astronomy 302. Scientists Teaching Science**
Catalog Number: 9869
Philip M. Sadler 2231
Half course (spring term). Tu., 2–3:30. EXAM GROUP: 16, 17

Learn the secrets of lecturing well, leading discussions, connecting to real-world applications, and creating tests in any scientific discipline as we focus on relevant educational research and case studies, plus engage in practical classroom activities.
Note: Open to graduate students in all areas of science and uses activities to draw upon research findings from the life, earth, and physical sciences.
Prerequisite: Experience as an instructor of science or as a teaching fellow.

Biological Sciences

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Molecular and Cellular Biology

Andrew W. Murray, Professor of Molecular and Cellular Biology *(Chair)*
Howard C. Berg, Herchel Smith Professor of Physics and Professor of Molecular and Cellular Biology
John E. Dowling, Gordon and Llura Gund Professorship of Neurosciences
Catherine Dulac, Professor of Molecular and Cellular Biology *(on leave spring term)*
Florian Engert, Assistant Professor of Molecular and Cellular Biology
Raymond L. Erikson, American Cancer Society Professor of Cellular and Developmental Biology
William D. Fixsen, Senior Lecturer on Molecular and Cellular Biology
Nicole J. Francis, Assistant Professor of Molecular and Cellular Biology
Rachelle Gaudet, Assistant Professor of Molecular and Cellular Biology
William M. Gelbart, Professor of Molecular and Cellular Biology *(on leave 2004-05)*
Guido Guidotti, Higgins Professor of Biochemistry
J. Woodland Hastings, Paul C. Mangelsdorf Professor of Natural Sciences
Craig P. Hunter, Professor of Molecular and Cellular Biology *(on leave spring term)*
David Jeruzalmi, Assistant Professor of Molecular and Cellular Biology
Nancy Kleckner, Herchel Smith Professor of Molecular Biology
Jeremy R. Knowles, Harvard University Distinguished Service Professor and Amory Houghton Professor of Chemistry and Biochemistry
Samuel M. Kunes, Professor of Molecular and Cellular Biology
Jeff Lichtman, Professor of Molecular and Cellular Biology, Tutor in Biochemical Sciences
Richard M. Losick, Harvard College Professor and Maria Moors Cabot Professor of Biology *(Head Tutor, Biochemical Sciences)*
Robert A. Lue, Senior Lecturer on Molecular and Cellular Biology *(Executive Director of Undergraduate Education in Molecular and Cellular Biology)*
Tom Maniatis, Thomas H. Lee Professor of Molecular and Cellular Biology
Andrew P. McMahon, Frank B. Baird, Jr. Professor of Science *(on leave 2004-05)*

Markus Meister, Jeff C. Tarr Professor of Molecular and Cellular Biology *(on leave 2004-05)*
Douglas A. Melton, Thomas Dudley Cabot Professor of the Natural Sciences and Chair of the Life Sciences Council
Matthew Meselson, Thomas Dudley Cabot Professor of the Natural Sciences
Matthew Michael, Associate Professor of Molecular and Cellular Biology
Venkatesh N. Murthy, Morris Kahn Associate Professor of Molecular and Cellular Biology
Axel Nohturfft, Assistant Professor of Molecular and Cellular Biology
Jack L. Strominger, Higgins Professor of Biochemistry *(on leave spring term)*
Alain Viel, Senior Lecturer on Molecular and Cellular Biology
James C. Wang, Mallinckrodt Professor of Biochemistry and Molecular Biology

Associate Members of the Department of Molecular and Cellular Biology

Stephen C. Blacklow, Associate Professor of Pathology *(Medical School)*
Hidde Ploegh, Mallinckrodt Professor of Immunopathology and Professor of Pathology *(Medical School) (on leave 2004-05)*
Stuart L. Schreiber, Morris Loeb Professor of Chemistry
Gregory L. Verdine, Harvard College Professor and Erving Professor of Chemistry

Faculty of the Department of Organismic and Evolutionary Biology

Andrew H. Knoll, Fisher Professor of Natural History and Professor of Earth and Planetary Sciences *(Chair)*
Andrew A. Biewener, Charles P. Lyman Professor of Biology *(on leave fall term)*
Colleen M. Cavanaugh, Edward C. Jeffrey Professor of Biology *(on leave 2004-05)*
Kathleen Donohue, Assistant Professor of Biology
Jacques Dumais, Assistant Professor of Organismic and Evolutionary Biology
Scott V. Edwards, Professor of Organismic and Evolutionary Biology and Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology
Brian D. Farrell, Professor of Biology
David R. Foster, Senior Lecturer on Biology
Gonzalo Giribet, Associate Professor of Biology
David A. Haig, Professor of Organismic and Evolutionary Biology *(Head Tutor, Biology)*
James Hanken, Professor of Biology and Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology
Daniel L. Hartl, Higgins Professor of Biology
N. Michele Holbrook, Charles Bullard Professor of Forestry
Farish A. Jenkins, Jr., Professor of Biology *(FAS)* and Professor of Anatomy in the Harvard-MIT Division of Health Sciences and Technology *(Medical School)*
Elena M. Kramer, John L. Loeb Associate Professor of the Natural Sciences
George V. Lauder, Professor of Biology and Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology *(on leave 2004-05)*
Karel F. Liem, Henry Bryant Bigelow Professor of Ichthyology
Charles R. Marshall, Professor of Biology and of Geology
James J. McCarthy, Alexander Agassiz Professor of Biological Oceanography in the Museum of Comparative Zoology

Paul R. Moorcroft, Assistant Professor of Biology
Martin A. Nowak, Professor of Mathematics and of Biology, Director of the Program for Evolutionary Dynamics
Donald H. Pfister, Asa Gray Professor of Systematic Botany
Naomi E. Pierce, Sidney A. and John H. Hessel Professor of Biology
John R. Wakeley, Thomas D. Cabot Associate Professor of Organismic and Evolutionary Biology *(on leave 2004-05)*
Robert M. Woollacott, Professor of Biology *(on leave spring term)*

Other Faculty Offering Instruction in Biological Sciences

William H. Bossert, David B. Arnold, Jr. Professor of Science *(on leave fall term)*
Daniel Branton, Higgins Professor of Biology, *Emeritus*
Lewis C. Cantley, Professor of Medicine and Professor of Systems Biology *(Medical School)*
Charles A. Czeisler, Professor of Medicine *(Medical School)*
Walter Fontana, Professor of Systems Biology *(Medical School)*
Walter Gilbert, Carl M. Loeb University Professor, *Emeritus*
Jeremy M. Gunawardena, Senior Lecturer on Systems Biology *(Medical School)*
Marc D. Hauser, Harvard College Professor and Professor of Psychology *(on leave spring term)*
Marc W. Kirschner, Carl W. Walter Professor of Systems Biology *(Medical School)*
Arthur L. Lage, Associate Professor of Surgery *(Medical School)*
Daniel E. Lieberman, Professor of Anthropology
Ralph Mitchell, Gordon McKay Professor of Applied Biology *(on leave spring term)*
Maryellen Ruvolo, Professor of Anthropology
Joshua Sanes, Professor of Molecular and Cellular Biology, Tutor in Biochemical Sciences
Richard W. Wrangham, Ruth Moore Professor of Biological Anthropology
Xiaowei Zhuang, Assistant Professor of Chemistry and Chemical Biology and of Physics

The courses designated Biological Sciences are jointly organized by the departments of Molecular and Cellular Biology and Organismic and Evolutionary Biology. The courses designated as MCB are the responsibility of the department of Molecular and Cellular Biology.The courses designated OEB are the responsibility of the department of Organismic and Evolutionary Biology. The Head Tutor for the Biochemical Sciences concentration is Richard M. Losick. The Head Tutor for the Biology concentration is David Haig.

Biological Sciences

Primarily for Undergraduates

Biological Sciences 50. Genetics and Genomics
Catalog Number: 9370
Matthew Meselson and William D. Fixsen (fall term), and Daniel L. Hartl and Maryellen Ruvolo (spring term)
Half course (fall term; repeated spring term). M., W., F., at 12, and three hours of laboratory/discussion weekly. EXAM GROUP: 5
Analysis of genes and genomes with emphasis on function, transmission, mutation, and

evolution, with examples from animals, plants, bacteria, and fungi. Discusses classical and current methods of gene and genome analysis, including genetic, molecular, quantitative, and bioinformatic approaches.
Note: Lectures and weekly laboratory/discussion section. This course, when taken for a letter grade, meets the Core area requirement for Science B.

Biological Sciences 51. Integrative Biology of Organisms
Catalog Number: 1922
Brian D. Farrell, James Hanken, and N. Michele Holbrook
Half course (fall term). M., W., F., at 12, and three hours of laboratory weekly. EXAM GROUP: 5
An integrative and functional approach to plant and animal biology in an evolutionary context, emphasizing common attributes of whole organisms and their solutions to problems imposed by the physical environment. Topics to be covered include development and organization of body plans, gas exchange, transport and excretion, information processing, support and locomotion, and the acquisition of energy sources.
Note: Knowledge of introductory molecular, cellular biology, and genetics is recommended. This course, when taken for a letter grade, meets the Core area requirement for Science B.

Biological Sciences 52. Introductory Molecular Biology
Catalog Number: 1938
Richard M. Losick
Half course (fall term). M., W., F., at 10, and a weekly laboratory/discussion session. EXAM GROUP: 3
An integrated introduction to the basic principles of molecular biology. Topics covered: the biochemistry and molecular biology of nucleic acids; the Central Dogma; DNA, RNA, and protein synthesis; mutation and repair; recombination and transposition; the genetic code; the turning on and off of genes; RNA, ribozymes and splicing; development.
Note: Chemistry 17 may be taken concurrently. This course, when taken for a letter grade, meets the Core area requirement for Science B.
Prerequisite: Chemistry 17 or 20.

Biological Sciences 53. Evolutionary Biology
Catalog Number: 3342
Kathleen Donohue
Half course (spring term). Tu., Th., 1–2:30 and a weekly three-hour lab. EXAM GROUP: 15, 16
This course covers basic macro-and micro-evolutionary analysis, with an emphasis on how to approach the study of evolution from a population perspective. Topics include phylogenetics and biogeography, natural and sexual selection, life-history evolution, speciation, and coevolution.
Note: This course, when taken for a letter grade, meets the Core area requirement for Science B.
Prerequisite: BS 50 or permission of instructor.

Biological Sciences 54. Introductory Cell Biology
Catalog Number: 0801
Robert A. Lue and Raymond L. Erikson
Half course (spring term). M., W., F., at 10, and one laboratory/discussion session each week.

EXAM GROUP: 3
An integrated introduction to the structure, function, and interactions of cells, with an emphasis on their molecular composition and dynamics. Topics covered include: membrane structure and transport; receptors and channels; protein targeting; cytoskeleton; cell cycle control; signal transduction; programmed cell death; cell adhesion, and differentiation.
Note: Laboratory and discussion sessions focus on problem-solving and evaluation of data. A series of linked laboratory exercises provides exposure to several techniques commonly used in cell biology. This course, when taken for a letter grade, meets the Core area requirement for Science B.
Prerequisite: Chemistry 17 or 20.

Biological Sciences 55. Ecology: Populations, Communities, and Ecosystems
Catalog Number: 3365
Paul R. Moorcroft
Half course (spring term). M., W., F., at 10, weekly discussion section, and a minimum of three field trips on Saturday and/or Sunday. EXAM GROUP: 3
Relationships of organisms to their environment at the individual, population, and community level. Topics in pure and applied ecology including adaptations to physical environment, competition, concept of the niche, population dynamics, predator-prey interactions, herbivore effects, community ecology, ecosystem structure, stability and function, and resource management.
Prerequisite: Mathematics 1 and prior biology experience.

Biological Sciences 56. Biochemistry and Physical Properties of Macromolecules
Catalog Number: 5424
Nancy Kleckner, Rachelle Gaudet, Guido Guidotti, David Jeruzalmi, Howard C. Berg, and Tom Maniatis
Half course (spring term). M., W., F., at 9, and a weekly section to be arranged. EXAM GROUP: 2
An introduction to the structure and function of macromolecules from the perspective of their physical properties. Topics include protein and nucleic acid structure; enzyme kinetics and mechanisms, with examples from intermediary metabolism; spectroscopic analysis; chemical equilibria and thermodynamic properties; behavior of macromolecules in solution, including random walks; macromolecular mechanics.
Prerequisite: BS 52 and BS 54 are recommended but not required; Chemistry 10 or equivalent; Chemistry 27 or Chemistry 30; Physics 11 (may be taken concurrently); Math 21a; Math 21b is recommended but not required.

Biological Sciences 57. Animal Behavior
Catalog Number: 2539
Naomi E. Pierce
Half course (fall term). Tu., Th., at 10; evening movie section to be arranged; ninety minutes of discussion section weekly. EXAM GROUP: 12
A review of the behavior of animals under natural conditions, with emphasis on both mechanistic and evolutionary approaches. Topics include classical ethology; behavioral endocrinology; behavioral genetics; learning and memory; communication; orientation, migration and biological

rhythms; optimization and evolutionary stable strategies; sexual selection; parental investment and mating systems; selfishness, altruism, and reciprocity; and sociality in vertebrates and invertebrates.
Note: This course, when taken for a letter grade, meets the Core area requirement for Science B.

Biological Sciences 80. Behavioral Neuroscience
Catalog Number: 6052
John E. Dowling
Half course (spring term). Tu., Th., 10–11:30, and a 90-minute section meeting to be arranged.
EXAM GROUP: 12, 13
An introduction to the organization and function of the nervous system and its role in behavior. Topics include the cell biology of neurons, electrical and biochemical signaling by neurons, mechanisms of sensation and perception, control of movement, learning and memory, language, motivation, and emotion.
Note: This course, when taken for a letter grade, meets the Core area requirement for Science B.

Biochemical Sciences Concentration Tutorials

***Biochemical Sciences 91r. Introduction to Research**
Catalog Number: 6083
Richard M. Losick and members of the Faculty
Half course (fall term; repeated spring term). Hours to be arranged.
Laboratory research in topics related to the Biochemical Sciences concentration under the direction of, or approved by, members of the Board of Tutors in Biochemical Sciences. A paper must be submitted to the laboratory sponsor and to the Biochemical Sciences Tutorial Office for review by the Course Director and members of the Board of Tutors.
Note: Limited to Biochemical Sciences concentrators; written permission of both the tutor and laboratory sponsor must be submitted to the Biochemical Sciences Tutorial Office prior to enrolling in the course. This introductory research course is intended to prepare students for Biochemical Sciences 99, and may ordinarily be repeated no more than once.

***Biochemical Sciences 99. Laboratory Research for Honors Thesis**
Catalog Number: 6670
Richard M. Losick and members of the Faculty
Full course (indivisible). Hours to be arranged.
For honors candidates writing a thesis in Biochemical Sciences. Indivisible for students enrolling in the fall term. Students intending to enroll in the fall are required to submit a written proposal to the Head Tutor. Students may enter the course at midyear only with the permission of the Head Tutor. The thesis proposal must be approved by the Head Tutor prior to enrolling in Biochemical Sciences 99.

Biology Concentration Tutorials

The Biology 95hf Program is directed by the Head Tutor in Biology, Professor David A. Haig. However, the tutorial seminars are taught by post-doctoral fellows and medical school faculty. Students should feel free to get in touch with the tutorial instructors directly—their names, phone

numbers and e-mail addresses, as well as tutorial seminar course descriptions, are posted on the Biology website: biology.harvard.edu. Please consult the Biology website for dates and times of first meetings.

***Biology 91r. Supervised Reading**
Catalog Number: 2817
David A. Haig and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised reading on topics not covered by regular courses of instruction. Normally work is directed by a Biology faculty member of the Department of Molecular and Cellular Biology or Organismic and Evolutionary Biology. For Biology concentrators, work may be supervised by faculty in other departments or outside Cambridge, provided it is co-sponsored by a Biology faculty member. Nonconcentrators must conduct their reading project with a Biology faculty member. Students must submit a registration request to the Biology Undergraduate Office before course enrollment. A written report of approximately 10 pages describing the material covered during the term is due in duplicate in the Undergraduate Office on the date indicated on the registration form.
Note: May be taken only once for concentration credit. May not be taken with the director/sponsor of an independent research course. Registration forms will not be accepted after Study Cards are due.
Prerequisite: Four terms of introductory biology.

***Biology 95hfa. Biology to Die For: Apoptosis in Health and Disease**
Catalog Number: 2052
David A. Haig and members of the Department
Half course (throughout the year). Tu., at 7 p.m.; Tu., at 8 p.m.

***Biology 95hfb. The Science of Exercise and Human Performance**
Catalog Number: 2607
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfc. On the Origin of Species: A Genomics Approach**
Catalog Number: 2935
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfd. Problem Solving in Neuroscience: An Interactive Case-Based Online Network (ICON)**
Catalog Number: 3437
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfe. Design and Diversity of the Vertebrate Skull**
Catalog Number: 4021
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hff. Games Parasites Play: The Cellular and Molecular Biology of Host/Parasite Interactions**
Catalog Number: 5745
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfg. Biodiversity: Science, Policy, and Law**
Catalog Number: 4576
David A. Haig and members of the Department
Half course (throughout the year). Fall: Tu., 7–9 p.m.; Tu., 7–9 p.m.

***Biology 95hfh. Evolution of the Immune System**
Catalog Number: 4969
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfj. Neurophysiology of Primate Visual Attention and Memory**
Catalog Number: 6361
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfk. Mechanisms of Neurological Disease**
Catalog Number: 7431
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfl. Limbs, Beaks, Bats, and Bugs: The Evolution and Development of Animal Body Plans**
Catalog Number: 1649
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfm. The Retina and the First Steps in Seeing**
Catalog Number: 9329
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfn. Cells on the Move: Cell Migration in Physiology and Disease**
Catalog Number: 8663
David A. Haig and members of the Department
Half course (throughout the year). Fall: W., 7–9 p.m.

***Biology 95hfo. From Flexible Genomes to Plastic Phenotypes**
Catalog Number: 6292
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfp. Microbes Meddling in the Affairs of Organisms: Symbiosis and Pathogenesis**
Catalog Number: 5931
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfy. Biodiversity and Agriculture**
Catalog Number: 9134
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 95hfz. Conservation, Nature, and Biodiversity**
Catalog Number: 7025
David A. Haig and members of the Department
Half course (throughout the year). Hours to be arranged.

***Biology 98r. Introduction to Research**
Catalog Number: 8616
David A. Haig and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Introduction to independent research. Recommended for students (ordinarily in the junior year) with no previous independent laboratory or library research experience. For Biology concentrators, ordinarily work is directed by a member of the Biological Sciences departments (MCB: Molecular and Cellular Biology, and OEB: Organismic and Evolutionary Biology) or affiliates. Other research sponsors must be approved by petition to the Biology Undergraduate Office. Non-concentrators must conduct their project with a faculty member in MCB or OEB. All students must submit registration materials for Biology 98r at the time of enrollment. A written report of approximately 5 pages is due in duplicate in the Biology Undergraduate Office on the date indicated on the registration form.
Note: Graded Sat/Unsat only. Laboratory safety session required.

***Biology 99ar. Research for Honors Thesis**
Catalog Number: 8037
David A. Haig and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Ordinarily taken by students planning on writing an honors thesis. Recommended as the research course to be taken in the first term of the student's senior year. For Biology concentrators, work may be directed by a member of the Biological Sciences departments (MCB: Molecular and Cellular Biology, and OEB: Organismic and Evolutionary Biology) or affiliates. Other research sponsors must be approved by the Biology Undergraduate Committee and require an MCB or OEB co-sponsor. Non-concentrators must conduct their project with a faculty member in MCB or OEB. All students must submit registration materials for Biology 99ar at the time of enrollment. A written report of approximately 10 pages is due in duplicate in the Biology Undergraduate Office on the date indicated on the registration form. All students enrolling in this course must submit a short thesis proposal prior to the first day of classes of the fall term. The

thesis proposal form is available in the Biology Undergraduate Office.
Note: Laboratory safety session required.

***Biology 99b. Honors Thesis**
Catalog Number: 7264
David A. Haig and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Taken by students who are actively writing their honors thesis (ordinarily in the second term of their senior year). For Biology concentrators, work may be directed by a member of the Biological Sciences departments (MCB: Molecular and Cellular Biology, and OEB: Organismic and Evolutionary Biology) or affiliates. Other research sponsors must be approved by the Biology Undergraduate Committee and require an MCB or OEB co-sponsor. Non-concentrators must conduct their project with a faculty member in MCB or OEB. All students must submit registration materials for Biology 99b at the time of enrollment. These registration materials are available in the Biology Undergraduate Office. Honors levels determined by the Biology Undergraduate Committee based upon readers' evaluations.

For Undergraduates and Graduates

MCB 100. Experimental Molecular and Cellular Biology
Catalog Number: 2122 Enrollment: Limited to 18.
Alain Viel and members of the Department
Half course (fall term; repeated spring term). W., 3–5. EXAM GROUP: 8, 9
A laboratory course that immerses students in a dynamic project-based research environment. Participate in experimental projects directly linked with ongoing faculty research covering a broad range of methodologies in microbiology, molecular and cellular biology, and biochemistry. In a highly collaborative atmosphere, students form a fully-functional research group based on the sharing of ideas and progress reports between projects. Not restricted to biochemical and biology concentrators.
Note: Aside from a weekly 2-hour meeting, students determine their own research schedule and have access to the teaching laboratory throughout the week. Open to sophomores, juniors, and seniors, and suitable for students either with or without extensive laboratory experience. SPRING: First meeting will be on February 2, 3–5 in BioLabs Main Lecture Hall (Room 1068).
Prerequisite: BS 50 or permission of the instructor.

MCB 105. Systems Neuroscience
Catalog Number: 0998
Florian Engert
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Activity dependent modulation of neuronal connections will be explored in the context of learning, memory, and development of the nervous system. Special emphasis is placed on conditioning in invertebrates and mammals, processing of information in the mammalian hippocampus and visual system, and the activity dependent development of neural networks in culture and in vivo.
Prerequisite: BS 80.

MCB 115. Cellular Basis of Neuronal Function
Catalog Number: 8703 Enrollment: Limited to 25.
Venkatesh N. Murthy
Half course (fall term). W., F., 2–3:30. EXAM GROUP: 7, 8
Cellular processes involved in the function of neurons will be explored, with emphasis on biophysical and cell biological approaches. Topics include excitable membranes, intracellular membrane trafficking, cytoskeletal dynamics, synaptic transmission, dendritic integration, and synaptic plasticity.

[MCB 116. Experimental Embryology]
Catalog Number: 1207 Enrollment: Limited to 24.
Douglas A. Melton
Half course (fall term). Hours to be arranged.
An introduction to basic problems in developmental biology by direct experimentation. Both classical and modern molecular manipulations of developing embryos are performed to study cell specification, differentiation, organ formation, and embryonic induction. Various aspects of pattern formation are analyzed, including the establishment of polarity and body axes, making use of frogs, chicken, mice, and fish.
Note: Expected to be given in 2005–06. Laboratory course primarily for advanced undergraduates and graduate students.
Prerequisite: BS 52, or BS 54, or MCB 118 or their equivalents.

MCB 117. Experimental Neuroscience
Catalog Number: 3175 Enrollment: Limited to 16.
John E. Dowling and Florian Engert
Half course (fall term). Tu., Th., 2–5. EXAM GROUP: 16, 17
An inquiry-based approach to neuroscience that uses state of the art technology to study the development and function of the nervous system. Topics include neural development, growth cone behavior, properties of voltage gated channels, systems neurobiology, and psychophysics. Experimental approaches include immunohistochemistry, molecular genetics, time lapse video-enhanced microscopy, gene expression of channels, whole cell voltage clamp, and extracellular recording.
Note: Primarily for upper-level undergraduate and graduate students; background in biochemistry or physics suggested.
Prerequisite: BS 80.

[MCB 118. Developmental Biology]
Catalog Number: 0749
Andrew P. McMahon
Half course (fall term). Hours to be arranged.
A comprehensive lecture course in developmental biology. The principles and mechanisms of development are emphasized and illustrated using several animal models. We discuss how the basic body plan of an embryo is created and how the adult organism are maintained and repaired. Emphasis is placed on experimental approaches at the molecular, genetic and cellular levels.
Note: Expected to be given in 2005–06.
Prerequisite: BS 52 and BS 54, or permission of the instructor.

[MCB 120. Cell Cycle Control and Genome Stability]
Catalog Number: 3069 Enrollment: Limited to 20.
Matthew Michael
Half course (spring term). Hours to be arranged.
Covers the molecular biology and biochemistry of the cell cycle, with an emphasis on mechanisms that maintain genome stability. Explores how DNA replication, DNA repair, and cell cycle checkpoint pathways are integrated so that the repair of damaged DNA is coordinated with chromosomal duplication and cell cycle progression. Other aspects of the cell cycle control, such as entrance into and progression through mitosis, also covered. Consists of lectures, and readings from the primary literature.
Note: Expected to be given in 2005–06.
Prerequisite: BS 52 and 54.

MCB 123. Mammalian Cell Physiology
Catalog Number: 4920 Enrollment: Limited to 25.
Axel Nohturfft
Half course (spring term). W., F., 10–11:30. EXAM GROUP: 3, 4
Explores the question of how cells maintain stability in the face of external change and internal turnover. Introduces the concepts of homeostasis, dynamic equilibrium, and feedback control. Selected topics are drawn from protein biochemistry, lipid metabolism, membrane biology, and mineral balance. Lectures and discussions of scientific papers.
Prerequisite: BS 52 and BS 54 or permission of the instructor.

MCB 125. Stem Cells and Cloning
Catalog Number: 5481
Douglas A. Melton
Half course (fall term). M., W., 4–5:30. EXAM GROUP: 9
An advanced course in developmental biology. Embryonic and adult stem cells in different organisms will be examined in terms of their molecular, cellular and potential therapeutic properties. Genetic reprogramming by nuclear transfer and cloning animals will be critically evaluated. Current findings will be considered in a historical context; ethical and political considerations will not be ignored.
Prerequisite: BS 52 and BS 54, or permission of the instructor. MCB 118 is an ideal preparation.

***MCB 129. Molecular Genetics of Neural Development and Behavior**
Catalog Number: 8956 Enrollment: Limited to 20.
Samuel M. Kunes
Half course (fall term). M., W., 10–11:30. EXAM GROUP: 3, 4
A lecture and discussion course on the development of the nervous system and the relationship between genes and behavior. Topics include neural differentiation and cell identity, cell birth and death, axon guidance and synaptic specificity, behavioral genetics. Emphasis on critical evaluation of readings from the primary literature, experimental design and scientific writing.
Prerequisite: Permission of the instructor.

[MCB 140. Introduction to Biophysics]
Catalog Number: 9736 Enrollment: Limited to 40.

Howard C. Berg and Aravinthan D. T. Samuel
Half course (spring term). Hours to be arranged.
An introduction to the biology and physics of stochastic processes that affect the behavior of cells, biopolymers, and biological motors. Elements of probability and statistics, entropic elasticity, the random walk, diffusion, sedimentation, and elctrophoresis. Applications to sensory physiology, cell motility, stretching and twisting of DNA, and the motion of motors along biopolymers.
Note: Expected to be given in 2005–06. Given in alternate years. Lectures, problem sets, discussions. May not be taken for credit by students who have taken Physics 140.
Prerequisite: Mathematics at the level of 21a, Physics 15a/15b or Physics 11a/11b or permission of the instructor. Some familiarity with elementary statistical mechanics helpful.

[MCB 141. Molecular and Developmental Neurobiology]
Catalog Number: 5205
Catherine Dulac
Half course (spring term). Hours to be arranged.
Molecular basis of sensory perception and formation of related neuronal networks during vertebrate development. Topics will include: mechanisms of sensory discrimination at the level of receptor molecules and receptor cells; coding of sensory information by the brain; establishment of appropriate connections in the developing brain. Molecular and genetic approaches to memory and behavior will be discussed.
Note: Expected to be given in 2005–06.
Prerequisite: BS 52 and BS 80.

[*MCB 142. Major Advances in the Classical and Molecular Genetics]
Catalog Number: 7948 Enrollment: Limited to 20.
Matthew Meselson
Half course (fall term). Hours to be arranged.
Critical reading and group discussion of selected papers in classical and molecular genetics. Participation in class discussion of readings is essential. Substantial essay on a mutually agreed upon topic is due at the end of reading period.
Note: Expected to be given in 2005–06.
Prerequisite: BS 50 or equivalent.

[MCB 150. Developmental Genetics and Genomics]
Catalog Number: 5703
Craig P. Hunter
Half course (spring term). Hours to be arranged.
Our goal is for students to gain a fundamental understanding of the genetic control of development in four genetically accessible animal models; the nematode C. elegans, the fruit fly Drosophila melanogaster, the zebra fish Danio rio, and the mouse Mus musculus. A focus of the course is to compare and contrast genetic analysis of and the genetic control of developmental processes and mechanisms in these four organisms. The course consists of lectures, student presentations, and written assignments.
Note: Expected to be given in 2005–06.
Prerequisite: BS 50, 52, 54, their equivalents or permission of instructor.

***MCB 155. Molecular Mechanisms of Gene Control**
Catalog Number: 6230
Tom Maniatis
Half course (fall term). Hours to be arranged. EXAM GROUP: 18
An advanced course on the control of gene regulation. Topics include: mechanisms of gene regulation at the level of transcription, chromatin structure, DNA methylation, RNA processing, mRNA localization, and protein synthesis and degradation. The course is taught through weekly lectures and readings from the current literature. Topics covered in lectures and the reading assignments are discussed in sections. Students are required to critically evaluate and discuss recent papers in sections. Two exams.
Prerequisite: BS 52 and 54 (or equivalent), and permission of instructor.

MCB 156. Structural Biology of the Flow of Information in the Cell
Catalog Number: 8543
Rachelle Gaudet and David Jeruzalmi
Half course (fall term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
A journey that follows the path taken by an extra-cellular signal as it reaches a cell, traverses the plasma membrane, navigates the cytoplasm, and finally manifests its effect upon the genome. Through the reading and discussion of primary research literature, the course highlights how structural biology has helped develop a detailed picture of each step in the pathway. The interplay between cellular and network biology and structural biology is also emphasized.
Prerequisite: BS 56 or equivalent.

MCB 169. Molecular and Cellular Immunology
Catalog Number: 2518
Shiv S. Pillai
Half course (fall term). Tu., Th., 10–11:30, and a 90-minute weekly discussion section. EXAM GROUP: 12, 13
Basic elements of the immune system. Molecular biology of antigen recognition structures on B and T lymphocytes. Cellular and genetic basis of immunity. Regulation and development of the immune system.
Prerequisite: BS 50 and 52. Genetics and cell biology strongly recommended.

MCB 173. Optical Imaging in the Biological Sciences
Catalog Number: 3836 Enrollment: Limited to 30.
Jeff Lichtman
Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
The optical microscope has undergone a radical transformation. Recent innovations in lasers, chemistry, molecular biology, detectors, computation and optics have propelled the microscope to the cutting edge of modern biology. These complex machines are now the tools of choice for revealing structure and function in biology. This course explores the principles and practice of the "new microscopy." Topics include the nature of light, fluorescence, image restoration, confocal, 2-photon, structured illumination and other new techniques.
Prerequisite: Biological Sciences 54 recommended or permission of the instructor.

MCB 176. Biochemistry of Membranes
Catalog Number: 3186
Guido Guidotti
Half course (fall term). M., W., 2–4. EXAM GROUP: 7, 8
A course on the properties of biological membranes, essential elements for cell individuality, communication between cells, and energy transduction. Topics include : membrane structure; membrane protein synthesis, insertion in the bilayer and targeting; transporters, pumps and channels; electron transport, H+ gradients and ATP synthesis; membrane receptors, G proteins and signal transduction, and membrane fusion.
Prerequisite: BS 52 and 54.

MCB 186. Circadian Biology: From Cellular Oscillators to Sleep Regulation
Catalog Number: 2854
J. Woodland Hastings and Charles A. Czeisler (Medical School)
Half course (fall term). W., 2–5, and an hour discussion section weekly. EXAM GROUP: 7, 8
Properties, mechanisms, and functional roles of circadian (daily) rhythms in organisms ranging from unicells to mammals. Cellular and molecular components, regulation of gene expression and physiological functions, genetic and biochemical analyses of circadian rhythms, and neurobiology of the mammalian circadian pacemaker. Mathematics and modeling of oscillatory systems and applications to circadian rhythms. Experimental studies of human rhythms, including the sleep-wake cycle and hormone rhythms, with applications to sleep disorders.
Prerequisite: BS 50 and 51; BS 80 desirable.

MCB 188. Chromosomes
Catalog Number: 8561
Nancy Kleckner
Half course (spring term). Tu., Th., 2–4. EXAM GROUP: 16, 17
Chromosome morphogenesis in prokaryotic and eukaryotic organisms. Topics will include chromosome structure, interactions between chromosomes (sisters and homologs), DNA recombination and repair, topoisomerases, transposable elements and site-specific recombination, epigenetic inheritance. Genetic, cytological, and biochemical approaches will be integrated. Lecture, reading, and discussion of classical and current literature and consideration of future experimental directions.
Prerequisite: BS 50, 52, and 54.

***MCB 195. A Systems Approach to Biology (formerly Genomics and the Biology of Complex Systems)**
Catalog Number: 8701 Enrollment: Limited to 40.
Marc W. Kirschner (Medical School), Lewis C. Cantley (Medical School), Walter Fontana (Medical School), and Jeremy M. Gunawardena (Medical School)
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
How do the collective interactions of molecules, sub-systems and cells allow for the adaptive and evolvable behavior of living systems? Quantitative techniques and modeling approaches can shed light on this question. Introduces theoretical tools and computational approaches from mathematics, physics, computer science and engineering in the context of biological problems and situations. Discusses major unsolved questions in biology, such as what makes living

systems good at evolving, and how these approaches may be useful to address them.
Note: The course will include an introduction to the use of MATLAB for model-building.
Prerequisite: Math 1b required, and BS 54 or BS 56 recommended.

MCB 211 (formerly MCB 111). Mathematics in Biology
Catalog Number: 6444
Daniel S. Fisher
Half course (fall term). M., W., 10–11:30. EXAM GROUP: 3, 4
Develops the mathematics needed for quantitative understanding of biological phenomena including data analysis, simple models, and framing quantitative questions. Topics include: probability, transforms and linear algebra, and dynamical systems, each motivated by current biological research.
Note: Intended for biology graduate students who do not have strong quantitative backgrounds. Undergraduates by permission of instructor.
Prerequisite: Calculus at the level of Mathematics 1b. Some previous exposure to statistics, linear algebra, and vector calculus would be useful.

[OEB 102 (formerly Biology 102). Structure and Physiology of the Vertebrates]
Catalog Number: 0921
George V. Lauder and Andrew A. Biewener
Half course (fall term). Hours to be arranged.
Introduction to the relationship between physiology, structure, and function of vertebrates. Lectures concentrate on selected organ systems (musculoskeletal, cardiovascular, respiratory, reproductive, excretory, and digestive) paying particular attention to how they have evolved and diversified within living vertebrate groups in relationship to environmental factors. General principles of structure-function relationship are emphasized. Physiology and morphological dissection labs concentrate on higher vertebrates and are correlated with one another and with the lectures.
Note: Expected to be given in 2005–06.
Prerequisite: BS 50 and 51.

[OEB 104 (formerly Biology 104). Plants and Human Affairs]
Catalog Number: 5281
Donald H. Pfister
Half course (fall term). Hours to be arranged.
An introduction to the uses of plants by humans. Topics include the form, structure and genetics of plants related to their use as sources of food, shelter, fiber, flavors, beverages, drugs, and medicines. Plant structure and reproduction are studied in lecture and laboratory with a particular focus on relationships between the plant's structural, chemical, or physiological attributes and the utility plant.
Note: Expected to be given in 2005–06.
Prerequisite: BS 51 or permission of the instructor.

OEB 106 (formerly Biology 106). Plant Development and Differentiation
Catalog Number: 4559
Elena M. Kramer

Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A comprehensive lecture course on the developmental biology of plants from fertilization through all phases of vegetative and reproductive growth. Material includes both morphological and genetic studies. Although the main focus of the course is angiosperms, examples are drawn from other lineages of land plants as well. Additional topics include control of cell division and elongation, signal transduction, and hormone response.
Prerequisite: OEB 124 (formerly Bio 24) and BS 50 or permission of the instructor.

OEB 107 (formerly Biology 107). Evolution of Plant Life in Geologic Time
Catalog Number: 1318
Andrew H. Knoll
Half course (spring term). M., W., F., at 9. EXAM GROUP: 2
Origin, evolution, dispersal, paleoecology, and geologic history of the major groups of the plant kingdom. Laboratory study of representative groups, living and fossil.
Prerequisite: BS 51 or permission of instructor.

OEB 110 (formerly Biology 110). Biology and Evolution of Invertebrate Animals
Catalog Number: 7873 Enrollment: Limited to 12.
Gonzalo Giribet
Half course (spring term). Lectures Tu., Th., 10–11:30; laboratory on Wednesdays with hours to be arranged. EXAM GROUP: 12, 13
Introduction to invertebrate diversity, emphasizing the anatomy, biology and evolutionary relationships of the main animal phyla including sponges, mollusks, annelids and arthropods among others. Special emphasis is placed on understanding the broad diversity of animal forms and their adaptations to different ecosystems and how these phenomena shape animal evolution. Lectures will be complemented with a mandatory weekly lab and a field trip to different areas of outstanding marine diversity in Bermuda.
Note: Field trip to Bermuda Biological Station for research during spring break.
Prerequisite: BS 51 or BS 53 or EPS 181, or permission of instructor required.

OEB 114 (formerly Biology 114). Vertebrate Viviparity
Catalog Number: 4953
David A. Haig
Half course (fall term). Tu., Th., at 1. EXAM GROUP: 15
Viviparity has evolved many times in vertebrate phylogeny. The course reviews the diversity of parental care in vertebrates and explore the selective forces that have favored the evolution of live-bearing. The evidence for intergenerational conflicts is considered.

OEB 118 (formerly Biology 118). Biological Oceanography
Catalog Number: 7752
James J. McCarthy
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
The ocean as an ecological system. Emphasis on the ecology and physiology of the plankton. Considerable attention to processes and events that demonstrate the complexity of environmental-organismal interactions. Discussion sessions treat special topics such as sampling strategies, plankton demonstrations, and critical analyses of current literature.

Note: For biology and other natural science concentrators.
Prerequisite: BS 51 or BS 53, and Chemistry 5 and 7 or Chemistry 10. BS 55 (formerly Bio 19) recommended.

[*OEB 120 (formerly *Biology 120). Physiology of Plants]
Catalog Number: 2554
N. Michele Holbrook
Half course (fall term). Hours to be arranged.
Introduction to the physiology, biochemistry, and development of plants. Topics include photosynthesis, energy balance, transport processes, growth, biomechanics, and reproduction. Emphasis on the physiological basis for structural adaptations of plants in relation to environmental constraints and on mechanisms leading to developmental and physiological integration at the whole-plant level. Laboratory sessions provide an introduction to basic measurement techniques in plant physiology.
Note: Expected to be given in 2005–06.

***OEB 121a (formerly *Biology 121a). Advanced Structure and Physiology of the Vertebrates**
Catalog Number: 4049
Andrew A. Biewener and Daniel E. Lieberman
Half course (spring term). Hours to be arranged.
Introduces students to experimental techniques used to investigate the structure and physiology of vertebrates. Each instructor offers research projects that are undertaken in their laboratory (limit 5 students per instructor). Students meet to introduce their project, discuss their work and progress, and to present their final results. An extensive commitment of time in the laboratory is required. Grades are based on the work completed, the oral presentation, and a short research paper.
Note: Laboratory safety session required.
Prerequisite: OEB 102 and ANTHRO 142 preferred, and permission of instructor.

[*OEB 121b (formerly *Biology 121b). Advanced Structure and Physiology of the Vertebrates]
Catalog Number: 4670
Andrew A. Biewener and George V. Lauder
Half course (fall term). Hours to be arranged.
Students may extend the initial project undertaken in Biology 121a into a thesis research project.
Note: Expected to be given in 2005–06. Laboratory safety session required.
Prerequisite: OEB 121a (formerly Bio 121a) and permission of instructor.

[OEB 123. Biology of Symbiosis]
Catalog Number: 0508
Colleen M. Cavanaugh
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An examination of the major aspects of endosymbiosis with emphasis on mutualism, although some parasitic interactions are covered. Topics include origins of the eukaryotic cell, specificity and recognition of partners, distribution and diversity of associations, and coevolution of host

and symbiont.
Note: Expected to be given in 2006–07.
Prerequisite: BS 50 and 51, and BS 52 or equivalent, or permission of instructor.

OEB 124 (formerly Biology 124). Biology of Plants
Catalog Number: 1343 Enrollment: Limited to 16.
Elena M. Kramer and N. Michele Holbrook
Half course (spring term). Tu., Th., 10–11:30, one afternoon laboratory per week, plus occasional field trips. EXAM GROUP: 12, 13
Introduction to the structure, diversity, and physiology of plants with an emphasis on evolutionary relationships and adaptations to life on land. Topics include growth, resource acquisition, interactions with other organisms (i.e., fungi, bacteria, insects), reproduction, and survival in extreme environments. Laboratory sessions provide an overview of plant and diversity and an introduction to basic physiological processes.
Note: This course, when taken for a letter grade, meets the Core area requirement for Science B.

***OEB 130 (formerly *Biology 130). Patterns and Processes in Fish Diversity**
Catalog Number: 4624
Karel F. Liem
Half course (spring term). M., W., F., at 1. EXAM GROUP: 6
Fishes inhabit diverse aquatic environments including deep seas, intertidal zones, coral reefs, polar waters, the vast Amazonian basin, and great East African lakes. A single fish species may occupy diverse environments through extraordinary long distance horizontal and vertical migrations. To explore this unparalleled diversity, the course emphasizes bridging traditional academic boundaries with integrative analyses of the biology underlying rapid evolutionary radiations and stasis.
Prerequisite: BS 50 and 51, or permission of instructor.

***OEB 139 (formerly Biology 139). Evolution of the Vertebrates**
Catalog Number: 8562
Farish A. Jenkins, Jr.
Half course (fall term). Tu., Th., 8–9:30. EXAM GROUP: 10, 11
A survey of the origination and evolution of the major groups of vertebrates, with emphasis on the anatomical and physiological transformations that occurred during the transitions to diverse lineages of fish, amphibians, reptiles, birds, and mammals. The structures and functions exhibited in extant taxa are explored with perspectives from the fossil record.

[OEB 152 (formerly Biology 152). Population Genetics]
Catalog Number: 0903
John R. Wakeley
Half course (fall term). Hours to be arranged.
Introduction to population genetic theory. Covers deterministic and stochastic theory of gene frequencies, and coalescent theory of sample-based statistics. Emphasis on patterns of genetic variation within and between populations, and how these can serve as the basis for inference about mutation, genetic drift, migration, natural selection, and population structure.

Note: Expected to be given in 2006–07.
Prerequisite: BS 53, calculus, and knowledge of statistics and probability.

[OEB 155r (formerly Biology 155r). Biology of Insects]
Catalog Number: 2346 Enrollment: Limited to 15.
Naomi E. Pierce
Half course (spring term). Hours to be arranged.
An introduction to the major groups of insects. The life history, morphology, physiology, and ecology of the main taxa are examined through a combination of lecture, lab, and field exercises. Topics include the phylogeny of terrestrial arthropods with a review of the extant orders, an analysis of abiotic and biotic factors regulating populations, including water balance, temperature, migration, parasitism, mutualism, sociality, insect/plant interactions, and a historical examination of the use of insects in biological control.
Note: Expected to be given in 2005–06.
Prerequisite: Science B-29 or BS 50, 51, or 53 or equivalent, or permission of instructor.

[OEB 156r (formerly Biology 156). Tropical Insect Systematics]
Catalog Number: 0584
Brian D. Farrell
Half course (spring term). Hours to be arranged.
A lab course on the systematics and diagnosis of the 200 principal families across 26 orders of insects, including acquisition of the skills to perform rapid onsite insect biodiversity assessment and documentation in the field. Learning to identify insects to the family level using microscopes and a teaching collection. Includes a spring break fieldtrip to the Dominican Republic, during which student teams will collect and process insect specimens for database entry onsite, including digital imaging.
Note: Expected to be given in 2005–06.
Prerequisite: BS 51 or 53 or permission of the instructor.

[OEB 157. Global Change Biology]
Catalog Number: 7055
Paul R. Moorcroft and James J. McCarthy
Half course (spring term). Hours to be arranged.
Examines natural and anthropogenic changes in the earth system and their impact on the structure and functioning of terrestrial and oceanic ecosystems. Topics include earth system history, fossil fuel emissions, changing water chemistry, ozone, species extinctions and invasions, and human exploitation of natural resources.
Note: Expected to be given in 2005–06.
Prerequisite: BS 51or BS 53 and Mathematics 1A required. BS 55 recommended.

[OEB 160 (formerly Biology 160). Forest Ecology]
Catalog Number: 4369
David R. Foster
Half course (fall term). Hours to be arranged.
Plant community organization, structure, and dynamics focusing primarily on the forest vegetation of northeastern North America. Field studies emphasize the role of natural and

anthropogenic disturbance in controlling the pattern of vegetation, methods of vegetation analysis, and historical methods of vegetation reconstruction.
Note: Expected to be given in 2005–06. Includes two field trips to the Harvard Forest.
Prerequisite: BS 51 or permission of instructor.

OEB 174r (formerly Biology 174r). Topics in Behavioral Ecology: Learning and Memory
Catalog Number: 5199 Enrollment: Limited to 30.
Naomi E. Pierce, Scott V. Edwards, David A. Haig, Samuel M. Kunes, Venkatesh N. Murthy, Joshua Sanes, and Richard W. Wrangham
Half course (spring term). M., 4–5:30 and ninety minutes of discussion section weekly. EXAM GROUP: 9
Current issues in behavioral ecology are examined, with topics that change each year. Topics in previous years have included: Evolution of Sex, Evolution of Cooperation, and Evolution of Communication. The course involves invited speakers, discussion of the primary literature and participation of professors across disciplines.
Prerequisite: BS 57 (formerly Bio 22), BS 80 or Science B-29 or permission of instructor.

[OEB 181 (formerly Biology 181). Systematics]
Catalog Number: 5459
Gonzalo Giribet and Charles R. Marshall
Half course (fall term). Hours to be arranged.
Theory and practice of systematics, emphasizing issues associated with homology statements and alignments, methods of tree reconstruction, and hypothesis evaluation. The course combines theoretical considerations, paying especial attention to algorithmic aspects of phylogenetics, with the use of different computer programs for conducting evolutionary and phylogenetic analyses.
Note: Expected to be given in 2005–06.
Prerequisite: BS 53, or permission of instructor required. Familiarity with computers, especially Mac and PC platforms, and Linux also recommended.

[OEB 187 (formerly Biology 187). Current Advances in Metazoan Diversity and Evolution]
Catalog Number: 3220
Gonzalo Giribet
Half course (spring term). Hours to be arranged.
Current discoveries of new metazoan groups, their relationships to known animals, and the newest hypotheses in metazoan evolution are examined. Background in metazoan diversity and in systematics are recommended. Newly discovered animal groups, their evolutionary significance, and their possible relationships will be presented. Examples will be drawn from various phyla including Gnathostomulida, Loricifera, Cycliophora, Micrognathozoa, and other poorly understood animals. Original literature is discussed, emphasizing the evolution and relationships of the organisms presented in class.
Note: Expected to be given in 2005–06.

OEB 189. Cell Morphogenesis
Catalog Number: 2195
Jacques Dumais
Half course (fall term). M., W., 2–3:30. EXAM GROUP: 7, 8

A survey of the different modes of cell morphogenesis from prokaryotes to plants and animals. The role played by the cytoskeleton and the extracellular matrix in creating and maintaining cell shape will be discussed. The emphasis will be on the structural and mechanical aspects of shape generation, in particular those features that are shared across kingdoms. Morphogenetic mechanisms will also be compared in terms of the functional and evolutionary significance of cell shape.
Prerequisite: BS 52, BS 54; Math 1a is recommended.

***OEB 190. Biology and Diversity of Birds**
Catalog Number: 3870 Enrollment: Limited to 15.
Scott V. Edwards
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An introduction to the biology of birds. Covers the fossil record and theories for avian origins, physiology and anatomy, higher-level systematics and field characters of the ~27 orders, speciation processes, nesting and courtship behavior, vocalizations, mating systems and sexual selection, cooperative breeding, demography and conservation. Optional field trip to the Neotropics during spring break. Laboratories will consist of gross anatomy, bird watching excursions in the Cambridge area, field techniques and specimen preparation, and systematic study of avian groups using the collections of the Museum of Comparative Zoology.
Prerequisite: BS 51, BS 53 or permission of the instructor.

Cross-listed Courses

[Biophysics 101. Genomics and Computational Biology]
Mathematics 153. Mathematical Biology-Evolutionary Dynamics

Primarily for Graduates

Biological Sciences 205. Introduction to Graduate Study in Genetics and Genomics
Catalog Number: 5759
Members of the Faculty
Half course (fall term). Hours to be arranged.
Several topics relating to the intersection of genomics with studies of gene expression, gene annotation, population genetics and molecular evolution will be discussed. The term is broken up into blocks, with pairs of faculty from the Genetics and Genomics Predoctoral Training Program leading the discussions of each topic.
Note: Primarily for first-year graduate students in the Genetics and Genomics Training Program. For others, permission of the instructor is required.

Biology 200r. AB/AM Laboratory Research
Catalog Number: 3696
David A. Haig and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Open only to Advanced Standing Biology concentrators doing research as part of a combined AB/AM degree. To be taken in both the first and second terms of the student's fourth year. Work may be directed by a member of the Biological Sciences departments (MCB: Molecular and

Cellular Biology, and OEB: Organismic and Evolutionary Biology) or affiliates. Other research sponsors must be approved by the Biology Undergraduate Committee and require an MCB or OEB co-sponsor. All students must submit registration materials for Biology 200r at the time of enrollment. In the first term, a written report of approximately 10 pages is due in duplicate in the Biology Undergraduate Office on the date indicated on the registration form. In the second term, the honors thesis will be submitted on the date indicated on the registration form. All students enrolling in this course must submit a short thesis proposal prior to the first day of classes. The thesis proposal form is available in the Biology Undergraduate Office.
Note: Laboratory safety session required.

[MCB 200. Introduction to Graduate Study in Molecular and Cellular Biology]
Catalog Number: 7215
Members of the Faculty
Half course (fall term). Hours to be arranged.
The goal of the course is to introduce the methods and logic of modern biology as developed through reading and discussion of research papers in neurobiology, developmental biology, and cell biology.
Note: Expected to be given in 2005–06. Active participation in critical evaluations and discussions required. Team-taught by faculty. Limited to MCB graduate students.

MCB 210. Interesting Questions in Modern Biology
Catalog Number: 7962
Nancy Kleckner
Half course (spring term). M., 2–4 and two additional hours to be arranged. EXAM GROUP: 7, 8
Progress in scientific discovery is often due in large part to the application of imagination and the associated ability to frame the right question. Correspondingly, the goal of MCB210 is to unite faculty and graduate students in the search for interesting questions in the biological sciences.
Note: Two course meetings per week: one lecture (two hours) and one section (two hours). Will comprise a series of six two-week modules, each covering a different subject area, and each taught jointly by a different pair of faculty. Intended primarily or exclusively for first-year MCB graduate students.

MCB 211 (formerly MCB 111). Mathematics in Biology
Catalog Number: 6444
Daniel S. Fisher
Half course (fall term). M., W., 10–11:30. EXAM GROUP: 3, 4
Develops the mathematics needed for quantitative understanding of biological phenomena including data analysis, simple models, and framing quantitative questions. Topics include: probability, transforms and linear algebra, and dynamical systems, each motivated by current biological research.
Note: Intended for biology graduate students who do not have strong quantitative backgrounds. Undergraduates by permission of instructor.
Prerequisite: Calculus at the level of Mathematics 1b. Some previous exposure to statistics, linear algebra, and vector calculus would be useful.

MCB 212. Topics in Biophysics
Catalog Number: 3351
Howard C. Berg
Half course (spring term). F., 2:30–4. EXAM GROUP: 7, 8
Motility and sensory transduction; Chemotaxis in bacteria; flagellar motility; prokaryotic and eukaryotic motor molecules.
Note: Given in alternate years. A term paper and seminar are required.

MCB 268. Molecular Immunology: Seminar
Catalog Number: 2196 Enrollment: Limited to 16.
Christophe O. Benoist (Medical School) and Diane J. Mathis (Medical School)
Half course (spring term). M., Th., 4–6. EXAM GROUP: 9, 18
One session each week is a lecture on the topics. At the second session, four papers are read from the current literature; each is presented by a student in 20-30 minutes. Reading of the papers, seminar presentations, and class participation are the only work of the course.
Prerequisite: MCB 169 or permission of instructor required for undergraduates only.

[OEB 208r (formerly Biology 208). Issues in Historical Paleobiology: Seminar]
Catalog Number: 1344
Andrew H. Knoll
Half course (fall term). Hours to be arranged.
A seminar focusing on current issues in the history of life. Each year, a single event or time interval is explored.
Note: Expected to be given in 2005–06.

[OEB 211r (formerly Biology 211r). Form, Function, and Evolution]
Catalog Number: 2056
Karel F. Liem
Half course (fall term). Hours to be arranged.
Evolutionary mechanisms underlying the diversity in design of living vertebrates. Recent advances of topics selected by faculty and students.
Note: Expected to be given in 2005–06.

OEB 212r (formerly Biology 212r). Advanced Topics in Plant Physiology
Catalog Number: 2176
N. Michele Holbrook
Half course (fall term). Hours to be arranged.
A critical discussion of current research in plant physiology including measurement techniques, modeling, and experimental approaches.
Prerequisite: OEB 120 (formerly Bio 120) or permission of instructor.

[OEB 221 (formerly Biology 221). Microbial Diversity]
Catalog Number: 1234
Colleen M. Cavanaugh
Half course (fall term). Hours to be arranged.
Examines the remarkable diversity of prokaryotes. Physiological, genetic, ecological, and

evolutionary characteristics of Bacteria and Archaea divisions are discussed, as well as the relation of phenotype to phylogeny.
Note: Expected to be given in 2006–07.
Prerequisite: BS 50 and 51, and BS 52 or equivalent, or permission of instructor.

OEB 224 (formerly Biology 224). Biology of the Fungi
Catalog Number: 1308
Donald H. Pfister
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
This intensive course covers the morphology, classification, evolution, and diversity of the fungi, including both parasitic and saprophytic members. Readings and discussion draws from the primary literature. Students apply a variety of techniques to study fungi.
Note: At least one weekend field trip to be arranged.
Prerequisite: OEB 113 (formerly Bio 113) or permission of instructor.

[OEB 227 (formerly Biology 227). Molecular Approaches to Environmental Microbiology]
Catalog Number: 4444
Colleen M. Cavanaugh
Half course (spring term). Hours to be arranged.
Critical review and discussion of current advances in our understanding of biodiversity, community structure, and metabolic activities in Bacteria and Archaea resulting from the application of cellular and molecular approaches in diverse environments
Note: Expected to be given in 2005–06.
Prerequisite: Earth and Planetary Sciences 30 and BS 62 or equivalent, or permission of instructor.

***OEB 234 (formerly *Biology 234). Topics in Marine Biology**
Catalog Number: 4637
Robert M. Woollacott
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
Reproduction and dispersal of marine organisms.
Note: Weekly class meeting including several laboratories and field trips through course of term.

***OEB 251 (formerly *Biology 251). Introduction to Vertebrate Surgery**
Catalog Number: 2075 Enrollment: Limited to 16.
Arthur L. Lage (Medical School)
Half course (fall term). W., 1–4. EXAM GROUP: 6, 7
Teaches students the basic principles of aseptic surgery with emphasis on practicality. Students learn basic “open” surgery as well as newer high tech videoscopic minimally invasive technique, obtaining hands-on experience in scrubbing, gowning, and sterile technique while serving as anesthetist and surgeon. Course covers surgical applications for a wide variety of species. Students are expected to integrate their previously learned knowledge of anatomy and physiology into the context of the whole, living animal.
Note: Intended for the student interested in the application of surgical technique in higher studies in biology and related disciplines.
Prerequisite: Comparative anatomy, OEB 102 (formerly Bio 21), or equivalent course.

[OEB 252 (formerly Biology 252). Coalescent Theory]
Catalog Number: 0118
John R. Wakeley
Half course (fall term). Hours to be arranged.
The mathematics and computation of ancestral inference in population genetics. Theory relates observable genetic data to factors of evolution such as mutation, genetic drift, migration, natural selection, and population structure.
Note: Expected to be given in 2005–06.
Prerequisite: OEB 152 (formerly Bio 152) or permission of instructor: calculus and statistics or probability.

[OEB 253r (formerly Biology 253r). Evolutionary Genetics Seminar]
Catalog Number: 8104
John R. Wakeley
Half course (fall term; repeated spring term). Spring: Tu., at 1. EXAM GROUP: Spring: 15
Readings and discussion of primary literature in population and evolutionary genetics.
Note: Expected to be given in 2006–07.
Prerequisite: OEB 152 (formerly Bio 152) or consent of instructor.

OEB 254 (formerly Biology 254). Genomic Imprinting and Parent-Offspring Conflict
Catalog Number: 9341
David A. Haig
Half course (spring term). Tu., 2:30–4. EXAM GROUP: 16, 17
A seminar course that will discuss evolutionary aspects of genomic imprinting and the related theory of parent-offspring conflict.

OEB 255 (formerly Biology 255). Nature and Regulation of Marine Ecosystems
Catalog Number: 7753
James J. McCarthy and guest lecturers
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
A presentation of topics that are of current interest in marine ecosystems. Emphasis on identification and quantification of biological and environmental factors important in the regulation of community structure in the intertidal, deep benthic, and planktonic realms.
Prerequisite: BS 55 and OEB 118 (formerly Bio 118).

[OEB 268r (formerly Biology 268r). Topics in Plant Developmental Genetics]
Catalog Number: 5020
Elena M. Kramer
Half course (fall term). Hours to be arranged.
This lecture/seminar reviews the literature related to a particular topic plant developmental genetics. Additionallly, participants are familiarized with the advantages and pitfalls of molecular techniques, and the process of project design.
Note: Expected to be given in 2005–06.
Prerequisite: OEB 120 (formerly Bio 120), and either BS 50, BS 52, equivalents or by permission of instructor.

[OEB 270 (formerly Biology 270). The Evolution and Consequences of Phenotypic Plasticity]
Catalog Number: 9658
Kathleen Donohue
Half course (spring term). Hours to be arranged.
Investigates how genetics and ecology interact to determine phenotypic expression and alter evolutionary and ecological processes. Through reading the primary literature, we explore both the genetic basis and ecological context of phenotypic plasticity.
Note: Expected to be given in 2005–06.

[OEB 271. Natural Selection in Evolutionary Processes]
Catalog Number: 2009
Kathleen Donohue
Half course (spring term). Hours to be arranged.
This graduate level seminar explores the role of natural selection in evolutionary processes and examines the empirical methods employed to detect and interpret patterns of natural selection.
Note: Expected to be given in 2005–06.

***OEB 272r. Origin and Evolution of Vertebrate Complex Systems**
Catalog Number: 6315
Farish A. Jenkins, Jr. and Karel F. Liem
Half course (spring term). Tu., 3:30–5:30. EXAM GROUP: 17, 18
Current advances in our understanding of complex structures and functions in vertebrates, their evolutionary origins, and their integration within the whole organism. Neontological and paleontological topics to be selected and presented by students and instructors.
Prerequisite: OEB 102 (formerly Bio 102), and OEB 130 or 139 (formerly Bio 130 and Bio 139), or Medical Sciences 250ab, or equivalent.

[OEB 273. Comparative Biomechanics]
Catalog Number: 2818
Andrew A. Biewener
Half course (spring term). Hours to be arranged.
An exploration of how animals and plants contend with their physical environment, considering their biomaterial properties, structural form, and mechanical interaction with the environment. Through lectures combined with seminar discussions and student presentations based on readings, students are introduced to topics involving elasticity, viscoelasticity, fracture, and design in relation to biomechanical performance. Animal locomotor mechanics are also covered.
Note: Expected to be given in 2005–06.
Prerequisite: Math 1a & b and Physics 11a; Math 21a recommended, or permission of instructor.

OEB 274. Evolutionary Ecology
Catalog Number: 2152
Kathleen Donohue
Half course (spring term). W., 2:30–4:30. EXAM GROUP: 7, 8, 9
Graduate seminar on fundamental principles of evolutionary ecology. The course will provide the foundations of microevolutionary theory studied from an ecological perspective.

OEB 275r. Natural Selection at the Molecular Level
Catalog Number: 5004
Scott V. Edwards
Half course (fall term). W., 1–2:30. EXAM GROUP: 6, 7
Through reading of the primary literature, this course reviews recent empirical evidence for natural selection at the molecular level. Topics will vary depending on student interest, and could include host-parasite interactions, balancing selection, geographic variation, molecular clocks, and eukaryotic genome evolution.
Note: First meeting on Friday, September 24, 2–4 in Biological Labs 1075.
Prerequisite: BS 50, BS 52 or equivalent.

***OEB 276. Models of Development**
Catalog Number: 1448
Jacques Dumais
Half course (spring term). M., 4–5:30. EXAM GROUP: 9
A lecture and discussion course on the modeling of animal and plant development. Topics will include analysis of gene networks, positional signaling, reaction-diffusion systems, mechano-chemistry and tissue mechanics and remodeling. Emphasis will be on models of development that are mechanistic and well supported experimentally.
Prerequisite: Math 1a and b; Math 21a and b recommended, or permission of instructor.

***OEB 299r (formerly *Biology 299r). Forest Practice and Research**
Catalog Number: 6128
David R. Foster
Half course (fall term; repeated spring term). Hours to be arranged.
Field and laboratory research into the history, biology, ecology, culture, and economic problems of local, regional, and world forests. Individual research projects.
Note: Seminars, conferences, field, and laboratory work at the Harvard Forest, Petersham, Massachusetts.

Cross-listed Courses

Applied Physics 291. Electron Microscopy Laboratory

Graduate Courses of Reading and Research

***MCB 300. Introduction to Research**
Catalog Number: 4816
Raymond L. Erikson 7506, Andrew P. McMahon 3312 (on leave 2004-05), and Members of the Faculty

***MCB 306. Biophysics and Physiology of Neurons**
Catalog Number: 1695
Venkatesh N. Murthy 2424

***MCB 312. Military and Arms Control Applications of Biology and Chemistry**
Catalog Number: 2063
Matthew Meselson 1319

***MCB 322. Genetics and Development**
Catalog Number: 7290
Craig P. Hunter 2803 (on leave spring term)

***MCB 326. Biochemical Virology**
Catalog Number: 0243
Raymond L. Erikson 7506

***MCB 327. DNA Damage Induced Signal Transduction**
Catalog Number: 8684
Matthew Michael 3825

***MCB 344. Molecular and Developmental Neurobiology**
Catalog Number: 2292
Catherine Dulac 2801 (on leave spring term)

***MCB 359. Molecular Genetics**
Catalog Number: 6278
Nancy Kleckner 4697

***MCB 360. Proteins Involved in DNA Transactions**
Catalog Number: 0407
James C. Wang 4870

***MCB 364. Vertebrate Development**
Catalog Number: 1396
Andrew P. McMahon 3312 (on leave 2004-05)

***MCB 365. Neurobiology**
Catalog Number: 8349
John E. Dowling 3545

***MCB 366. Synaptic Plasticity and Neuronal Networks**
Catalog Number: 1085
Florian Engert 4290, Rachelle Gaudet 4413 (spring term only), and David Jeruzalmi 4528 (spring term only)

***MCB 367. Structural Studies of Synaptic Connectivity**
Catalog Number: 1850
Jeff Lichtman 5163

***MCB 369. Structure, Composition, and Function of Biological Membranes**
Catalog Number: 4636
Daniel Branton 4139

***MCB 373. Cellular Biochemistry and Physiology**
Catalog Number: 8053
J. Woodland Hastings 1311

***MCB 374. Developmental Neurobiology**
Catalog Number: 6167
Samuel M. Kunes 3486

***MCB 376. Molecular Biology**
Catalog Number: 4159
Walter Gilbert 1306

***MCB 377. Genetics and Development**
Catalog Number: 5598
William M. Gelbart 4774 (on leave 2004-05)

***MCB 378. Motile Behavior of Bacteria**
Catalog Number: 5729
Howard C. Berg 1377

***MCB 381. Microbial Development**
Catalog Number: 4994
Richard M. Losick 3561

***MCB 382. Molecular Immunology**
Catalog Number: 5515
Jack L. Strominger 1193 (on leave spring term)

***MCB 386. Molecular Evolution**
Catalog Number: 0763
Matthew Meselson 1319

***MCB 390. Function of Neuronal Circuits**
Catalog Number: 8883
Markus Meister 3007 (on leave 2004-05)

***MCB 391. Biochemistry**
Catalog Number: 4888
Guido Guidotti 1203

***MCB 392. Lysosomal Cholesterol Transport**
Catalog Number: 7866
Axel Nohturfft 3826

***MCB 395. Eukaryotic Gene Regulation**
Catalog Number: 7697
Tom Maniatis 7231

***MCB 396. Regulation of Mitosis**
Catalog Number: 5706
Andrew W. Murray 3765

***MCB 398 (formerly OEB 390). The Profession of Biology**
Catalog Number: 0738
Raymond L. Erikson
Half course (spring term). Hours to be arranged.

***MCB 399. Vertebrate Developmental Biology**
Catalog Number: 7699
Douglas A. Melton 7232

***OEB 303 (formerly *Biology 303). Theoretical Population Genetics**
Catalog Number: 4248
John R. Wakeley 5680 (on leave 2004-05)

***OEB 304 (formerly *Biology 304). Mycology**
Catalog Number: 4702
Donald H. Pfister 4344

***OEB 305 (formerly *Biology 305). The Fundamental Interconnectedness of All Things**
Catalog Number: 3647
David A. Haig 1629

***OEB 307 (formerly *Biology 307). Biomechanics, Physiology and Musculoskeletal Biology**
Catalog Number: 2831
Andrew A. Biewener 1446 (on leave fall term)

***OEB 308 (formerly *Biology 308). Evolution of Floral Developmental Mechanisms**
Catalog Number: 5535
Elena M. Kramer 3791

***OEB 310 (formerly *Biology 310). Metazoan Systematics**
Catalog Number: 3975
Gonzalo Giribet 3854

***OEB 311 (formerly *Biology 311). Ecosystem Ecology**
Catalog Number: 6416
Paul R. Moorcroft 4174

***OEB 312 (formerly *Biology 312). Evolutionary Ecology**
Catalog Number: 2029
Kathleen Donohue 4292

***OEB 320 (formerly *Biology 320). Biomechanics and Evolution of Vertebrates**
Catalog Number: 8915
George V. Lauder 2375 (on leave 2004-05)

***OEB 323 (formerly *Biology 323). Advanced Vertebrate Anatomy**
Catalog Number: 8188
Farish A. Jenkins, Jr. 3558

***OEB 324 (formerly *Biology 324). Molecular Evolution**
Catalog Number: 2356
Daniel L. Hartl 3278

***OEB 325 (formerly *Biology 325). Marine Biology**
Catalog Number: 4643
Robert M. Woollacott 4135 (on leave spring term)

***OEB 334 (formerly *Biology 334). Behavioral Ecology**
Catalog Number: 8279
Naomi E. Pierce 2889

***OEB 335 (formerly *Biology 335). Ichthyology and Functional Anatomy of Fishes**
Catalog Number: 4640
Karel F. Liem 3843

***OEB 339 (formerly *Biology 339). Whole-Plant Physiology**
Catalog Number: 5214
N. Michele Holbrook 1220

***OEB 341 (formerly *Biology 341). Coevolution**
Catalog Number: 2998
Brian D. Farrell 1985

***OEB 343 (formerly *Biology 343). Microbial Ecology and Symbiosis**
Catalog Number: 1288
Colleen M. Cavanaugh 2538 (on leave 2004-05)

***OEB 345 (formerly *Biology 345). Biological Oceanography**
Catalog Number: 4676
James J. McCarthy 4343

***OEB 355 (formerly *Biology 355). Evolutionary Developmental Biology**
Catalog Number: 9192
James Hanken 2719

***OEB 357 (formerly *Biology 357). Population Biology and Mathematical Biology**
Catalog Number: 5392
William H. Bossert 1049 (on leave fall term)

***OEB 359 (formerly *Biology 359). Paleobotany**
Catalog Number: 0248
Andrew H. Knoll 7425

***OEB 360. Plant Biophysics**
Catalog Number: 8421
Jacques Dumais 4719

***OEB 361. Somatic Evolution of Cancer**
Catalog Number: 5791
Martin A. Nowak 4568

***OEB 362. Research in Molecular Evolution**
Catalog Number: 2367
Scott V. Edwards 5049

***OEB 399 (formerly *Biology 399). Topics in Organismic and Evolutionary Biology**
Catalog Number: 0764
Elena M. Kramer 3791 and Jacques Dumais 4719
Half course (fall term). W., 5–7 pm.
Presents the research interests and experiences of scientists in organismic and evolutionary biology. Specific topics treated vary from year to year.
Note: Required of all first-year graduate students in Organismic and Evolutionary Biology.

Biological Sciences in Dental Medicine

Faculty of the Committee on Higher Degrees in Dental Medicine

Bjørn R. Olsen, Professor of Oral and Developmental Biology and Hersey Professor of Cell Biology *(Dental School, Medical School) (Chair)*
John D. Bartlett, Assistant Professor of Oral and Developmental Biology *(Dental School)*
Joyce E. Bischoff, Assistant Professor of Cellular and Molecular Physiology (Surgery) *(Medical School)*
Patricia A. D'Amore, Professor of Opthalmology and Pathology *(Medical School)*
Floyd E. Dewhirst, Associate Professor of Oral and Developmental Biology *(Medical School)*
Daniel Finley, Professor of Cell Biology *(Medical School)*
David E. Fisher, Associate Professor of Pediatrics *(Medical School)*
James Hanken, Professor of Biology and Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology
Peter V. Hauschka, Associate Professor of Oral and Developmental Biology *(Dental School)*
Elizabeth D. Hay, Louise Foote Pfeiffer Professor of Embryology *(Medical School)*
Martin E. Hemler, Professor of Pathology *(Medical School)*
Michael Klagsbrun, Professor of Surgery *(Medical School)*
Henry M. Kronenberg, Professor of Medicine *(Medical School)*
Beate K. M. Lanske, Associate Professor of Oral and Developmental Biology *(Dental School)*
Andrew B. Lassar, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Michael Levin, Assistant Professor of Oral and Developmental Biology *(Dental School)*
Yefu Li, Assistant Professor of Oral and Developmental Biology *(Dental School)*
Yi-Ping Li, Assistant Professor of Oral and Developmental Biology *(Dental School)*
Daniel E. Lieberman, Professor of Anthropology
Henry C. Margolis, Associate Professor of Oral and Developmental Biology *(Dental School)*
Alan M. Michelson, Associate Professor of Medicine *(Medical School)*
Bruce J. Paster, Associate Professor of Oral and Developmental Biology *(Dental School)*
Vicki Rosen, Professor of Oral and Developmental Biology *(Dental School)*
Philip P. Stashenko, Associate Professor of Oral and Developmental Biology *(Dental School)*
Martin A. Taubman, Professor of Oral and Developmental Biology *(Dental School)*

The Biological Sciences in Dental Medicine (BSDM) Program, leading to the PhD degree combines faculty from the Department of Oral and Developmental Biology and other Harvard School of Dental Medicine departments with faculty from basic science departments at Harvard Medical School, and faculty from the Faculty of Arts and Sciences.

This newly established program offers advanced study in the molecular, supramolecular, cellular, and supracellular processes that provide the intellectual basis for dental medicine.

The BSDM program is intended for scholars interested in pursuing a career in basic or patient-oriented science in the areas of skeletal biology, cell biology and development, immunology, or microbiology leading to a PhD degree. Eligible applicants will be individuals with a baccalaureate in sciences (BS), a master degree in sciences, (MS), a doctoral degree in dentistry, (DMD, DDS), or a medical doctoral degree (MD).

Graduate Courses of Reading and Research

***Biological Sciences in Dental Medicine 300. Research with Faculty**
Catalog Number: 9825
Members of the Committee

Biological Sciences in Public Health

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Higher Degrees in Public Health Sciences

James H. Ware, Frederick Mosteller Professor of Biostatistics *(Public Health) (Chair)*
Bruce F. Demple, Professor of Toxicology *(Public Health)*
Thomas O. Fox, Associate Professor of Neuroscience *(Medical School)*
Laurie H. Glimcher, Professor of Medicine *(Medical School)* and Irene Heinz Given Professor of Immunology *(Public Health)*
J. Woodland Hastings, Paul C. Mangelsdorf Professor of Natural Sciences
Stephen W. Lagakos, Henry Pickering Walcott Professor of Biostatistics *(Public Health)*
Nan Laird, Professor of Biostatistics *(Public Health)*
Xiao-Li Meng, Professor of Statistics
Carl N. Morris, Professor of Statistics
Dyann F. Wirth, Professor of Tropical Public Health *(Public Health)*

Faculty of the Subcommittee on the Doctor of Philosophy in Biological Sciences in Public Health

Dyann F. Wirth, Professor of Tropical Public Health *(Public Health) (Chair)*
Joseph D. Brain, Cecil K. and Phillip Drinker Professor of Environmental Physiology *(Public Health)*
Bruce F. Demple, Professor of Toxicology *(Public Health)*
Raymond L. Erikson, American Cancer Society Professor of Cellular and Developmental Biology
Myron E. Essex, Mary Woodard Lasker Professor of Health Sciences *(Public Health)*
Thomas O. Fox, Associate Professor of Neuroscience *(Medical School)*
Laurie H. Glimcher, Professor of Medicine *(Medical School)* and Irene Heinz Given Professor of Immunology *(Public Health)*
J. Woodland Hastings, Paul C. Mangelsdorf Professor of Natural Sciences
Bjørn R. Olsen, Professor of Oral and Developmental Biology and Hersey Professor of Cell

Biology *(Dental School, Medical School)*
Walter C. Willett, Professor of Medicine *(Medical School)* and Frederick John Stare Professor of Epidemiology and Nutrition *(Public Health) (on leave 2004-2005)*

Other Faculty Offering Instruction in Biological Sciences in Public Health

Robert B. Banzett, Associate Professor of Medicine and Associate Professor in the Department of Environmental Health *(Medical School, Public Health)*
Harriet A. Burge, Associate Professor of Environmental Microbiology *(Public Health)*
Barbara Burleigh, Assistant Professor of Immunology and Infectious Diseases *(Public Health)*
James Preston Butler, Associate Professor of Medicine *(Medical School)*
Hannia Campos, Associate Professor of Nutrition *(Public Health)*
David Christiani, Professor of Medicine *(Medical School)*
John R. David, Professor of Medicine (*Medical School*) and Richard Pearson Strong Professor of Immunology and Infectious Diseases (*Public Health*)
Timothy E. Ford, Assistant Professor of Environmental Microbiology *(Public Health)*
Jeffrey J. Fredberg, Professor of Bioengineering and Physiology *(Public Health)*
Marcia Goldberg, Associate Professor of Medicine (Microbiology and Molecular Genetics) *(Medical School)*
Beatriz Susana Gonzalez-Flecha, Mark and Catherine Winkler Assistant Professor of Molecular Biology and Environmental Health *(Public Health)*
Michael Grusby, Associate Professor of Molecular Immunology (*Public Health)* and Associate Professor of Medicine *(Public Health)*
Donald A. Harn, Professor of Tropical Public Health *(Public Health)*
I-Cheng Ho, Assistant Professor of Medicine *(Medical School)*
Gokhan S. Hotamisligil, James Stevens Simmons Professor of Genetics and Metabolism *(Public Health)*
Howard Hu, Associate Professor of Occupational Medicine (*Public Health*) and Associate Professor of Medicine (*Medical School*)
David J. Hunter, Professor of Epidemiology and Nutrition *(Public Health)*
Phyllis J. Kanki, Professor of Immunology and Infectious Diseases *(Public Health)*
Karl Kelsey, Professor of Occupational Medicine *(Public Health)* and Professor of Medicine *(Medical School)*
Lester Kobzik, Associate Professor of Pathology *(Medical School)* and Associate Professor in the Department of Environmental Health *(Public Health)*
Roberto G. Kolter, Professor of Microbiology and Molecular Genetics *(Medical School)*
Igor Kramnik, Associate Professor of Immunology *(Public Health)*
Catherine A. Lee, Silas Arnold Houghton Associate Professor of Microbiology and Molecular Genetics *(Medical School)*
Tun-Hou Lee, Professor of Virology *(Public Health)*
Marc Lipsitch, Assistant Professor of Epidemiology *(Public Health)*
John B. Little, James Stevens Simmons Professor of Radiobiology *(Public Health)*
Clifford Lo, Assistant Professor of Pediatrics (*Medical School*) and Assistant Professor of Nutrition (*Public Health*)
Carl G. Maki, Assistant Professor of Radiobiology *(Public Health)*
Donald K. Milton, Assistant Professor of Occupational Medicine *(Public Health)*

Joseph P. Mizgerd, Assistant Professor of Physiology and Cell Biology *(Public Health)*
Karl Münger, Associate Professor of Pathology *(Medical School)*
Heather Hammond Nelson, Assistant Professor of Environmental Epidemiology *(Public Health)*
Mark Perrella, Assistant Professor of Medicine *(Medical School)* and Assistant Professor in the Division of Biological Sciences *(Public Health)*
Guy L. Reed III, Associate Professor of Medicine *(Medical School)* and Associate Professor of Immunology*(Public Health)*
Eric J. Rubin, Assistant Professor of Medicine *(Medical School)* and Assistant Professor of Immunology and Infectious Diseases *(Public Health)*
Frank M. Sacks, Professor of Medicine *(Medical School)* and Professor in the Department of Nutrition *(Public Health)*
John C. Samuelson, Associate Professor of Tropical Public Health *(Public Health)*
Steven A. Shea, Assistant Professor in the Department of Environmental Health *(Public Health)* and Assistant Professor of Medicine *(Medical School)*
Stephanie A. Shore, Senior Lecturer of Physiology *(Public Health)*
Eric Silverman, Assistant Professor, Department of Environmental Health (*Public Health*), Assistant Professor of Medicine (*Medical School*)
Thomas Jay Smith, Professor of Industrial Hygiene *(Public Health)*
Joseph G. Sodroski, Professor of Pathology (*Medical School*) and Professor of Cancer Biology *(Public Health)*
Ali A. Sultan, Assistant Professor of Immunology and Infectious Diseases *(Public Health)*
Armen H. Tashjian, Jr., Professor of Toxicology, *Emeritus (Public Health)* and Professor of Biological Chemistry and Molecular Pharmacology (Medical School)
Ning Wang, Associate Professor of Physiology *(Public Health)*
Marianne Wessling-Resnick, Professor of Nutrition *(Public Health, Medical School)*
Dieter Wolf, Associate Professor of Toxicology *(Public Health)*
Xiping Xu, Associate Professor of Occupational Epidemiology *(Public Health)* and Associate Professor of Medicine *(Medical School)*
Zhi-Min Yuan, James Stevens Simmons Associate Professor of Toxicology *(Public Health)*

The FAS Standing Committee on Higher Degrees in Public Health Sciences has the general responsibility of overseeing the existing PhD degree programs in biological sciences and biostatistics and developing new PhD programs in other important domains of public health.

The committee is composed of representatives from the Faculty of Arts and Sciences, the School of Public Health, and the Medical School. The committee membership is drawn from the biological and numeric sciences to reflect the current PhD programs. As new programs are created in the future, members representing other relevant disciplines will be added to the committee.

The committee works with the Subcommittee on the Degree of Doctor of Philosophy in Biological Sciences and the Subcommittee on the Degree of Doctor of Philosophy in Biostatistics to make policy decisions and ensure the continuing strengths of those programs. The committee is also charged with initiating discussion of and planning for additional PhD programs.

The Subcommittee on the Degree of Doctor of Philosophy in Biological Sciences in Public Health (with membership from the Faculty of Arts and Sciences, the Medical School, and the School of Public Health) and the Subcommittee on the Degree of Doctor of Philosophy in Biostatistics (with membership from the Faculty of Arts and Sciences and the School of Public Health) hold responsibility for oversight of their respective programs, including monitoring requirements and standards for the degree and creating standards for admission.

For more courses of interest, see the School of Public Health catalog.

Primarily for Graduates

***BPH 205. Introduction to Cancer Biology**
Catalog Number: 6234 Enrollment: Limited to 30.
Zhi-Min Yuan (Public Health)
Half course (fall term). M., F., 1:30–3:20. EXAM GROUP: 6, 7
Emphasizes current experimental approaches to studying cancer biology and the process of carcinogenesis.Topics include the biology of cell modification and differentiation, the phenotype of the cancer cell, properties of human and animal cancers, the process of cell transformation, mutagenesis, carcinogen metabolism, and cancer epidemiology.
Note: Offered jointly with the School of Public Health as GCD 210.
Prerequisite: College-level course in biology required.

BPH 206. Advanced Respiratory Physiology
Catalog Number: 1049
James Preston Butler (Medical School)
Half course (fall term). M., W., 9–10:20. EXAM GROUP: 2, 3
Respiratory measurements are integral to public health research. We will critically discuss their scientific bases, noting practical considerations and pitfalls, and their interpretations and inferences about physiological status and disease.
Note: Offered jointly with the School of Public Health as EH 223.
Prerequisite: EH 205 or equivalent, or signature of instructor indicating suitable background required. College-level physiology.

BPH 207. Advanced Topics in Physiology
Catalog Number: 2146
Jeffrey J. Fredberg (Public Health)
Half course (spring term). M., 10:30–12:20, W., 3:30–5:20. EXAM GROUP: 3, 4
An opportunity for students interested in the respiratory system to focus on special topics in lung biology. This year's emphasis is on the fundamental physical basis and quantitative description of chemical, electrical, and mechanical signaling within the cell. Specific topics covered include passive diffusion, facilitated diffusion, solvent and solvent transport, channels, action potentials, membrane transport, and receptor-ligand binding.
Note: Offered jointly with the Medical School as BPH 727.0, and with the School of Public Health as EH 225.

BPH 208. Human Physiology
Catalog Number: 3627
Stephanie A. Shore (Public Health)
Half course (fall term). M., F., 10:30–12:20. EXAM GROUP: 3, 4
An introduction to the principles governing function in the human body designed to provide a framework in physiology for future public health researchers and professionals who have not taken college level physiology courses. Emphasis on the concept of homeostasis and on integrative aspects of physiology. Examples of pathophysiology and environmental physiology highlight these processes.
Note: Offered jointly with the Medical School as BPH 728.0 and with the School of Public Health as EH 205.
Prerequisite: College-level introductory biology or permission of the instructor.

BPH 210. Pathophysiology of Human Disease
Catalog Number: 3078
Lester Kobzik (Public Health)
Half course (spring term). M., F., 1:30–3:20. EXAM GROUP: 6, 7
Surveys major human disease problems in the cardiovascular, respiratory, hematopoietic, reproductive and gastrointestinal systems. Emphasis on understanding the pathophysiologic basis of common disease manifestations and the pathogenesis of the disease process.
Note: Offered jointly with the Medical School as BPH 729.0, and with the School of Public Health as ID 208.
Prerequisite: A college-level human physiology course.

[*BPH 212. Cellular and Molecular Biology of Parasites]
Catalog Number: 0703 Enrollment: Limited to 35.
Barbara Burleigh (Public Health), Ali A. Sultan (Public Health), members of the Department, and guest lecturers
Half course (spring term). Hours to be arranged.
We cover aspects of biochemistry, cell and molecular biology of protozoan parasites of humans, including: malaria, toxoplasma, leishmania, trypanosomes, amoebea and giardia. Includes in-depth discussions on comparative mechanisms of pathogenesis; unique parasite biochemistry and organelles; strategies/ molecular basis for host immune invasion; bioinformatics approaches to molecular pathogenesis.
Note: Expected to be given in 2005–06. Given in alternate years. Offered jointly with the Medical School as BPH 721.0 and with the School of Public Health as IMI 216.
Prerequisite: Coursework in biochemistry, genetics, or microbiology.

[BPH 213. Cell Response to Mutagens and Carcinogens]
Catalog Number: 0932
Bruce F. Demple (Public Health)
Half course (spring term). Hours to be arranged.
A seminar course based on emerging research on the molecular effects of mutagenic, carcinogenic, and cytotoxic agents. Particular focus on the cellular mechanisms that preserve biological integrity (e.g., cell cycle checkpoints; DNA repair) or mediate cellular responses to stress (e.g., redox signal transduction; apoptosis pathways). Involves analysis and critical

discussion of research papers. Written assignments in developing relevant research projects (mini-grant proposals).
Note: Expected to be given in 2005–06. Given in alternate years. Offered jointly with the Medical School as BPH 723.0 and the School of Public Health as CCB 250.
Prerequisite: Advanced or graduate courses in biochemistry, cell biology, or genetics.

BPH 215. Principles of Toxicology
Catalog Number: 5366
Dieter Wolf (Public Health) and Donald K. Milton (Public Health)
Half course (fall term). Tu., Th., 1:30–3:20, Tu., 3:30–5:20. EXAM GROUP: 15, 16
Emphasizes mechanisms of injury and clinical consequences following exposures to environmental and occupational chemicals. Examines actions at the molecular, cellular, organ system, and organismal levels. Discusses methods for detecting, evaluating, analyzing, and combating toxic effects.
Note: Offered jointly with the Medical School as BPH 713.0, and with the School of Public Health as ID 204.
Prerequisite: Organic chemistry and mammalian physiology or equivalent.

***BPH 216. Immunology of Infectious Diseases**
Catalog Number: 6938 Enrollment: Limited to 35.
Donald A. Harn (Public Health)
Half course (spring term). Tu., 3:30–5:20.
Covers in detail the interactions of pathogens with the host immune system, including innate and protective responses and those immune responses that are deleterious. Topics include: overview of immune reponses; response of mucosal-secretory immune system to pathogens; innate immunity “the collectins”; innate immunity “Th2 PAMPs”; pathogen regulatation of host immune responses; pathogen evasion of immune effector mechanisms; polarization of CD4+ T helper cell subsets and relationship to disease outcome; resistance to HIV; HIV and co-infection with other pathogens; mechanisms of immunopathogenesis; and development of vaccines. Pathogens covered in detail include: HIV, cholera, TB, staph/strep, toxoplasma, intestinal protozoa, malaria, helminths.
Note: Expected to be omitted in 2005–06. Given in alternate years. Offered jointly with the Medical School as BPH 724.0 and the School of Public Health as IMI 208. Each lecture requires reading several relevant papers and completion of a problem set.
Prerequisite: Immunology course.

***BPH 219. Biological Sciences Seminars**
Catalog Number: 1152
Michael Grusby (Public Health)
Half course (fall term). Tu., Th., 8:30–10:20 a.m. EXAM GROUP: 10, 11
Faculty present seminars on their current research in the biological sciences and direct a student discussion of the logic and experimental design of this research. Topics include chemical and viral carcinogenesis, DNA damage and repair, immunology, molecular biology, metabolism, cardiovascular disease, parasitology, and how these areas apply to public health issues.
Note: Required for first-year students in the BPH program. Offered jointly with the School of Public Health as DBS 205.

BPH 222. The Science of Human Nutrition
Catalog Number: 0216
Frank M. Sacks, Clifford Lo and members of the Department
Half course (spring term). Tu., Th., 1:30–3:20. EXAM GROUP: 15, 16
A review of the biochemistry of carbohydrates, fats, proteins, vitamins, and minerals in the context of human disease. Contemporary topics are emphasized. Particular emphasis given to current knowledge of the mechanisms that may explain the role of diet in the causation and/or prevention of ischemic heart disease, diabetes, obesity, hypertension, and cancer. Recommended dietary intakes of selected nutrients are discussed in order to understand their limitations.
Note: Offered jointly with the Medical School as BPH 733.0, and with the School of Public Health as NUT 202.
Prerequisite: Introductory nutrition course. Prior familiarity with nutrition and the health sciences expected, as well as a basic knowledge of biochemistry and human physiology.

Graduate Courses of Reading and Research

***BPH 300 (formerly *BPH 300r). Laboratory Rotations**
Catalog Number: 8441
Dyann F. Wirth (Public Health) 2492 and Members of the Committee
Members of the Division of Biological Sciences offer hands-on experimental methods of research in the biological sciences.
Note: Offered jointly with the School of Public Health as DBS 300ab, DBS 300cd.

***BPH 302. Molecular Regulation of Thrombosis**
Catalog Number: 2731
Guy L. Reed III 1615

***BPH 304. Study of Workplace Mutagen and Carcinogen Exposure**
Catalog Number: 2734
Karl Kelsey (Public Health, Medical School) 2316

***BPH 307. Cellular Defenses Against Oxygen Radical Damage**
Catalog Number: 2758
Bruce F. Demple (Public Health) 7853

***BPH 311. Molecular Mechanisms of Control of the Biosynthesis, Secretion, and Action of Polypeptide Hormones**
Catalog Number: 2757
Armen H. Tashjian, Jr. (Public Health, Medical School) 2071

***BPH 312. Regulation of the Cellular Uptake of Macromolecular Nutrients**
Catalog Number: 2736
Marianne Wessling-Resnick (Public Health, Medical School) 1315

***BPH 315. Molecular Genetic Analysis of Gene Expression and Drug Resistance in Parasitic Protozoan, Including Leishmania and Malaria**

Catalog Number: 2756
Joseph P. Mizgerd (Public Health) 2787 (spring term only) and Dyann F. Wirth (Public Health) 2492

BPH 316. Immunology and Molecular Biology of *Schistosoma mansoni
Catalog Number: 2737
Donald A. Harn (Public Health) 2051

***BPH 317. Gene-Environment Interactions in Human Lipoprotein Metabolism**
Catalog Number: 2541
Hannia Campos (Public Health) 2710

***BPH 319. Signaling Mechanisms of Peptide Hormones, Genetic and Molecular Basis of Obesity and Diabetes**
Catalog Number: 8425
Gokhan S. Hotamisligil (Public Health) 2725

***BPH 321. Mechanical Mechanisms of Cytoskeleton and its Regulatory Role in Cell Growth and Migration**
Catalog Number: 5552
Ning Wang (Public Health) 2737

***BPH 322. Study of Epidemiologic and Biological Characteristics of HIV Viruses in Africa**
Catalog Number: 4523
Phyllis J. Kanki (Public Health) 2270

***BPH 323. Human Lipoprotein Metabolism: Biochemistry and Metabolic Modeling**
Catalog Number: 5530
Frank M. Sacks 2276

***BPH 324. Protein Phosphorylation and Gene Expression in Normal and Transformed Cells**
Catalog Number: 5915
Raymond L. Erikson 7506

***BPH 325. Assessment of the Impact of Workplace Pollutants on Health**
Catalog Number: 7448
David Christiani (Public Health, Medical School) 1514

***BPH 330. Advanced Topics in Biological Sciences in Public Health**
Catalog Number: 3976
Marianne Wessling-Resnick (Public Health, Medical School) 1315
A series of discussion and seminars each running for a half term (7-8 weeks). Two seminars, which can be taken in different terms, are required for half course credit.

***BPH 331. Perception of Afferent Information from the Respiratory System**
Catalog Number: 3655
Robert B. Banzett (Medical School, Public Health) 1310

***BPH 332. Function and Structure of Pulmonary and Hepatic Macrophages**
Catalog Number: 7331
Joseph D. Brain (Public Health) 2520

***BPH 333. Nature, Prevalence, Health Effects, and Control of Airborne Biological Agents**
Catalog Number: 1556
Harriet A. Burge (Public Health) 2761

***BPH 334. Molecular Basis of Host Cell Invasion, Signaling and Differentiation by the Human Pathogen, Trypanosoma cruzi**
Catalog Number: 2409
Barbara Burleigh (Public Health) 2763

***BPH 335. The Biology of Cytokines and the Control of Parasitic Infections**
Catalog Number: 9204
John R. David (Public Health, Medical School) 3592

***BPH 336. Study of Human and Primate T-lymphotrophic Retroviruses Including Agents that Cause AIDS**
Catalog Number: 3248
Myron E. Essex (Public Health) 2499

***BPH 337. Environmental Pollution, Waterborne Disease, Pathogen Survival**
Catalog Number: 5110
Timothy E. Ford (Public Health) 1525

***BPH 339. Mechanical Basis of Airway and Lung Parenchymal Function**
Catalog Number: 6572
Jeffrey J. Fredberg (Public Health) 1303

***BPH 340. Genetic Regulation of Immune Response**
Catalog Number: 3323
Laurie H. Glimcher (Public Health, Medical School) 1362

***BPH 341. Pathways of Oxidant-dependent Promotion of Cell Growth in Lung Epithelial Cells**
Catalog Number: 9308
Beatriz Susana Gonzalez-Flecha (Public Health) 2715

***BPH 342. In Vivo Models of Immune Deficiency by Homologous Recombination in ES Cells**

Catalog Number: 2309
Michael Grusby (Public Health, Medical School) 1987

***BPH 343. Molecular Mechanism of Cellular Circadian Regulation**
Catalog Number: 7740
J. Woodland Hastings 1311

***BPH 344. Differentiation and Activation of Helper T Cells**
Catalog Number: 2319
I-Cheng Ho (Medical School) 2764

***BPH 345. Lung Macrophage Differentiation and Function**
Catalog Number: 1495
Lester Kobzik (Medical School, Public Health) 1313

***BPH 346. Genetic Dissection of Mechanisms of Host Susceptibility to Tuberculosis**
Catalog Number: 1041
Igor Kramnik (Public Health) 2768

***BPH 348. Human and Related Primate Retroviruses**
Catalog Number: 3024
Tun-Hou Lee (Public Health) 2769

***BPH 350. Radiation Mutagenesis and Cardinogenesis; Genetic Instability**
Catalog Number: 9227
John B. Little (Public Health) 1427

***BPH 352. Regulation of Acute Inflammatory Responses by Signaling Molecules**
Catalog Number: 5578
Joseph P. Mizgerd (Public Health) 2787

***BPH 353. Human Papillomaviruses (HPV's): the Cause of Hyperplastic Skin-leisions**
Catalog Number: 6469
Karl Münger (Medical School) 1586

***BPH 354. Molecular Studies of Skeletal and Vascular Morphogenesis**
Catalog Number: 8067
Bjørn R. Olsen (Dental School, Medical School) 1164

***BPH 355. Cytokine Regulation of Vasoactive Mediators in the Pathogenesis of Septic Shock**
Catalog Number: 9398
Mark Perrella (Public Health, Medical School) 2774

***BPH 357. Physiological and Pharmacological Aspects of Bronchoconstriction.**
Catalog Number: 5047
Stephanie A. Shore (Public Health) 1304

***BPH 358. Human Immunodeficiency Virus Envelope Glycoproteins and Vaccine Development**
Catalog Number: 0241
Joseph G. Sodroski (Medical School, Public Health) 1712

***BPH 359. Relations of Dietary Factors to the Occurrence of Human Disease**
Catalog Number: 8215
Walter C. Willett (Public Health, Medical School) 1805

***BPH 360. DNA Replication and Control of Normal and Abnormal Cell Growth**
Catalog Number: 1395
Dieter Wolf (Public Health) 2781

***BPH 361. Genetic Dissection of Complex Diseases**
Catalog Number: 1537
Xiping Xu (Medical School, Public Health) 2785

***BPH 362. Delineation of Biochemical and Molecular Basis of Stress Induced Responses**
Catalog Number: 4140
Zhi-Min Yuan (Public Health) 9265

***BPH 363. Inherited Susceptibility to Cancer and other Diseases**
Catalog Number: 9066
David J. Hunter (Public Health) 3844

***BPH 364. Molecular Biology of Bacterial Interactions; Peptide Production and Release; Growth Phase Regulation of Gene Expression**
Catalog Number: 6936
Roberto G. Kolter (Medical School) 7727

***BPH 365. Virulence Factors of Mycrobacteria; Acquisition of Virulence Determinants of *Vibrio Cholerae*; Generalized Mutagenesis Systems for Bacteria**
Catalog Number: 5044
Eric J. Rubin (Public Health) 4084

***BPH 366. Theoretical, Statistical, and Experimental Approaches to Population Biology and the Epidemiology of Infectious Deseases**
Catalog Number: 7822
Marc Lipsitch (Public Health) 4097

***BPH 367. Biochemistry and Molecular Pathogenesis of Parasites**
Catalog Number: 8906
Ali A. Sultan (Public Health) 3845

BPH 368. Host-pathogen Interactions of *Shigella
Catalog Number: 6995
Marcia Goldberg (Medical School) 3783

***BPH 369. Metals Toxicity and Gene-Metal Interactions**
Catalog Number: 8600
Howard Hu 4322

***BPH 370. Environmental Exposures for Studies in Health Effects, and Investigation of the Relationship Between Environmental Exposure and Internal Dose**
Catalog Number: 5653
Thomas Jay Smith (Public Health) 4337

***BPH 371. Molecular and Genetic Determinant of Asthma**
Catalog Number: 6853
Eric Silverman 4336

***BPH 372. Moleculare Mechanisms Underlying the Pathogenesis of Human Malaria**
Catalog Number: 2598
Manoj T. Duraisingh (Public Health) 5177

***BPH 373. Integrating genetic susceptibility and tumor profiling into the**
Catalog Number: 2988
Heather Hammond Nelson (Public Health) 5196

Biophysics

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Higher Degrees in Biophysics

James M. Hogle, Edward S. Harkness Professor of Biological Chemistry and Molecular Pharmacology *(Medical School) (Chair)*
Howard C. Berg, Herchel Smith Professor of Physics and Professor of Molecular and Cellular Biology
Stephen C. Blacklow, Associate Professor of Pathology *(Medical School)*

George M. Church, Professor of Genetics *(Medical School)*
Thomas E. Ellenberger, Hsien Wu and Daisy Yen Wu Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Stephen C. Harrison, Higgins Professor of Biochemistry *(Medical School)*
David R. Liu, John L. Loeb Associate Professor of the Natural Sciences, Professor of Chemistry and Chemical Biology
Markus Meister, Jeff C. Tarr Professor of Molecular and Cellular Biology *(on leave 2004-05)*
Eugene I. Shakhnovich, Professor of Chemistry and Chemical Biology
Gregory L. Verdine, Harvard College Professor and Erving Professor of Chemistry
Gerhard Wagner, Elkan Blout Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Xiaowei Zhuang, Assistant Professor of Chemistry and Chemical Biology and of Physics

Other Faculty Offering Instruction in Biophysics

John A. Assad, Associate Professor of Neurobiology *(Medical School)*
Frederick Ausubel, Professor of Genetics *(Medical School)*
William H. Bossert, David B. Arnold, Jr. Professor of Science *(on leave fall term)*
Daniel Branton, Higgins Professor of Biology, *Emeritus*
Martha L. Bulyk, Assistant Professor of Medicine and Health Science Technology and Assistant Professor of Pathology *(Medical School)*
Lewis C. Cantley, Professor of Medicine and Professor of Systems Biology *(Medical School)*
James J. Chou, Assistant Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
David E. Clapham, Arlo R. Castaneda Professor of Cardiovascular Research *(Medical School)*
Jon Clardy, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Jonathan B. Cohen, Professor of Neurobiology *(Medical School)*
R. John Collier, Maude and Lillian Presley Professor of Microbiology and Molecular Genetics *(Medical School)*
David P. Corey, Professor of Neurobiology *(Medical School)*
Bruce F. Demple, Professor of Toxicology *(Public Health)*
John E. Dowling, Gordon and Llura Gund Professorship of Neurosciences
Michael J. Eck, Associate Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Florian Engert, Assistant Professor of Molecular and Cellular Biology
Raymond L. Erikson, American Cancer Society Professor of Cellular and Developmental Biology
Rachelle Gaudet, Assistant Professor of Molecular and Cellular Biology
David E. Golan, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Jene A. Golovchenko, Gordon McKay Professor of Applied Physics and Professor of Physics
Edward E. Harlow, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
J. Woodland Hastings, Paul C. Mangelsdorf Professor of Natural Sciences
David Jeruzalmi, Assistant Professor of Molecular and Cellular Biology
Martin Karplus, Theodore William Richards Professor of Chemistry, Emeritus

Tomas Kirchhausen, Professor of Cell Biology *(Medical School)*
Nancy Kleckner, Herchel Smith Professor of Molecular Biology
Roberto G. Kolter, Professor of Microbiology and Molecular Genetics *(Medical School)*
Jun S. Liu, Professor of Statistics *(on leave fall term)*
Gavin MacBeath, Assistant Professor of Chemistry and Chemical Biology
Tom Maniatis, Thomas H. Lee Professor of Molecular and Cellular Biology
Keith W. Miller, Mallinckrodt Professor of Pharmacology *(Medical School)*
Timothy J. Mitchison, Hasib Sabbagh Professor of Cell Biology *(Medical School)*
Andrew W. Murray, Professor of Molecular and Cellular Biology
Venkatesh N. Murthy, Morris Kahn Associate Professor of Molecular and Cellular Biology
David Pellman, Associate Professor of Pediatrics *(Medical School)*
Mara Prentiss, Professor of Physics
Tom Rapoport, Professor of Cell Biology *(Medical School)*
Frederick P. Roth, Assistant Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Gary B. Ruvkun, Professor of Genetics *(Medical School)*
Bernardo L. Sabatini, Assistant Professor of Neurobiology *(Medical School)*
Aravinthan D. T. Samuel, Assistant Professor of Physics
Stuart L. Schreiber, Morris Loeb Professor of Chemistry
Brian Seed, Professor of Genetics *(Medical School)*
Steven E. Shoelson, Professor of Medicine *(Medical School)*
Pamela A. Silver, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Timothy A. Springer, Latham Family Professor of Pathology *(Medical School)*
Shamil R. Sunyaev, Assistant Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Jack Szostak, Professor of Genetics *(Medical School)*
John R. Wakeley, Thomas D. Cabot Associate Professor of Organismic and Evolutionary Biology *(on leave 2004-05)*
Christopher T. Walsh, Hamilton Kuhn Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Thomas Walz, Assistant Professor of Cell Biology *(Medical School)*
George M. Whitesides, Woodford L. and Ann A. Flowers University Professor
Xiaoliang Sunney Xie, Professor of Chemistry
Gary I. Yellen, Professor of Neurobiology *(Medical School)*

Biophysics students should consult course listings from the departments of Biology, Chemistry and Chemical Biology, Physics, Molecular and Cellular Biology, the Division of Engineering and Applied Sciences, Applied Math, and the Division of Medical Sciences.

For Undergraduates and Graduates

[Biophysics 101. Genomics and Computational Biology]
Catalog Number: 6896
George M. Church (Medical School)
Half course (fall term). Hours to be arranged.

Assesses the relationships between sequence, structure and function in complex biological networks as well as progress in realistic modeling of quantitative, comprehensive functional-genomics analyses. Topics include algorithmic, statistical, database, and simulation approaches and practical applications to biotechnology, drug discovery and genetic engineering. Future opportunities and current limitations will be critically assessed. Problem sets and a course project emphasize creative, hands-on analyses using these concepts.
Note: Expected to be given in 2005–06.
Prerequisite: Basic understanding of molecular biology, statistics, and computers.

[Biophysics 164r. Molecular Biophysics and Biophysical Chemistry: Theory and Simulation of Macromolecules]
Catalog Number: 7317 Enrollment: Limited to 18.
Eugene I. Shakhnovich
Half course (fall term). Hours to be arranged.
Introduction to the principles of macromolecular structure, folding and dynamics, with emphasis on structure-function relationship. Principles of protein folding and molecular evolution. Molecular dynamics and other simulation approach to protein dynamics, enzymatic function and folding. Empirical and knowledge-based energy functions for structure prediction and design. Examples include: prediction of protein structure using ab initio and and bioinformatics approaches, theory of random and designed heteropolymers with application to protein folding and design, molecular recognition, rational drug design.
Note: Expected to be given in 2005–06. Given in alternate years. Students should enroll in Chemistry 164 when this course is bracketed. Cannot be taken for credit by students who have completed Chemistry 164.
Prerequisite: Biological Sciences 11 or 54 and one of the following: Chemistry 160, MCB 61, Physics 143, or permission of instructor.

Cross-listed Courses

Applied Mathematics 105a. Complex and Fourier Analysis
Applied Mathematics 105b. Ordinary and Partial Differential Equations
Applied Mathematics 115. Mathematical Modeling
Applied Mathematics 147. Nonlinear Dynamical Systems
[Chemistry 154. Crystal Symmetry, Diffraction, and Structure Analysis]
Chemistry 160. Physical Chemistry
Chemistry 161. Statistical Thermodynamics
Chemistry 163. Frontiers in Biophysics
Chemistry 165. Experimental Physical Chemistry
[*Chemistry 280 (formerly Chemistry 180). Macromolecular Structure and Function]
Engineering Sciences 145. Introduction to Systems Analysis with Physiological Applications
[Engineering Sciences 148. Neural Signal Processing]
Engineering Sciences 156. Signals and Systems
MCB 105. Systems Neuroscience
MCB 115. Cellular Basis of Neuronal Function
MCB 117. Experimental Neuroscience

***MCB 129. Molecular Genetics of Neural Development and Behavior**
[MCB 140. Introduction to Biophysics]
[MCB 141. Molecular and Developmental Neurobiology]
[MCB 150. Developmental Genetics and Genomics]
***MCB 155. Molecular Mechanisms of Gene Control**
MCB 156. Structural Biology of the Flow of Information in the Cell
MCB 169. Molecular and Cellular Immunology
MCB 176. Biochemistry of Membranes
MCB 211 (formerly MCB 111). Mathematics in Biology
Mathematics 115. Methods of Analysis and Applications
[OEB 152 (formerly Biology 152). Population Genetics]

Primarily for Graduates

Biophysics 201. Organic Chemistry for Biologists
Catalog Number: 4030
Jon Clardy (Medical School) and Christopher T. Walsh (Medical School)
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
A treatment of the parts of organic chemistry most relevant to biology. The structures of biologically important small molecules and reaction mechanisms are covered using both natural and therapeutic examples.
Note: Intended for first-year graduate students with an interest in chemical biology and only a modest background in organic chemistry.
Prerequisite: A basic knowledge of organic chemistry.

Biophysics 204. Structural Biology From Molecules to Cells
Catalog Number: 1728
Stephen C. Harrison (Medical School)
Half course (spring term). M., W., 4–5:30. EXAM GROUP: 9
Imaging of molecules and of molecular localization in cells, including x-ray and electron crystallography, electron microscopy of single molecules, and high-resolution light microscopy. Lectures and student presentations of selected papers from the literature.

Biophysics 205. Computational and Functional Genomics
Catalog Number: 6777 Enrollment: Limited to 20.
Frederick P. Roth (Medical School), Martha L. Bulyk (Medical School), Shamil R. Sunyaev (Medical School), and Marc Vidal (Medical School)
Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
Experimental functional genomics, computational prediction of gene function, and properties and models of complex biological systems. The course will primarily involve critical reading and discussion rather then lectures.
Prerequisite: Molecular Biology (BS52 or equivalent), solid understanding of basic probability and statistics.

Biophysics 242r. Special Topics in Biophysics
Catalog Number: 6011

James M. Hogle (Medical School), Timothy J. Mitchison (Medical School), and Pamela A. Silver (Medical School)
Half course (spring term). Tu., Th., 4–5:30. EXAM GROUP: 18
Topic for 2004-05: Systems Cell Biology. Exploring modern basic cell biology and cutting edge research approaches that used chemical, physical, or computational tools to address important problems. For students interested in how their knowledge base can contribute to developing research approaches.
Note: Intended for first-year graduate students in the physical sciences. Little or no cell biology background required.
Prerequisite: At least one undergraduate course in molecular biology or biochemistry.

Cross-listed Courses

Applied Mathematics 201. Physical Mathematics I
Applied Mathematics 202. Physical Mathematics II
BCMP 200. Molecular Biology
BCMP 201. Proteins: Structure, Function and Catalysis
BCMP 228. Macromolecular NMR
Cell Biology 201. Molecular Biology of the Cell
[Cell Biology 211b. Growth Factors and Signal Transduction]
Chemistry 163. Frontiers in Biophysics
***Chemistry 242. Quantum Mechanics I**
[*Chemistry 280 (formerly Chemistry 180). Macromolecular Structure and Function]
Genetics 201. Principles of Genetics
MCB 212. Topics in Biophysics
Microbiology 200. Molecular Microbiology and Pathogenesis
***Microbiology 205. Mechanisms of Microbial Pathogenesis**
Neurobiology 200. Introduction to Neurobiology
Neurobiology 204. Neurophysiology of Central Circuits
***Neurobiology 221. Molecular Neurobiology**
[Statistics 215. Fundamentals of Computational Biology]

Graduate Courses of Reading and Research

***Biophysics 300. Introduction to Laboratory Research**
Catalog Number: 7509
James M. Hogle (Medical School) 2943 and Members of the Committee
Half course (fall term; repeated spring term). M., W., F., at 4:30.
Introductory lectures by associated Biophysics faculty members. Lectures are accompanied by three periods of instruction in laboratories of structural molecular biology, cell and membrane biophysics, molecular genetics and development, neurobiology, bioinformatics, and physical biochemistry. Students normally spend each laboratory period in a different field.

***Biophysics 303. NMR Studies of Macromolecular Structure and Function**
Catalog Number: 6135
Gerhard Wagner (Medical School) 2626

***Biophysics 309. Motile Behavior of Bacteria**
Catalog Number: 2070
Howard C. Berg 1377

***Biophysics 311. Digital Computer Applications in Biophysics**
Catalog Number: 7606
William H. Bossert 1049 (on leave fall term)

***Biophysics 314. Structure of Viruses and Viral Proteins**
Catalog Number: 0687
James M. Hogle (Medical School) 2943

***Biophysics 315. Structural Molecular Biology**
Catalog Number: 2805
Stephen C. Harrison (Medical School) 3597

***Biophysics 317. Biophysical Aspects of the Visual System**
Catalog Number: 4770
John E. Dowling 3545

***Biophysics 318. Mechanisms of Circadian Rhythms, Bioluminescence**
Catalog Number: 4699
J. Woodland Hastings 1311

***Biophysics 321. Molecular and Mechanical Analysis of Chromosomes**
Catalog Number: 7297
Nancy Kleckner 4697

***Biophysics 322. Theoretical Studies of the Structure, Functions, and Dynamics of Molecules of Biological Interest**
Catalog Number: 6525
Martin Karplus 1361

***Biophysics 323. Molecular Oncology**
Catalog Number: 8284
Edward E. Harlow (Medical School) 2863

***Biophysics 327. Molecular Genetics**
Catalog Number: 4202
Frederick Ausubel (Medical School) 4639

***Biophysics 329. Computational and Functional Genomics**
Catalog Number: 4437
George M. Church (Medical School) 1608

***Biophysics 332. Function of Neuronal Circuits**
Catalog Number: 5444
Markus Meister 3007 (on leave 2004-05)

***Biophysics 333. Topics in Biophysics and Molecular Biology**
Catalog Number: 0196
Brian Seed (Medical School) 7619

***Biophysics 335. Gene Expression**
Catalog Number: 3602
Tom Maniatis 7231

***Biophysics 337. Membrane Structure and Function**
Catalog Number: 1800
Keith W. Miller (Medical School) 4124

***Biophysics 338. Redox Signaling and Repair of Oxidative DNA Damage**
Catalog Number: 4755
Bruce F. Demple (Public Health) 7853

***Biophysics 340. Membrane Organization and Protein-Protein Interactions in the Membrane Skeleton**
Catalog Number: 7506
Daniel Branton 4139

***Biophysics 341. Structure and Function of Ligand-Gated Ion Channels**
Catalog Number: 7567
Jonathan B. Cohen (Medical School) 1120

***Biophysics 343. Theoretical Protein Science, Bioinformatics, Computational Chemistry**
Catalog Number: 6947
Eugene I. Shakhnovich 3147

***Biophysics 344. Directed Evolution and Design of Simple Cellular Systems**
Catalog Number: 6277
Jack Szostak (Medical School) 7096

***Biophysics 346. Biofilm Dynamics**
Catalog Number: 5538
Roberto G. Kolter (Medical School) 7727

***Biophysics 347. Membrane Dynamics; Membrane Structure**
Catalog Number: 5516
David E. Golan (Medical School) 1558

***Biophysics 348. Protein Kinases, Reversible Protein Phosphorylation**
Catalog Number: 4964
Raymond L. Erikson 7506

***Biophysics 349. Structural Biochemistry and Cell Biology of Intracellular Membrane Traffic**
Catalog Number: 4487
Tomas Kirchhausen (Medical School) 1155

***Biophysics 351. Signal Transduction**
Catalog Number: 3848
Lewis C. Cantley (Medical School) 1287

***Biophysics 352. Structure and Mechanism of DNA Replication and Repair Enzymes**
Catalog Number: 2914
Thomas E. Ellenberger (Medical School) 1643

***Biophysics 353. Molecular Genetics of Development**
Catalog Number: 5016
Gary B. Ruvkun (Medical School) 1366

***Biophysics 354. Structural and Chemical Biology**
Catalog Number: 4420
Gregory L. Verdine 1980

***Biophysics 355. Chemical Genetics and Genomics**
Catalog Number: 3035
Stuart L. Schreiber 2166

***Biophysics 356. Structure and Activity of Bacterial Toxins**
Catalog Number: 6886
R. John Collier (Medical School) 7972

***Biophysics 360. Enzymatic Mechanisms and Antibiotic Biosynthesis**
Catalog Number: 7053
Christopher T. Walsh (Medical School) 2036

***Biophysics 361. Rational Drug Design; Biomaterials Science; Biophysics**
Catalog Number: 7080
George M. Whitesides 7447

***Biophysics 362. Molecular Physiology of Ion Channels**
Catalog Number: 3784
Gary I. Yellen (Medical School) 3268

***Biophysics 363. Biophysics of Receptor-Ligand Interactions**
Catalog Number: 8687
Stephen C. Blacklow (Medical School) 1462

***Biophysics 364. Structural Cell Biology**
Catalog Number: 5528
Pamela A. Silver (Medical School) 1595

***Biophysics 365. Visual Processing in Primates**
Catalog Number: 8145
John A. Assad (Medical School) 2985

***Biophysics 366. Intracellular Signal Transduction**
Catalog Number: 2877
David E. Clapham (Medical School) 2987

***Biophysics 367. Structure Biology of Cytoplasmic Signal Transduction**
Catalog Number: 5512
Michael J. Eck (Medical School) 1739

***Biophysics 368. Experimental Condensed Matter Physics**
Catalog Number: 1400
Jene A. Golovchenko 1986

***Biophysics 369. Organic Chemistry and Chemical Biology**
Catalog Number: 6337
David R. Liu 2717

***Biophysics 370. Cytoskeleton Dynamics; Mitosis and Cell Locomotion; Small Molecule Inhibitors**
Catalog Number: 8034
Timothy J. Mitchison (Medical School) 3713

***Biophysics 371. Mechanisms of Synaptic Transmission and Plasticity**
Catalog Number: 2326
Venkatesh N. Murthy 2424

***Biophysics 372. Protein Transport Across the ER Membrane**
Catalog Number: 6922
Tom Rapoport (Medical School) 1815

***Biophysics 373. Computational Molecular Biology**
Catalog Number: 5267
Frederick P. Roth (Medical School) 3912

***Biophysics 374. High-Resolution Electron Microscopy**
Catalog Number: 8225
Thomas Walz (Medical School) 3778

***Biophysics 375. Single-Molecule Biophysics**
Catalog Number: 7900
Xiaoliang Sunney Xie 2290

***Biophysics 376. Functional Genomics and Computational Methods in the Study of DNA-Protein Interactions**
Catalog Number: 2254
Martha L. Bulyk (Medical School) 4259

***Biophysics 377. Statistical Theory and Inference for Stochastic Processes: With Applications to Bioinformatics**
Catalog Number: 4768
Jun S. Liu 3760 (on leave fall term)

***Biophysics 378. Structural and Cellular Biology of Insulin Signal Transduction**
Catalog Number: 4856
Steven E. Shoelson (Medical School) 3951

***Biophysics 379. Theoretical Population Genetics**
Catalog Number: 2274
John R. Wakeley 5680 (on leave 2004-05)

***Biophysics 380. Microarray Data: Issues and Challenges**
Catalog Number: 4402
James M. Hogle (Medical School) 2943

***Biophysics 381. Single-Molecule Biophysics**
Catalog Number: 3046
Xiaowei Zhuang 3991

***Biophysics 382. Regulation of Synaptic Transmission and Dendritic Function in the Mammalian Brain**
Catalog Number: 6116
Bernardo L. Sabatini (Medical School) 4300

***Biophysics 384. NMR Spectroscopy on Membrane-associated Proteins and Peptides**
Catalog Number: 4531
James J. Chou (Medical School) 4950

***Biophysics 385. Chemical Ecology, Biosynthesis, Structure-based Drug Design**
Catalog Number: 8378
Jon Clardy (Medical School) 4667

***Biophysics 386. Synaptic Plasticity and Neuronal Networks**
Catalog Number: 3012
Florian Engert 4290

***Biophysics 387. Structural Studies of the Stereochemistry of Signaling and Transport through Biological Membranes**
Catalog Number: 6869
Rachelle Gaudet 4413

***Biophysics 388. Structural Studies of Nucleo-Protein Assemblies**
Catalog Number: 1543
David Jeruzalmi 4528

***Biophysics 389. Chemical Biology and Proteomics**
Catalog Number: 4245
Gavin MacBeath 4347

***Biophysics 390. Regulation of Mitosis**
Catalog Number: 2157
Andrew W. Murray 3765

***Biophysics 391. Computational Methods in Genetics, Genomics and Proteomics**
Catalog Number: 7043
Shamil R. Sunyaev (Medical School) 4671

***Biophysics 392. Ion Channels in Neural Cell Membranes**
Catalog Number: 2687
David P. Corey (Medical School) 1345

***Biophysics 393. The Mechanics and Regulation of Mitosis**
Catalog Number: 6759
David Pellman (Medical School) 3702

***Biophysics 394. Experimental Atomic Physics**
Catalog Number: 7138
Mara Prentiss 2741

***Biophysics 395. Molecular Biology of Immune Cell Interactions**
Catalog Number: 3918
Timothy A. Springer (Medical School) 6145

***Biophysics 396. Topics in Biophysics, Neurobiology, and Animal Behavior**
Catalog Number: 0966
Aravinthan D. T. Samuel 4625

Harvard University
Faculty of Arts and Sciences
Office of the Registrar

Biostatistics

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Higher Degrees in Public Health Sciences

James H. Ware, Frederick Mosteller Professor of Biostatistics *(Public Health) (Chair)*
Bruce F. Demple, Professor of Toxicology *(Public Health)*
Thomas O. Fox, Associate Professor of Neuroscience *(Medical School)*
Laurie H. Glimcher, Professor of Medicine *(Medical School)* and Irene Heinz Given Professor of Immunology *(Public Health)*
J. Woodland Hastings, Paul C. Mangelsdorf Professor of Natural Sciences
Stephen W. Lagakos, Henry Pickering Walcott Professor of Biostatistics *(Public Health)*
Nan Laird, Professor of Biostatistics *(Public Health)*
Xiao-Li Meng, Professor of Statistics
Carl N. Morris, Professor of Statistics
Dyann F. Wirth, Professor of Tropical Public Health *(Public Health)*

Faculty of the Subcommittee on the Degree of Doctor of Philosophy in Biostatistics

Stephen W. Lagakos, Henry Pickering Walcott Professor of Biostatistics *(Public Health) (Chair)*
Nan Laird, Professor of Biostatistics *(Public Health)*
Xiao-Li Meng, Professor of Statistics
Carl N. Morris, Professor of Statistics
James H. Ware, Frederick Mosteller Professor of Biostatistics *(Public Health)*

Other Faculty Offering Instruction in Biostatistics in Public Health

Rebecca Aubrey Betensky, Associate Professor of Biostatistics *(Public Health)*
Tianxi Cai, Assistant Professor of Biostatistics *(Public Health)*
Paul J. Catalano, Assistant Professor in the Department of Biostatistics *(Public Health)*
Brent Andrew Coull, Assistant Professor of Biostatistics *(Public Health)*
Roger B. Davis, Associate Professor in the Department of Biostatistics *(Public Health)*
Victor Gerard DeGruttola, Professor of Biostatistics *(Public Health)*
Gregory DiRienzo, Assistant Professor of Biostatistics *(Public Health) (on leave 2004-2005)*
Dianne Madelyn Finkelstein, Associate Professor in the Department of Biostatistics *(Public Health)*
Kimberlee Gauvreau, Assistant Professor of Biostatistics *(Public Health)*
Richard David Gelber, Professor in the Department of Biostatistics *(Public Health)*
Rebecca Sue Gelman, Associate Professor in the Department of Biostatistics *(Public Health)*
Robert C. Gentleman, Associate Professor of Biostatistics *(Public Health)*
Robert James Glynn, Associate Professor in the Department of Biostatistics *(Public Health)*
Robert James Gray, Professor of Biostatistics *(Public Health)*

David P. Harrington, Professor of Biostatistics *(Public Health)*
Chengcheng Hu, Assistant Professor of Biostatistics *(Public Health)*
Michael David Hughes, Professor of Biostatistics *(Public Health)*
Hongyu Jiang, Assistant Professor of Biostatistics *(Public Health)*
Karen M. Kuntz, Associate Professor of Health Decision Science *(Public Health)*
Christoph Lange, Assistant Professor of Medicine *(Medical School)* and Assistant Professor of Biostatistics *(Public Health)*
Nicholas Theodore Lange, Associate Professor in the Department of Biostatistics *(Public Health)*
Mei-Ling Ting Lee, Associate Professor of Medicine *(Medical School)*
Cheng Li, Assistant Professor of Biostatistics *(Public Health)*
Yi Li, Assistant Professor of Biostatistics *(Public Health)*
Jun S. Liu, Professor of Statistics *(on leave fall term)*
Xiaole Shirley Liu, Assistant Professor of Biostatistics *(Public Health)*
Donna S. Neuberg, Lecturer on Biostatistics *(Public Health)*
Sharon-Lise T. Normand, Professor of Health Care Policy *(Medical School, Public Health)*
Endel John Orav, Associate Professor in the Department of Biostatistics *(Public Health)*
Marcello Pagano, Professor of Statistical Computing *(Public Health)*
James M. Robins, Professor of Epidemiology and Biostatistics *(Public Health)*
Bernard Rosner, Professor of Medicine *(Medical School)*
Andrea Gloria Rotnitzky, Senior Lecturer on Biostatistics *(Public Health)*
Louise Marie Ryan, Professor of Biostatistics *(Public Health)*
David Alan Schoenfeld, Professor in the Department of Biostatistics *(Public Health)*
Mei-Chiung Shih, Assistant Professor of Biostatistics *(Public Health)*
Donna Lynn Spiegelman, Professor of Epidemiologic Methods *(Public Health)*
Kenneth E. Stanley, Lecturer on Statistics (*FAS*) and Lecturer on Biostatistics *(Public Health)*
Marcia Anne Testa Simonson, Senior Lecturer on Biostatistics *(Public Health)*
Molin Wang, Assistant Professor of Biostatistics *(Public Health)*
Wei Wang, Assistant Professor of Biostatistics *(Public Health)*
Lee-Jen Wei, Professor of Biostatistics *(Public Health) (on leave 2004-2005)*
Milton C. Weinstein, Henry J. Kaiser Professor of Health Policy and Management and Biostatistics *(Public Health)* and Professor of Medicine *(Medical School)*
Paige L. Williams, Assistant Professor of Biostatistics *(Public Health)*
Wing H. Wong, Adjunct Professor of Computational Biology *(Public Health)*
David Wypij, Associate Professor in the Department of Biostatistics *(Public Health)*
Grace Wyshak, Associate Professor in the Department of Biostatistics and Population and International Health *(Public Health)*
Marvin Zelen, Professor of Statistical Science *(Public Health)*

Primarily for Graduates

Further details about the course descriptions below can be found in their entirety at www.biostat.harvard.edu/courses/course.html

***Biostatistics 230. Probability Theory and Applications I**
Catalog Number: 6183
Hongyu Jiang (Public Health)
Half course (fall term). M., W., 8:30–10:20 and one two hour lab each week. EXAM GROUP: 1,

2, 3
Axiomatic foundations of probability, combinatorics, independence, conditional probability, standard distributions, transformations, moment generating functions, characteristic functions, sampling distributions, convergence, laws of large numbers, central limit theorem, elements of stochastic processes.
Note: Offered jointly with the School of Public Health as BIO230.
Prerequisite: Background in multivariable calculus required.

***Biostatistics 231. Statistical Inference I**
Catalog Number: 8773
Victor Gerard DeGruttola (Public Health)
Half course (spring term). M., W., 10:30–12:20 and a 1.5 hour lab each week. EXAM GROUP: 3, 4, 5
Exponential families, sufficiency, ancillarity, completeness, method of moments, maximum likelihood, unbiased estimation, Rao-Blackwell and Lehmann-Scheffe theorems, information inequality, Neyman-Pearson theory, likelihood ratio, score and Wald tests, uniformly and locally most powerful tests, asymptotic relative efficiency.
Note: Offered jointly with the School of Public Health as BIO231.
Prerequisite: Biostatistics 230 or signature of instructor

***Biostatistics 232. Methods I**
Catalog Number: 0131
Donna S. Neuberg (Public Health)
Half course (fall term). M., W., 1:30–3:20 and one two hour lab each week. EXAM GROUP: 6, 7, 8
Applications of linear regression including analysis of variance, t-tests, and robust alternatives. Exploratory data analysis, model formulation and fitting, diagnostics, and interpretation. Some of the underlying theory will also be given. Use of S-PLUS, Stata, and SAS
Note: Offered jointly with the School of Public Health as BIO232.
Prerequisite: Biostatistics 222

***Biostatistics 233. Methods II**
Catalog Number: 7804
Brent Andrew Coull (Public Health)
Half course (spring term). M., W., 8:30–10:20 and a 1.5 hour lab each week. EXAM GROUP: 1, 2, 3
The analysis of categorical, count, and survival data. Sampling plans, contingency tables, large sample and exact methods, logistic regression, log-linear analysis, estimation of survival distributions, comparison of groups, Cox proportional hazards models, accelerated failure time models.
Note: Offered jointly with the School of Public Health as BIO233.
Prerequisite: Biostatistics 232

***Biostatistics 235. Regression and Analysis of Variance**
Catalog Number: 7549
Andrea Gloria Rotnitzky (Public Health)

Half course (spring term). Tu., Th., 10:30–12:20 and one two hour lab each week. EXAM GROUP: 12, 13, 14
An advanced course in linear models - regression and analysis of variance. Estimation (maximum likelihood and least squares) and inference (confidence intervals, hypothesis testing, analysis of residuals) are presented from a theoretical and data analysis perspective.
Note: Offered jointly with the School of Public Health as BIO235.
Prerequisite: Biostatistics 230 and Biostatistics 232. Background in matrix algebra and linear regression required.

Biostatistics 244. Analysis of Failure Time Data
Catalog Number: 2140
Stephen W. Lagakos (Public Health)
Half course (fall term). M., W., 10:30–12:20 and one two hour lab each week. EXAM GROUP: 3, 4, 5
Discusses the theoretical basis of concepts and methodologies associated with survival data and censoring, nonparametric tests, and competing risk models. Much of the theory is developed using counting processes and martingale methods.
Note: Offered jointly with the School of Public Health as BIO244.
Prerequisite: Biostatistics 231 and Biostatistics 233.

Biostatistics 245. Analysis of Multivariate and Longitudinal Data
Catalog Number: 3247
Paige L. Williams (Public Health)
Half course (fall term). Tu., Th., 10:30–12:20 and one two hour lab each week. EXAM GROUP: 12, 13, 14
The multivariate normal distribution, Hotelling's T2, MANOVA, repeated measures, the multivariate linear model, random effects and growth curve models, generalized estimating equations, multivariate categorical outcomes, missing data, computational issues for traditional and new methodologies.
Note: Offered jointly with the School of Public Health as BIO245.
Prerequisite: Biostatistics 231 and Biostatistics 235.

***Biostatistics 247. Design of Scientific Investigations**
Catalog Number: 3723
Michael David Hughes (Public Health)
Half course (spring term). Tu., Th., 1:30–3:20 and one two hour lab each week. EXAM GROUP: 15, 16, 17
Sample size considerations, basic principles of experimental design (randomization, replication, and balance), block designs, factorial experiments, response surface modeling, optimal design, clinical trials, adaptive and sequential designs.
Note: Offered jointly with the School of Public Health as BIO247. Offered in alternate years. Minimum enrollment of 10 students required.
Prerequisite: Biostatistics 235.

***Biostatistics 248. Advanced Statistical Computing**
Catalog Number: 6420

Robert Gray and Paul Catalano
Half course (spring term). M., W., 8:30–10:20. EXAM GROUP: 1, 2, 3
.Computer arithmetic, matrix algebra, numerical optimization with application to MLEs and GEEs, spline smoothing, numerical integration, random number generation, simulation methods, Gibbs sampling, bootstrap methods, missing data and EM, imputation, and data augmentation algorithms.
Note: Offered jointly with the School of Public Health as BIO248.
Prerequisite: Students should be proficient with C or Fortran programming. Biostatistics 235.

[*Biostatistics 249. Bayesian Methodology in Biostatistics]
Catalog Number: 8841
Sharon-Lise T. Normand (Medical School, Public Health)
Half course (fall term). Hours to be arranged.
Bayes theorem, decision theory, general principles (likelihood, exchangeability, de Finetti's theorem), prior distributions, inference(exact, normal approximations, non-normal approximations), computation (Monte Carlo, convergence diagnostics), model diagnostics (Bayes factors, predictive ordinates), design, and empirical Bayes methods.
Note: Expected to be given in 2005–06. Offered jointly with the School of Public Health as BIO249. Offered in alternate years.
Prerequisite: Biostatistics 231 and Biostatistics 232.

[*Biostatistics 250. Probability Theory and Applications II]
Catalog Number: 5076
Yi Li (Public Health)
Half course (fall term). Hours to be arranged.
Advanced topics in probability theory. An overview of probability measure theory, Lebesgue integration, conditional probability and expectation,convergence of sequences of random variables and weak convergence of stochastic processes.
Note: Expected to be given in 2005–06. Offered jointly with the School of Public Health as BIO250.
Prerequisite: Biostatistics 231 and Biostatistcs 232.

Biostatistics 251. Statistical Inference II
Catalog Number: 5280
Tianxi Cai (Public Health)
Half course (spring term). M., W., 1:30–3:20 and one two hour lab each week. EXAM GROUP: 6, 7, 8
Advanced topics in statistical inference. Limit theorems, multivariate delta method, properties of maximum likelihood estimators, saddle point approximations, asymptotic relative efficiency, robust and rank-based procedures, resampling methods, nonparametric curve estimation.
Note: Offered jointly with the School of Public Health as BIO251.
Prerequisite: Biostatistics 231.

[*Biostatistics 274. Applied Stochastic Processes and Models in Public Health]
Catalog Number: 0741
Marvin Zelen (Public Health)

Half course (spring term). M., W., 10:30–12:20 . EXAM GROUP: 3, 4, 5
Poisson processes, birth and death processes, Markov chains and processes, semi-Markov processes. Applications to prevalence and incidence of disease, therapeutic and preventive clinical trials, length biased sampling, models for early detection of disease, cell kinetics, family history problems.
Note: Expected to be given in 2005–06. Offered jointly with the School of Public Health as BIO274. Offered in alternate years.
Prerequisite: Biostatistics 230.

[*Biostatistics 277. Computational Biology]
Catalog Number: 1337
Cheng Li (Public Health)
Half course (spring term). F., 1:30–5:20. EXAM GROUP: 6, 7, 8, 9
With rapid advances in molecular biology, the need for quantitative methods to analyze the vast amounts of information being generated is enormous. Microarray, DNA and protein sequence, machine learning methods, cis-regulatory analysis.
Note: Expected to be given in 2005–06. Cannot be taken Pass/Fail. Offered jointly with the School of Public Health as BIO277.
Prerequisite: Biostatistics 231.

Biostatistics 280. Introduction to Computational Molecular Biology I
Catalog Number: 2116
Xiaole Shirley Liu (Public Health)
Half course (spring term). M., W., 3:30–5:20 and a 1.5 hour lab each week. EXAM GROUP: 8, 9
Graduate entry level course to basic problems, algorithms, and data analysis methods in computational biology. Sequence alignment, gene finding and annotation, microarray analysis, gene regulatory network, RNA/protein structure prediction, proteomics and pharmacogenetics.
Note: Offered jointly with the School of Public Health as BIO280. Cannot be taken pass/fail.

Graduate Courses of Reading and Research

***Biostatistics 300. Reading and Research**
Catalog Number: 6306
James H. Ware (Public Health) 5063, Bruce F. Demple (Public Health) 7853, Thomas O. Fox (Medical School) 4542, Laurie H. Glimcher (Public Health) 1362, J. Woodland Hastings 1311, Stephen W. Lagakos (Public Health) 4876, Nan Laird (Public Health) 4770, Christoph Lange (Public Health) 5199, Carl N. Morris 2178, Marcello Pagano (Public Health) 4913, and Dyann F. Wirth (Public Health) 2492

***Biostatistics 310. Statistical Methods**
Catalog Number: 1799
Members of the Department
Guided study in specific areas of statistical methodology and applications.

***Biostatistics 312. Consultation**
Catalog Number: 7813
Members of the Department
Work with members of the Department on current statistical consultation activities.

***Biostatistics 313. Computing**
Catalog Number: 5421
Members of the Department

***Biostatistics 314. Study Design**
Catalog Number: 1268
Members of Department
Guidance in developing statistical design of a study in which the student has a particular interest.

***Biostatistics 315. Data Analysis**
Catalog Number: 6431
Members of the Department
Guidance in the statistical analysis of a body of data in which the student is interested.

***Biostatistics 350. Research**
Catalog Number: 0406
Members of the Department
For doctoral candidates who have passed their school-wide Oral Qualifying Examination and who are undertaking advanced work along the lines of fundamental or applied research in the departments.

Business Studies

Faculty of the Committee on Higher Degrees in Business Studies

George P. Baker, MBA Class of 1966 Professor of Business Administration *(Business School) (Chair)*

The Standing Committee on Higher Degrees in Business Studies is a joint committee consisting of members from both the Harvard Business School (HBS) and the Faculty of Arts and Sciences (FAS). The committee is composed of the members of the following subcommittees:

Subcommittee on the Degree of Doctor of Philosophy in Business Economics

Jerry R. Green, John Leverett Professor and David A. Wells Professor of Political Economy *(Chair)*
George P. Baker, MBA Class of 1966 Professor of Business Administration *(Business School) (ex officio)*
John Y. Campbell, Otto Eckstein Professor of Applied Economics *(on leave 2004-05)*
Paul M. Healy, James R. Williston Professor of Business Administration *(Business School) (ex officio)*
Ariel Pakes, Professor of Economics
Alvin E. Roth, George Gund Professor of Economics and Business Administration *(FAS, Business School) (on leave spring term)*
David S. Scharfstein, Edmund Cogswell Converse Professor of Finance and Banking *(Business School)*
Jeremy C. Stein, Professor of Economics

Subcommittee on the Degree of Doctor of Philosophy in Information Technology and Management

H. T. Kung, William H. Gates Professor of Computer Science and Electrical Engineering *(Co-chair)*
Stefan Thomke, Professor of Business Administration *(Business School) (Co-chair)*
George P. Baker, MBA Class of 1966 Professor of Business Administration *(Business School) (ex officio)*
Carliss Y. Baldwin, William L. White Professor of Business Administration *(Business School) (on leave 2004-2005)*
Lee Fleming, Associate Professor of Business Administration *(Business School)*
Paul M. Healy, James R. Williston Professor of Business Administration *(Business School) (ex officio)*
John W. Hutchinson, Abbott and James Lawrence Professor of Engineering and Gordon McKay Professor of Applied Mechanics *(on leave fall term)*
Marco Iansiti, David Sarnoff Professor of Business Administration *(Business School)*
Joshua Lerner, Jacob H. Schiff Professor of Investment Banking *(Business School)*
David C. Parkes, Assistant Professor of Computer Science on the Gordon McKay Endowment
Avrom J. Pfeffer, Associate Professor of Computer Science on the Gordon McKay Endowment
Michael O. Rabin, Thomas J. Watson, Sr. Professor of Computer Science
Jan W. Rivkin, Associate Professor of Business Administration *(Business School)*
Margo I. Seltzer, Herchel Smith Professor of Computer Science
Michael D. Smith, Gordon McKay Professor of Computer Science and Electrical Engineering
David M. Upton, Albert J. Weatherhead III Professor of Business Administration *(Business School)*

Subcommittee on the Degree of Doctor of Philosophy in Organizational Behavior

Joel Podolny, Professor of Sociology *(FAS)* and Professor of Business Administration *(Business School) (Chair)*
Teresa M. Amabile, Edsel Bryant Ford Professor of Business Administration *(Business School)*
George P. Baker, MBA Class of 1966 Professor of Business Administration *(Business School)*

(ex officio)
Max H. Bazerman, Jesse Isidor Straus Professor of Business Administration *(Business School)*
Theodore C. Bestor, Professor of Anthropology
J. Richard Hackman, Professor of Social and Organizational Psychology
Paul M. Healy, James R. Williston Professor of Business Administration *(Business School) (ex officio)*
Jay W. Lorsch, Louis E. Kirstein Professor of Human Relations *(Business School)*
Peter V. Marsden, Professor of Sociology *(on leave fall term)*
Michael Tushman, Paul R. Lawrence MBA Class of 1942 Professor of Business Administration *(Business School)*
Daniel M. Wegner, Professor of Psychology
Christopher Winship, Professor of Sociology

Other Faculty Offering Instruction in Business Studies

Mark T. Bradshaw, Assistant Professor of Business Administration *(Business School)*
Amy C. Edmondson, Professor of Business Administration *(Business School)*
Giovanni Gavetti, Assistant Professor of Business Administration *(Business School)*
John Timothy Gourville, Associate Professor of Business Administration *(Business School)*
Geoffrey Jones, Professor of Business Administration *(Business School)*
Tarun Khanna, Professor of Business Administration *(Business School)*
Jordan I. Siegel, Assistant Professor

PhD programs in Business Economics, Organizational Behavior, and Information Technology and Management are administered by the Standing Committee on Higher degrees in Business Studies consisting of members from both Harvard Business School (HBS) and the Faculty of Arts and Sciences. The programs are intended for students who wish to enter careers in scholarship and advanced research.

Primarily for Graduates

Business Studies 2000ab. Management and Markets: Human Behavior and Administration
Catalog Number: 3946 Enrollment: Limited to 36.
George P. Baker (Business School) and members of the Business School Faculty
Half course (fall term). M., W., F., 12–1:30. EXAM GROUP: 5, 6
Examines classic works in administrative theory, recent work on organizational processes, the management of change and the management of technology. The course will cover theories of human motivation and human interaction from numerous perspectives.
Note: Offered jointly with the Business School as 4001.

Business Studies 2000cd. Management and Markets: Organizational Economics and Finance
Catalog Number: 5800 Enrollment: Limited to 36.
George P. Baker (Business School) and members of the Business School Faculty
Half course (spring term). M., W., F., 12–1:30. EXAM GROUP: 5, 6
Examines the foundations of corporate strategy and organizational design as informed by

industrial and organizational economies. In the second part, we study the functioning of modern capital markets, and the interactions of firms within this market.
Note: Offered jointly with the Business School as 4003.

Business Studies 2070. Design of Field Research Methods
Catalog Number: 8793
Amy C. Edmondson (Business School)
Half course (fall term). Tu., 9–11:30. EXAM GROUP: 11, 12, 13
Field research involves collecting original data (qualitative or quantitative) in field sites. Specific topics covered include variance versus process models, blending qualitative and quantitative data collecting, and analyzing different kinds of data.
Note: Offered jointly with the Business School as 4070.
Prerequisite: Previous course work in research methods. Students are expected to understand basic principles of statistical analysis as a foundation for engaging in discussions about effective field research.

Business Studies 2110. The Foundations of Strategy
Catalog Number: 2784 Enrollment: Limited to 36.
Giovanni Gavetti (Business School)
Half course (spring term). F., 2:30–5:30. EXAM GROUP: 7, 8, 9
Examines the application of contemporary thinking about microeconomics and, particularly, industrial organization, to business strategy. The perspective taken, however, emphasizes issues associated with business administration and research in that area.
Note: Offered jointly with the Business School as 4110.
Prerequisite: Economics 2010a, or the equivalent.

[Business Studies 2250. Empirical Research in Financial Reporting and Analysis]
Catalog Number: 7941

Half course (fall term). Hours to be arranged.
Designed to introduce fundamental research themes and methodologies used in empirical financial accounting research. Participants will become acquainted with the relevant literature through classroom discussions of assigned readings, paper summaries, problem sets, and research proposals.
Note: Expected to be given in 2005–06. Offered jointly with the Business School as 4250.

[Business Studies 2310. Policy and Management: Seminar]
Catalog Number: 9281 Enrollment: Limited to 36.

Half course (spring term). Hours to be arranged.
Course covers related literatures of policy formulation and implementation, organization development and learning, and governance, in the context of rapidly evolving fields such as the management of innovation and application of modern information technology.
Note: Expected to be given in 2005–06. Offered jointly with the Business School as 4310.

[Business Studies 2330. Theoretical and Empirical Perspectives on Entrepreneurship]
Catalog Number: 8698

Half course (spring term). Hours to be arranged.
Involves a variety of literature regarding academic disciplines, readings primarily focus on discipline-oriented research from an economics, finance, and sociological perspective. Students are expected to complete two reports and a paper.
Note: Expected to be given in 2005–06. Offered jointly with the Business School as 4350.

Business Studies 2540. The Management of Technological Innovation
Catalog Number: 8573 Enrollment: Limited to 36.
Lee Fleming (Business School)
Half course (fall term). Tu., Th., 4:30–6. EXAM GROUP: 18
Explores a range of topics and themes associated with technological innovation. Designed to provide doctoral students with a relatively comprehensive overview of the important streams of literature in the innovation field.
Note: Offered jointly with the Business School as 4540.

[Business Studies 2600. Issues and Research in Marketing]
Catalog Number: 7473

Half course (fall term). Hours to be arranged.
Examines the wide range of issues addressed by academic researchers in marketing and consumer behavior. A primary goal of the course is to understand how academic research develops and evolves over time.
Note: Expected to be given in 2005–06. Offered jointly with the Business School as 4600.

[Business Studies 2630. Consumer Behavior]
Catalog Number: 5513 Enrollment: Limited to 36.
John Timothy Gourville (Business School)
Half course (fall term). Hours to be arranged.
Provides a research overview of the field of consumer behavior and consumer decision making. Drawing from research papers in economics, psychology, and sociology, the course will cover topics including persuasion and attitude formation, emotion and affect, learning and memory, and behavioral decision making.
Note: Expected to be given in 2005–06. Offered jointly with the Business School as 4630.

Business Studies 2675. The Law and Business of Patents
Catalog Number: 2113
Joshua Lerner (Business School) and William W. Fisher (Law School)
Half course (fall term). Tu., W., 4–5:30. EXAM GROUP: 9, 18
In-depth examination of selected aspects of the theory, business, and practice of patents. Topics include cross-licensing, alliances, strategic use of litigation, patent pools and standard-setting organizations, and the roles of patents in specific industries. The pedagogy and the readings will be interdisciplinary—drawing on business-school case studies; legal case studies; and empirical

and theoretical economics.
Note: Offered jointly with the Business School as 4675 and the Law School as 41170-11.

Business Studies 2720. Economics of International Business
Catalog Number: 7141
Jordan I. Siegel
Half course (spring term). M., 4–6:30. EXAM GROUP: 9
Examines the micro-economic underpinnings of firm-level issues internationally. The first part consists theoretical and empirical issues. The second part examines the first part's analysis to a specific context.
Note: Offered jointly with the Business School as 4720.

Business Studies 2810. Business History Seminar
Catalog Number: 3157 Enrollment: Limited to 36.
Geoffrey Jones (Business School)
Half course (fall term). M., 3:15–5:15. EXAM GROUP: 8, 9
Topic to be announced.
Note: Offered jointly with the Business School as 4810.

Business Studies 2825. Innovation and Organizations
Catalog Number: 1002
Michael Tushman (Business School)
Half course (spring term). F., 8:30–11:30. EXAM GROUP: 1, 2, 3, 4
Explores the relations between innovation, organization designs, executive leadership, and organization evolution. Topics include innovation patterns as product/service classes evolve; relations between organization designs and innovation outcomes; and the role of senior teams in shaping organizational designs and organizational fate as product classes evolve.
Note: Offered jointly with the Business School as 4825.

Business Studies 2860. Race and Gender Relations in Organizations
Catalog Number: 1346
Robin J. Ely (Business School)
Half course (spring term). W., 2–4:30. EXAM GROUP: 7, 8, 9
Covers the nature of race, gender and identity; inequality; the impact of race, sex, and group composition on well-being and performance; the role of sexuality at work; and organizational change. Readings are drawn from the field of organizational behavior, law, sociology, psychology, comparative literature, economics, history, and political science.
Note: Offered jointly with the Business School as 4860.

Graduate Courses of Reading and Research

***Business Studies 3000. Direction of Doctoral Dissertations**
Catalog Number: 6863
Teresa M. Amabile (Business School) 1957, George P. Baker (Business School) 3834, Max H. Bazerman (Business School) 3835, John Y. Campbell 1230 (on leave 2004-05), Jerry R. Green 1539, J. Richard Hackman 1504, Paul M. Healy (Business School) 3838, Marco Iansiti

(Business School) 4272, H. T. Kung 3155, Joshua Lerner (Business School) 1601, Jay W. Lorsch (Business School) 2007, Peter V. Marsden 1797 (on leave fall term), Ariel Pakes 1774, Joel Podolny (Business School) 4483, Jan W. Rivkin (Business School) 4839, Alvin E. Roth (FAS, Business School) 564 (on leave spring term), Stefan Thomke (Business School) 4840, Michael Tushman (Business School) 4841, David M. Upton (Business School) 3913, and Daniel M. Wegner 3758

Cross-listed Courses

***Economics 2020a. Microeconomic Theory I**
***Economics 2020b. Microeconomic Theory II**
Economics 2040. Experimental Economics
[Economics 2056. Market Design]
Economics 2665. The Economics of Organizations Workshop
Economics 2670. Organizational Economics
Economics 2723. Asset Pricing I
Economics 2724 (formerly Economics 2424). Finance Theory in Continuous Time
Economics 2727. Topics in Empirical Corporate Finance
[Economics 2730. Asset Pricing II]
***Economics 3660hf. The Law, Economics, and Organizations Workshop**
***Psychology 2100. Research Methodology**
***Psychology 2650. Behavioral Approaches to Decision Making and Negotiation**
Sociology 224. Organizational Analysis: Seminar

Celtic Languages and Literatures

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Celtic Languages and Literatures

Patrick K. Ford, Margaret Brooks Robinson Professor of Celtic Languages and Literatures *(Chair)*
Tomás Ó Cathasaigh, Henry L. Shattuck Professor of Irish Studies *(Director of Graduate Studies)*
Timothy C. Correll, Lecturer on Celtic Languages and Literatures *(spring term only)*
Barbara L. Hillers, Assistant Professor of Celtic Languages and Literatures *(on leave 2004-05)*

Graduate students in the Faculty of Arts and Sciences may enroll in certain foreign language

courses for the grade of Satisfactory/Unsatisfactory. Students should consult with course heads to determine if a course is offered on that basis.

Primarily for Undergraduates

***Celtic 91r. Supervised Reading and Research**
Catalog Number: 1323
Members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Instruction and direction of reading on topics not treated in regular courses of instruction.

For Undergraduates and Graduates

Celtic 106. Folklore of Ireland
Catalog Number: 3966
Timothy Correll
Half course (spring term). M., W., (F.), at 1. EXAM GROUP: 6
Introduction to traditional, rural life in 19th-20th century Ireland. Explores historical, anthropological, and folkloristic approaches to the study of popular culture, including vernacular architecture, foodways, storytelling, supernatural beliefs, folk healing, rites-of-passage, and seasonal festivals.
Note: Expected to be omitted in 2005–06. All texts are read in English translation.

[Celtic 107. Early Irish History]
Catalog Number: 7976
Gene C. Haley
Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12
An introduction to the sources for the history of Ireland before 1167 AD. Through native annals, regnal lists, genealogies, laws, martyrologies, related literary and hagiographic works, pseudu-historical documents, and archaeological evidence, we examine the major social, political, military, religious, and cultural developments from roughly the third century AD to the eve of the Norman Invasion.
Note: Expected to be given in 2005–06. No knowledge of Irish required; all texts are read in English translation.

[Celtic 113. Gaelic Women's Poetry]
Catalog Number: 7517
Barbara L. Hillers
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
Explores the ways gender, genre, and tradition intersect in the poetic tradition of Gaelic Ireland and Scotland from the Middle Ages to today. After an excursion into early medieval literature, we focus on the work of women aristocrats, female genres of oral folk tradition, and contemporary poetry.
Note: Expected to be given in 2005–06. This course is of particular interest to students with a background in Irish or Scottish Gaelic, but no knowledge of either language is necessary. All texts are read in English translation.

[Celtic 114. Early Irish Historical Tales]
Catalog Number: 0781
Tomás Ó Cathasaigh
Half course (fall term). M., W., (F.), at 12. EXAM GROUP: 5
Introduction to early Irish story-material about legendary and historical persons and events. Attitudes to kingship and views of history in the tales are explored.
Note: Expected to be given in 2005–06. All texts are read in English translation.

[Celtic 124. Modern Irish Literature]
Catalog Number: 7084
Barbara L. Hillers
Half course (fall term). Wed., 3–5. EXAM GROUP: 8, 9
A survey of 20th-century prose and poetry in Irish, from its partisan beginnings to the work of acclaimed contemporary authors. We investigate a range of prose genres, focusing especially on the short story, and trace the development of poetry from the 1950s to today.
Note: Expected to be given in 2006–07. Knowledge of Irish helpful, but not required. All texts are read in English translation.

[Celtic 128. Introduction to Modern Welsh]
Catalog Number: 4148
Patrick K. Ford and others
Half course (fall term). M., W., F., at 10. EXAM GROUP: 3
Basic grammar, translation of simple contemporary Welsh writings, and practice of pronunciation and conversation.
Note: Expected to be given in 2005–06. It is suggested that this course be followed by Celtic 129r.

[Celtic 129r. Intermediate Modern Welsh]
Catalog Number: 4694
Patrick K. Ford and others
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
Further grammatical study, with continued pronunciation and conversation, and readings in contemporary Welsh literature.
Note: Expected to be given in 2005–06.
Prerequisite: Celtic 128 or permission of instructor.

[*Celtic 130. Introduction to Scottish Gaelic]
Catalog Number: 1846 Enrollment: Limited to 15.
Barbara L. Hillers and others
Half course (fall term). M., W., F., at 1. EXAM GROUP: 6
An introduction to the spoken and written language.
Note: Expected to be given in 2006–07. It is suggested that this course be followed by Celtic 131.

[*Celtic 131. Intermediate Scottish Gaelic]
Catalog Number: 4542 Enrollment: Limited to 15.

Barbara L. Hillers and others
Half course (spring term). M., W., F., at 1. EXAM GROUP: 6
A continuation of the fall term course.
Note: Expected to be given in 2006–07.
Prerequisite: Celtic 130 or equivalent.

***Celtic 132. Introduction to Modern Irish**
Catalog Number: 6725 Enrollment: Limited to 15.
Tomás Ó Cathasaigh and others
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Introduction to spoken and written Irish.
Note: It is suggested that this course be followed by Celtic 133r.

***Celtic 133r. Intermediate Modern Irish**
Catalog Number: 6689 Enrollment: Limited to 15.
Tomás Ó Cathasaigh and others
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
Development of oral competence and writing skills.
Prerequisite: Celtic 132 or permission of instructor.

[Celtic 138r. The Mabinogi]
Catalog Number: 6480
Patrick K. Ford
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
A study of the prose literature of medieval Wales, focusing on the Four Branches, the early Arthurian tales, and associated works. The class considers the texts as folklore, as myth, and as literature, especially addressing the ways in which assumptions about genre affect the reading produced. Supplemental readings address theoretical approaches to myth, folklore, and literature.
Note: Expected to be given in 2006–07. Knowledge of Welsh helpful but not required; all texts are read in English translation.

[Celtic 150. Celtic Paganism]
Catalog Number: 6589
Patrick K. Ford
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
A survey of the evidence relating to the beliefs, gods, cults, and druidic priest class of the pagan Celts, both continental and insular. Materials studied include the commentaries of Greek and Roman ethnographers, the archaeological record, and, in particular, the writings of the early Irish and Welsh themselves.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3686. All texts are read in English translation.

[Celtic 160. Advanced Modern Irish]
Catalog Number: 0704
Barbara L. Hillers
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4

Geared to the interests and aptitudes of the participants, this course enhances students' confidence in using Irish as a medium of oral and written communication and introduces them to the Gaelic literary tradition.
Note: Expected to be given in 2007–08. It is suggested that this course be followed by Celtic 161.
Prerequisite: Celtic 133r or permission of instructor.

[Celtic 161. Continuing Advanced Modern Irish]
Catalog Number: 4421
Barbara L. Hillers
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
Continuation of the fall term course.
Note: Expected to be given in 2007–08.
Prerequisite: Celtic 160 or permission of instructor.

Celtic 182. Modern Welsh Literature
Catalog Number: 1653
Patrick K. Ford
Half course (fall term). Tu., Th., at 11. EXAM GROUP: 13
Readings in major works of prose and poetry from the 18th to the 20th century, including William Williams (Pantycelyn), Ann Griffiths, R. Williams Parry, Waldo Williams, Daniel Owen, Kate Roberts, Caradog Pritchard, and T. Rowland Hughes.
Note: Expected to be omitted in 2005–06. All works read in Welsh. Discussion in English.

Celtic 184. The *Táin*
Catalog Number: 2150
Tomás Ó Cathasaigh
Half course (fall term). M., W., (F.), at 12. EXAM GROUP: 5
A study of the exuberant Irish prose epic *Táin Bó Cuailnge* ('Cattle-Raid of Cooley').
Note: Expected to be omitted in 2005–06. Text read in English translation.

Cross-listed Courses

***English 90sl. The Romance of Scotland**
English 161m. 20th-Century Irish Literature
[Linguistics 158r. From Indo-European to Old Irish]
Literature and Arts A-68. Poets and Poetry in the Celtic Literary Tradition
[Literature and Arts C-20. The Hero of Irish Myth and Saga]
Literature and Arts C-22. European Culture in the Middle Ages
[Medieval Studies 101. The Auxiliary Disciplines of Medieval History: Proseminar]
[Scandinavian 160a. Old Norse Language, Literature, and Culture: The Viking Legacy]
[Scandinavian 160b. Old Norse Language, Literature, and Culture: Mythology]

Primarily for Graduates

[Celtic 200. Introduction to Old Irish]
Catalog Number: 8266
Tomás Ó Cathasaigh
Half course (fall term). M., W., F., at 2. EXAM GROUP: 7
An introduction to the language of the eighth and ninth centuries, with elementary readings in prose texts.
Note: Expected to be given in 2005–06. It is suggested that this course be followed by Celtic 201.

[Celtic 201. Continuing Old Irish]
Catalog Number: 6073
Tomás Ó Cathasaigh
Half course (spring term). M., W., F., at 2. EXAM GROUP: 7
Further grammatical study, with continued reading of saga texts.
Note: Expected to be given in 2005–06.
Prerequisite: Celtic 200 or permission of the instructor.

Celtic 204r. Readings in Early Irish Poetry
Catalog Number: 8493
Tomás Ó Cathasaigh
Half course (fall term). W., (F.), at 2, M., at 3. EXAM GROUP: 7
Readings in selected texts.
Note: Expected to be omitted in 2005–06.
Prerequisite: Celtic 200 or permission of the instructor.

Celtic 205r. Readings in Early Irish Prose
Catalog Number: 2705
Tomás Ó Cathasaigh
Half course (spring term). M., W., (F.), at 2. EXAM GROUP: 7
Readings in selected texts.
Note: Expected to be omitted in 2005–06.
Prerequisite: Celtic 200 or permission of the instructor.

Celtic 208. Early Irish Society
Catalog Number: 1359
Tomás Ó Cathasaigh
Half course (spring term). M., W., (F.), at 12. EXAM GROUP: 5
The institutional and conceptual framework of early Irish life. The evidence of the laws is considered in translation, and the literature is taken into account.
Note: Expected to be omitted in 2005–06.

[Celtic 222. Early Irish Manuscript Tradition]
Catalog Number: 1040
Barbara L. Hillers
Half course (spring term). F., 2–4. EXAM GROUP: 7, 8
An exploration of the contents and background of the most important manuscript codices, and a

practical introduction to Irish palaeography.
Note: Expected to be given in 2005–06.
Prerequisite: A knowledge of Irish and/or Latin is helpful.

Celtic 225a. Introduction to Middle Welsh
Catalog Number: 3960
Patrick K. Ford
Half course (fall term). Tu., Th., at 2. EXAM GROUP: 16
Introduction to the language, leading to the reading of Middle Welsh prose texts.
Note: Expected to be omitted in 2005–06. It is suggested that this course be followed by Celtic 225b.

Celtic 225b. Continuing Middle Welsh
Catalog Number: 4167
Patrick K. Ford
Half course (spring term). Tu., Th., at 2. EXAM GROUP: 16
Further grammatical studies with continued readings of Middle Welsh prose and poetry.
Note: Expected to be omitted in 2005–06.
Prerequisite: Celtic 225a or permission of instructor.

[Celtic 226r. Readings in Middle Welsh]
Catalog Number: 2796
Patrick K. Ford
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
Readings in the poems of Dafydd ap Gwilym.
Note: Expected to be given in 2005–06.
Prerequisite: Celtic 225b or permission of the instructor.

[Celtic 227. Welsh Bardic Poetry: Seminar]
Catalog Number: 2580
Patrick K. Ford
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Selected readings from the Poets of the Princes, with special attention to the historical development of the genre, the social organization of poets, and the bardic grammars.
Note: Expected to be given in 2006–07.
Prerequisite: Knowledge of Welsh or permission of the instructor.

[Celtic 230r. Sources for Medieval Welsh Culture and Society]
Catalog Number: 3511
Patrick K. Ford
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
Readings in the chronicle of Elis Gruffydd. Ancillary sources, such as the Welsh *Brutiau* and genealogies, may be used as well.
Note: Expected to be given in 2006–07.
Prerequisite: Knowledge of Middle Welsh or permission of the instructor.

Graduate Courses of Reading and Research

***Celtic 300. Reading and Research**
Catalog Number: 5614
Patrick K. Ford 2921, Barbara L. Hillers (on leave 2004-05) 3342, Tomás Ó Cathasaigh 1224, and Timothy Correll (spring term only) 4978

***Celtic 305. Preparation of Doctoral Dissertation**
Catalog Number: 0375
Patrick K. Ford 2921, Barbara L. Hillers (on leave 2004-05) 3342, and Tomás Ó Cathasaigh 1224

Chemical Physics

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on the Degree of Doctor of Philosophy in Chemical Physics

Eric J. Heller, Professor of Chemistry and Physics *(Chair) (on leave 2004-05)*
Xiaoliang Sunney Xie, Professor of Chemistry *(Acting Chair)*
John M. Doyle, Professor of Physics
Roy G. Gordon, Thomas Dudley Cabot Professor of Chemistry
Eugene I. Shakhnovich, Professor of Chemistry and Chemical Biology
Xiaowei Zhuang, Assistant Professor of Chemistry and Chemical Biology and of Physics

Other Faculty Offering Instruction in Chemical Physics

Alexander Dalgarno, Phillips Professor of Astronomy
Cynthia M. Friend, Theodore William Richards Professor of Chemistry and Professor of Materials Science
Charles M. Lieber, Mark Hyman, Jr. Professor of Chemistry
Eric Mazur, Gordon McKay Professor of Applied Physics and Professor of Physics
Michael B. McElroy, Gilbert Butler Professor of Environmental Studies
Isaac F. Silvera, Thomas D. Cabot Professor of the Natural Sciences
Patrick Thaddeus, Robert Wheeler Willson Professor of Applied Astronomy *(on leave spring term)*

The degree of Doctor of Philosophy in Chemical Physics is offered to students with undergraduate education in chemistry or physics. It provides a program of study and research in joint areas of physics and chemistry. The Committee in Chemical Physics serves to aid students

interested in chemical physics plan their program of graduate studies. The program of research leading to the PhD may be carried out under the direction of members of the departments of Chemistry, Physics, Astronomy, and the Division of Engineeering and Applied Sciences who have interests in chemical physics. Specific information may be obtained from any member of the committee and from the Department of Chemistry Information Office.

Chemistry and Chemical Biology

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Chemistry and Chemical Biology

Cynthia M. Friend, Theodore William Richards Professor of Chemistry and Professor of Materials Science *(Chair)*
James G. Anderson, Philip S. Weld Professor of Atmospheric Chemistry *(on leave spring term)*
David A. Evans, Abbott and James Lawrence Professor of Chemistry
Roy G. Gordon, Thomas Dudley Cabot Professor of Chemistry
Eric J. Heller, Professor of Chemistry and Physics *(on leave 2004-05)*
Richard H. Holm, Higgins Professor of Chemistry
Eric N. Jacobsen, Sheldon Emery Professor of Chemistry *(Director of Undergraduate Studies)*
Daniel E. Kahne, Professor of Chemistry and Chemical Biology
Frank N. Keutsch, Lecturer on Chemistry and Chemical Biology
Jeremy R. Knowles, Harvard University Distinguished Service Professor and Amory Houghton Professor of Chemistry and Biochemistry
Charles M. Lieber, Mark Hyman, Jr. Professor of Chemistry
David R. Liu, John L. Loeb Associate Professor of the Natural Sciences, Professor of Chemistry and Chemical Biology
Gavin MacBeath, Assistant Professor of Chemistry and Chemical Biology
Andrew G. Myers, Professor of Chemistry and Chemical Biology *(Director of Graduate Studies) (on leave fall term)*
Hongkun Park, Professor of Chemistry and Chemical Biology
Garry Procter, Lecturer on Chemistry and Chemical Biology
Stuart L. Schreiber, Morris Loeb Professor of Chemistry
Matthew D. Shair, Professor of Chemistry and Chemical Biology
Eugene I. Shakhnovich, Professor of Chemistry and Chemical Biology
Richard J. Staples, Lecturer on Chemistry and Chemical Biology
Gregory C. Tucci, Lecturer on Chemistry and Chemical Biology *(Assistant Director of Undergraduate Studies)*

Gregory L. Verdine, Harvard College Professor and Erving Professor of Chemistry
M.-Christina White, Assistant Professor of Chemistry and Chemical Biology
George M. Whitesides, Woodford L. and Ann A. Flowers University Professor
Xiaoliang Sunney Xie, Professor of Chemistry
Xiaowei Zhuang, Assistant Professor of Chemistry and Chemical Biology and of Physics

Other Faculty Offering Instruction in the Department of Chemistry and Chemical Biology

Dudley R. Herschbach, Frank B. Baird, Jr. Research Professor of Science
Yoshito Kishi, Morris Loeb Professor of Chemistry, Emeritus
William Klemperer, Erving Research Professor of Chemistry

Affiliates of the Department

Stephen C. Harrison, Higgins Professor of Biochemistry *(Medical School)*
David R. Nelson, Mallinckrodt Professor of Physics and Professor of Applied Physics *(on leave 2004-05)*
Suzanne Walker, Professor of Microbiology and Molecular Genetics *(Medical School)*

Depending on their prior preparation, students will choose one of three possible entries to studies in this Department. Students with typical high school backgrounds or with no previous study of chemistry should enroll in Chemistry 5 and 7; students with a strong background in chemistry should enroll in Chemistry 15; students with outstanding chemical preparation may enroll at once in Chemistry 17 or 20. Most well prepared students who wish to pursue honors level concentration in chemistry or closely allied fields will elect the (15)+20+30+60+135 track. Others who start with 5+7+17+27 may join the other track by taking 135 and 15. Most students of life sciences, especially those preparing for medical school, will take 5+7 or 15 followed by 17 and 27. Students may not take both Chemistry 17 and 20 for credit. Since there is little or no overlap in content between Chemistry 27 and 30, students interested in a strong background in both bio-organic and theoretical organic chemistry may take both courses.

Certain courses in biochemistry and biophysics are listed under Molecular and Cellular Biology or Biophysics (see cross-listings at end of middle group course section.) The Division of Engineering and Applied Sciences, the Department of Physics, and the Department of Earth and Planetary Sciences also list a number of courses of interest to chemists.

Primarily for Undergraduates

Because of the sequence of prerequisites for chemistry courses, the Department strongly recommends some work in mathematics as well as chemistry in the first year. Freshmen contemplating this program are urged to consult a member of the Chemistry Department in planning their work for the first year. Advice may be obtained in the Assistant Director of Undergraduate Studies' Office, Science Center 114.

Chemistry 5. Introduction to Principles of Chemistry
Catalog Number: 7171
Charles M. Lieber and Xiaoliang Sunney Xie

Half course (fall term). M., W., F., at 9, an hour weekly discussion, and three hours of laboratory weekly. EXAM GROUP: 2
Introduction to the structure and properties of atoms, molecules, and ions, stoichiometry; thermochemistry; electronic structure of atoms; periodic properties of the elements; chemical bonding; molecular geometry and bonding theories; gases; intermolecular forces, liquids, and solids; properties of solutions.
Note: Chemistry 5–7 is the mainstream general chemistry sequence for students with typical high school chemistry backgrounds (one year) or for students with no previous study of chemistry. Calculus is not necessary for Chemistry 5, but a strong background in high school algebra is essential. Students who lack this algebra background should take Math Ar or Math Xa before attempting Chemistry 5. Students with very strong high school chemistry backgrounds may enroll instead in Chemistry 15, 17, or 20; see those course descriptions for details. This course, when taken for a letter grade, meets the Core area requirement for Science A.

Chemistry 7. Principles of Chemistry
Catalog Number: 5118
Hongkun Park and Xiaowei Zhuang
Half course (spring term). M., W., F., at 9, one hour per week of discussion, and three hours per week of laboratory. EXAM GROUP: 2
Evolution of the elements; nuclear chemistry; rates and mechanisms of chemical reactions; chemical kinetics; chemical equilibrium; acids and bases; additional aspects of aqueous equilibria; instrumental analysis; chemistry of the environment; chemical thermodynamics; electrochemistry; modern materials; chemistry of the nonmetals; metals and metallurgy; chemistry of coordination compounds; the chemistry of life.
Note: This course, when taken for a letter grade, meets the Core area requirement for Science A.
Prerequisite: Chemistry 5 or equivalent, in particular: chemical equilibrium, the first and second law of thermodynamics, and elements of acid-base chemistry. A few simple operations of the calculus are developed and used. Fluency in precalculus secondary school mathematics is assumed. Exposure to secondary school physics will be helpful.

Chemistry 15. Inorganic Chemistry
Catalog Number: 5025
Richard H. Holm
Half course (fall term). M., W., F., at 9, and a discussion section, and laboratory work averaging four hours a week, to be arranged. EXAM GROUP: 2
The origins of the elements; synthesis, bonding, thermodynamics and reactivity of inorganic compounds and solids. Case studies of industrial, environmental and biological processes will be used to illustrate the principles of inorganic chemistry. Laboratory: an introduction to inorganic synthesis, analysis and reactions.
Note: Chemistry 15 may not be counted toward a degree in addition to the former Chemistry 40. This course, when taken for a letter grade, meets the Core area requirement for Science A.
Prerequisite: Open to students with strong secondary school courses in chemistry, physics and mathematics, and who are currently enrolled in Mathematics 1a (or equivalent preparation). To be admitted to Chemistry 15, students must obtain a satisfactory score on the Harvard Chemistry Placement Examination, given during the freshman week, or must obtain permission of the instructor. Students who do not take this examination or do not achieve a satisfactory score

should take Chemistry 5 and 7. Chemistry 15 may be counted toward a degree in addition to Chemistry 5, 7 or 10.

Chemistry 17. Principles of Organic Chemistry
Catalog Number: 5085
Eric N. Jacobsen
Half course (fall term). M., W., F., at 11, and a discussion section to be arranged. EXAM GROUP: 4
An introduction to structure, bonding, and reaction mechanisms of organic compounds; chemical transformation of the common functional groups; principles of organic synthesis.
Note: The Chemistry 17/27 sequence is intended primarily for students in the life sciences, whereas the 20/30 sequence is intended primarily for Chemistry concentrators and other students concentrating in the physical sciences. Either sequence satisfies the organic chemistry requirement for medical school. Students may not count both Chemistry 17 and Chemistry 20 for degree credit. On the other hand, Chemistry 27 and Chemistry 30 cover different material, so students may choose to take both courses for degree credit; students should ordinarily take the third half course only after completing either the 17/27 or 20/30 sequence. This course, when taken for a letter grade, meets the Core area requirement for Science A.
Prerequisite: Open to freshmen with a score of 750 or higher in the College Boards or the Chemistry Placement Examination; to students who scored 4 or 5 on the Chemistry Advanced Placement Examination; and to students who achieved a grade of B or higher in either Chemistry 7, 10, or 15. Others may enter only by permission of the instructor.

Chemistry 20. Organic Chemistry
Catalog Number: 0876
Garry Procter
Half course (spring term). M., W., F., at 9, and a discussion section to be arranged. EXAM GROUP: 2
An introduction to structure and bonding in organic molecules; mechanisms of organic reactions; chemical transformations of the functional groups of organic chemistry; synthesis; determination of chemical structures: infrared and NMR spectroscopy.
Note: The Chemistry 17/27 sequence is intended primarily for students in the life sciences, whereas the 20/30 sequence is intended primarily for Chemistry concentrators and other students concentrating in the physical sciences. Either sequence satisfies the organic chemistry requirement for medical school. The content of Chemistry 17 is similar to that of Chemistry 20, so students may not count both courses toward the degree. On the other hand, Chemistry 27 and Chemistry 30 cover different material, so students may choose to take both courses for degree credit; students should ordinarily take the third half course only after completing either the 17/27 or 20/30 sequence. This course, when taken for a letter grade, meets the Core area requirement for Science A.
Prerequisite: Open to freshmen with a score higher than 750 in the College Boards or the Chemistry Placement Examination; to students who scored 5 on the Chemistry Advanced Placement Examination; and to students who achieved a grade of B or higher in either Chemistry 7, 10, or 15. Others may enter only by permission of the instructor.

Chemistry 27. Organic Chemistry of Life
Catalog Number: 5978
Gavin MacBeath
Half course (spring term). M., W., F., at 11, and a discussion section, and a five hour laboratory each week, to be arranged. EXAM GROUP: 4
Chemical principles that govern the processes driving living systems are illustrated with examples drawn from biochemistry, cell biology, and medicine. The course deals with organic chemical reactivity (reaction mechanisms, structure-reactivity relationships), with matters specifically relevant to the life sciences (chemistry of proteins, nucleic acids, drugs, natural products, cofactors, signal transduction), and with applications of chemical biology to medicine and biotechnology. An understanding of organic reactions and their "arrow pushing" mechanisms is required.
Note: Chemistry 27 and 30 may both be taken for degree credit. See note for Chemistry 17. This course, when taken for a letter grade, meets the Core area requirement for Science A.
Prerequisite: Chemistry 17 or Chemistry 30 or Chemistry 20 with permission of the instructor.

Chemistry 30. Organic Chemistry
Catalog Number: 6587
David A. Evans
Half course (fall term). Lectures M., W., F., at 9, and laboratory, four to six hours a week, to be arranged. EXAM GROUP: 2
Continuation of Chemistry 20. Fundamental principles and advanced topics in organic chemistry. Carbonyl chemistry and pericyclic reactions are covered in particular detail, using principles of stereochemistry, stereoelectronic theory, and molecular orbital theory as a foundation. Students learn about strategies in multi-step organic synthesis and are introduced to biologically important classes of compounds including alkaloids, carbohydrates, peptides, and nucleic acids.
Laboratory: an introduction to organic chemistry laboratory techniques and experimental organic synthesis.
Note: See note for Chemistry 17. This course, when taken for a letter grade, meets the Core area requirement for Science A.
Prerequisite: Chemistry 20 or equivalent.

Chemistry 60. Foundations of Physical Chemistry
Catalog Number: 5181
Roy G. Gordon
Half course (spring term). W., F., 1:30–3. EXAM GROUP: 6, 7
A compact introduction to major principles of physical chemistry (chemical kinetics, thermodynamics, and statistical mechanics), concurrently providing mathematical and physical foundations for these subjects and mathematical preparation for Chemistry 160 and 161, or Chemistry 105.
Prerequisite: Chemistry 5, 7 or 15 or equivalent; completion or concurrent enrollment in Mathematics 21a or Applied Mathematics 21a; completion or concurrent enrollment in Physics 11a or equivalent.

***Chemistry 91r. Introduction to Research**
Catalog Number: 4366

Eric N. Jacobsen, Gregory C. Tucci and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Reading and/or laboratory work related to one of the research projects under way in the department.
Note: Open to a limited number of chemistry concentrators who are accepted as research students without having taken Chemistry 98. Written permission of the sponsor must be filed at the Office of the Assistant Director of Undergraduate Studies in Chemistry. Any student enrolling in this course must register the name of his or her research mentor with the course head and Prof. Jacobsen's or Dr. Tucci's signature must appear on each student's study card.

***Chemistry 98r. Introduction to Research—Junior Year**
Catalog Number: 3124
Eric N. Jacobsen, Gregory C. Tucci and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Research under the direction of, or approved by, a member of the faculty of the Department of Chemistry.
Note: Open with permission of the instructor to junior chemistry majors who have satisfactorily completed the non-credit *Introduction to Research Tutorial* in the spring term of the sophomore year. In that non-credit spring term tutorial, taught Tu., Th., 1–2:30, students will attend introductory lectures and research seminars in order to acquaint themselves with departmental research programs. In the junior year, students who complete the non-credit tutorial and obtain placement in a research laboratory will undertake research as Chemistry 98r. Written permission of the research adviser must be filed at the office of the Assistant Director of Undergraduate Studies in Chemistry. Any student enrolling in this course must register the name of his or her research mentor with the course head and Prof. Jacobsen's or Dr. Tucci's signature must appear on each student's study card.

***Chemistry 99r. Tutorial—Senior Year**
Catalog Number: 4508
Eric N. Jacobsen, Gregory C. Tucci and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Research under the direction of, or approved by, a member of the faculty of the Department of Chemistry.
Note: Open to seniors accredited by the Department as honors candidates. Students enrolled in Chem 99r have the option of writing a thesis. Written permission of the research adviser must be filed at the office of the Assistant Director of Undergraduate Studies in Chemistry. Any student enrolling in this course must register the name of his or her research mentor with the course head and Prof. Jacobsen's or Dr. Tucci's signature must appear on each student's study card.

Cross-listed Courses

Biological Sciences 52. Introductory Molecular Biology
[Earth and Planetary Sciences 107. Environmental Geochemistry]
Earth and Planetary Sciences 133. Atmospheric Chemistry
[Engineering Sciences 168. Aquatic Chemistry]
***Freshman Seminar 22e. Molecular Motors and Pumps**

***Freshman Seminar 22j. Seeing by Spectroscopy**
***Freshman Seminar 23p. When Antibiotics Fail: From Sore Throats to Tuberculosis to Anthrax**
MCB 176. Biochemistry of Membranes

For Undergraduates and Graduates

Chemistry 105. Mechanisms of Organic Reactions: Physical-Organic Chemistry
Catalog Number: 3181
George M. Whitesides
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
The study of the relation between structure of carbon compounds and their reactivity and properties. Thermodynamics, electronic structure, reaction mechanisms, reactive intermediates, catalysis, structure-reactivity relations, influence of solvents on reactivity.
Prerequisite: Chemistry 20 and 30, and Chem 60 or MCB 61 with a grade of B- or better (Chem 60 and MCB 61 can be taken concurrently) or an equivalent introductory physical chemistry course.

Chemistry 135. Experimental Synthetic Chemistry
Catalog Number: 3406 Enrollment: Limited to 45. Preference given to concentrators in Chemistry, Biochemical Sciences, and Biology, in that order.
Garry Procter
Half course (spring term). Lectures M., at 1, and laboratory, eight to nine hours a week, Tu., 2–10 p.m., W., 1–9 p.m., or Th., 2–10 p.m. EXAM GROUP: 6
An introduction to experimental problems encountered in the synthesis, isolation, purification, characterization, and identification of inorganic and organic compounds. Each student works on a different sequence of reactions chosen to encourage the development of technical proficiency and to simulate actual research.
Note: Recommended as an efficient preparation for research in experimental inorganic and organic chemistry and related sciences such as biochemistry and pharmacology. Normally follows Chemistry 27 or 30 and is strongly recommended as preparation for Chemistry 98 and 99.

[Chemistry 154. Crystal Symmetry, Diffraction, and Structure Analysis]
Catalog Number: 8873
Richard J. Staples
Half course (spring term). Hours to be arranged.
Theory of the internal symmetry and arrangement of atoms in crystals; development and use of space groups. Geometrical and physical aspects of the diffraction process, with emphasis on comprehensive interpretation of x-ray diffraction effects from single crystals. Methods of crystal structure analysis. Laboratory includes searching and utilizing the CSD database, as well as the data collection and crystal structure solution of a new single crystal.
Note: Expected to be given in 2005–06.
Prerequisite: Familiarity with atomic structure, basic symmetry principles, linear algebra, and electromagnetic waves.

Chemistry 158. Materials Chemistry
Catalog Number: 7504
Charles M. Lieber and Hongkun Park
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A survey of current materials research. Topics include: synthesis of bulk, thin film, and nanoscale materials; electronic structure and conduction in materials; optical properties of materials; structure-property relationship; tools for materials research.
Note: Primarily for advanced undergraduates and graduates.
Prerequisite: Chemistry 15 or equivalent.

Chemistry 160. Physical Chemistry
Catalog Number: 3420
Charles B. Musgrave
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An introduction to modern theories of the structure of matter, including the principles of quantum mechanics, the electronic structure of atoms and molecules, chemical bonding, and atomic and molecular spectra.
Prerequisite: Applied Mathematics 21a and 21b, Mathematics 21a and 21b, or equivalent preparation in calculus and differential equations; one full course in physics (with an honor grade, if in Physics 1); Chemistry 15 or equivalent.

Chemistry 161. Statistical Thermodynamics
Catalog Number: 3575
Eugene I. Shakhnovich
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
An introduction to statistical mechanics, thermodynamics, and chemical kinetics with applications to problems in chemistry.
Prerequisite: Chemistry 160 and Applied Mathematics 21a, or equivalent.

Chemistry 163. Frontiers in Biophysics
Catalog Number: 3635
Xiaoliang Sunney Xie and Xiaowei Zhuang
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
In recent years, emerging physical tools have changed the way biological problems are addressed. This interdisciplinary course will introduce new experimental advances, microscopy and spectroscopy in particular, together with underlying principles, in the fields of molecular and cellular biophysics.
Note: Primarily for advanced undergraduate students and graduate students with either biological or physical backgrounds.

Chemistry 165. Experimental Physical Chemistry
Catalog Number: 0667
Frank N. Keutsch
Half course (spring term). Lectures: F., 1–2:30; laboratories M., or Tu., 1–5. EXAM GROUP: 6, 7
Introduction to methods and techniques used in physical chemistry/chemical physics research

laboratories. Nine of eleven laboratory assignments involve experiments conducted in current CCB Research Groups: molecular beams; mass spectrometry; Fourier transform infrared and NMR spectroscopies; laser ablation; laser spectroscopy; cavity ring-down spectroscopy; scanning tunneling and atomic force microscopy; kinetics. Computer-based methods of data acquisition and analysis are used throughout.
Note: Recommended as an efficient preparation for research in experimental physical chemistry/chemical physics and related sciences.
Prerequisite: Chemistry 160 or Physics 143a.

Cross-listed Courses

[Biophysics 164r. Molecular Biophysics and Biophysical Chemistry: Theory and Simulation of Macromolecules]
Earth and Planetary Sciences 137. Biogeochemistry

Primarily for Graduates

***Chemistry 206. Advanced Organic Chemistry**
Catalog Number: 1063
David A. Evans
Half course (fall term). M., W., F., at 1. EXAM GROUP: 6
A discussion of the important classes of organic reactions will be presented. Topics include rearrangements, cycloadditions, carbonyl additions, and enolate-based transformations. An introduction to FMO theory and stereoelectronic effects will be provided.
Prerequisite: Chemistry 30 or permission of instructor.

***Chemistry 215 (formerly Chemistry 115). Advanced Organic Chemistry: Synthesis of Complex Molecules**
Catalog Number: 0480
Matthew D. Shair
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An integrated course in complex synthetic problem solving that focuses on the development of principles and strategies for synthesis design with a concurrent, comprehensive review of modern synthetic transformations.
Prerequisite: Chemistry 105 or a grade of A in Chemistry 30.

***Chemistry 242. Quantum Mechanics I**
Catalog Number: 2971
Eugene I. Shakhnovich
Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Principles of quantum mechanics, particle in a potential well, identical particles, angular momentum, time-independent perturbation theory, chemical bonding in molecules.
Prerequisite: Chemistry 160 or Physics 143, Physics 11 or 12, and Applied Mathematics 105a and 105b, or Mathematics 21, or equivalent.

[*Chemistry 250 (formerly Chemistry 150). Inorganic Chemistry II. Transition Elements]
Catalog Number: 6491
Richard H. Holm
Half course (spring term). Hours to be arranged.
An introduction to the chemistry of the transition elements and bioinorganic chemistry. Topics include electronic structure, physical methods, stereochemistry, kinetics, and mechanisms of inorganic reactions. Liberal use will be made of elementary group theory and quantum chemistry.
Note: Expected to be given in 2005–06.
Prerequisite: Chemistry 15 or 160, or permission of the instructor.

***Chemistry 253 (formerly Chemistry 153). Organotransition Metal Chemistry**
Catalog Number: 1848
M.-Christina White
Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11
An introduction to transition metal-mediated chemistry. Topics include organometallic and bioinorganic reaction mechanisms. Particular emphasis is placed on the development of homogeneous catalysts and synthetic mimics of metallo-enzymes, and on their applications in organic synthesis.
Note: Primarily for graduate students and advanced undergraduates in chemistry.
Prerequisite: Chemistry 30 or permission of instructor.

[*Chemistry 280 (formerly Chemistry 180). Macromolecular Structure and Function]
Catalog Number: 6449
Gregory L. Verdine
Half course (fall term). Hours to be arranged.
Explores the relationship between the structure and function of biological macromolecules. Emphasis is placed on the chemical principles governing recognition and catalysis in biological systems, using examples drawn from the scientific literature.
Note: Expected to be given in 2006–07.

***Chemistry 285. Human Disease: Molecular Etiology and Mechanistic Pharmacology**
Catalog Number: 4005
Gregory L. Verdine
Half course (fall term). W., 2–5. EXAM GROUP: 7, 8, 9
Focuses on the causation and treatment of human disease from a primarily mechanistic, structural and chemical point of view. Lectures will provide the background for in-class talks given by prominent outside speakers.
Prerequisite: Chemistry 20/30 or 17/27 or equivalent. Biological Sciences 52 or equivalent.

Cross-listed Courses

Applied Physics 291. Electron Microscopy Laboratory
Biophysics 242r. Special Topics in Biophysics
Earth and Planetary Sciences 200. Atmospheric Chemistry and Physics

Engineering Sciences 268. Environmental Chemical Kinetics
[Physics 218. Modern Dynamical Systems]

Graduate Courses of Reading and Research

A student intending to elect one of the following research courses should consult the instructor as far in advance as possible.

***Chemistry 300. Research and Reading**
Catalog Number: 6307
Members of the Department
Individual work under the supervision of members of the Department.

***Chemistry 301. Inorganic Chemistry**
Catalog Number: 3748
Richard H. Holm 7015

***Chemistry 302. Organometallic Chemistry**
Catalog Number: 1413
Eric N. Jacobsen 1040

***Chemistry 303. Organic Chemistry**
Catalog Number: 1043
David A. Evans 7774

***Chemistry 304. Theoretical Atomic, Molecular, and Chemical Physics**
Catalog Number: 0532
Eric J. Heller 1074 (on leave 2004-05)

***Chemistry 311. Physical Chemistry**
Catalog Number: 2640
Charles M. Lieber 3102

***Chemistry 313. Organic Chemistry**
Catalog Number: 0183
Yoshito Kishi 3852

***Chemistry 315. Photochemistry and Kinetics**
Catalog Number: 5964
James G. Anderson 6057 (on leave spring term)

***Chemistry 318. Organic Chemistry**
Catalog Number: 4295
George M. Whitesides 7447

***Chemistry 323. Organic Chemistry**
Catalog Number: 2477
Stuart L. Schreiber 2166

***Chemistry 325. Physical Chemistry**
Catalog Number: 8530
Cynthia M. Friend 7446

***Chemistry 331. Chemical Biology**
Catalog Number: 1408
Gregory L. Verdine 1980

***Chemistry 336. Physical and Inorganic Chemistry and Materials Science**
Catalog Number: 5266
Roy G. Gordon 1353

***Chemistry 350. Theoretical Physical Chemistry**
Catalog Number: 8285
Eugene I. Shakhnovich 3147

***Chemistry 387. Organic Chemistry**
Catalog Number: 4674
Matthew D. Shair 2280

***Chemistry 388. Organic Chemistry**
Catalog Number: 1979
Andrew G. Myers 8278 (on leave fall term)

***Chemistry 389. Physical Chemistry**
Catalog Number: 5111
Xiaoliang Sunney Xie 2290

***Chemistry 390. Organic Chemistry and Chemical Biology**
Catalog Number: 7469
David R. Liu 2717

***Chemistry 391. Physical Chemistry**
Catalog Number: 9897
Hongkun Park 2485

***Chemistry 393. Physical Chemistry**
Catalog Number: 1273
Xiaowei Zhuang 3991

***Chemistry 394. Chemical Biology and Proteomics**
Catalog Number: 8697
Gavin MacBeath 4347

***Chemistry 395. Organometallic Chemistry**
Catalog Number: 7447
M.-Christina White 3273

***Chemistry 396. Organic Chemistry**
Catalog Number: 2293
Daniel E. Kahne 5065

***Chemistry 397. Organic Chemistry**
Catalog Number: 3972
Suzanne Walker (Medical School) 5087

The Classics

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of the Classics

Richard F. Thomas, Professor of Greek and Latin *(Chair)*
Carmen Arnold-Biucchi, Lecturer on the Classics
Kathleen M. Coleman, Harvard College Professor and Professor of Latin *(Director of Graduate Studies)*
John Duffy, Dumbarton Oaks Professor of Byzantine Philology and Literature
Susanne Ebbinghaus, Lecturer on the Classics
Albert Henrichs, Eliot Professor of Greek Literature
Christopher P. Jones, George Martin Lane Professor of the Classics and of History
Christopher B. Krebs, Assistant Professor of the Classics
Nino Luraghi, Professor of the Classics *(spring term only)*
David G. Mitten, James Loeb Professor of Classical Art and Archaeology
Gregory Nagy, Francis Jones Professor of Classical Greek Literature and Professor of Comparative Literature
Jeremy Rau, Assistant Professor of Classics and Linguistics
Betsey A. Robinson, Assistant Professor of the Classics and of History of Art and Architecture
Eric W. Robinson, Associate Professor of the Classics and of History *(on leave fall term)*
Panagiotis Roilos, Associate Professor of Modern Greek
Mark Schiefsky, Assistant Professor of the Classics *(Director of Undergraduate Studies)*

Francesca Schironi, Assistant Professor of the Classics
Gisela Striker, Walter C. Klein Professor of Philosophy and of the Classics
R. J. Tarrant, Pope Professor of the Latin Language and Literature *(on leave fall term)*
Benjamin Tipping, Assistant Professor of the Classics
Jan Ziolkowski, Arthur Kingsley Porter Professor of Medieval Latin

Other Faculty Offering Instruction in the Department of the Classics

Gloria Ferrari Pinney, Research Professor of Classical Archaeology and Art
Calvert Watkins, Victor S. Thomas Professor of Linguistics and the Classics, Emeritus

Information about requirements for undergraduate and graduate degrees, honors, prizes, and scholarships may be obtained at the office of the Department, Boylston Hall 204. Graduate students in the Faculty of Arts and Sciences may enroll in certain foreign language courses for the grade of Satisfactory/Unsatisfactory. Students should consult with course heads or the department's website (www.fas.harvard.edu/~classics) to determine if a course is offered on that basis.

Classics

Primarily for Undergraduates

***Classics 93r. Advanced Tutorial for Credit**
Catalog Number: 0511
Mark Schiefsky and assistants
Half course (fall term; repeated spring term). Hours to be arranged.
Tutorial instruction for course credit open to candidates for honors who are qualified to do special reading projects in Greek and/or Latin.
Note: May be counted for concentration.

***Classics 97a. Tutorial—Sophomore Year**
Catalog Number: 3965
Francesca Schironi
Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12
A study of Greek culture and civilization from the Mycenaean to the Hellenistic age. Key works of literature, history, and philosophy as well as archaeological and artistic evidence will be used in order to analyse Greek culture, religion, and society, and their development in the course of the centuries.

***Classics 97b. Tutorial—Sophomore Year**
Catalog Number: 4839
Christopher B. Krebs
Half course (spring term). Tu., Th., at 9. EXAM GROUP: 11
The Roman world: introduction to its history, literature, art and archaeology, from its beginnings to the fourth century CE. Two lectures and discussion section each week.

***Classics 98r. Tutorial — Junior Year**
Catalog Number: 6100
Mark Schiefsky and assistants
Half course (fall term; repeated spring term). Tu., 1–4. EXAM GROUP: 15, 16, 17
Fall Term Topic: Seneca's letters. Selected readings from Seneca's *Epistulae Morales* and *Lucilium* with attention to both philosophical and literary content. Primary readings in Latin, supplementary materials in English. Students will be expected to undertake a substantial research presentation culminating in a final paper. *Spring Term Topic*: Responses to War. This course aims to examine literary responses to war in the Archaic and Classical periods. The course will proceed chronologically, moving from the Trojan War to the Peloponnesian War. We will investigate historical realia, theTrojan War as a model for later conceptualizations of war, the transition from heroic to democratic warfare, and the breakdown of moral values during wartime.
Note: May be counted for concentration.

***Classics 99. Tutorial — Senior Year**
Catalog Number: 2350
Mark Schiefsky
Full course. Hours to be arranged.
Tutorial instruction for course credit (in addition to ordinary tutorial instruction) is open only to candidates for honors writing a thesis in their senior year whose applications for such instruction have been approved by the Director of Undergraduate Studies.
Note: May be counted for concentration. Divisible only with permission of the Director of Undergraduate Studies.

For Undergraduates and Graduates

Classics 193. Roman Epic
Catalog Number: 7648
Benjamin Tipping
Half course (fall term). Tu., Th., at 11. EXAM GROUP: 13
A study of epic responses to Virgil's *Aeneid*, Ovid's *Metamorphoses* and Lucan's *De bello civili*, with a focus on ways in which the later works both subtly deviate from the Virgilian 'model' and challenge its stability as an epic paradigm.

Seminars

Primarily for Graduates

Classics 244. Greek Epigraphy
Catalog Number: 1773
Christopher P. Jones
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
The study of Greek inscriptions, with particular attention to royal letters of the Hellenistic period.

Classics 263. Homer
Catalog Number: 8655

Gregory Nagy
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
A survey of the mechanics as well as the esthetics of Homeric poetry. Critical reassessments of the textual tradition, the reception, and the oral traditional poetic background. Close scrutiny of selected passages.

Classics 274. Greek Numismatics II
Catalog Number: 5293
Carmen Arnold-Biucchi
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
Introduction to the coinages and to the economy of the Hellenistic kingdoms, from Philip II to Cleopatra; emphasis on methodology, use of numismatic evidence for archaeologists and ancient historians, interpretation of coins as artworks and historical documents, uses the Harvard collections.

Classics 277. Latin Palaeography
Catalog Number: 0186
R. J. Tarrant
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
The evolution of Latin script from antiquity to the rise of print, with emphasis on periods and types of script important for the transmission of classical Latin literature.

Classics 278. Exemplary Romans
Catalog Number: 6815
Benjamin Tipping
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
An introduction to the many and varied mechanisms by which Ancient Romans produced and promoted a key aspect of their culture: exemplars. The focus will be on the treatment of exemplary figures in two written genres, epic and historiography.

Classics 279. Pastoral
Catalog Number: 5100
Richard F. Thomas
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Exploration of Theocritus' *Idylls* and Virgil's *Eclogues*, and of the reception and transformation of pastoral in later Latin and other European and American literature. Consideration of intertextuality, pastoral as a genre, pastoral and politics, the intersection of pastoral with georgic or other didactic traditions.

Classics 280. Scholarship, Grammar, and Exegesis in Antiquity
Catalog Number: 7378
Francesca Schironi
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
An introduction to ancient grammar and scholarship, with special emphasis on text-editors and exegetes in antiquity. Selected passages by grammarians and critics of both the Greek and

Roman worlds will be studied in order to understand how the ancients analyzed their language and read their own literature.

Cross-listed Courses

Celtic 205r. Readings in Early Irish Prose
Comparative Literature 145. Dreams and Literature
[Comparative Literature 149. Irony]
***Comparative Literature 207. Theory and Methods in Comparative Oral Traditions: Seminar**
***Comparative Literature 280. Literary Theory and Criticism in the Middle Ages: Seminar**
[*Comparative Literature 287r. Selected Topics in Poetics and Rhetoric: Seminar]
German 142 (formerly German 242). Germany and the Greeks: Philhellenism from Winckelmann to Heidegger
Historical Study B-04. Ancient Greek Democracy
Historical Study B-06. The Roman Games
Historical Study B-09. The Christian Revolution
History 10a. Western Societies, Politics, and Cultures: From Antiquity to 1650
[*History 90i. Major Themes in Ancient History]
[History 1085. The Roman Empire, Augustus to Constantine]
[History 1092. The Emperor Hadrian: Conference Course]
[History of Art and Architecture 13k. Introduction to Roman Art and Architecture]
History of Art and Architecture 101. The Materials of Art
[History of Art and Architecture 130. Topography and Monuments of Ancient Rome]
History of Art and Architecture 133. Greek Architecture and Urbanism
[Jewish Studies 125 (formerly History 1091). Jewish History in the Second and Post-Temple Period]
Literature and Arts A-68. Poets and Poetry in the Celtic Literary Tradition
Literature and Arts B-21. The Images of Alexander the Great
Literature and Arts C-14. Concepts of the Hero in Greek Civilization
Literature and Arts C-22. European Culture in the Middle Ages
[Literature and Arts C-61. The Rome of Augustus]
[Medieval Studies 117. Constitutional and Legal History of Medieval England]
Philosophy 7. Introduction to Ancient Philosophy
Philosophy 101. Plato
[Philosophy 102. Aristotle]
Philosophy 105. Ancient Theories of Mind
Philosophy 111. Epistemology After Aristotle
***Philosophy 205. Aristotle's Theories of Reasoning: Seminar**
Religion 2348ab. Archaeology and the World of the New Testament: Seminar

Graduate Courses of Reading and Research

***Classics 300. Direction of Doctoral Dissertations**
Catalog Number: 4543
Richard F. Thomas 1630, Kathleen M. Coleman 2289, John Duffy 1352, Albert Henrichs 4085,

Christopher P. Jones 3204, Christopher B. Krebs 4877, Nino Luraghi 2408 (spring term only), David G. Mitten 1290, Gregory Nagy 1423, Gloria Ferrari Pinney 1384, Jeremy Rau 4657, Betsey A. Robinson 4361, Eric W. Robinson 2724 (on leave fall term), Panagiotis Roilos 1982, Mark Schiefsky 2354, Francesca Schironi 4878, Gisela Striker 2271, R. J. Tarrant 7503 (on leave fall term), Benjamin Tipping 4875, Calvert Watkins 2553, and Jan Ziolkowski 7275

***Classics 301. Reading or Topics Course**
Catalog Number: 3457
Richard F. Thomas 1630, Kathleen M. Coleman 2289, John Duffy 1352, Albert Henrichs 4085, Christopher P. Jones 3204, Christopher B. Krebs 4877, Nino Luraghi 2408 (spring term only), David G. Mitten 1290, Gregory Nagy 1423, Jeremy Rau 4657, Betsey A. Robinson 4361, Eric W. Robinson 2724 (on leave fall term), Panagiotis Roilos 1982, Mark Schiefsky 2354, Francesca Schironi 4878, Gisela Striker 2271, R. J. Tarrant 7503 (on leave fall term), Benjamin Tipping 4875, and Jan Ziolkowski 7275
Note: For graduate students whose individual needs are not met by the formal courses offered.

***Classics 302. Special Examinations Direction**
Catalog Number: 2686
Richard F. Thomas 1630, Kathleen M. Coleman 2289, John Duffy 1352, Albert Henrichs 4085, Christopher P. Jones 3204, Christopher B. Krebs 4877, Nino Luraghi 2408 (spring term only), David G. Mitten 1290, Gregory Nagy 1423, Jeremy Rau 4657, Betsey A. Robinson 4361, Eric W. Robinson 2724 (on leave fall term), Panagiotis Roilos 1982, Mark Schiefsky 2354, Francesca Schironi 4878, Gisela Striker 2271, R. J. Tarrant 7503 (on leave fall term), Benjamin Tipping 4875, and Jan Ziolkowski 7275

***Classics 350. Classical Philology: Proseminar**
Catalog Number: 4026
Kathleen M. Coleman 2289
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
Designed to introduce graduate students in Classical Philology to the essential fields, tools, and methodologies of the discipline.
Note: For first-year students working toward the PhD in Classical Philology. Open to other students by permission of instructor.

Greek

Students who have studied classical Greek previously should register at the Department of the Classics, Boylston Hall 204, to take the Harvard placement test in Greek during Freshman Week. Further information on placement in Greek and on the language requirement is available from the Director of Undergraduate Studies.

Primarily for Undergraduates

Greek A. Beginning Greek
Catalog Number: 0129

Ivy Livingston
Half course (fall term). Section I and II: M., W., Th., F., at 9; and Section III: M., W., Th., F., at 11. EXAM GROUP: 2, 11
Elements of the Greek language and introductory readings.

Greek Aab. Beginning Greek (Intensive)
Catalog Number: 0714
Ivy Livingston
Full course (spring term). M. through F., at 9, M., at 1. EXAM GROUP: 2, 11
For students with little or no previous instruction in Greek who are seriously interested in making quick progress in the language. Covers all basic grammar and considerable practice in reading prose. Students are prepared for Greek 3 or 4.

Greek B. Beginning Greek
Catalog Number: 0457
Ivy Livingston
Half course (spring term). Sections M., W., Th., F., at 9, or 11. EXAM GROUP: 2, 11
Continuation of Greek A. Extensive reading in Attic prose.
Prerequisite: Greek A or equivalent.

Greek 3. Introduction to Attic Prose
Catalog Number: 4696
Ivy Livingston
Half course (fall term). M., W., F., at 1; M., W., F., at 12. EXAM GROUP: 6
Selections from several authors, mainly of narrative and dialogue, to be read both as an introduction to the variety of Greek styles and for practice in translation and review of grammar.
Prerequisite: Greek B or equivalent.

Greek 4. Selections from Homer's *Iliad*
Catalog Number: 3361
Ivy Livingston
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
An introduction to Homeric poetry: language, meter, formulae, and type scenes.
Prerequisite: Greek 3 or equivalent.

For Undergraduates and Graduates

Greek H. Introductory Greek Prose Composition
Catalog Number: 6323
Ivy Livingston
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Practice in the translation of sentences and connected prose passages into Attic Greek; review of forms and syntax; readings of selections from prose authors.
Prerequisite: Greek 3 or equivalent.

Greek K. Advanced Greek Prose Composition
Catalog Number: 4171
Albert Henrichs
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Composition in the prose style of various authors and genres, with selected readings representing the development of Greek prose and its analysis by scholars, ancient and modern.
Prerequisite: Greek H or equivalent.

Greek 104. Herodotus
Catalog Number: 6340
Eric W. Robinson
Half course (spring term). Tu., Th., at 12. EXAM GROUP: 14
An introduction to Herodotus' *Histories*, considering matters literary and historical, to include the author's dialect, style, concept of history, portrayals of Greeks and non-Greeks, and trustworthiness as a recorder of events. Substantial selections in Greek, with the entire *Histories* to be read in English.

Greek 106. Greek Tragedy
Catalog Number: 6274
Francesca Schironi
Half course (fall term). Tu., Th., at 11. EXAM GROUP: 13
The genre of tragedy: its origin, development, and features. Reading of extensive selections (in translation) from the three major tragedians, Aeschylus, Sophocles, and Euripides. Aeschylus' *Agamemnon* and Euripides' *Bacchae* will be read in Greek, with a special emphasis on the language, poetics, meaning, and performance aspects of these two plays.

Greek 107. Thucydides
Catalog Number: 8281
Nino Luraghi
Half course (spring term). Tu., Th., at 1. EXAM GROUP: 15
An introduction, combining detailed study of Thucydides' style and rhetorical technique with attention to his sources and methods of composition. The entire *History* read in English; selections in Greek from the prefatory material, the speeches in Books I–III, the debates over Mytilene and Melos, and the narrative of the Sicilian disaster.

Greek 110r. Plato
Catalog Number: 6229
Mark Schiefsky
Half course (fall term). M., W., at 1. EXAM GROUP: 6
Close reading and discussion of the *Euthydemus* and *Hippias Major*.

[Greek 112a. History of Greek Literature I]
Catalog Number: 3052

Half course (fall term). Hours to be arranged.
We have two (interdependent) aims: the first is to present the literature of Archaic and early

Classical Greece (from Homer to Aeschylus) in its social and poetic context; the second is to encourage a careful reading of the texts with particular attention to issues of genre, narrative, performance, imagery, and myth.
Note: Expected to be given in 2005–06.

[Greek 112b. History of Greek Literature II]
Catalog Number: 6889
Gregory Nagy
Half course (spring term). M., W., F., at 11, and a weekly section to be arranged. EXAM GROUP: 4
The 5th century and beyond: Sophocles, Euripides, historiography, comedy, philosophy, oratory, and Hellenistic poetry.
Note: Expected to be given in 2005–06.

Greek 114. Homer's *The Iliad*
Catalog Number: 5042
Francesca Schironi
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
An analysis of the *Iliad*, with a close reading of *Iliad* 1, 9, 22 and 24. Emphasis will be laid on three major areas; first, on Homeric diction, literary technique, and the nature of oral poetry; second, on the heroic world and its values; third, on the influence of Homer in the history of Greek civilization.

Greek 128. Aristotle's *Poetics*
Catalog Number: 1966
Gisela Striker
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
A close study of Aristotle's *Poetics* with special attention to Aristotle's views on tragedy and his - largely implicit - disagreements with Plato.

[Greek 134. The Language of Homer]
Catalog Number: 5139
Jeremy Rau
Half course (fall term). Hours to be arranged.
Essentials of Greek comparative and historical grammar, and a close reading of *Iliad* 1 and 3. Diachronic aspects of Homeric grammar and diction.
Note: Expected to be given in 2005–06.

Greek 185. Greek Literary Papyri
Catalog Number: 7007
Albert Henrichs
Half course (fall term). Tu., Th., at 9. EXAM GROUP: 11
The reading, dating, and editing of Greek literary papyri, and the contribution of papyrology to Greek literature from Homer to the Second Sophistic, with particular attention to lyric poetry, the satyr play, and the novel.

Cross-listed Courses

German 142 (formerly German 242). Germany and the Greeks: Philhellenism from Winckelmann to Heidegger

Primarily for Graduates

Greek 201. Reading Greek
Catalog Number: 1968
Albert Henrichs
Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12
Readings of Greek prose and poetry ranging from archaic to imperial, with emphasis on variety, quantity, and quick comprehension of syntactic, stylistic, and generic features.

Latin

Students who have studied Latin previously and have not taken the Advanced Placement Test should register at the Office of Instructional Research and Evaluation (20 Garden Street) to take the Harvard Latin Placement Test during Freshman Week. No one who has studied one year or more of Latin will be admitted to Latin A without taking the placement test. Further information on placement in Latin and the language requirement is available from the Director of Undergraduate Studies in Classics (Boylston Hall 231), or the Freshman Dean's Office.

Primarily for Undergraduates

Latin A. Beginning Latin
Catalog Number: 4759
Ivy Livingston
Half course (fall term). Sections M., W., Th., F., at 9 or 11. EXAM GROUP: 2, 11
Intended for students who wish to learn, or reacquaint themselves with, the basic elements of the Latin language. Reading of sentences and very brief passages from Latin authors.

Latin Aab. Beginning Latin (Intensive)
Catalog Number: 7111
Ivy Livingston and assistants
Full course (fall term; repeated spring term). M. through F., at 10, M., at 1. EXAM GROUP: 3, 12
For students with little or no previous instruction in Latin who are seriously interested in making quick progress in the language. Covers all basic grammar and considerable practice in reading prose. Students are prepared for Latin 4.

Latin B. Beginning Latin
Catalog Number: 2101
Ivy Livingston
Half course (spring term). Section I: M., W., Th., F., at 9; Section II: M., W., Th., F., at 11.

EXAM GROUP: 2, 11
Continuation of Latin A. Completion of basic grammar and introduction to reading of connected texts.

Latin 3. Latin Prose Selections (Classical)
Catalog Number: 2344
Ivy Livingston
Half course (fall term). M., W., F., at 10; M., W., F., at 10. EXAM GROUP: 3
A bridge between the study of Latin grammar and the reading of prose authors. The readings are short selections from a variety of genres by authors such as Cicero, Pliny, Nepos, Sallust, and Petronius.
Note: Latin 3 and Latin 3m are intended to be equivalent in difficulty and to require identical background (Latin A and B or the equivalent). Students may take either 3 or 3m for degree credit; they are not allowed to take both courses simultaneously or consecutively.

Latin 3m. Latin Prose Selections (Medieval)
Catalog Number: 7123
Jan Ziolkowski and assistant
Half course (fall term). M., W., F., at 10. EXAM GROUP: 3
Begins with a review of fundamentals. Aims at increased facility in reading Latin, through a study of selected post-classical prose texts and authors such as the Vulgate Bible, Augustine, and Abelard.
Note: Latin 3 and Latin 3m are intended to be equivalent in difficulty and to require identical background (Latin A and B or the equivalent). Students may take either 3 or 3m for degree credit; they are not allowed to take both courses simultaneously or consecutively.

Latin 4. Introduction to Latin Poetry
Catalog Number: 2488
Ivy Livingston
Half course (spring term). M., W., F., at 10 and a weekly section to be arranged. EXAM GROUP: 3
Selections mainly from Ovid and Virgil.

For Undergraduates and Graduates

Latin H. Introductory Latin Prose Composition
Catalog Number: 3814
Christopher B. Krebs
Half course (fall term). Tu., Th., at 9. EXAM GROUP: 11
Practice of translation of easy prose passages into Ciceronian Latin. Systematic review of Latin syntax. Close reading of selected passages of Cicero's Caesarian speeches, with special attention to idioms and figures of speech and thought.
Prerequisite: Latin 3 or equivalent.

[Latin K. Advanced Latin Prose Composition]
Catalog Number: 5018

Richard F. Thomas
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Exercise in the prose style of different authors and periods, working within various subject-areas and genres. As a guide to composition, we will read and analyze illustrative passages from major authors including Cato, Cicero, Sallust, Livy, Seneca, and Tacitus, as well as some distinctive styles in lesser-known authors; we will also consult discussions of rhetoric and prose style by theorists such as Cicero, Seneca, and Quintilian.
Note: Expected to be given in 2005–06.

Latin 104. Ovid's *Metamorphoses*
Catalog Number: 5189
R. J. Tarrant
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
Ovid's witty, exuberant, and learned epic of change and mortality encompasses the history of the world from its creation to the apotheosis of Julius Caesar. This course examines the work's shaping of narrative and myth, its generic multiformity (embracing tragic, elegiac, comic, and pastoral motifs, as well as epic), and its equally complex vision of human existence.

Latin 107. Lucretius' *De Rerum Natura*
Catalog Number: 4960
Gisela Striker
Half course (fall term). M., W., F., at 12. EXAM GROUP: 5
We will read selected passages from the *De Rerum Natura* in Latin on the background of a reading of the whole work in English. The focus will be mainly on the Epicurean message of liberation from fear and anxiety.

Latin 109. Lucan's *De Bello Civili*
Catalog Number: 2672
Benjamin Tipping
Half course (spring term). Hours to be arranged.
Reading of Lucan's *De bello civili*, with a focus on its central figures, Caesar, Pompey, and Cato, and on the relationship between its poetics and its politics.

Latin 112a. History of Latin Literature I
Catalog Number: 7099
Richard F. Thomas
Half course (fall term). M., W., F., at 11; and a weekly section to be arranged. EXAM GROUP: 4
The literature of the Republic and early Augustan period. Reading of extensive selections from the major authors, with lectures and discussion on the evolution and development of Latin prose and poetry. The course focuses on a variety of issues: Latin individuality through manipulation of inherited Greek forms, metrical and stylistic developments, evolving poetics, intertextuality and genre renewal, dynamic effects of social and political contexts.

Latin 112b. History of Latin Literature II
Catalog Number: 7643

Benjamin Tipping
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
Readings from the literature of the early Empire, with a focus on developments in genre, intertextuality, and socio-political context.

Latin 115a (formerly Latin 115). Tacitus
Catalog Number: 7536
Christopher B. Krebs
Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12
Introduction to Tacitus' work and time. Reading of his entire work in translation, of selected passages in the original, with special attention to his style. We will proceed chronologically, addressing thematic questions including Tacitus' motivation to write history, the problem of free speech, Tacitus' artful (mis)representation of characters. Participants will be more than welcome to make further suggestions.

Latin 116. Roman Historiography
Catalog Number: 1398
Christopher B. Krebs
Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12
Roman historiography of the republic. Its origins, literary models and development of sub-genres: from its beginnings to Livy.

Latin 134. Archaic Latin
Catalog Number: 1327
Jeremy Rau
Half course (fall term). Tu., Th., at 11. EXAM GROUP: 13
Essentials of Latin comparative and historical grammar, with readings of early Latin inscriptions, legal texts, and selections from Livius Andronicus, Plautus, Ennius, and Cato.

Latin 160. Plautus
Catalog Number: 7723
Jeremy Rau
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
Reading and discussion of Plautus' *Miles Gloriosus* and *Menaechmi*, with special attention to the language and meter of the plays.

Primarily for Graduates

Latin 201. Reading Latin
Catalog Number: 7642
R. J. Tarrant
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
Readings of Latin prose and poetry ranging from archaic to imperial, with emphasis on variety, quantity, and quick comprehension of syntactic, stylistic, and generic features.

Medieval Greek

For Undergraduates and Graduates

Medieval Greek 115ar. Introduction to Byzantine Greek
Catalog Number: 7682
John Duffy
Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12
Introduces the student to medieval Greek language and literature and, through selected readings, to important elements of Byzantine culture and society. Texts chosen from different genres and periods to reflect the great diversity of Byzantine life and letters. Types of literature will include: devotional reading, biographies, chronicles, sacred and secular poetry, letters, ecphraseis, scholarly writings, and histories. Choice of readings will correspond in part to the specific interests and needs of the participants.
Prerequisite: Greek A and B or equivalent.

[Medieval Greek 120. Readings in the Cappadocian Fathers]
Catalog Number: 3786
John Duffy
Half course (spring term). Hours to be arranged.
Close reading of selections from the Christian "classics" of the fourth century: Basil of Caesarea, Gregory of Nazianzos, and Gregory of Nyssa. A guiding motif will be Hellenic paideia and Christian culture.
Note: Expected to be given in 2005–06.
Prerequisite: Three terms of Classical or Medieval Greek, or equivalent.

Medieval Greek 125. Byzantine Religious Tales
Catalog Number: 3317
John Duffy
Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12
Reading a selection from the corpus of Byzantine religious tales and legends, including some that went on to have fruitful careers in Medieval Latin and other languages. Examples: The Jewish Boy Legend; The Sinner's Vision; The Drunken Nun; Boys Celebrating the Eucharist; The Heretical Businessman.

[Medieval Greek 185. Workshop in Greek Paleography]
Catalog Number: 3271
John Duffy
Half course (fall term). Hours to be arranged.
A practical introduction to medieval Greek handwriting and manuscripts, tracing the main developments of Greek scripts from the uncial of fourth century texts to scholarly hands of the 16th century. Special emphasis on practical skills. Participants will learn to distinguish the major styles of handwriting, to recognize the most common abbreviations and ligatures, and to read with some facility minuscule hands, especially those of the 11th-16th century. Manuscripts of Classical, Christian, and Byzantine authors explored.
Note: Expected to be given in 2005–06.

Cross Listed Courses

Modern Greek 204. Satire and Parody in the Greek Tradition from Lucian to Skatablattas
[Religion 2426. Editing Greek Christian Literature: Seminar]

Medieval Latin

For Undergraduates and Graduates

Medieval Latin 120. Wisdom and Learning
Catalog Number: 4019
Jan Ziolkowski
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
Examines literature in which earthly wisdom and book learning are contrasted or conflated. Explores interaction among biblical, classical, and native (especially Germanic and Celtic) traditions of wisdom. Works include *Solomon and Marcolf*, mirrors for princes, proverbs, and question-and-answer dialogues.
Note: No prior experience with Medieval Latin necessary.

Medieval Latin 150. Abelard and Heloise
Catalog Number: 3240
Jan Ziolkowski
Half course (fall term). Tu., Th., at 12. EXAM GROUP: 14
Studies a 12th-century couple whose lives and writings left lasting marks on European culture. Besides selections from personal correspondence, examines parts of the *Sic et non* and Abelard's ethical writings, hymns, and lament poems. Close reading of Abelard's letters to correspondents other than Heloise. Considers reputation of Abelard and Heloise in later centuries.
Note: No prior experience with Medieval Latin necessary.

Cross-listed Courses

***Comparative Literature 280. Literary Theory and Criticism in the Middle Ages: Seminar**
Latin 3m. Latin Prose Selections (Medieval)
Literature and Arts C-22. European Culture in the Middle Ages

Classical Archaeology

For Undergraduates and Graduates

Classical Archaeology 97r. Classical Archaeology
Catalog Number: 3132
Betsey A. Robinson and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Tutorial instruction for candidates in Classical Archaeology. Letter graded.

Classical Archaeology 100. Introduction to Classical Archaeology
Catalog Number: 9954
Betsey A. Robinson

Half course (spring term). M., W., at 11. EXAM GROUP: 4
An overview of the materials, methods, history, and theory of classical archaeology. We will study sites, surveys, excavation, and interpretation, working from general principles of stratigraphy and seriation to specialized topics in art history, structural analysis, topography, epigraphy, numismatics, etc. Sessions on history and theory will introduce major sites, both terrestrial and underwater, and consider the current state of classical archaeology and its relationships with allied disciplines. No prerequisites.

[Classical Archaeology 131. Introduction to Greek Art and Archaeology, ca. 1200-300 BCE]
Catalog Number: 0835
David G. Mitten
Half course (spring term). Hours to be arranged.
The origins and development of Greek architecture, sculpture, and painting; the growth of cities and sanctuaries; religious, mythological, and narrative art, including monumental painting, mosaics, and vase painting. The development of archaeological research in Greek lands; current problems, such as the nature of Greek relationships with non-Greek peoples, and the Macedonian tombs. Readings, short papers on original works of art in Boston area museums, and a research paper.
Note: Expected to be given in 2005–06.

Classical Archaeology 150. Greek Sculpture
Catalog Number: 1759
Susanne Ebbinghaus
Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12
Greek sculpture embodies Classical art. This course examines prominent examples of ancient statuary and architectural sculpture from the first monumental works in stone to the art of imperial Athens and the monuments created for foreign rulers in the Hellenistic period and, ultimately, in Rome. Using archaeological and literary evidence, we will examine contexts of creating and viewing, copying and imitating, and attempt to disentangle ancient from modern notions of Greek sculptural representation.

Classical Archaeology 151. Ancient Landscapes
Catalog Number: 0641
Betsey A. Robinson
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
In search of ancient Mediterranean landscapes, we range from city to countryside, and from garden grottoes to sacred mountains. From classical Greece through the Roman imperial period, we explore human responses to the natural world through studies in art and literature, archaeology and cultural geography. Topics include pictorial landscapes and multi-media installations, modes of representation (e.g. allegorical vs. documentary), and intersections between real and imagined landscapes, geography, and tourism.

[Classical Archaeology 154. Cities of the Roman East]
Catalog Number: 4199
Betsey A. Robinson

Half course (fall term). Hours to be arranged.
An exploration of cities, sanctuaries, and monuments of the eastern Roman empire, from Asia Minor to Arabia. Site-surveys and case-studies trace the evolution of major centers (e.g. Ephesos, Antioch, Jerusalem, Palmyra), examine the interplay between imported and indigenous building-forms, and plumb the depth of provincial Romanitas. Topics include public and private architecture and decorative arts, expressions of ethnic and urban identity, issues of patronage, and questions of continuity across temporal and spatial boundaries.
Note: Expected to be given in 2005–06.

[Classical Archaeology 160. Vase-painting and Iconography]
Catalog Number: 7289
David G. Mitten
Half course (spring term). Hours to be arranged.
The painted vases constitute a rich body of evidence for the study of the history, art, and culture of ancient Greece. Historians and archaeologists rely on ceramics to establish dates and to chart contacts in the Mediterranean. For the art historian the vases open a window on the development of the visual arts. Most importantly, they preserve thousands of figural representations, which are invaluable sources of knowledge for the conceptual universe of the society that produced them.
Note: Expected to be given in 2005–06.

[Classical Archaeology 180. Coinage, Politics, and Economy in the Greek World]
Catalog Number: 1746
David G. Mitten
Half course (spring term). Hours to be arranged.
The development and use of Greek coinage surveyed in connection with its impact upon the political, social, and economic life of the Greek states down to the consolidation of Roman rule in the eastern Mediterranean region. The importance of Greek coins as evidence for historical, religious, artistic, social, and archaeological problems in Greek civilization is emphasized. As circumstances permit, coins from the Fogg Art Museum collection will serve as research material.
Note: Expected to be given in 2005–06.
Prerequisite: Some previous work in classical literature, archaeology or ancient history.

Primarily for Graduates

Classical Archaeology 242. Greek Funerary Art
Catalog Number: 0715
David G. Mitten
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
In this seminar, we shall examine different kinds of Greek funerary art and what they can tell us about Greek attitudes toward life, the family, the gods and death, as well as Greek cultural, social, aesthetic, and economic values.

[Classical Archaeology 256. Greeks and Persians]
Catalog Number: 4229
David G. Mitten

Half course (fall term). Hours to be arranged.
Achaemenian Persian art and kingship. Pasargadae, Persepolis, Athens. The Persian Wars in Greek and Persian sources. Greek-Persian interactions and influences from Cyrus to Alexander. Persians as "the other".
Note: Expected to be given in 2005–06.

Classical Archaeology 257. Roman Mosaics
Catalog Number: 4700
Kathleen M. Coleman
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
Examines the techniques, context, and function of mosaic decoration in the Roman world, with special attention to major themes in the mosaic repertoire in Italy and the Roman provinces from the Republic to late Antiquity.

Cross-listed Courses

History of Art and Architecture 101. The Materials of Art
History of Art and Architecture 133. Greek Architecture and Urbanism
Religion 2348ab. Archaeology and the World of the New Testament: Seminar

Graduate Course of Reading and Research

***Classical Archaeology 351 (formerly *Classics 351). Classical Archaeology Proseminar**
Catalog Number: 5073
Kathleen M. Coleman 2289
Half course (fall term). Hours to be arranged.
Designed to introduce graduate students in Classical Archaeology to the essential fields, tools, and methodologies of the discipline.
Note: For first-year students working toward the PhD in Classical Archaeology. Open to other students by permission of the instructor.

Modern Greek

For Undergraduates and Graduates

Modern Greek A. Elementary Modern Greek
Catalog Number: 8604
Panagiotis Roilos and assistant
Full course. M., W., F., at 10, and an additional hour for conversation. Laboratory, both terms. EXAM GROUP: 3
For students with no knowledge of modern Greek. Basic oral expression, listening comprehension, grammar, reading, and writing. Language instruction is supplemented by reading of simple literary passages and other texts.

Modern Greek B. Intermediate Modern Greek: Language and Civilization
Catalog Number: 8187

Panagiotis Roilos and assistant
Full course. M., W., F., at 11. EXAM GROUP: 4
Aims at further development of skills in speaking, comprehension, reading, and writing. Selected readings in prose (literary and journalistic), poetry, folksongs, modern music, and theatre serve as an introduction to aspects of modern Greek literature and culture. The second term is conducted in Greek and focuses on topics selected by the instructor and the students in the first term. Grammar is reviewed in the context of readings.
Prerequisite: An elementary knowledge of modern Greek (equivalent to that of Modern Greek A).

***Modern Greek 100. Advanced Modern Greek: Introduction to Modern Greek Literature**
Catalog Number: 8487
Panagiotis Roilos
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
Close literary and linguistic analysis of selected readings in prose, theatre, poetry, and folksongs.
Note: Conducted in Greek. Students must have completed Modern Greek B or equivalent and must have permission of the instructor.

Primarily for Graduates

Modern Greek 200. Exploring Modernism: The Poetry of C.P. Cavafy and G. Seferis
Catalog Number: 1973
Panagiotis Roilos
Half course (spring term). M., 4–6. EXAM GROUP: 9
Explores the ways in which Cavafy and Seferis responded to modernist aesthetics and constructed their personal poetic mythology. Topics include: tradition and modernism, nostalgia and memory, poetics and desire.

[Modern Greek 201. Imagining the Ancients: The Classical Tradition in Modern Greek Literature]
Catalog Number: 9636
Panagiotis Roilos
Half course (spring term). Hours to be arranged.
Explores the ways in which classical tradition has been manipulated in 19th and 20th century Greek literature and has contributed to the formation of modern Greek literary canon.
Note: Expected to be given in 2005–06.

Modern Greek 204. Satire and Parody in the Greek Tradition from Lucian to Skatablattas
Catalog Number: 9378
John Duffy and Panagiotis Roilos
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Studies the variety of satirical and comic modes in Greek literature (Lucianic dialogue, parody, diatribe, satirical fiction) and their development from Late Antiquity to Late Byzantium.
Note: Qualified undergraduates welcome; knowledge of Greek, while desirable, is not a prerequisite.

Cross-listed Courses

Comparative Literature 145. Dreams and Literature
[Comparative Literature 149. Irony]

Comparative Literature

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Comparative Literature

William Mills Todd III, Harvard College Professor, Harry Tuchman Levin Professor of Literature, and Professor of Comparative Literature *(Chair)*
Svetlana Boym, Curt Hugo Reisinger Professor of Slavic Languages and Literatures and Professor of Comparative Literature
Joaquim-Francisco Coelho, Nancy Clark Smith Professor of the Language and Literature of Portugal and Professor of Comparative Literature
James Engell, Gurney Professor of English Literature and Professor of Comparative Literature
Luis M. Girón Negrón, John L. Loeb Associate Professor of the Humanities
John T. Hamilton, Assistant Professor of Comparative Literature and of Germanic Languages and Literatures
Christopher D. Johnson, Assistant Professor of Comparative Literature and of Literature
Despina Kakoudaki, Assistant Professor of Visual and Environmental Studies and of Comparative Literature
Gregory Nagy, Francis Jones Professor of Classical Greek Literature and Professor of Comparative Literature
Stephen Owen, James Bryant Conant University Professor
Judith Ryan, Robert K. and Dale J. Weary Professor of German and Comparative Literature
Marc Shell, Irving Babbitt Professor of Comparative Literature and Professor of English
Werner Sollors, Henry B. and Anne M. Cabot Professor of English Literature and Professor of African and African American Studies
Diana Sorensen, Professor of Romance Languages and Literatures and of Comparative Literature *(on leave spring term)*
Susan R. Suleiman, C. Douglas Dillon Professor of the Civilization of France and Professor of Comparative Literature
Ruth R. Wisse, Harvard College Professor, Martin Peretz Professor of Yiddish Literature, and Professor of Comparative Literature

Other Faculty Offering Instruction in the Department of Comparative Literature

George G. Grabowicz, Dmytro Cyzevs'kyj Professor of Ukrainian Literature
William E. Granara, Professor of the Practice of Arabic on the Gordon Gray Endowment
Karl S. Guthke, Kuno Francke Professor of German Art and Culture *(on leave fall term)*
Panagiotis Roilos, Associate Professor of Modern Greek
Jan Ziolkowski, Arthur Kingsley Porter Professor of Medieval Latin

This field is organized to facilitate the systematic study of subjects and problems common to the various literatures. Programs leading to the degrees of AM and PhD may, with the approval of the Department, be undertaken by properly qualified graduate students. Though undergraduates may not concentrate in Comparative Literature, their attention is called to the Literature Concentration, to History and Literature, to the Classics and allied fields, and to options in the concentration in English and American Literature and Language. The courses listed below are designed to supplement the offerings of other departments in ancient and modern languages and related fields, including the Literature and Arts courses in the Core Curriculum.

For Undergraduates and Graduates

[Comparative Literature 111. From Type to Self in the Middle Ages]
Catalog Number: 9245
Luis M. Girón Negrón
Half course (spring term). Hours to be arranged.
Examines self-representation and the emergence of the individual in selected first-person narratives and poems from medieval/early modern Europe. Examples drawn from spiritual autobiographies (Augustine, Margery Kempe, Teresa of Avila), letter collections (Heloise and Abelard), *maqama* literature, troubadour lyric, Hispano-Jewish poetry (Solomon ibn Gabirol, Judah Halevi), pilgrimage narratives, medieval allegories, Dante, Spanish colonial historiography, and the picaresque novel.
Note: Expected to be given in 2005–06. All readings in English translation.

[Comparative Literature 112. Religion and Literature in the Middle Ages]
Catalog Number: 6579
Luis M. Girón Negrón
Half course (fall term). Hours to be arranged.
An introduction to religion as a cultural context for literary expression in the Middle Ages. Selected case studies on the following themes: poetry, prophecy and mysticism; Scriptural interpretation and allegorical fiction; dreams and visions of the other-world; Jews, Christians and Muslims; magic and astrology; miracle stories and medieval society; the philosophical tradition; ritual and theater, pilgrimage narratives; and saints and heroes as literary types.
Note: Expected to be given in 2005–06. All readings in English translation.

[Comparative Literature 135. Literature and the Visual Arts: Iconophilia and Iconoclasm]
Catalog Number: 2415
John T. Hamilton
Half course (fall term). Hours to be arranged.
Addresses literature's ambivalence toward image. Topics include ekphrasis, the erotics of vision, anti-ocularism, image-prohibition, Christian incarnation, emblems, hieroglyphs, *calligrammes*,

etc. Select texts from the European Baroque, French Symbolism, Modernism, and German Expressionism.
Note: Expected to be given in 2005–06.

Comparative Literature 145. Dreams and Literature
Catalog Number: 1446
Panagiotis Roilos
Half course (fall term). M., 4–6. EXAM GROUP: 9
Against the dual background of ancient and medieval commentaries on the one hand, and modern psychoanalytic and ethnographic studies on the other, diverse literary texts will be explored. The major focus will be on Greek literature, but examples from other European literatures will also be considered (including film). Major topics: typology of dreams; dreams as narratives; dreaming and writing; religious dimensions. Theoretical readings to include: Aristotle, Aelius Aristides, Artemidorus, Synesius of Cyrene; Freud, Jung, Levi-Strauss, Foucault, Lyotard.

Comparative Literature 148. Metaphor
Catalog Number: 6074
Christopher D. Johnson
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Explores the theory and practice of metaphor in literature, philosophy, and science. Topics include: the aesthetic, heuristic, and epistemological functions of metaphor; metaphor's relation to allegory, irony, and other "major tropes"; metaphor in lyric poetry. Theoretical readings include texts by Aristotle, Gracián, Jakobson, Lacan, Ricoeur, Blumenberg, Kofman, Derrida, de Man, and Kuhn.
Note: All readings will be available in translation, but students are encouraged to work in the original languages.

[Comparative Literature 149. Irony]
Catalog Number: 9984
Panagiotis Roilos
Half course (fall term). Hours to be arranged.
Explores major philosophical and aesthetic discourses on irony as well as literary manipulations of the trope in western European tradition. Topics discussed include irony and rhetoric, parody, laughter, irony, and the post-modern.
Note: Expected to be given in 2005–06.

[Comparative Literature 151. The Faust Legend in Literature]
Catalog Number: 6217
Karl S. Guthke
Half course (fall term). Hours to be arranged.
Important works in the Faust tradition, from the *Faustbuch* (1587) to the 20th century, with emphasis on Marlowe, Calderón, Lessing, Goethe, Byron, Berlioz, and Mann.
Note: Expected to be given in 2005–06. No reading knowledge of Spanish, French, or German required.

Comparative Literature 158. Turning the Century: Culture, Technology, and Representation, 1870-1910
Catalog Number: 9311
Despina Kakoudaki
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
This interdisciplinary class explores the rise of a culture of novelty in the period from 1870 to 1910. Focus on the emergence of new visual media such as photography and film, new ideas about the body and sexuality, and a new relationship to public space and consumer culture.

[Comparative Literature 160. Literary Forgeries and Mystifications]
Catalog Number: 3614
George G. Grabowicz
Half course (spring term). Hours to be arranged.
Examines literary forgeries and mystifications from the late 18th century to the present, focusing on their poetics, their ideological motivation and their role in modern political mythmaking (some texts considered: Ossian, The Igor Tale, the Czech manuscripts, the Protocols of the Elders of Zion, Ern Malley). Also considers the psychology and esthetics of simulation and mystification as reflected in the works of Gide, Borges, Nabokov, Pavic, Eco, and Calvino.
Note: Expected to be given in 2005–06. All readings in English.

Comparative Literature 161. The Modernist Movements, 1909-1939
Catalog Number: 2501
Judith Ryan
Half course (spring term). M., W., at 1, and one additional hour to be arranged. EXAM GROUP: 6
Experimental poetry. Major movements treated include Futurism, Expressionism, Dadaism, Surrealism. Special attention to the relation of literature and the visual arts. Authors: Marinetti, Pound, Eliot, Benn, Rilke, Stein, Schwitters, Supervielle, Eluard, and others.
Note: Knowledge of French or German helpful but not required.

[Comparative Literature 164. The 20th-Century Post-Realist Novel in Eastern Europe: Conference Course]
Catalog Number: 7762
George G. Grabowicz
Half course (spring term). Hours to be arranged.
Psychological, mythic, "catastrophist," and comic tendencies in the Eastern and Central European novel between the two World Wars (1918–1939). Focus on Kafka, Capek, Bulgakov, Schulz, Witkiewicz, Gombrowicz, and Nabokov.
Note: Expected to be given in 2005–06. All texts can be read in English translation.

Comparative Literature 165. The Holocaust and Problems of Representation
Catalog Number: 0577 Enrollment: Limited to 20.
Susan R. Suleiman
Half course (spring term). Th., 1:30–4; Tu., 7–9 p.m.; Tu., 6–10:30 p.m.; Tu., 6–10:30 p.m. EXAM GROUP: 15, 16, 17
Can the story of the Holocaust be told? Is there such a thing as "the story" of the Holocaust?

Who is authorized to tell it, and how? Do aesthetic categories apply to Holocaust art? Are some representations unacceptable? If so, why? We explore these and other questions raised by a wide range of works (oral and written testimonies, novels, essays, comic strips, documentary and feature films, poetry, monuments) produced from 1945 to the present in Europe, Israel, and the US.

Comparative Literature 166. The Comic Tradition in Jewish Culture
Catalog Number: 3418
Ruth R. Wisse
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
Jews are probably best known in America today for their roles in the Holocaust and in Humor. What, if anything, is the relation between these spheres? Does Jewish humor make fun of the Jews, or does it make fun of those who make fun of the Jews? Studies some of the theories and uses of Jewish humor, some of its leading practitioners and outstanding works. Invites comparison with other comic traditions and investigation of "national" humor.
Note: Readers of Yiddish may take this course as Yiddish 200.

[Comparative Literature 167. Contemporary Fiction: The Novel After Theory]
Catalog Number: 1808
Judith Ryan
Half course (fall term). Hours to be arranged.
Examines a series of novels from 1980 to the present that build consciously on recent literary and cultural theory. Also explores the relation of fictional narrative to history, social problems, and ideology. Authors treated include: Don DeLillo, Marguerite Duras, John Irving, David Malouf, Christoph Ransmayr, Patrick Süsskind, Graham Swift, and Christa Wolf. Theorists include: Barthes, Bhabha, Baudrillard, Derrida, Hassan, Lacan, and White.
Note: Expected to be given in 2005–06.

[*Comparative Literature 172 (formerly *Comparative Literature 269). Paralysis]
Catalog Number: 8517
Marc Shell
Half course (spring term). Hours to be arranged.
How does paralysis inform aesthetics? Part One focuses on speech paralysis (*Hamlet*), hysterical paralysis (*Broken Glass*), and paralyzed rulers (FDR, Claudius). Part Two considers movement/stillness in painting (Kahlo, Masaccio) and cinema (*Rear Window, Breathing Lessons*) and examines first-person polio narratives. Texts also include history of medicine and film/literary theory.
Note: Expected to be given in 2005–06.

[Comparative Literature 174. American Babel]
Catalog Number: 2546
Marc Shell
Half course (spring term). Hours to be arranged.
Using original source materials in bilingual, facing-page format, we study the non-English languages and literatures of what is now the US. We focus on dubbing, subtitling, and lip-synching in cinema; translation, dialect, and mixed languages in poetry; accent and dialect in

drama; narrative structure in bilingual novels; and general issues of literacy and multilingualism in America. Our purview will include French, German, Spanish, Arabic, Russian, and native American dialects as well as English.
Note: Expected to be given in 2005–06. Special arrangements for receiving foreign-language credit from home department.
Prerequisite: Knowledge of one non-English language.

Primarily for Graduates

***Comparative Literature 207. Theory and Methods in Comparative Oral Traditions: Seminar**
Catalog Number: 7426
Gregory Nagy
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
Genres, forms, and themes of oral traditions in poetry and prose. Theories of performance and composition. Comparative metrical and formulaic analysis.
Note: Knowledge of Greek not required. Qualified undergraduates welcome.

***Comparative Literature 210. Comparative Themes in the Literatures of Medieval Spain: Seminar**
Catalog Number: 3298 Enrollment: Limited to 15.
Luis M. Girón Negrón
Half course (spring term). W., 4–6. EXAM GROUP: 9
Examines Jewish-Christian-Muslim interaction as a Hispano-Medieval paradigm of cultural creativity. Examples drawn from the Spanish epic, the *muwashshahat*, Hispano-Jewish poetry, the short story tradition, *maqama* literature, the *adab* tradition, medieval didactica, historical chronicles, polemical writings, the Sephardic *romancero*, *cancionero* poetry, *La Celestina*, and Spanish mystical literature.
Note: Spanish, Latin, Arabic, and Hebrew materials are read in English translation, but students are encouraged to work with the originals.

[*Comparative Literature 211. Mysticism and Literature: Seminar]
Catalog Number: 3867
Luis M. Girón Negrón
Half course (fall term). Hours to be arranged.
Examines trends and debates in the comparative study of mystical literature. Close readings of primary works by Jewish, Christian, and Muslim authors from the Middle Ages through the 16th century. Also examines premodern mystical literature in selected works by modern authors (Borges, T.S. Eliot, Goytisolo) and literary theorists (DeCerteau.)
Note: Expected to be given in 2005–06. Offered jointly with the Divinty School as 3802.

[*Comparative Literature 227. Fictions of Kin and Kind in the Renaissance: Seminar]
Catalog Number: 2026 Enrollment: Limited to 15.
Marc Shell
Half course (fall term). Hours to be arranged.
Begins with arguments that kinship is unknowable and hence fictive, moves on to ideas about

nationhood, friendship, the human-animal distinction, family adoption, and orphanhood. Considers the claim that "All men are brothers." Texts include Shakespeare, Marguerite of Navarre, Elizabeth I, Rabelais, and others.
Note: Expected to be given in 2005–06.

Comparative Literature 246. Baroque and Neo-Baroque Literature
Catalog Number: 7757
Christopher D. Johnson
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Examines the Baroque as a literary style, historical period, and mode of thought. Focuses on seventeenth-century European, colonial American, and contemporary "Neo-Baroque" texts. Analogies between the literary, visual, and musical arts are explored.
Note: All reading available in translation, but students are encouraged to work in the original languages.

[*Comparative Literature 253. Literature and Politics: The New York Intellectuals]
Catalog Number: 1367
Ruth R. Wisse
Half course (spring term). Hours to be arranged.
Seminar on the first and probably only European-style intelligensia to develop in America; their creative negotiation between Europe and America; Yiddish and English; Christian and Jewish cultures; highbrow and lowbrow; literature and politics; Marxism and Modernity.
Note: Expected to be given in 2005–06. Open to qualified undergraduates.

***Comparative Literature 261. Memory and Modernity: Seminar**
Catalog Number: 6923 Enrollment: Limited to 15.
Svetlana Boym
Half course (fall term). Th., 12–2. EXAM GROUP: 14, 15
Explores modern art of memory in literary, philosophical, and critical texts. Topics: nostalgia and search for newness, collective and individual memory, conspiracy theories and ethics of remembering, modern "memory sites." Special attention to contemporary East-European reflection on art, memory, and nation.
Note: All texts available in English, but reading texts in the original is encouraged. Primarily for graduate students; qualified undergraduates welcome.

[*Comparative Literature 262. Aesthetics and Freedom]
Catalog Number: 5308
Svetlana Boym
Half course (spring term). Hours to be arranged.
Examines philosophical, political, and aesthetic conceptions of freedom from French and American revolutions to postcommunism. Topics: aesthetic education and politics, democratic individualism and the myth of America, love and experience of modernity, avantgarde revolution and writers' trials, technology and ethics.
Note: Expected to be given in 2005–06. Open to graduate students and qualified undergraduates. The discussions in class are based mostly on the English translations. However, the use of the texts in the original languages (Russian, French, and German) is encouraged for the final paper.

[Comparative Literature 275. Theory of Narrative: Conference Course]
Catalog Number: 3105 Enrollment: Limited to 15.
William Mills Todd III
Half course (spring term). Hours to be arranged.
Studies of narrative (fictional, psychoanalytic, historical, sacred) as verbal structure, representation, rhetoric, and social phenomenon. Readings by Jakobson, Barthes, Bakhtin, Iser, Lukács, Foucault, and others. Analysis of the theoretical readings and discussion of them with reference to specific fictional and non-fictional narratives.
Note: Expected to be given in 2005–06. Open to advanced undergraduates and graduates. Recommended for potential teaching fellows.

***Comparative Literature 280. Literary Theory and Criticism in the Middle Ages: Seminar**
Catalog Number: 2215
Jan Ziolkowski
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
Examines the place of theory and criticism in the curriculum (grammar, rhetoric, and dialectic). Topics include allegory and allegoresis; nature of medieval glosses and commentaries; continuity of Platonic and Aristotelian traditions; medieval sign theory. Readings from Augustine to Dante and Boccaccio.

***Comparative Literature 283. Language War: Seminar**
Catalog Number: 9342
Marc Shell
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Considers language difference as a cause of war. Areas for study include ancient Gilead and Rome as well as Quebec, Nigeria, Hispaniola, the Balkans, Britain, and Israel. Literary problems include translation, heteroglossia, accent, and multilingualism.
Note: Open to undergraduates by special permission.

[*Comparative Literature 287r. Selected Topics in Poetics and Rhetoric: Seminar]
Catalog Number: 7999
Gregory Nagy
Half course (fall term). Hours to be arranged.
Points of departure: Aristotle's *Poetics* and *Rhetoric*.
Note: Expected to be given in 2005–06. Knowledge of Greek not required. Qualified undergraduates welcome.

***Comparative Literature 299ar. Theory and Comparative Literature: Proseminar**
Catalog Number: 2431
John T. Hamilton and Despina Kakoudaki
Half course (fall term). M., 4–6. EXAM GROUP: 9
An investigation into current trends in comparative literature, with an emphasis on methodologies, resources, and theory.
Note: Required of first-year graduate students in Comparative Literature; others may be admitted by permission of the instructors.

Graduate Courses of Reading and Research

***Comparative Literature 396. Preparation for the General Examinations**
Catalog Number: 4570
Svetlana Boym 1926, Joaquim-Francisco Coelho 7715, James Engell 8076, Luis M. Girón Negrón 3060, John T. Hamilton 3977, Christopher D. Johnson 4301, Despina Kakoudaki 3979, Gregory Nagy 1423, Stephen Owen 7418, Judith Ryan 1135, Marc Shell 3176, Werner Sollors 7424, Diana Sorensen 4214 (on leave spring term), Susan R. Suleiman 7234, William Mills Todd III 1634, and Ruth R. Wisse 3177

***Comparative Literature 397. Direction of Doctoral Dissertations**
Catalog Number: 0320
Svetlana Boym 1926, Joaquim-Francisco Coelho 7715, James Engell 8076, Luis M. Girón Negrón 3060, John T. Hamilton 3977, Barbara E. Johnson 7626 (on leave 2004-05), Christopher D. Johnson 4301, Despina Kakoudaki 3979, Gregory Nagy 1423, Stephen Owen 7418, Judith Ryan 1135, Marc Shell 3176, Werner Sollors 7424, Diana Sorensen 4214 (on leave spring term), Susan R. Suleiman 7234, William Mills Todd III 1634, Ruth R. Wisse 3177, and Jan Ziolkowski 7275

***Comparative Literature 399. Reading and Research**
Catalog Number: 2893
Svetlana Boym 1926, Joaquim-Francisco Coelho 7715, James Engell 8076, Luis M. Girón Negrón 3060, John T. Hamilton 3977, Christopher D. Johnson 4301, Despina Kakoudaki 3979, Gregory Nagy 1423, Stephen Owen 7418, Judith Ryan 1135, Marc Shell 3176, Werner Sollors 7424, Diana Sorensen 4214 (on leave spring term), Susan R. Suleiman 7234, William Mills Todd III 1634, and Ruth R. Wisse 3177
Candidates for the doctoral degree in Comparative Literature may pursue advanced studies under the individual supervision of these instructors.
Note: Permission of the instructor and the Chairman of the Department required.

Cross-listed courses

French 137. 20th Century French Theater
German 142 (formerly German 242). Germany and the Greeks: Philhellenism from Winckelmann to Heidegger
Slavic 192 (formerly Slavic 179). Literature as Institutions: Conference Course
Visual and Environmental Studies 177 (formerly Comparative Literature 183). Film and the Human Body
Yiddish 102r. Modern Yiddish Literature I: The Yiddish Short Story
Yiddish 110. Studies in Yiddish Drama

Harvard University
Faculty of Arts and Sciences
Office of the Registrar

Computer Science

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Division of Engineering and Applied Sciences Offering Instruction in Computer Science

David M. Brooks, Assistant Professor of Computer Science on the Gordon McKay Endowment *(Director of Undergraduate Studies)*
Nir Friedman, Visiting Associate Professor of Computer Science *(Hebrew University of Jerusalem)*
Steven J. Gortler, Robert I. Goldman Professor of Computer Science *(on leave 2004-05)*
Craig Gotsman, Visiting Associate Professor of Computer Science *(Technion, Israel Institute of Technology)*
Barbara J. Grosz, Higgins Professor of Natural Sciences
H. T. Kung, William H. Gates Professor of Computer Science and Electrical Engineering
Henry H. Leitner, Senior Lecturer on Computer Science
Harry R. Lewis, Harvard College Professor and Gordon McKay Professor of Computer Science *(on leave fall term)*
Michael D. Mitzenmacher, John L. Loeb Associate Professor of the Natural Sciences
John G. Morrisett, Allen B. Cutting Professor of Computer Science
Radhika Nagpal, Assistant Professor of Computer Science on the Gordon McKay Endowment
Venkatesh Narayanamurti, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, Professor of Physics, Dean of the Division of Engineering and Applied Sciences and Dean for Physical Sciences
Anthony G. Oettinger, Gordon McKay Professor of Applied Mathematics and Professor of Information Resources Policy *(on leave 2004-05)*
David C. Parkes, Assistant Professor of Computer Science on the Gordon McKay Endowment
Avrom J. Pfeffer, Associate Professor of Computer Science on the Gordon McKay Endowment
Michael O. Rabin, Thomas J. Watson, Sr. Professor of Computer Science
Norman Ramsey, Associate Professor of Computer Science on the Gordon McKay Endowment
Mema Roussopoulos, Assistant Professor of Computer Science on the Gordon McKay Endowment
Margo I. Seltzer, Herchel Smith Professor of Computer Science
Stuart M. Shieber, Harvard College Professor and James O. Welch, Jr. and Virginia B. Welch Professor of Computer Science
Michael D. Smith, Gordon McKay Professor of Computer Science and Electrical Engineering
Salil P. Vadhan, Thomas D. Cabot Associate Professor of Computer Science
Leslie G. Valiant, T. Jefferson Coolidge Professor of Computer Science and Applied Mathematics
Gu-Yeon Wei, Assistant Professor of Electrical Engineering on the Gordon McKay Endowment
Matthew D. Welsh, Assistant Professor of Computer Science on the Gordon McKay Endowment
Woodward Yang, Visiting Professor of Electrical Engineering and Computer Science
Todd Zickler, Assistant Professor of Electrical Engineering on the Gordon McKay Endowment

Other Faculty Offering Instruction in Computer Science

Marco Iansiti, David Sarnoff Professor of Business Administration *(Business School)*

The Division of Engineering and Applied Sciences offers undergraduate and graduate courses in Applied Mathematics, Applied Physics, Computer Science, Earth and Planetary Sciences, and Engineering Sciences. Recommended course programs at the undergraduate level may be obtained from the Academic Office, Pierce Hall 110. Division faculty also offer several courses in the section entitled General Education Electives.

Primarily for Undergraduates

For information concerning concentration in Computer Science please consult the Director of Undergraduate Studies or the Academic Office, Division of Engineering and Applied Sciences, Pierce Hall 110. The Applied Mathematics and Engineering Sciences sections of the catalog should be consulted for additional courses relevant to computer science. In addition, attention is called to the following courses in related fields: Quantitative Reasoning 20; Applied Mathematics 106, 107; General Education 156; Linguistics 112a, 112b; Philosophy 144; Physics 123; and Statistics 110, 111, 171.

Computer Science 1. Great Ideas in Computer Science
Catalog Number: 6903
Henry H. Leitner
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
An introduction to the most important discoveries and intellectual paradigms in computer science, designed for students with little or no previous background. Explores problem-solving using high and low-level programming languages; presents an integrated view of computer systems, from switching circuits up through compilers and GUI design. Examines theoretical and practical limitations related to unsolvable and intractable computational problems, and the social and ethical dilemmas presented by such issues as software unreliability and invasions of privacy.
Note: May not be taken for credit after completing Computer Science 50.

Computer Science 50. Introduction to Computer Science I
Catalog Number: 4949
Michael D. Smith
Half course (fall term). M., W., F., at 10. EXAM GROUP: 3
Introduction to the intellectual enterprises of computer science. Algorithms: their design, specification, and analysis. Software development: problem decomposition, abstraction, data structures, implementation, debugging, testing. Architecture of computers: low-level data representation and instruction processing. Computer systems: programming languages, compilers, operating systems. Computers in the real world: networks, security and cryptography, artifical intelligence, social issues. Laboratory exercises include extensive programming in the C language.
Note: No previous computer experience required. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.

Computer Science 51. Introduction to Computer Science II
Catalog Number: 3411
Margo I. Seltzer and Radhika Nagpal

Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Abstract models for computational processes and their concrete realizations. Functional, imperative, object-oriented and event-driven styles of programming. The structure, interpretation and compilation of programming languages. State-space search, finite-state processes, formal logic, and syntactic and semantic formalisms as examples of useful abstractions. The engineering of complex software through procedural and data abstractions. Laboratory exercises using LISP, C++, and Java.
Prerequisite: Computer Science 50 or equivalent.

***Computer Science 91r. Supervised Reading and Research**
Catalog Number: 0361
David M. Brooks
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised individual study of advanced topics in computer science. A student wishing to enroll in Computer Science 91r must be accepted by a faculty member who will supervise the course work. A form available from Pierce Hall 110, must be filled out and signed by the student and faculty supervisor. Students writing theses may enroll in this course while conducting thesis research and writing.
Note: At most two terms of Computer Science 91r may be taken for academic credit. May not be taken Pass/Fail. Students wishing more information about the range of suitable projects or faculty supervisors should consult the Director of Undergraduate Studies.

[*Computer Science 96. System Design Projects]
Catalog Number: 7499 Enrollment: Limited to 20.

Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Cooperative design, development, and testing of a sizable and realistic computer network system. Students gain experience both in software development and system lifecycle issues, and in the area of application. We concentrate on mathematical modeling for prediction. The target application is prediction of student enrollments based on historical data, as raised by the recent discussions of preregistration. Students work in groups; both student participation in the classroom and effective group cooperation outside the classroom are stressed.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 51.

For Undergraduates and Graduates

[Computer Science 120. Introduction to Cryptography]
Catalog Number: 5911
Salil P. Vadhan
Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7
Algorithms to guarantee privacy and authenticity of data during communication and computation. Rigorous proofs of security based on precise definitions and assumptions. Topics may include one-way functions, private-key and public-key encryption, digital signatures, pseudorandom generators, higher-level protocols such as electronic cash, and the role of cryptography in network and systems security.

Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 121 or Computer Science 124.

Computer Science 121. Introduction to Formal Systems and Computation
Catalog Number: 0669
Salil P. Vadhan
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
General introduction to formal systems and the theory of computation. Elementary treatment of automata, formal languages, computability, uncomputability, computational complexity, NP–completeness, and mathematical logic.

Computer Science 124. Data Structures and Algorithms
Catalog Number: 5207
Michael D. Mitzenmacher
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Design and analysis of efficient algorithms and data structures. Algorithm design methods, graph algorithms, approximation algorithms, and randomized algorithms are covered.
Prerequisite: Computer Science 51; some exposure to discrete applied mathematics, such as Applied Mathematics 106 or 107 or Computer Science 121 or Statistics 110, is helpful.

Computer Science 127. Computational Geometry
Catalog Number: 7377
Craig Gotsman (Technion, Israel Institute of Technology)
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Basic techniques, data structures, combinatorics, and algorithms for solving geometric problems. Examples are convex hulls, Voronoi diagrams, point set, and polygon triangulation. Range search, linear programming, and point location. Some theoretical and programming exercises.

Computer Science 141. Computing Hardware
Catalog Number: 4357
Woodward Yang
Half course (fall term). M., W., 1–2:30, and a two-hour weekly laboratory. EXAM GROUP: 6, 7
Introduction to the design, structure, and operation of digital computers; logic circuits and digital electronics; computer arithmetic; computer architecture; and machine language programming. Consideration of the design interactions between hardware and software systems.
Prerequisite: Computer Science 50.

Computer Science 143. Computer Networks
Catalog Number: 6401
H. T. Kung
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Principles, design, implementation, and performance of computer networks. Topics include: Internet protocols and routing, local area networks, TCP, performance analysis, congestion control, network address translation, voice and video over IP, switching and routing, mobile IP, peer-to-peer overlay networks, network security, and other current research topics. Programming

assignments on protocol implementation and analysis.
Prerequisite: Computer Science 51.

Computer Science 144r. Networks Design Projects
Catalog Number: 5415
H. T. Kung and Marco Iansiti (Business School)
Half course (spring term). M., W., 2:30–4. EXAM GROUP: 7, 8
Cooperative design and development of advanced network-based systems with both technology and business considerations. Students will work in 2 person teams. Student work will include reading assignments, homework sets, a project proposal, and project reports and presentations. At the end of the class, all teams will defend their approaches and results in front of the class and invited guests.
Note: Preference given to upper-class undergraduates or graduate students in computer science or in business.
Prerequisite: Computer Science 143 or equivalent experience.

Computer Science 146. Computer Architecture
Catalog Number: 6520
David M. Brooks
Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7
Review of fundamental structures in modern microprocessor and computer system architecture design. Topics include computer organization, instruction set design, memory system design, pipelining, and other techniques to exploit parallelism. System level topics include storage subsystems and basics of multiprocessor systems. Emphasis on quantitative evaluation of design alternatives while considering design metrics such as performance and power dissipation.
Prerequisite: Computer Science 141.

Computer Science 148. Design of VLSI Circuits and Systems
Catalog Number: 1772 Enrollment: Limited to 16.
Gu-Yeon Wei
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Presentation of concepts and techniques for the design and fabrication of VLSI systems and digital MOS integrated circuits. Topics include: basic semiconductor theory; MOS transistors and digital MOS circuits design; synchronous machines, clocking, and timing issues; high-level description and modeling of VLSI systems; synthesis and place and route design flows; and testing of VLSI circuits and systems. Various CAD tools for design, simulation, and verification are extensively used.
Prerequisite: Computer Science 141 or permission of instructor.

Computer Science 152. Principles of Programming Languages
Catalog Number: 6841
Norman Ramsey
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
Intellectual tools needed to design, evaluate, and choose programming languages. Historical influences on language design. Case studies, reinforced by programming exercises. Advanced languages, abstraction mechanisms. Includes functional, object-oriented, and logic paradigms.

Focuses on practice, but covers formal topics crucial for intellectual rigor: abstract syntax, lambda calculus, type systems, and dynamic semantics. Grounding sufficient to read professional literature.
Prerequisite: Computer Science 121. Students must have excellent programming skills, be comfortable with recursion, basic mathematical ideas and notations.

Computer Science 153. Principles of Programming Language Compilation
Catalog Number: 2842
John G. Morrisett
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Implementation of efficient interpreters and compilers for programming languages. Associated algorithms and pragmatic issues. Emphasizes practical applications including those outside of programming languages proper. Also shows relationships to programming-language theory and design. Participants build a working compiler including lexical analysis, parsing, type checking, code generation, and register allocation. Exposure to run-time issues and optimization.
Prerequisite: Computer Science 51.

Computer Science 161. Operating Systems
Catalog Number: 4347
Matthew D. Welsh
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
The fundamental principles of resource management and abstraction in modern operating systems. Control abstractions: threads, processes, scheduling, synchronization. Storage abstractions: dynamic memory allocation, virtual memory, file system design. Communication abstractions: interprocess communication, networking. Case studies. Design and implementation of parts of a multiuser multitasking virtual-memory operating system.
Prerequisite: Computer Science 51.

Computer Science 164. Internet Technologies
Catalog Number: 7295
Mema Roussopoulos
Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7, 8
Survey of current authoring, distributing, and browsing technologies used in the Internet. Topics include: HTTP, DNS and TCP/IP overview, HTML techniques for text, links, forms, and images, client/server paradigm, server-side programming, CGI scripts, dynamic content with Java, how web browsers and web servers work, web caching and replication.
Prerequisite: Computer Science 50.

Computer Science 165. Information Management
Catalog Number: 0560
Margo I. Seltzer
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Covers the fundamental concepts of database and information management. Data models: relational, object-oriented, and other; implementation techniques of database management systems, such as indexing structures, concurrency control, recovery, and query processing;

management of unstructured data; terabyte-scale databases.
Prerequisite: Computer Science 51.

Computer Science 175. Computer Graphics
Catalog Number: 3771
Craig Gotsman (Technion, Israel Institute of Technology)
Half course (fall term). M., W., 4–5:30. EXAM GROUP: 9
The computational aspects of computer graphics. Two major themes are image rendering (viewing transformations, clipping, visible-surface processing, raster algorithms, reflection models, lighting models, surface shading, antialiasing, ray tracing, radiosity, and volume rendering) and scene modeling (modeling transformations, curves and surfaces, texture mapping, data-amplification techniques, constructive solid geometry, scalar- and vector-field data, and animation). Ancillary topics include color compression, image compression, image compositing, graphical user interfaces, and special machine architectures for computer graphics.
Prerequisite: Computer Science 51, Applied Mathematics 21b or Mathematics 21b.

Computer Science 181. Intelligent Machines: Perception, Learning, and Uncertainty
Catalog Number: 6454
Avrom J. Pfeffer
Half course (spring term). M., W., 2:30–4. EXAM GROUP: 7, 8
Introduction to artificial intelligence, focusing on problems of perception, machine learning and reasoning under uncertainty. Supervised learning algorithms. Neural networks and applications to character recognition. Statistical pattern recognition. Bayesian networks: representation, inference and learning. Hidden Markov models and applications to speech recognition. Markov decision processes and reinforcement learning.
Prerequisite: Computer Science 51 and Computer Science 121. Statistics 110 is recommended.

Computer Science 182. Intelligent Machines: Reasoning, Actions, and Plans
Catalog Number: 0134
David C. Parkes
Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7, 8
Introduction to AI, focused on problems in reasoning about action and rational decision making. Search: constraint satisfaction; informed search and optimization; game playing. Knowledge representation and logical inference. Planning: representation, search and heuristics. Bounded rationality, situated agents. Multiagent systems. Discussion of relevant work in philosophy, economics, and decision theory. Applications to scheduling, robotics and e-commerce.
Prerequisite: Computer Science 51; Computer Science 121 (may be taken concurrently).

[Computer Science 187. Computational Linguistics]
Catalog Number: 0249
Stuart M. Shieber
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Introduction to computational linguistics, the study of human language using the tools and techniques of computer science, with applications to a variety of natural-language-processing problems. Representing syntactic structure: context-free, augmented context-free, and trans-context-free grammars. Representing semantic structure: first-order and higher-order logics.

Computing with syntactic and semantic representations: Prolog programming; parsing and generation algorithms. Low-level language processing with finite-state methods.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 121.

Primarily for Graduates

[Computer Science 220r. Cryptography: Trust and Adversity]
Catalog Number: 1637
Michael O. Rabin
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Topics in modern cryptography. Primality testing, finite fields, elliptic curves. Protocols: Public-key encryptions, digital signatures, key exchanges, zero-knowledge proofs, authentication oblivious transfer, secret sharing, proactive security, fair contract signing, distributed agreements. Foundations: Probablistic encryption and semantic security. Attacks and countermeasures: Non-malleability, plaintext awareness and proofs of plaintext knowledge. Absolutely secure encryptions. Prerequisites will be discussed in sections.
Note: Expected to be given in 2005–06.

[Computer Science 221. Computational Complexity]
Catalog Number: 5812
Salil P. Vadhan
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A quantitative theory of the resources needed for computing and the impediments to efficient computation. The models of computation considered include ones that are finite or infinite, deterministic, randomized, quantum or nondeterministic, discrete or algebraic, sequential or parallel.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 121 or equivalent.

[Computer Science 222. Algorithms at the Ends of the Wire]
Catalog Number: 2493
Michael D. Mitzenmacher
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Covers topics related to algorithms for big data, especially related to networks. Themes include compression, cryptography, coding, and information retrieval related to the World Wide Web. Requires a major final project.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 124.

Computer Science 223. Probabilistic Analysis and Algorithms
Catalog Number: 4740
Michael D. Mitzenmacher
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Probabilistic techniques and tools for the design and analysis of algorithms. Designed for all first-year graduate students in all areas.

Prerequisite: Computer Science 124. Preferably additional probability, such as in Computer Science 226r, Statistics 110, or Mathematics 191.

[Computer Science 224r. Randomness in Computation]
Catalog Number: 3380
Michael O. Rabin
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
The surprising efficacy of randomization in the solution of algorithmic and computer science problems. Applications include number theory, cryptography, finite fields, computational geometry, routing, parallel algorithms, pattern matching, distributed systems, self-checking programs, probabilistically checkable proofs.
Note: Expected to be given in 2005–06.

[Computer Science 225. Pseudorandomness]
Catalog Number: 4869
Salil P. Vadhan
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Efficiently generating objects that "look random" despite being constructed using little or no randomness. Connections and applications to computational complexity, cryptography, and combinatorics. Pseudorandom generators, randomness extractors, expander graphs, error-correcting codes, hash functions.
Note: Expected to be given in 2005–06.
Prerequisite: Exposure to randomized algorithms (as in Computer Science 124), computational complexity (as in Computer Science 121), and algebra (as in Applied Mathematics 106, Mathematics 123, or Computer Science 226r).

Computer Science 226r. Efficient Algorithms
Catalog Number: 1749
Michael O. Rabin
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
A survey of important computer algorithms for numerical and data manipulation problems and their applications in actual computing situations. Topics include combinatorial algorithms, string matching, wavelet algorithms, FFT and its applications, algebraic computations, randomized algorithms in algebra number theory and geometry, maximal flows, error correcting codes, public key cryptography, protocols for distributed systems, and parallel algorithms.

Computer Science 227. Advanced Computational Geometry
Catalog Number: 1789
Craig Gotsman (Technion, Israel Institute of Technology)
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
The contents and course requirements are identical to those of Computer Science 127, with the exception that students enrolled in Computer Science 227 are expected to conduct a modest research project.

Computer Science 228. Computational Learning Theory
Catalog Number: 0364

Leslie G. Valiant
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Possibilities of and limitations to performing learning by computational agents. Topics include computational models, polynomial time learnability, learning from examples and learning from queries to oracles. Computational limitations. Statistical limitations. Applications to Boolean functions, automata and geometric functions. Learning algorithms for models of neural computation.
Prerequisite: Computer Science 121 or equivalent.

Computer Science 229r (formerly Computer Science 229). Topics in the Theory of Computation
Catalog Number: 3730
Salil P. Vadhan
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Students read, present, and critically evaluate current research papers in theoretical computer science. See syllabus and web site for specific topics of focus.
Prerequisite: Computer Science 121 or equivalent.

Computer Science 232. Introduction to Computational Molecular Biology
Catalog Number: 9480
Nir Friedman (Hebrew University of Jerusalem)
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Computational methods in molecular biology research. Emphasis on modeling and algorithmic aspects for computational tasks posed by recent genomic data. Sequence models, alignment, sequence motifs, protein families, phylogenetic inference, gene expression analysis, clustering, regulation networks.
Prerequisite: Computer Science 121, 124, and 181, or approval of the instructor. Background in biology, especially molecular biology of the cell, is useful but not required.

Computer Science 244r. Advanced Networks Design Projects
Catalog Number: 3018
H. T. Kung and Marco Iansiti (Business School)
Half course (spring term). M., W., 2:30–4. EXAM GROUP: 7, 8
The contents and course requirements are similar to those of Computer Science 144r, with the exception that students enrolled in Computer Science 244r are expected to do substantial system implementation and perform graduate-level work.
Note: Preference given to upper-class undergraduates or graduate students in computer science or in business who are proficient in computer programming or in business software.
Prerequisite: Computer Science 143 or equivalent experience.

Computer Science 246r. Advanced Computer Architecture
Catalog Number: 0979
David M. Brooks
Half course (fall term). M., W., 1–2:30. EXAM GROUP: 6, 7
Covers technology trends in computer system design, with an emphasis on power-aware computing for mobile, embedded, and traditional systems. System design areas include

implementation, architecture, system software, and applications.
Note: Taught seminar style after the first several lectures.
Prerequisite: Computer Science 146 or Computer Science 161 or Computer Science 153 recommended. Consult instructor if unsure.

[Computer Science 251. Advanced Systems Programming]
Catalog Number: 5566
Norman Ramsey
Half course (fall term). M., W., F., 1–2:30. EXAM GROUP: 6, 7
Case studies of classic problems in computer systems. Students read, understand, implement, and present each study. Develops deep understanding of programming techniques used in systems research. Emphasizes programming, discussion, and presentation. Cases matched to student interests.
Note: Expected to be given in 2005–06.
Prerequisite: One of the following: Computer Science 143, Computer Science 152, Computer Science 153, Computer Science 161, or Computer Science 175.

[Computer Science 252r. Advanced Topics in Programming Languages]
Catalog Number: 1986
Norman Ramsey
Half course (fall term). W., F., 2:30–4. EXAM GROUP: 7, 8
Advanced functional programming. Lazy evaluation, monads. Folds and unfolds. Combinators for parsing and prettyprinting. Modules systems. Type systems: polymorphism and overloading, type and constructor classes, higher-order kinds, higher-rank polymorphism, polytypic programming. Implementation: heap profiling.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 152 or permission of the instructor.

Computer Science 253r. Advanced Topics in Programming Language Compilation
Catalog Number: 2901 Enrollment: Limited to 18. Preference given to graduate students or upper-class concentrators.
Michael D. Smith
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
In-depth introduction to computer optimization. Topics include scalar optimization, register allocation, instruction scheduling, dependence analysis, interprocedural analysis, and cache optimization.
Prerequisite: Computer Science 153 or equivalent.

[Computer Science 255. Topics in Language-Based Security]
Catalog Number: 6216
John G. Morrisett
Half course (spring term). M., W., 2:30–4. EXAM GROUP: 7, 8
Reviews research in programming language-based security mechanisms. Topics include compiler and run-time techniques for enforcing policies; type and proof systems for expressing policies; and static analyses for establishing policies.

Note: Expected to be given in 2005–06. Taught in seminar style.
Prerequisite: Computer Science 152, 153, 252r, 253r, or permission of the instructor.

Computer Science 256. Programming Language and Semantics
Catalog Number: 1554
John G. Morrisett
Half course (spring term). M., W., 2:30–4. EXAM GROUP: 7, 8
An overview of operational, denotational, and axiomatic semantics; type systems, program analysis, and program equivalence.
Prerequisite: Computer Science 152.

[Computer Science 261. Research Topics in Operating Systems]
Catalog Number: 6706
Margo I. Seltzer
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A quantitative approach to operating system design and evaluation. Discussion of recent research including extensible operating system architectures, distributed systems, and performance analysis. Overview of research techniques and methodology.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 161, or equivalent.

[Computer Science 262. Introduction to Distributed Computing]
Catalog Number: 7949

Half course (spring term). M., W., 4–5:30. EXAM GROUP: 9
Examination of the special problems associated with distributive computing (e.g., partial failure and lack of global knowledge) and protocols that function in the face of these problems. Emphasis on causal ordering, event and RPC-based systems.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 161 or permission of instructor.

Computer Science 263. Wireless Sensor Networks
Catalog Number: 6846
Matthew D. Welsh
Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Recent advances in wireless communications and sensor networks. Wireless networking, routing, standards including 802.11, Bluetooth, and 802.15.4. Embedded OS, programming tools, applications, and security. Students read research papers and undertake a research project.
Prerequisite: Computer Science 161 or Computer Science 143.

Computer Science 264. Peer-to-Peer Systems
Catalog Number: 6069 Enrollment: Limited to 24.
Mema Roussopoulos
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Discusses research papers on peer-to-peer systems. Topics include: routing, search, caching, security, reputation and trust, incentives, and applications. Students undertake a major research

project and lead discussions of readings.
Note: Preference to graduate students or upper-level concentrators.
Prerequisite: Computer Science 161 or Computer Science 143.

[Computer Science 265. Database Systems]
Catalog Number: 4104
Margo I. Seltzer
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A research-oriented introduction to Database Management systems. First third covers database design, implementation, and use. Topics include: network, relational, and object oriented database models, system architectures, transaction processing, system implementation, and SQL. Remaining two-thirds address research literature surrounding database systems, including an historical perspective, the emergence of relational and object-oriented systems, concurrency control, and distributed systems. Students will be expected to undertake a final research project.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 51.

Computer Science 266. Biologically-Inspired Distributed and Multi-Agent Systems
Catalog Number: 0766 Enrollment: Limited to 20.
Radhika Nagpal
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Surveys biologically-inspired approaches to designing distributed systems. Focus is on algorithms, analysis, and programming paradigms. Topics: swarm intelligence, amorphous computing, immune-inspired systems, synthetic biology. Discussion of research papers and a research project required.
Note: Geared toward graduate students of all levels as well as advanced undergraduates. Preference given to graduate students or upper-level concentrators.
Prerequisite: Computer Science 161 or Computer Science 143 required.

[Computer Science 277. Geometric Modeling in Computer Graphics]
Catalog Number: 3067
Steven J. Gortler
Half course (spring term). M., W., 2:30–4. EXAM GROUP: 7, 8
Advanced seminar in computer graphics focusing on geometric representations and processing. Topics include: direct manipulation, implicit surfaces, spline presentations, recursively subdivided surfaces, model simplification, surface parameterization and processing, mesh generation, and motion capture processing.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 175.

Computer Science 278. Rendering and Image Processing in Computer Graphics
Catalog Number: 4883
Craig Gotsman (Technion, Israel Institute of Technology)
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Advanced course in computer graphics focusing on image rendering and processing. Topics include: light transport, efficient rendering, image based rendering, texture processing,

interactive image processing.
Prerequisite: Computer Science 175 or permission of instructor.

[Computer Science 281r. Artificial Intelligence: Reasoning and Planning Systems]
Catalog Number: 0707
Avrom J. Pfeffer
Half course (fall term). M., W., 1–2:30. EXAM GROUP: 6, 7
In-depth introduction to formalisms for knowledge representation and techniques for reasoning and planning. Topics: formal logic-based representations; probabilistic reasoning; nonmonotonic logics; truth-maintenance systems; qualitative reasoning; inheritance hierarchies; computational approaches to reasoning about actions and time, including actions of multiple agents, nonlinear planning, plan recognition; reasoning about knowledge, belief, and action.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 182 or permission of instructor.

[Computer Science 282. Probabilistic Reasoning]
Catalog Number: 3158
Avrom J. Pfeffer
Half course (fall term). M., W., 1–2:30. EXAM GROUP: 6, 7
In-depth study of principles and techniques for probabilistic reasoning and decision-theoretic planning. Topics include: Bayesian networks and Markov networks; exact and approximate probabilistic inference algorithms; learning Bayesian networks from data; temporal probability models; integrating logic and probability; influence diagrams; Markov decision processes; reinforcement learning.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 181 or permission of instructor.

Computer Science 283. Computer Vision
Catalog Number: 4475
Roger W. Brockett and Todd Zickler
Half course (fall term). M., W., F., at 10. EXAM GROUP: 3
Vision as an ill-posed inverse problem: two-dimensional signal processing; image enhancement and restoration; feature analysis; image segmentation and analysis; structure from motion, texture, and shading; binocular stereo; pattern classification; and applications.

Computer Science 285. Multi-agent Planning Systems
Catalog Number: 1060
Barbara J. Grosz
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Theories and techniques for multi-agent planning, including formal models of rational agents, collaborative plans, and social systems; computational approaches to distributed planning and problem solving, negotiation, and decision theory for planning; collaborative systems design.
Prerequisite: Computer Science 181 or 182, or permission of instructor.

Computer Science 286r. Topics at the Interface between Computer Science and Economics
Catalog Number: 1099 Enrollment: Limited to 20. Preference given to graduate students or

upper-class concentrators.
David C. Parkes
Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7
Interplay between computation and incentives within open decentralized computational systems. Mechanisms and market design, negotiation, social-choice, information-economics and privacy. Readings from theoretical CS, AI, operations research, and economics. Seminar style. Spring 2005: Computational Mechanism Design.
Prerequisite: Mathematics 21b, Applied Mathematics 21b, or equivalent; Computer Science 121, 124, and 181 or 182, or equivalents; or permission of instructor.

Computer Science 287r. Natural Language Processing
Catalog Number: 3306
Stuart M. Shieber
Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
In-depth investigation of natural-language-processing techniques. Topics include: finite-state, context-free, and trans-context-free formalisms, syntactic analysis, semantic interpretation, weighted automata and transducers. Students discuss research papers and undertake a significant research project.
Prerequisite: Computer Science 187 or permission of instructor.

[Computer Science 288. Computational Models of Discourse]
Catalog Number: 1392
Barbara J. Grosz
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Computational theories of discourse (text and dialogue) structure and processing. Topics include: anaphora, focusing, plans and speech acts, plan recognition algorithms, models of collaborative planning, intonation. Discussion of dialogue and text understanding systems. Application to the design of human-computer interface systems.
Note: Expected to be given in 2005–06.
Prerequisite: Computer Science 182 or 287r or equivalent, or permission of instructor.

Computer Science 299r. Special Topics in Computer Science
Catalog Number: 4592
Margo I. Seltzer
Half course (fall term; repeated spring term). Hours to be arranged.
Supervision of experimental or theoretical research on acceptable computer science problems and supervision of reading on topics not covered by regular courses of instruction.
Note: Open to graduate students and AB/SM candidates only. Students must arrange such work with a member of the Division. This course is graded and is ordinarily taken with the approval of the Committee on Higher Degrees. Applicants must file a project sheet before study cards are filed. Project sheets may be obtained from the Academic Office, Pierce Hall 110.

Graduate Courses of Reading and Research

Reading courses are odd-numbered; research courses are even-numbered.
***Computer Science 305,306. Information Resources: Technology and Policy**

Catalog Number: 6364,3478
Anthony G. Oettinger 2403 (on leave 2004-05)

***Computer Science 307,308. Biologically-Inspired Multi-Agent Systems, Distributed Systems, and Computational Biology**
Catalog Number: 8289,8308
Radhika Nagpal 5068

***Computer Science 309,310. Computational Mechanism Design, Electronic Marketplaces, and Multi-Agent Systems**
Catalog Number: 8764,0931
David C. Parkes 4202

***Computer Science 311,312. Collaborative Systems, AI Planning, and Natural Language Processing**
Catalog Number: 4677,6223
Barbara J. Grosz 1599

***Computer Science 317,318. Distributed Systems, Networking, and Mobile Computing**
Catalog Number: 9388,7137
Mema Roussopoulos 4822

***Computer Science 319,320. Distributed Systems, Operating Systems, and Networks**
Catalog Number: 8038,8568
Matthew D. Welsh 4600

***Computer Science 321,322. Databases, Operating System, and Software Design**
Catalog Number: 4085,4086
Margo I. Seltzer 3371

***Computer Science 323,324. Human-Computer Communication through Natural, Graphical, and Artificial Languages**
Catalog Number: 2450,2453
Stuart M. Shieber 2456

***Computer Science 325,326. Programming Languages and Tools**
Catalog Number: 8055,0747
Norman Ramsey 2831

***Computer Science 327,328. Mathematical Logic, Theory of Computation**
Catalog Number: 1160,3576
Harry R. Lewis 4455 (on leave fall term)

***Computer Science 343,344. Computer Architecture: Modeling and Design**
Catalog Number: 3932,9266
David M. Brooks 4222

***Computer Science 345,346. High-Performance Computer Systems**
Catalog Number: 6154,6156
Michael D. Smith 3372

***Computer Science 347,348. Computer Vision**
Catalog Number: 1882,8831
Todd Zickler 5143

***Computer Science 351,352. Complexity of Computations: Concurrent Programming and Synchronization**
Catalog Number: 0218,0255
Michael O. Rabin 7003

***Computer Science 353,354. Representation and Reasoning, Machine Learning and Decision Making**
Catalog Number: 6816,1843
Avrom J. Pfeffer 2830

***Computer Science 355,356. Computational Complexity, Parallel Computation, Computational Learning, Neural Computation**
Catalog Number: 0345,0346
Leslie G. Valiant 7396

***Computer Science 357,358. Computational Complexity, Cryptography, and Pseudorandomness**
Catalog Number: 3485,8641
Salil P. Vadhan 3833

***Computer Science 359,360. Online Algorithms and Randomized Algorithms**
Catalog Number: 2104,1477
Michael D. Mitzenmacher 7748

***Computer Science 361,362. Programming Languages and Semantics**
Catalog Number: 8672,8366
John G. Morrisett 4853

***Computer Science 375,376. Computer Graphics**
Catalog Number: 6832,7313
Steven J. Gortler 2824 (on leave 2004-05)

Harvard University
Faculty of Arts and Sciences
Office of the Registrar

Dramatic Arts

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Dramatics

Robert J. Kiely, Harvard College Professor and the Donald P. and Katherine B. Loker Professor of English *(Chair) (on leave spring term)*
Elizabeth Weil Bergmann, Lecturer on Dramatic Arts
Marjorie Garber, William R. Kenan, Jr. Professor of English and American Literature and Language and of Visual and Environmental Studies
Jorie Graham, Boylston Professor of Rhetoric and Oratory *(on leave fall term)*
Elizabeth D. Lyman, Assistant Professor of English and American Literature and Languages
John C. Megan, Director, Office for the Arts at Harvard *(ex officio)*
Robert J. Orchard, Director of the Loeb Drama Center and Executive Director of the American Repertory Theatre *(ex officio)*
Peter Sacks, John P. Marquand Professor of English *(on leave fall term)*
Elaine Scarry, Walter M. Cabot Professor of Aesthetics and the General Theory of Value
Robert Elliott Woodruff, Lecturer on Dramatic Arts and Artistic Director of the ART *(ex officio)*

Other Faculty Offering Instruction in Dramatic Arts

Thomas Derrah, Lecturer on Dramatic Arts
Jeremy Geidt, Lecturer on Dramatic Arts
J. Michael Griggs, Lecturer on Dramatic Arts
Nancy K. Houfek, Lecturer on Dramatic Arts
William S. Lebow, Lecturer on Dramatic Arts
Gideon M. Lester, Lecturer on Dramatic Arts
Karen L. MacDonald, Lecturer on Dramatic Arts
Claire S. Mallardi, Lecturer on Dramatic Arts
Robert Scanlan, Visiting Lecturer on English and American Literature and Language
Marcus Stern, Lecturer on Dramatic Arts
Scott Zigler, Lecturer on Dramatic Arts

Primarily for Undergraduates

Dramatic Arts 1. Introduction to Theatre
Catalog Number: 0845
Scott Zigler
Half course (fall term). M., 1:30–3:30. EXAM GROUP: 6, 7
An introduction to and overview of the major collaborative elements of the theatre: playwriting, directing, designing, acting. Also, a discussion of the current state of the theatre in America, giving special attention to productions at the Loeb and in the Boston area. (Students are required to attend at least five different productions.) Students do creative and collaborative work throughout the term, and members of the ART staff give guest lectures in their areas of expertise.

[Dramatic Arts 5. Production Dramaturgy]
Catalog Number: 7592
Robert Scanlan
Half course (fall term). Hours to be arranged.
Principles of dramaturgy introduced and explained in the context of full productions of performance events. Students will apply literary research and analysis techniques to the preparation of scripts for performance, including but not confined to what are known as "plays." Specific projects will serve as examples for studying historical background, formal plot theory, scene units, tempo dynamics, and action theory, as these must be handled by directors, actors, and stage managers in the rehearsal hall.
Note: Expected to be given in 2005–06. Enrollment limited by interview.

Dramatic Arts 10. Beginning Acting
Catalog Number: 9555
Scott Zigler
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Utilizing primarily scene study work drawn from contemporary material, the course will focus on three main areas: Text analysis, with primary focus on identification of objectives and tactics, characte, and moment to moment spontaneity. The course will draw primarily from the theories of David Mamet and Sandford Meisner.
Note: Enrollment limited by audition.

***Dramatic Arts 11. Beginning Acting**
Catalog Number: 3321
Thomas Derrah
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An exploration of the basic techniques of acting, beginning with exercises that flex the imagination and heighten observation; the course will then move towards work on rhythm, an actor's instincts, focus, concentration, and character. The texts of Anton Chekhov will be used as a point of reference for the work. The latter part of the course will concentrate on selected scene study from Chekhov's major plays.
Note: Enrollment limited by audition.

***Dramatic Arts 12. Acting Shakespeare**
Catalog Number: 6659 Enrollment: Limited to 20.
Jeremy Geidt
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Investigation of the texts of Shakespeare as theatre, developing an American approach to verse speaking and character analysis. Scenes are rehearsed to interpret the verse and prose by the light of modern experience. Explores the imagination of the playwright in order to develop the imagination of the student.

Dramatic Arts 13. Acting Workshop: Comedy
Catalog Number: 9926
William S. Lebow
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13

A course developing the actor's approach to and playing of comedy and humor. Using characters and scenes from Shakespeare, Molière, Shaw, and contemporary writers from Christopher Durang to Steve Martin, the course focuses on the universality of comic technique and the specific demands of comic playing. The question of humor is explored with respect to dramatic situations and characters that are inherently serious. Student scenes will occasionally be critiqued by members of the A.R.T. Company.
Note: Enrollment limited by audition.

Dramatic Arts 14. The Art of Movement Design
Catalog Number: 2983
Elizabeth Weil Bergmann
Half course (fall term). Tu., Th., 2:30–4:30. EXAM GROUP: 16, 17
What makes movement art? Through a combination of readings, lectures, videos and dance improvisation experiences, we investigates how physical energy and movement design choices develop into kinesthetic, dramatic, and artistic experiences for both the performer and the audience. Focusing on time, weight, space, and flow, movement phrases are structured into an understandable, organic whole.
Note: No previous dance experience is necessary. Enrollment limited by interview.

Dramatic Arts 15. Movement for Actors and Directors
Catalog Number: 4908
Claire S. Mallardi
Half course (spring term). M., W., 2:30–4:30. EXAM GROUP: 7, 8, 9
Emphasis on integration of verbal and non-verbal communication focusing on movement and gesture to enhance, inform, and illuminate text. The goal is to achieve the fullest range and clarity of physical and emotional expression of the body as it relates to the surrounding space. A physical experiential approach is practiced through studies that pertain to the actor's presence on stage, concentrating on structure, organization, control of time, space, energy, and sound. Mask work included.

Dramatic Arts 16. Dance as a Collaborative Art
Catalog Number: 8830 Enrollment: Limited to 20.
Elizabeth Weil Bergmann
Half course (spring term). Tu., Th., 2:30–4:30. EXAM GROUP: 16, 17, 18
Focusing upon the relationship between the arts, students apply their analytical and conceptual skills to the creative and collaborative art process. Aspiring student choreographers, composers, writers, and visual artists will create an evening-long event. Artistic collaborations of the 20th century explored through readings, lectures, discussions, and viewing videos.
Note: No previous dance training is necessary. Enrollment limited by interview. Students are encouraged to take Dramatic Arts 14 prior to enrollment but it is not required.

Dramatic Arts 17. Intermediate Acting
Catalog Number: 9738
Karen L. MacDonald
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An expansion of basic acting techniques, with an emphasis on the work done during rehearsal.

How do you prepare for a rehearsal each day? How do you maximize your time in rehearsal? How do you work with different directors? Emphasis is placed on creating a character and building a role. Actors will be doing scene study, monologue work, and improvisation.
Note: Enrollment limited by audition.

***Dramatic Arts 18r. Advanced Acting: 20th-Century Texts**
Catalog Number: 8011
Marcus Stern
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
A course of advanced acting techniques using 20th-century dramatic texts for scene work. Text analysis and the resulting character intentions and tactics are carefully examined. The goal of the course is to provide the actor with concrete skills that produce tangible results in rehearsal and on stage.
Note: Enrollment limited by audition. May be repeated with instructor and advisor approval.

***Dramatic Arts 19. Playwriting and Dramatic Technique**
Catalog Number: 8045 Enrollment: Limited to 8.
Gideon M. Lester
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
An advanced investigation of dramatic technique for students with prior experience of playwriting. The seminar focuses on the structural principles of dramatic composition, examining paradigms from Aristotle to David Mamet and developing a formal methodology for playwriting. Through a series of exercises and draft scenes students gain an understanding of theatrical craft, invaluable to playwrights and dramaturgs, and complete a major piece of dramatic writing.
Note: Admission based on samples of writing submitted to the instructor.

***Dramatic Arts 22r. Directing**
Catalog Number: 8160 Enrollment: Limited to 15.
Marcus Stern
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
A directing class for directors, actors, designers, and dramaturgs, accomodating beginning to advanced levels of work. Through constant scene work, we examine the directorial tools of text analysis, staging, design, and working with actors. The focus is on understanding texts and explicating your response to those texts on stage. Also useful for actors, dramaturgs, and designers investigating all aspects of theater.
Note: May be repeated with instructor and advisor approval. Enrollment limited by short interviews to be conducted on the first day of class.

Dramatic Arts 23. Beginning and Intermediate Directing
Catalog Number: 9594
Robert Elliott Woodruff and Thomas Derrah
Half course (fall term). Th., 10:30–12:30. EXAM GROUP: 12, 13, 14
For directors and actors who want to learn more about the overall craft. Co-taught: A.R.T.'s new Artistic Director Robert Woodruff will outline a basic approach for starting the directorial process, emphasis on text analysis, narrative, staging, and composition. A.R.T. senior company

actor Thomas Derrah will focus on the director/actor relationship, with emphasis on translating directorial ideas into playable language, correcting acting problems encountered in rehearsal, and the actor's implementation of the director's vision.
Note: Enrollment limited by audition/interview.

[Dramatic Arts 24. Advanced Directing]
Catalog Number: 9650 Enrollment: Limited to 9.
Marcus Stern
Half course (spring term). Hours to be arranged.
An advanced directing course requiring some previous experience: emphasis will be on non-linear texts, staging a non-verbal text, site specific staging, and advanced sound design. Through continual scene work, students direct the plays of Beckett, Buchner, Fornes, Parks, Wellman, Ong, Ehn, and address questions such as real time vs. stage time, point of view directing, and functional vs visceral staging.
Note: Expected to be given in 2005–06. Enrollment limited by audition/interview. Please bring theater resume to first class.

Dramatic Arts 28. Vocal Production for the Stage
Catalog Number: 8900
Nancy K. Houfek
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
Whether one is performing in a play, speaking professionally, teaching a class or leading a group, the ability to use one's voice effectively is a primary element of the success of the presentation. Using several major pedagogies of speaking training, students learn not only how to use the voice, but how the pedagogies of voice training correspond to specific performance challenges.
Note: Enrollment is by interview.

Dramatic Arts 30. Design for the Theatre: History and Practice
Catalog Number: 9503
J. Michael Griggs
Half course (fall term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
The practice of designing scenery for the theatre is explored through the history of stage design and the architecture of the theater building. Students complete projects of research and design for plays from various periods. The projects will introduce basic techniques in drawing, drafting, and model making.

***Dramatic Arts 31 (formerly *Visual and Environmental Studies 131). Designing for the Stage**
Catalog Number: 1116 Enrollment: Limited to 12.
J. Michael Griggs
Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
Students prepare and present for criticism stage design projects based on play texts that suggest varying interpretive and stylistic problems. Focus is on examining ideas through research of visual material and analysis of text. Through their design projects, students also complete

assignments in perspective drawing, drafting, model making, and lighting design. Students at all levels of skill are welcome.

Dramatic Arts 64. Dramatic Literature from the Greeks to Ibsen
Catalog Number: 9491
Robert Scanlan
Half course (fall term). Tu., Th., at 12. EXAM GROUP: 14
A broad survey of major monuments of drama, starting with Aeschylus'*Oresteia* and culminating with Ibsen's *Peer Gynt*, the gateway to modern drama. Lectures introduce the historical periods that produced and preserved selected classics of western drama. After the Greeks, Roman, and Medieval examples pave the way for Renaissance and French Neo-classical masterpieces, followed by the rise of bourgeois drama, Goethe and finally Ibsen.

Cross-listed Courses

[Comparative Literature 151. The Faust Legend in Literature]
***English Ckr. Playwriting Workshop**
***English Clr. Screenwriting Workshop**
***English 90pb. Dramatic Structure and Analysis**
[*English 90qb. Celebrated Scripts: Award Winning Plays and Screenplays 1994-2004]
***English 90sb. Samuel Beckett's Plays and Prose**
English 121. Shakespearean Playwriting
[English 163m. The Musical]
French 137. 20th Century French Theater
French 189. Francophone Poetry and Drama
Freshman Seminar 32y. Goethe's *Faust
***Freshman Seminar 36s. Provocative Truths: The Role of the Fool in European Drama**
[Japanese Literature 141. Edo's Spectacular Culture]
[Japanese Literature 243r. Major Writers: Chikamatsu Monzaemon]
[Literature and Arts A-35. Tragic Drama and Human Conflict]
Literature and Arts C-14. Concepts of the Hero in Greek Civilization
[Literature and Arts C-25. The Medieval Stage]
Literature and Arts C-55. Surrealism: Avant-Garde Art and Politics between the Wars

Earth and Planetary Sciences

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Earth and Planetary Sciences

Jeremy Bloxham, Harvard College Professor and Mallinckrodt Professor of Geophysics *(Chair)*
James G. Anderson, Philip S. Weld Professor of Atmospheric Chemistry *(on leave spring term)*
Adam M. Dziewonski, Frank B. Baird, Jr. Professor of Science
Göran Ekström, Professor of Geology and Geophysics *(on leave 2004-05)*
Brian F. Farrell, Robert P. Burden Professor of Meteorology
Paul F. Hoffman, Sturgis Hooper Professor of Geology
Daniel J. Jacob, Vasco McCoy Family Professor of Atmospheric Chemistry and Environmental Engineering *(on leave fall term)*
Stein B. Jacobsen, Professor of Geochemistry
Andrew H. Knoll, Fisher Professor of Natural History and Professor of Earth and Planetary Sciences
Charles H. Langmuir, Professor of Geochemistry *(Director of Graduate Studies)*
Charles R. Marshall, Professor of Biology and of Geology
James J. McCarthy, Alexander Agassiz Professor of Biological Oceanography in the Museum of Comparative Zoology
Michael B. McElroy, Gilbert Butler Professor of Environmental Studies
Sujoy Mukhopadhyay, Assistant Professor of Geochemistry
Richard J. O'Connell, Professor of Geophysics
Ann Pearson, Assistant Professor of Geochemistry
James R. Rice, Mallinckrodt Professor of Engineering Sciences and Geophysics
Daniel P. Schrag, Professor of Earth and Planetary Sciences
John H. Shaw, Harry C. Dudley Professor of Structural and Economic Geology *(Head Tutor)*
Sarah Stewart-Mukhopadhyay, Assistant Professor of Planetary Science
Eli Tziperman, Pamela and Vasco McCoy, Jr. Professor of Oceanography and Applied Physics
Steven C. Wofsy, Abbott Lawrence Rotch Professor of Atmospheric and Environmental Science and Associate Dean of the Faculty of Arts and Sciences *(on leave 2004-05)*

Other Faculty Offering Instruction in the Department of Earth and Planetary Sciences

Richard K. Bambach, Lecturer on Earth and Planetary Sciences
Renata Dmowska, Lecturer on Earth and Planetary Sciences
Ralph Mitchell, Gordon McKay Professor of Applied Biology *(on leave spring term)*

Primarily for Undergraduates

Earth and Planetary Sciences 5. Introduction to Environmental Science: Atmosphere, Ocean, and Biosphere
Catalog Number: 2207
Michael B. McElroy
Half course (fall term). M., W., 1–2:30. EXAM GROUP: 6, 7
An introduction to the scientific basis for current concerns regarding possible changes in the global environment. Issues addressed include climate; depletion of stratospheric ozone; regional air pollution; acid rain; disturbance of biogeochemical cycles for life-essential elements C, N, P, and S.
Note: This course, when taken for a letter grade, meets the Core area requirement for Science A.

Earth and Planetary Sciences 6. Introduction to Environmental Science: The Solid Earth
Catalog Number: 2694
Charles H. Langmuir
Half course (spring term). M., W., 1–2:30; laboratories and section require one afternoon per week. EXAM GROUP: 6, 7
Geological context of environmental science, emphasizing relationships between fundamental earth processes and their natural environmental consequences, and the additional consequences caused by human behavior. Includes Earth history, Earth materials, plate tectonics, volcanic eruptions, earthquakes, ice ages, meteorite impacts, erosion, the water cycle, landslides and floods. Nature of systems, chaos, and uncertainty in science. Introduction to epidemiological studies, risk assessment and policy tradeoffs in areas such as groundwater contamination, radioactive materials, and asbestos.
Note: EPS 6 may not be counted for a degree in addition to EPS 7. This course, when taken for a letter grade, meets the Core area requirement for Science B.

Earth and Planetary Sciences 7. Introduction to Geological Sciences
Catalog Number: 0918
Adam M. Dziewonski and Sujoy Mukhopadhyay
Half course (fall term). M., W., F., at 10; three hours of laboratory work each week and two day-long field trips on separate weekends required. EXAM GROUP: 3
A course designed for concentrators but also appropriate for non-concentrators who desire a broad introduction to Earth science. Evolution of the Earth with an emphasis on the processes that have shaped our planet. The theory of plate tectonics is used to explain the occurrence and distribution of earthquakes, volcanoes and mountains. Labs and the weekend field trips familiarize students with rock types, geological features, and illustrate how geologists infer processes from the rock record.
Note: Also appropriate for non-EPS concentrators who desire a comprehensive introduction to Earth Science. This course, when taken for a letter grade, meets the Core area requirement for Science A.

Earth and Planetary Sciences 8. History of the Earth
Catalog Number: 0166
Paul F. Hoffman and Daniel P. Schrag
Half course (spring term). M., W., F., at 10; two hours of laboratory weekly and two one-day field trips. EXAM GROUP: 3
Examines the major stages and critical events in the history of the Earth, with emphasis on the interactions between global tectonics, the climate system, and biological evolution. Topics range from the formation of the Earth and other planets, to catastrophic events that drove mass extinctions, to the most recent period of human interaction with the environment. Laboratories introduce methods of investigation and analysis of the geological record. Weekend field trip.
Note: This is one of three required introductory courses for EPS concentrators, along with EPS 5 and EPS 7. This course, when taken for a letter grade, meets the Core area requirement for Science B.
Prerequisite: Secondary-school courses in science (physics, chemistry, biology) and calculus.

[Earth and Planetary Sciences 30. Environmental Microbiology]
Catalog Number: 4935
Ralph Mitchell
Half course (fall term). Hours to be arranged.
Microbial processes in natural habitats, including biogeochemical cycles and metal transformations. Evolution of microorganisms and the development of survival strategies are discussed. Includes discussions of microbial processes in specific habitats including fresh waters, marine, and soil. Emphasis is placed on the effects of environmental deterioration and the responses of the microbial community.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: An introductory biology course, either at the high school or college level.

***Earth and Planetary Sciences 74. Field Geology**
Catalog Number: 7239
Paul F. Hoffman
Half course (fall term). Hours to be arranged.
Attend a domestic or overseas geological summer field school of 3-6 weeks duration to learn methods of obtaining and interpreting field observations, and preparing geological maps, stratigraphic sections and field reports. Field schools are selected students individually with the advice and approval of the instructor.
Note: Students must notify EPS Head Tutor and instructors of intention to enroll by May 1 of the preceding spring term.
Prerequisite: EPS 7, 8, 150 or 171, are recommended, or permission of instructor.

***Earth and Planetary Sciences 91r. Supervised Reading and Research**
Catalog Number: 1462
John H. Shaw and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Intended for junior or senior concentrators in Earth and Planetary Sciences; open to sophomore concentrators only under exceptional circumstances. Permission of the faculty member under whom the student wants to work and of the Head Tutor is required for enrollment. May be counted for concentration only with the special permission of the Head Tutor.

***Earth and Planetary Sciences 99. Tutorial — Senior Year**
Catalog Number: 7120
John H. Shaw and members of the Department
Full course. Hours to be arranged.
Note: Senior honors candidates must take at least one term of this course (fall or spring) if writing a thesis. Signature of the Head Tutor required for enrollment.

Cross-listed Courses

Astronomy 16. Stars and Gas in the Milky Way

For Undergraduates and Graduates

[Earth and Planetary Sciences 107. Environmental Geochemistry]
Catalog Number: 1242
Sujoy Mukhopadhyay and Ann Pearson
Half course (spring term). Hours to be arranged.
An overview of low-temperature geochemistry through the treatment of a selection of geochemical issues of environmental significance. Each unit places geochemical topics in the context of a broader geological perspective with particular emphasis on chemical principles. Students from all concentrations are welcome.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: A course in college-level chemistry or permission from the instructor.

[Earth and Planetary Sciences 108. Environmental Geomechanics]
Catalog Number: 6095
James R. Rice
Half course (fall term). Hours to be arranged.
Concepts of fluid and solid mechanics have major explanatory power throughout the earth and environmental sciences, and they are accessible to students in the early years of study. Here such concepts are introduced in the context of understanding processes in environmental geology. Topics include: Stream flows, water waves, tsunamis; erosion and sediment transport, geomorphology. Groundwater hydrology, seepage, contaminant transport; poroelasiticity, consolidation and subsidence. Rock and soil strength, landslides, debris flows; glaciers; faulting, earthquake dynamics.
Note: Expected to be given in 2005–06. Given in alternate years. Students who wish to have coverage of the same material at a more advanced level should take the course Engineering Sciences 265.
Prerequisite: Mathematics or Applied Mathematics 21a, b and a calculus-based introduction to physics.

Earth and Planetary Sciences 109. Earth Resources and the Environment
Catalog Number: 2218
John H. Shaw
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
An overview of the Earth's energy and material resources. Following introductions to hydrocarbons, nuclear fuels, and other economically important ores, the course emphasizes methods used to exploit these resources and the environmental impacts of these operations. Topics include: coal and acid rain; petroleum, photochemical smog, and oil spills; nuclear power and radioactive hazards; alternative energies; metals and mining. Labs emphasize methods for discovering and exploiting resources, as well as environmental remediation approaches.
Note: Given in alternate years.
Prerequisite: EPS 6, 7, or 8, or permission of the instructor.

[Earth and Planetary Sciences 121. Terrestrial Planets]
Catalog Number: 8577
Sarah Stewart-Mukhopadhyay
Half course (spring term). Hours to be arranged.
The physical and chemical processes that influence the initial condition, evolution, and current

state of terrestrial planets, focusing on the comparative evolution of Venus, Earth, Mars, and large moons. Topics include: planet formation, evolution of atmospheres, interior composition and equations of state, core formation, differentiation, thermal evolution, and major surface modification processes.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: Physics 15a, b, c, or Physics 11a, b, or permission of instructor.

[Earth and Planetary Sciences 131. Introduction to Physical Oceanography]
Catalog Number: 2249
Eli Tziperman
Half course (spring term). Hours to be arranged.
Basic observations and theoretical understanding of ocean phenomena from local surface beach waves to the effects of the oceans on global climate. Observations and dynamics of ocean waves, currents, turbulence, temperature and salinity distributions; basic fluid dynamics equations; the ocean's role in climate: wind-driven circulation and the Gulf stream, thermohaline circulation and the potential instability of Europe's climate, El Nino, the oceans and global warming.
Note: Expected to be given in 2005–06. Given in alternate years. When offered, a field trip to Cape Code and the Woods Hole Oceanographic Institution will be included.
Prerequisite: Applied Mathematics 21a,b; Physics 11 or 15, or permission of instructor.

Earth and Planetary Sciences 132. Introduction to Meteorology
Catalog Number: 8495
Brian F. Farrell
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Physical concepts necessary to understand atmospheric structure and motion. Phenomena studied include the formation of clouds and precipitation, solar and terrestrial radiation, dynamical balance of the large-scale wind, and the origin of cyclones. Concepts developed for understanding today's atmosphere are applied to understanding the record of past climate change and the prospects for climate change in the future.
Prerequisite: Mathematics 21 or Applied Mathematics 21, Physics 11 or 15, or permission of instructor.

Earth and Planetary Sciences 133. Atmospheric Chemistry
Catalog Number: 7731
Daniel J. Jacob
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A fundamental introduction to the physical and chemical processes determining the composition of the atmosphere and its implications for climate, ecosystems, and human welfare. Origin of the atmosphere. Nitrogen, oxygen, carbon, sulfur cycles. Climate and the greenhouse effect. Atmospheric transport and turbulence. Stratospheric ozone. Oxidizing power of the atmosphere. Regional air pollution: aerosols, smog, acid rain.
Prerequisite: Chemistry 15 or 7, and Mathematics 1b.

Earth and Planetary Sciences 137. Biogeochemistry
Catalog Number: 1923
Ann Pearson

Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Introduction to biological and organic chemistry of the Earth's environment. Primary focus on the cycles of carbon, nitrogen, oxygen, and hydrogen with emphasis on processes occurring at the molecular level. Includes an introduction to light stable isotope geochemistry and the isotopic records of individual biomolecules in marine and terrestrial environments.
Note: Given in alternate years.
Prerequisite: Chemistry 15 or equivalent. Chemistry 17/27 strongly recommended.

[Earth and Planetary Sciences 140. Geochemical and Cosmochemical Thermodynamics I]
Catalog Number: 1960
Stein B. Jacobsen
Half course (fall term). Hours to be arranged.
Application of equilibrium thermodynamics to problems in cosmochemistry, igneous and metamorphic petrology, and environmental geochemistry. The laws of thermodynamics. Thermodynamic functions. Conditions for thermodynamic equilibrium and spontaneous transformations. Systems of variable chemical composition. Selection of components and the Gibbs phase rule. Chemography and petrogenetic grids. Conditions for heterogeneous and homogeneous equilibrium. Equilibrium constants. Fugacities and activities. Calculation of binary and ternary phase diagrams. Conditions for stability. Excess functions. Mixed volatile equilibria. Thermodynamics of aqueous solutions.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: Chemistry 15 or equivalent; Mathematics 21a or Applied Mathematics 21a (may be taken concurrently).

Earth and Planetary Sciences 141. Isotope and Trace Element Geochemistry and Geochronology
Catalog Number: 7724
Stein B. Jacobsen
Half course (fall term). M., W., 1–2:30. EXAM GROUP: 6, 7
The origin of the element and isotope distribution in the Earth and the Solar System. Closed system radioactive decay, isotope fractionation, mass balance and mixing. Application of Rb-Sr, Sm-Nd, U-Th-Pb, Lu-Hf, Re-Os and K-Ar isotope systems for geochronology and as tracers for geological processes. Noble gas geochemistry. Extinct nuclides. Cosmogenic nuclides. U-Th-series nuclides. Planetary isotopic evolution. Stable isotope geochemistry. Application of H, C, N, O and S isotopes as tracers of geochemical and biogeochemical processes.
Note: Given in alternate years.
Prerequisite: Chemistry 15 or equivalent; EPS 6 or 7 or equivalent (recommended).

Earth and Planetary Sciences 150. Planetary Materials and Geochemistry
Catalog Number: 4726
Stein B. Jacobsen
Half course (spring term). M., at 1, W., 1–2:30, lab: F., 1–3. EXAM GROUP: 6, 7
Rocks and minerals - clues to understanding the origin and evolution of planetary crusts and mantles. Fundamental principles of mineral structures, phase equilibrium, and the processes of formation of igneous, metamorphic, and sedimentary rocks. Construction and interpretation of phase diagrams, models for melt generation and crystallization. The metamorphic facies concept

and thermal models of metamorphism. Mineralogy, composition, and origin of meteorites and lunar samples. Laboratory emphasizes sample identification, and measurements of chemical and isotopic composition.
Prerequisite: EPS 6 or 7 or Science A-24, and Chemistry 5 or 15, or permission of instructor.

Earth and Planetary Sciences 161. Global Tectonics
Catalog Number: 1854
Richard J. O'Connell
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Overview of geophysical and geological observations and phenomena related to large-scale tectonic processes. Plate tectonics; marine magnetic and paleomagnetic measurements; heat flow and thermal evolution of oceanic plates; earthquakes and volcanoes at plate boundaries. The rigid and nonrigid behavior of lithospheric plates; rates of crustal deformation; earthquakes within continents; mountain building and the support and evolution of mountain belts.
Note: Given in alternate years.
Prerequisite: One basic earth science course (e.g., EPS 7 or Science A-24) or permission of instructor. Applied Mathematics or Mathematics 21a and b, Physics 11a or 15a recommended.

[Earth and Planetary Sciences 166. Introduction to Seismology]
Catalog Number: 1540
Adam M. Dziewonski
Half course (fall term). Hours to be arranged.
Causes, occurrence, and properties of earthquakes. Earthquakes and tectonics, seismic risk, volcanic eruptions. Propagation of seismic waves, physical properties of the Earth's crust, core, and mantle. Seismographs and interpretation of recordings of earthquakes. Some aspects of the required mathematical methods (e.g., Fourier transform) are explained.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: Mathematics 21a and 21b or Applied Mathematics 21a and 21b (may be taken concurrently).

Earth and Planetary Sciences 167. Applied and Environmental Geophysics
Catalog Number: 5143
Adam M. Dziewonski
Half course (spring term). Tu., Th., 1:30–3. EXAM GROUP: 15, 16
Geophysical methods used to search for oil and ores and to address environmental problems such as ground water level, radioactive waste storage, estimation of seismic risk. Theory, instrumentation and interpretation of seismic, gravity, electrical and electromagnetic methods.
Note: Given in alternate years.
Prerequisite: Mathematics 21a and 21b or Applied Mathematics 21a and 21b. Some of the required mathematical tools are explained during the course.

[Earth and Planetary Sciences 171. Structural Geology and Tectonics]
Catalog Number: 0319
John H. Shaw
Half course (fall term). Hours to be arranged.
An introduction to the deformation of Earth materials, including the processes of mountain

building and plate tectonics, faulting and earthquakes, folding, and ductile deformation. Structures are examined using geologic maps, balanced cross sections, seismic reflection data, satellite imagery, microscopic analysis, analog experiments, and numerical methods. Labs emphasize the applications of structural geology in the energy and environmental industries, and for assessing earthquake hazards.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: EPS 6, 7, or 8, or permission of the instructor.

Earth and Planetary Sciences 181. Invertebrate Paleontology
Catalog Number: 5162
Andrew H. Knoll and Richard K. Bambach
Half course (fall term). Tu., Th., 10–11:30 and a weekly 2-hour lab to be arranged. EXAM GROUP: 12, 13
Principles of paleontology, a survey of the major invertebrate taxa, and an investigation of evolutionary history in the oceans. Emphasis on the nature and completeness of the fossil record, taphonomy, systematics, functional and theoretical morphology, along with discussions of biostratigraphy, paleoecology, and evolutionary theory.
Note: Given in alternate years.
Prerequisite: Either Science B-16, Biological Sciences 51, or permission of instructor.

Cross-listed Courses

***Astronomy 135. Planetary System Astronomy**
Engineering Sciences 120. Introduction to the Mechanics of Solids
Engineering Sciences 123. Introduction to Fluid Mechanics
Engineering Sciences 162. Environmental Hydrodynamics and Hydrology
Engineering Sciences 165. Introduction to Environmental Engineering
[Engineering Sciences 167. Environmental Assessment]
[Engineering Sciences 168. Aquatic Chemistry]
OEB 107 (formerly Biology 107). Evolution of Plant Life in Geologic Time
OEB 118 (formerly Biology 118). Biological Oceanography

Primarily for Graduates

Earth and Planetary Sciences 200. Atmospheric Chemistry and Physics
Catalog Number: 2675
James G. Anderson
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Atmospheric physics and chemistry: stratospheric and tropospheric transport, photochemistry, and aerosols; stratopheric ozone loss, tropospheric pollution. Fundamentals of radiative transfer, simple models of the greenhouse effect.
Note: Students specializing in this area are expected to take EPS 200 and 236. These courses may serve as an introduction to atmospheric and oceanic processes for other students with strong preparation.
Prerequisite: Applied Mathematics 105b (may be taken concurrently), Physics 11 a, b or 15, and Chemistry 15, or more advanced courses; or permission of the instructors.

Earth and Planetary Sciences 201. Physics of the Earth's Interior
Catalog Number: 4004
Richard J. O'Connell
Half course (fall term). Tu., Th., 1:30–4:30. EXAM GROUP: 15, 16
The properties and processes of the solid Earth: Continuum mechanics; structure and state of the Earth's interior; gravity and the geoid; viscous creep and mantle flow; rotational dynamics; heat transport and mantle convection.
Prerequisite: Applied Mathematics 105a and 105b, Physics 15 or equivalent. Preparation should be discussed with the instructor.

[Earth and Planetary Sciences 205. Data Analysis and Reduction in Earth Sciences]
Catalog Number: 4426
Adam M. Dziewonski and Göran Ekström
Half course (fall term). Hours to be arranged.
Fundamentals of statistical data analysis and error estimation; model building using linear inversion; model resolution; discrete sampling of time or space series; Fourier series and transforms; digital and matched filter design; wavelet analysis.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: Applied Mathematics 105a; may be taken concurrently.

[Earth and Planetary Sciences 206. Space Geodesy for Earth Scientists]
Catalog Number: 8218

Half course (spring term). Hours to be arranged.
Space geodesy for Earth systems. Measurement of geophysical signals from space geodetic observations. Crustal deformation from tectonic, loading, and other origins; gravity and geopotential; atmospheric studies, including GPS-occultation and tomography; applications to oceans and glaciers.
Note: Expected to be given in 2005–06. Given in alternate years.

[*Earth and Planetary Sciences 207r. Geochemical Oceanography]
Catalog Number: 1602
Daniel P. Schrag
Half course (fall term). Hours to be arranged.
Topics in low-temperature geochemistry, oceanography, and climatology will be discussed. Students will read and present journal articles on relevant topics, and will rotate responsibility for leading discussions.
Note: Expected to be given in 2005–06. Given in alternate years.

[Earth and Planetary Sciences 221. Topics in Environmental Microbiology]
Catalog Number: 7183
Ralph Mitchell
Half course (fall term). Hours to be arranged.
Discussion of current research on environmental microbiology. Bioremediation of hazardous chemicals. New approaches to pest control. Ecological disturbances and emergent new diseases. The fate of genetically engineered microorganisms. Indicators of water-borne disease.

Note: Expected to be given in 2005–06.
Prerequisite: An introductory biology course.

***Earth and Planetary Sciences 231. Climate Dynamics**
Catalog Number: 6492
Eli Tziperman
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Climate variability phenomena and mechanisms. From El Nino and thermohaline circulation variability to millennial and glacial-interglacial variability; hierarchical modeling approach from toy models to GCMs.
Prerequisite: Background in geophysical fluid dynamics or permission of instructor.

Earth and Planetary Sciences 232. Dynamic Meteorology
Catalog Number: 5344
Brian F. Farrell
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
The atmosphere understood as a fluid dynamical system. Observations of atmospheric motions related to weather and climate. Application of the equations of atmospheric dynamics to explaining phenomena such as jet streams, cyclones and fronts.
Prerequisite: Applied Mathematics 105b or permission of instructor.

[Earth and Planetary Sciences 236. Environmental Modeling and Anaylsis]
Catalog Number: 7250
Steven C. Wofsy and Daniel J. Jacob
Half course (spring term). Hours to be arranged.
Introduction to atmospheric chemistry and biogeochemisry. Atmospheric transport processes, Eulerian and Lagrangian model frameworks, forward and inverse methods. Analysis of environmental data: visualization, time series analysis, Monte Carlo methods, statistical assessment. Students prepare projects and presentations.
Note: Expected to be given in 2005–06. Students specializing in this area are expected to take EPS 200 and 236. These courses may serve as an introduction to atmospheric and oceanic processes for other students with strong preparation.
Prerequisite: Applied Mathematics 105b (may be taken concurrently), Physics 11a, b or 15, and Chemistry 15, or more advanced courses; or permission of the instructors.

[Earth and Planetary Sciences 237. Advanced Biogeochemistry]
Catalog Number: 9320
Ann Pearson
Half course (spring term). Hours to be arranged.
EPS 137 topics covered at in depth, accelerated pace. Emphasize reactions at molecular level using isotopic markers to understand natural processes. Consider complex microbial assemblages with attention to current and ancient records of earth systems.
Note: Expected to be given in 2005–06.
Prerequisite: EPS 137 or equivalent, or permission of instructor.

[Earth and Planetary Sciences 238. Spectroscopy and Radiative Transfer of Atmospheres]
Catalog Number: 1891

Half course (spring term). Hours to be arranged.
Absorption, emission, and scattering, emphasizing Earth's atmosphere. Atmospheric spectroscopic properties for various measurement geometries. Quantitative spectroscopy and atmospheric structure are reviewed. Radiative transfer modeling and simulation and interpretation of atmospheric spectra from microwave through ultraviolet.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: Ability to program in a high-level computer language (may be learned in parallel with the permission of the instructor).

Earth and Planetary Sciences 240. Geochemical Transport and Kinetics
Catalog Number: 0187
Stein B. Jacobsen
Half course (spring term). Hours to be arranged.
Irreversible thermodynamics, heat flow and diffusion. K-U-Th geochemistry. Mass transfer between geochemical reservoirs; modeling of mantle melting, mantle and crustal evolution, geochemical cycles. Determination of temperature-time-pressure histories of rocks from radiogenic isotopes and phase equilibria.
Note: Applied Mathematics 105a, b are recommended. Given in alternate years.
Prerequisite: EPS 140, Mathematics 21a, b or Applied Mathematics 21a, b.

[Earth and Planetary Sciences 241. Isotope Geochemistry and the Evolution of the Earth's Interior]
Catalog Number: 1680
Stein B. Jacobsen and Sujoy Mukhopadhyay
Half course (spring term). Hours to be arranged.
The composition of the Earth. Application of radiogenic and stable isotopes to study the processes of formation and evolution of the Earth's crust, mantle and core. Geochemical cycles of elements in the solid Earth.
Note: Expected to be given in 2005–06. Given in alternate years.

Earth and Planetary Sciences 242. Biogeochemistry of Light Stable Isotopes
Catalog Number: 8808 Enrollment: Limited to 10.
Daniel P. Schrag and Ann Pearson
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Introduction to the theory and methodology of stable isotope biogeochemistry. Topics include isotope ratio mass spectrometry, biological fractionation of carbon and nitrogen isotopes, distribution of isotopes in terrestrial and marine ecosystems, and applications to climate reconstruction.
Note: Given in alternate years.

[Earth and Planetary Sciences 243. Geochemical and Cosmochemical Thermodynamics II]
Catalog Number: 2002
Stein B. Jacobsen

Half course (fall term). Hours to be arranged.
For description, see EPS 140. Lectures and problem sets are the same as for EPS 140, but additional work on advanced problems in chemical thermodynamics is required for graduate credit.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: Chemistry 15 or equivalent; Mathematics 21a or Applied Mathematics 21a (may be taken concurrently).

***Earth and Planetary Sciences 244. Noble Gas Geochemistry**
Catalog Number: 1573
Sujoy Mukhopadhyay
Half course (spring term). M., W., 2–3:30. EXAM GROUP: 7, 8
Principles of noble gas geochemistry and geochronology and its application to specific problems in Earth and planetary sciences. Topics include surface exposure dating, (U-Th)/He and Ar-Ar thermochronometry, paleoclimatology, mantle evolution, and models of planetary atmosphere formation.
Note: Given in alternate years.
Prerequisite: Intended for graduates and advanced undergraduate students involved in geochemistry research. Permission of instructor.

Earth and Planetary Sciences 250. Topics in Planetary Sciences
Catalog Number: 1225
Sarah Stewart-Mukhopadhyay
Half course (fall term). M., F., 1:30–3:30. EXAM GROUP: 6, 7, 8
Research seminar on current problems in planetary sciences. Topics: impact processes, planetary surface processes, planet formation, and subjects related to current spacecraft missions.
Note: Given in alternate years or upon announcement.

Earth and Planetary Sciences 260. Topics in Geophysics
Catalog Number: 2908
Richard J. O'Connell and Jeremy Bloxham
Half course (spring term). Tu., at 3. EXAM GROUP: 17
Research seminar on current important problems on the state and processes of the solid Earth. Topics may include mantle structure and geochemistry, the core-mantle boundary, the continental lithosphere.
Note: This course is coordinated with a research course at MIT.

Earth and Planetary Sciences 263. Earthquake Source Processes
Catalog Number: 0542
James R. Rice and Renata Dmowska
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Science of earthquakes including physics of source processes. Elastodynamics; seismic radiation; quantification of earthquakes; slip inversions. Fault strength and rheology; friction and fracture theory. Seismotectonics; stressing and sesismicity in the earthquake cycle; earthquake interactions.

Prerequisite: EPS 166 or equivalent and further study at the 200 level in seismology or solid mechanics.

Earth and Planetary Sciences 264r. Topics in Planetary Magnetism
Catalog Number: 1429
Jeremy Bloxham
Half course (fall term). Hours to be arranged.
Theoretical and observational aspects of planetary magnetism. Topics: observations of Earth's and other planets magnetic fields; core structure, dynamics and energetics; rotation and convection; magnetohydrodynamics and magnetic field generation; kinematic and dynamic dynamo theory.
Prerequisite: Applied Mathematics 105a,b, Physics 153 or equivalent, or permission of instructor.

[Earth and Planetary Sciences 265r. Topics in Geodyamics]
Catalog Number: 0816
Richard J. O'Connell
Half course (fall term). Hours to be arranged.
Topics in the dynamics of processes and properties in the Earth's interior, including: thermal convection and flow in the mantle, rheology of the mantle, plate motions, plate deformation, physical properties of rocks and minerals.
Note: Expected to be given in 2005–06.

[Earth and Planetary Sciences 266r. Topics in Seismology: Earth Structure]
Catalog Number: 2895
Adam M. Dziewonski
Half course (spring term). Hours to be arranged.
Topics in seismology related to investigation of the elastic and anelastic structure of the deep interior of the Earth using normal modes, surface waves, and body waves. Theory, observation, and interpretation. Emphasis on 3-D seismic tomography. Topic changes each year.
Note: Expected to be given in 2005–06.
Prerequisite: EPS 166, Applied Mathematics 105a, b, or equivalent.

Earth and Planetary Sciences 267. Global Seismology
Catalog Number: 4091
Adam M. Dziewonski
Half course (spring term). Hours to be arranged.
Theory and observational techniques used in the study of waves in the Earth. Free oscillations of a spherical Earth. Surface and body waves: dispersion attenuation, refraction and reflection. Seismic source representation; centroid-moment tensor analysis.
Note: Given in alternate years.
Prerequisite: Applied Math 105a, b or EPS 166 or equivalent preparation.

[Earth and Planetary Sciences 268r. Topics in Seismology: Earthquakes]
Catalog Number: 3021
Göran Ekström

Half course (spring term). Hours to be arranged.
Observational and computational methods for determining earthquake parameters from seismic data. The relationship of earthquakes to lithospheric plate motions and global tectonic processes.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: EPS 166, or equivalent.

Earth and Planetary Sciences 270r. Structural Interpretation of Seismic Data
Catalog Number: 8230
John H. Shaw
Half course (fall term). Tu., 3–7 pm. EXAM GROUP: 17, 18
Methods of interpreting complex geologic structures imaged in 2 and 3-dimensional seismic reflection data. Methods of integrated geologic and remote sensing data will be described. Students will complete independent projects analyzing seismic data on workstations.
Note: Given in alternate years.
Prerequisite: EPS 171 or equivalent.

Earth and Planetary Sciences 271r. Topics in Pre-Quaternary Geoscience
Catalog Number: 2515
Paul F. Hoffman
Half course (spring term). Tu., 7–8:30 pm. EXAM GROUP: 18
Students will read and discuss sets of papers on exciting topics in the current literature.

[Earth and Planetary Sciences 272r. Topics in Structural Geology]
Catalog Number: 1546
John H. Shaw
Half course (fall term). Hours to be arranged.
Seminar course investigating recent advances in structural geology and exploration geophysics with applications in earthquake science and the petroleum industry. Specific topics vary from year to year.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: EPS 171 or equivalent. Intended for graduate and advanced undergraduate students involved in structural geology research.

Earth and Planetary Sciences 281r. Great Papers in Earth and Planetary Sciences
Catalog Number: 2474
Paul F. Hoffman
Half course (spring term). Th., 5:30–7:30 pm. EXAM GROUP: 18
Students will read and discuss paradigm-altering papers from the full range of the Earth and planetary sciences. The aim is to expose conceptual foundations and historical developments, and to appreciate what makes great papers great.

Earth and Planetary Sciences 285r. Analytical Paleontology
Catalog Number: 2132
Charles R. Marshall
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
The use of analytic methods in paleobiology. Topics include: determining times of origin and

extinction; dissecting biodiversity dynamics; assessing the absolute completeness of the fossil record; stratigraphy and phylogeny reconstruction, etc.

Cross-listed courses

[Astronomy 225. Formation of Stars and Planets]
[Engineering Sciences 240. Solid Mechanics]
Engineering Sciences 241. Advanced Elasticity
[Engineering Sciences 265. Advanced Environmental Geomechanics]
[OEB 208r (formerly Biology 208). Issues in Historical Paleobiology: Seminar]

Graduate Courses of Reading and Research

***Earth and Planetary Sciences 320. Topics in Planetary Sciences**
Catalog Number: 6050
Sarah Stewart-Mukhopadhyay 4637

***Earth and Planetary Sciences 330. Climate Atmospheric Chemistry and Free Radical Kinetics**
Catalog Number: 3810
James G. Anderson 6057 (on leave spring term)

***Earth and Planetary Sciences 331. Atmospheric Chemistry**
Catalog Number: 4038
Daniel J. Jacob 1781 (on leave fall term)

***Earth and Planetary Sciences 332. Dynamic Meteorology**
Catalog Number: 2802
Brian F. Farrell 7628

***Earth and Planetary Sciences 334. Atmospheric Physics and Chemistry**
Catalog Number: 4886
Michael B. McElroy 2462

***Earth and Planetary Sciences 335. Climate Dynamics and Physical Oceanography**
Catalog Number: 3095
Eli Tziperman 4748

***Earth and Planetary Sciences 336. Geophysical Fluid Dynamics**
Catalog Number: 8851
Eli Tziperman 4748

***Earth and Planetary Sciences 337. Biological Oceanography**
Catalog Number: 5704
James J. McCarthy 4343

***Earth and Planetary Sciences 338. Atmospheric Chemistry**
Catalog Number: 7596
Steven C. Wofsy 4396 (on leave 2004-05)

***Earth and Planetary Sciences 339. Biogeochemistry**
Catalog Number: 9843
Ann Pearson 4224

***Earth and Planetary Sciences 340. Topics in Isotope Geochemistry: Research Seminar**
Catalog Number: 2881
Stein B. Jacobsen 7212

***Earth and Planetary Sciences 341. Isotope Geochemistry**
Catalog Number: 7103
Stein B. Jacobsen 7212

***Earth and Planetary Sciences 344. Topics in Stable Isotope Geochemistry and Geochemical Oceanography**
Catalog Number: 6291
Daniel P. Schrag 3054

***Earth and Planetary Sciences 345. Solid Earth Geochemistry**
Catalog Number: 7979
Charles H. Langmuir 4293

***Earth and Planetary Sciences 346. Topics in Noble Gas Geochemistry**
Catalog Number: 2928
Sujoy Mukhopadhyay 4621

***Earth and Planetary Sciences 362. Dynamo Theory: Research Seminar**
Catalog Number: 1840
Jeremy Bloxham 2047

***Earth and Planetary Sciences 363. Seismology and Tectonophysics: Geomechanics, Earthquake Source Physics**
Catalog Number: 8664
James R. Rice 7270

***Earth and Planetary Sciences 364. Geophysics**
Catalog Number: 1438
Jeremy Bloxham 2047

***Earth and Planetary Sciences 365. Geophysics**
Catalog Number: 5632
Richard J. O'Connell 3642

***Earth and Planetary Sciences 367. Seismology**
Catalog Number: 4447
Adam M. Dziewonski 3641

***Earth and Planetary Sciences 368. Seismology**
Catalog Number: 4932
Göran Ekström 2682 (on leave 2004-05)

***Earth and Planetary Sciences 370. Structural Analysis**
Catalog Number: 9046
John H. Shaw 3699

***Earth and Planetary Sciences 380. Precambrian Geology**
Catalog Number: 1161
Paul F. Hoffman 1507

***Earth and Planetary Sciences 385. Analytical Paleontology**
Catalog Number: 8129
Charles R. Marshall 2823

***Earth and Planetary Sciences 387. Paleobotany**
Catalog Number: 6983
Andrew H. Knoll 7425

East Asian Languages and Civilizations

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of East Asian Languages and Civilizations

Philip A. Kuhn, Francis Lee Higginson Professor of History and of East Asian Languages and Civilizations *(Chair)*
Ryuichi Abe, Reischauer Institute Professor of Japanese Religions
Mikael Adolphson, Associate Professor of Japanese History *(on leave 2004-05)*
Sarah Madeline Allen, Preceptor in Literary Chinese
Peter K. Bol, Charles H. Carswell Professor of East Asian Languages and Civilizations
Harold Bolitho, Professor of Japanese History
James R. Brandon, Visiting Professor of East Asian Languages and Civilizations *(University of Hawaii) (spring term only)*
Eileen Cheng-yin Chow, Assistant Professor of Chinese Literary and Cultural Studies

Edwin A. Cranston, Professor of Japanese Literature
Carter J. Eckert, Yoon Se Young Professor of Korean History *(on leave spring term)*
Mark C. Elliott, Mark Schwartz Professor of Chinese and Inner Asian History
Shengli Feng, Professor of the Practice of Chinese Language *(Director of the Chinese Language Program)*
Yu Feng, Preceptor in Chinese
Robert M. Gimello, Visiting Professor of East Asian Studies and Religious Studies *(University of Arizona)*
Andrew Gordon, Lee and Juliet Folger Fund Professor of History
Helen Hardacre, Reischauer Institute Professor of Japanese Religions and Society
Sung Hee Hong, Preceptor in Korean
Wenze Hu, Preceptor in Chinese
Hui-Yen Huang, Preceptor in Chinese
Wilt Lukas Idema, Professor of Chinese Literature
Wesley M. Jacobsen, Professor of the Practice of the Japanese Language *(Director of the Japanese Language Program)*
Yuko K. Kageyama-Hunt, Preceptor in Japanese
Adam L. Kern, Assistant Professor of Japanese Literature *(on leave 2004-05)*
Sun Joo Kim, Assistant Professor of Korean History
Wai-yee Li, Professor of Chinese Literature *(Head Tutor)*
Felicity A. Lufkin, Lecturer on East Asian Languages and Civilizations *(on leave fall term)*
Satomi Matsumura, Senior Preceptor in Japanese
David McCann, Korea Foundation Professor of Korean Literature
Itsuko Nakamura, Preceptor in Japanese, Contin Ed/Spec Prog Instructor
Binh Ngo, Preceptor in Vietnamese *(Director of the Vietnamese Language Program)*
Sang-suk Oh, Preceptor in Korean *(Acting Director of the Korean Language Program)*
Stephen Owen, James Bryant Conant University Professor
Xiaofei Tian Owen, Preceptor in East Asian Languages and Civilizations
Michael James Puett, Professor of Chinese History
Jay Rubin, Takashima Professor of Japanese Humanities *(on leave fall term)*
Wei-Ming Tu, Harvard-Yenching Professor of Chinese History and Philosophy and of Confucian Studies *(on leave spring term)*
Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies
David Der-Wei Wang, Edward C. Henderson Professor of Chinese Literature
Xuedong Wang, Preceptor in Chinese
Endymion Porter Wilkinson, Lecturer on East Asian Languages and Civilizations
Emi Yamanaka, Preceptor in Japanese

Other Faculty Offering Instruction in East Asian Languages and Civilizations

Janet Gyatso, Hershey Professor of Buddhist Studies *(Divinity School)*
Patrick D. Hanan, Victor S. Thomas Professor of Chinese Literature, Emeritus

Committee for the Social Science Program in East Asian Studies of the Department of East Asian Languages and Civilizations

Carter J. Eckert, Yoon Se Young Professor of Korean History *(Chair) (on leave spring term)*
Andrew Gordon, Lee and Juliet Folger Fund Professor of History
William C. Kirby, Edith and Benjamin Geisinger Professor of History and Dean of the Faculty of Arts and Sciences
Susan J. Pharr, Edwin O. Reischauer Professor of Japanese Politics
James L. Watson, Harvard College Professor and John King and Wilma Cannon Fairbank Professor of Chinese Society

Courses listed under the Department of East Asian Languages and Civilizations begin with department tutorials and then are grouped by area: China, Japan, Korea, Manchu, Mongolia, Tibet, and Vietnam. Each area is divided into language, history, and literature courses, then "Graduate Courses of Reading and Research," and concludes with cross-listings from other departments. Please note that courses under each heading are categorized as either "For Undergraduates and Graduates" or "Primarily for Graduates."

The concentration draws upon faculty working on East Asian topics from the Department of East Asian Languages and Civilizations and from other departments. It offers both a humanities track, in which the history, literature, philosophy, and religion of premodern and modern times are studied, and a social science track, stressing approaches to modern East Asia drawn from the social science disciplines. For further information about the merger and requirements, contact the main office of Asian Studies located at 9 Kirkland Place.

Graduate students in the Faculty of Arts and Sciences may enroll in certain foreign language courses for the grade of Satisfactory/Unsatisfactory. Students should consult with course heads to determine if a course is offered on that basis.

East Asian Studies

Primarily for Undergraduates

***East Asian Studies 91r. Supervised Reading and Research**
Catalog Number: 0961
Wai-yee Li and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Open to students who have given evidence of ability to do independent reading and research. May be taken on an individual basis or by small groups of students interested in working on the same topic. Permission of the East Asian Studies Head Tutor required.

***East Asian Studies 97r. Tutorial — Sophomore Year**
Catalog Number: 0306
Michael James Puett (fall term), David Der-Wei Wang (spring term), and members of the department.
Half course (fall term; repeated spring term). Fall: Tu., 2–3:30; Spring: M., 1–2:30. EXAM GROUP: Fall: 16, 17; Spring: 6, 7
Note: Required of sophomore concentrators.

***East Asian Studies 98r. Tutorial — Junior Year**
Catalog Number: 0342
Wai-yee Li and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Required of junior concentrators. Divided into sections specializing in China, Japan, Korea, and Vietnam.

***East Asian Studies 99. Tutorial — Senior Year**
Catalog Number: 0384
Wai-yee Li and members of the Department
Full course. Hours to be arranged.
Thesis guidance under faculty direction.

For Undergraduates and Graduates

East Asian Studies 120. Visual Culture in 20th Century China: Popular Genres and the Ideal of Popular Art
Catalog Number: 6415
Felicity A. Lufkin
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
A look at three popular, commercially successful visual genres, all of which have figured in ongoing debates over the nature and potential of popular art in 20th century China—woodcut-printed "New Year pictures," mechanically-produced "calendar pictures," and the comic-like "serial picture books"—as well as the self-consciously modern New Print Movement. We trace the debates that connected these art forms from the first half of the century through the first decades of the P.R.C.

[East Asian Studies 125. Chinese Visual Culture: The Woodcut Popular Print]
Catalog Number: 5829
Felicity A. Lufkin
Half course (fall term). Hours to be arranged.
Woodcut printed pictures were a tremendously popular art form in 19th-century China. They were enjoyed as decoration and entertainment within the home, and also figured in popular religious observance. We look at the ways scholars have approached popular prints as an artistic and cultural form, and examine the symbolic values, narrative structures, and religious functions of Chinese popular prints.
Note: Expected to be given in 2005–06.

[East Asian Studies 127. China on Display: Art Exhibitions and Images of the Chinese Nation in the 19th and 20th Centuries]
Catalog Number: 9114
Felicity A. Lufkin
Half course (fall term). Hours to be arranged.
The exhibition of Chinese art, whether at the World Fairs, in the dueling National Palace Museums of Beijing and Taipei, or in the galleries of New York, has often been used to construct and contest images of China's status and potential power as a nation. We examine how

exhibitions have linked art and Chinese national identity, drawing on recent theoretical work on the practice of exhibition.
Note: Expected to be given in 2005–06. Readings and discussions in English.

East Asian Studies 130. The Tang
Catalog Number: 2034
Stephen Owen
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
The Tang was not only one of the largest and culturally cosmopolitan periods in Chinese history, it played a pivotal role in the formation of a shared "East Asian" culture. By looking at the history, literature, social and religious thought, and visual culture of the Tang, we will address a series of questions about historical culture: what are the presumptions and strengths of different disciplines and is it possible to cross them to some unified understanding? To what degree is our knowledge shaped by what gets recorded and what materially survives? How much of our understanding of a period is shaped by subsequent ages?
Note: Discussions and readings in English.

East Asian Studies 140. Major Religious Texts of East Asia
Catalog Number: 0856
Ryuichi Abe
Half course (spring term). Th., 2–4:30. EXAM GROUP: 16, 17, 18
This course aims at enabling students to read and analyze in depth major religious texts of East Asia, representing diverse traditions and genres. The course encourages students to take up their reading of texts not only as ways to acquire knowledge on Asian religious traditions, but as practice, labor, and play in which their ordinary way of understanding/experiencing the world and themselves will be challenged, reaffirmed, and renewed.

Primarily for Graduates

East Asian Studies 211. Historical Theory and Methods
Catalog Number: 3088
Michael James Puett
Half course (spring term). Tu., 2:30–4:30. EXAM GROUP: 16, 17, 18
Theories and methods for research in East Asian history. Covers approaches to social, cultural, intellectual, and political history, analyzing significant works in each field and applications to Chinese, Japanese, and Korean materials.

East Asian Buddhist Studies

For Undergraduates and Graduates

East Asian Buddhist Studies 114. The Mahayana in East Asia: Bodhisattvas and Their Cults in Medieval and Early Modern East Asian Buddhism
Catalog Number: 9159 Enrollment: Limited to 20.
Robert M. Gimello (University of Arizona)
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13

Explores the character of East Asian Mahâyâna Buddhism as revealed in the systematic exposition of its doctrines, and in its cultic pratices, beliefs, and iconography. Taking the bodhisattva as the fullest embodiment of Mahâyâna's ideals and the chief focus of its piety, we'll trace the transformations wrought in the cults and images of the great boddhisattvas—particularly Manjusri—from the 2nd through 12th century during Buddhism's encounter principally with Chinese but also with Korean and Japanese civilization.
Note: Offered jointly with the Divinity School as 3560.

East Asian Buddhist Studies 115. Buddhist Meditation Traditions
Catalog Number: 6958
Robert M. Gimello (University of Arizona)
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Focusing particularly on Buddhism in East Asia, and relying chiefly on English translations of primary canonical and paracanonical sources, we examine a variety of specific meditation curricula while also posing theoretical questions about the relationship between meditation and Buddhist doctrine, the value of meditation in the moral lives of Buddhist individuals and communities, the influence of meditation upon Buddhist art, the connection between meditation and Buddhist ritual, etc.
Note: Offered jointly with the Divinity School as 3561.

[East Asian Buddhist Studies 116a. Buddhism in East Asia: I-VII Century]
Catalog Number: 9937
Robert M. Gimello (University of Arizona)
Half course (fall term). Hours to be arranged.
A survey of the history of Buddhist thought and practice in East Asia from its advent in Han China to the emergence of distinctly East Asian traditions of Buddhist thought and practice in the early Tang, with attention also to the early transmission of Buddhism to Korea, Japan, and Vietnam.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3521.

[East Asian Buddhist Studies 116b. Buddhism in East Asia: VIII-XVI Century]
Catalog Number: 9214
Robert M. Gimello (University of Arizona)
Half course (spring term). Hours to be arranged.
A survey of the history of Buddhist thought and practice in mid-Tang through Ming China, with attention also to developments during the same period in Korea, Vietnam, and Japan.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3526.

[East Asian Buddhist Studies 120. Buddhist Apologetics in East Asia]
Catalog Number: 0692
Robert M. Gimello (University of Arizona)
Half course (spring term). Hours to be arranged.
A treatment of the process by which Buddhism in China, Korea, and Japan came to define itself either over and against other religious and intellectual traditions like Confucianism, Daoism, and Shintö or in ecumenical relation to them. Historical examples of Buddhism's response to other

traditions are considered in light of modern theories of inter-religious dialogue.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3524.

Primarily for Graduates

East Asian Buddhist Studies 210r. Topics in East Asian Buddhism
Catalog Number: 7624
Robert M. Gimello (University of Arizona)
Half course (fall term). W., 2–5. EXAM GROUP: 7, 8, 9
Examination of various themes and issues in the history of medieval and early modern Chinese, Korean, and/or Japanese Buddhism. The subject this year will be the formation and early history of Huayan Buddhism.
Prerequisite: Reading knowledge of classical Chinese.

East Asian Buddhist Studies 213. Buddhism and Literati Culture in the Song Dynasty
Catalog Number: 4690
Robert M. Gimello (University of Arizona)
Half course (spring term). W., 2–5. EXAM GROUP: 7, 8, 9
Graduate reading course on relations between monks and literati in the Song period.

[East Asian Buddhist Studies 220. Pilgrimage and Sacred Sites in China]
Catalog Number: 8720
Robert M. Gimello (University of Arizona)
Half course (spring term). Hours to be arranged.
A study of pilgrimage as a Chinese religious practice, and of pilgrimage destinations as sacred sites. Special emphasis on Buddhist sacred mountains, with some comparative consideration of pilgrimage and sacred sites in Daoism and Confucianism.
Note: Expected to be given in 2005–06.

East Asian Buddhist Studies 240. Buddhism and the Medieval Japanese Nation
Catalog Number: 3768
Ryuichi Abe
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Introduction to recent developments in Japanese scholarly works, especially in their new approaches to understanding medieval religiosity and the role it played in the formation of the medieval Japanese nation.
Prerequisite: Modern Japanese completed; classical Japanese; *Kanbun* or classical Chinese desirable.

East Asian Buddhist Studies 245. Ritual and Text in Japanese Buddhist Literature
Catalog Number: 7113
Ryuichi Abe
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Examines the way in which rituals are approached, described, and interpreted in primary Japanese Buddhist texts. Students will acquire skills allowing them to move freely in their

reading of texts from diverse literary genres.
Prerequisite: Classical Japanese and *Kanbun*.

Graduate Course

***East Asian Buddhist Studies 300. Reading and Research**
Catalog Number: 9811
Robert M. Gimello (University of Arizona) 9240, Ryuichi Abe 4974, and Janet Gyatso (Divinity School) 4243

Cross-listed courses

Religion 1700. Introduction to Buddhism, in Theory and Practice
[Religion 1708. Issues in Buddhist Philosophy: Conference Course]
[Religion 1710. Buddhist Ethics: Seminar]
Religion 1730. Buddhist Women and Representations of the Female: Conference Course
Religion 2710. Buddhist Studies: Seminar
***South Asian Buddhist Studies 303. Reading and Research**

China: Language Courses

For Undergraduates and Graduates

Chinese Aab. Intensive Elementary Modern Chinese
Catalog Number: 0625
Wenze Hu
Full course (fall term). M. through F., 1–3. EXAM GROUP: 6, 7
Intensive introduction to modern standard (Mandarin) Chinese pronunciation, grammar, conversation, reading, and writing.
Note: Satisfies prerequisite for second-year Chinese.

Chinese Ba. Elementary Modern Chinese
Catalog Number: 4375

Half course (fall term). Sections Tu., Th., 9, 10, 12, or 2, and three additional hours to be arranged. EXAM GROUP: 11, 12
Nonintensive introduction to modern Chinese pronunciation, grammar, conversation, reading, and writing.
Note: No auditors. May not be taken Pass/Fail.

Chinese Bb. Elementary Modern Chinese
Catalog Number: 8714
Shengli Feng and Min Chen
Half course (spring term). Sections Tu., Th., 9, 10, or 2; and three additional hours to be arranged. EXAM GROUP: 11, 12
Continuation of Chinese Ba.

Note: No auditors. May not be taken Pass/Fail.
Prerequisite: Chinese Ba or equivalent.

Chinese Bx. Elementary Chinese for Advanced Beginners
Catalog Number: 7066
Hui-Yen Huang
Half course (fall term). M., W., F., at 10 or 2, and two additional hours to be arranged. EXAM GROUP: 3, 7
For students with significant listening and speaking background. Introductory Modern Chinese language course, with emphasis on reading and writing. Covers in one term the equivalent of Chinese Ba and Bb.
Note: No auditors. May not be taken Pass/Fail. Students must pass a test in listening and speaking to take the course.

[Chinese Ca (formerly Chinese 108a). Cantonese]
Catalog Number: 0223
Shengli Feng
Half course (fall term). Hours to be arranged.
Nonintensive introduction to Cantonese dialect. Emphasizes basic pronunciation and colloquial usage.
Note: Expected to be given in 2005–06. Primarily intended for non-native speakers who will conduct research in a Cantonese-speaking locale.
Prerequisite: Two years formal study of Mandarin.

[Chinese Cb (formerly Chinese 108b). Cantonese]
Catalog Number: 0831
Shengli Feng
Half course (spring term). Hours to be arranged.
Continuation of Chinese Ca.
Note: Expected to be given in 2005–06. Primarily intended for non-native speakers who will conduct research in a Cantonese-speaking locale.
Prerequisite: Two years formal study of Mandarin and Chinese Ca or equivalent.

Chinese Ma (formerly Chinese 115a). Beginning Taiwanese (Southern Min) Conversation
Catalog Number: 2299
Jung-Chih Tsai
Half course (fall term). M., W., 2–4. EXAM GROUP: 7, 8
Non-intensive introduction to Taiwanese (Minnan dialect). Emphasizes basic pronunciation and colloquial usage.
Note: No auditors. Intended for non-native speakers.

Chinese Mb (formerly Chinese 115b). Beginning Taiwanese (Southern Min) Conversation
Catalog Number: 5696
Jung-Chih Tsai
Half course (spring term). M., W., 2–4. EXAM GROUP: 7, 8
Continuation of Chinese Ma.

Note: No auditors. Intended for non-native speakers.
Prerequisite: Chinese Ma or permission of the instructor.

[Chinese 100. Mandarin Pronunciation and Grammar for Speakers of Cantonese Dialects]
Catalog Number: 7291
Shengli Feng
Half course (spring term). Hours to be arranged.
An introduction to modern Chinese pronunciation. Offering a systematic contrast and comparison between the sound and syntactic systems of the two dialects, for students who are native speakers of Cantonese and have a strong background in reading. Those who wish to continue will be prepared for Chinese 113b, Advanced Conversational Chinese.
Note: Expected to be given in 2005–06.

Chinese 111r. Readings in Modern Chinese Literature and Culture
Catalog Number: 7049
Xiaofei Tian Owen
Half course (fall term). F., 1–3. EXAM GROUP: 6, 7
Essay has always been an important genre in Chinese literature. This year's topic will be a survey of the modern Chinese essay in the first half of the twentieth century. We will read a series of narrative and lyrical essays by Lu Xun, Zhou Zuoren, Yu Dafu, Feiming, Shen Congwen, Wang Zengqi, Su Qing, and Zhang Ailing (Eileen Chang), and discuss their literary and cultural implications.
Note: Conducted entirely in Chinese.
Prerequisite: Three years of modern Chinese or the equivalent.

Chinese 120a (formerly Chinese 101a). Intermediate Modern Chinese
Catalog Number: 4283
Xuedong Wang
Half course (fall term). Sections Tu., Th., at 10, 12, or 2, and three additional hours to be arranged. EXAM GROUP: 12, 14
Modern texts, conversation, reading, and composition.
Note: No auditors. May not be taken pass/fail.
Prerequisite: Chinese Bb or equivalent.

Chinese 120b (formerly Chinese 101b). Intermediate Modern Chinese
Catalog Number: 1702
Xuedong Wang
Half course (spring term). Sections Tu., Th., at 10, 12, or 2, and three additional hours to be arranged. EXAM GROUP: 12, 14
Continuation of Chinese 120a.

Chinese 123b (formerly Chinese 101x). Intermediate Modern Chinese for Advanced Beginners
Catalog Number: 7034
Hui-Yen Huang
Half course (spring term). Sections M., W., F. at 10 or 2, and two additional hours to be

arranged. EXAM GROUP: 3, 7
Continuation of Chinese Bx. Covers in one term the equivalent of Chinese 120a and 120b.

Chinese 124a (formerly Chinese 116a). Intermediate Taiwanese (Southern Min) Conversation
Catalog Number: 8491
Jung-Chih Tsai
Half course (fall term). Tu., Th., 2–4. EXAM GROUP: 16, 17
Note: No auditors.
Prerequisite: Continuation of Chinese Mb or equivalent.

Chinese 124b (formerly Chinese 116b). Intermediate Taiwanese (Southern Min) Conversation
Catalog Number: 2565
Jung-Chih Tsai
Half course (spring term). Tu., Th., 2–4. EXAM GROUP: 16, 17
Note: No auditors.
Prerequisite: Continuation of Chinese 124a or equivalent.

Chinese 125ab (formerly Chinese 102ab). Intensive Intermediate Modern Standard Chinese
Catalog Number: 0977
Wenze Hu
Full course (spring term). M. through F., 1–3. EXAM GROUP: 6, 7
Continuation of Chinese Aab.
Note: Satisfies prerequisite for third year Chinese.
Prerequisite: Chinese Aab, or Ba and Bb, or equivalent.

Chinese 130a (formerly Chinese 105a). Advanced Modern Chinese
Catalog Number: 6724
Aimin Li
Half course (fall term). Sections M., W., F., at 10, 11, or 2, and two additional hours to be arranged. EXAM GROUP: 3, 4
A study of writings selected from modern Chinese literature, academic works and newspaper articles aimed at enhancing and further developing the student's proficiency in modern Chinese language.
Note: Conducted in Chinese.
Prerequisite: Two years of modern Chinese.

Chinese 130b (formerly Chinese 105b). Advanced Modern Chinese
Catalog Number: 2917
Aimin Li
Half course (spring term). Sections M., W., F., at 10, 11, or 2, and two additional hours to be arranged. EXAM GROUP: 3
Continuation of Chinese 130a.

Note: Conducted in Chinese.
Prerequisite: Chinese 130a.

Chinese 140a (formerly Chinese 110a). Advanced Readings in Modern Chinese
Catalog Number: 1945
Yu Feng
Half course (fall term). Sections M., W., F., at 10, or 1, and two additional hours to be arranged. EXAM GROUP: 3
Rapid reading of selections from books and articles.
Note: Conducted in Chinese.
Prerequisite: Chinese 130b.

Chinese 140b (formerly Chinese 110b). Advanced Readings in Modern Chinese
Catalog Number: 6844
Yu Feng
Half course (spring term). Sections M., W., F., at 10, or 1, and two additional hours to be arranged. EXAM GROUP: 3
Continuation of Chinese 140a.

Chinese 142a (formerly Chinese 113a). Advanced Conversational Chinese
Catalog Number: 3900
Wenze Hu
Half course (fall term). Tu., Th., 10–11:30 and one additional hour to be arranged. EXAM GROUP: 12, 13
Spoken Chinese for advanced students.
Prerequisite: Chinese 140a or equivalent.

Chinese 142b (formerly Chinese 113b). Advanced Conversational Chinese
Catalog Number: 1418
Wenze Hu
Half course (spring term). Tu., Th., 2–3:30, and one additional hour to be arranged. EXAM GROUP: 12, 13
Spoken Chinese for advanced students.
Prerequisite: Chinese 130b, or equivalent.

Chinese 150a. Formal Chinese Writing and Speaking
Catalog Number: 5621 Enrollment: Limited to 15.
Shengli Feng
Half course (fall term). Tu., Th., at 10 and three additional hours to be arranged. EXAM GROUP: 12
The purpose of this course is to enable students to acquire a comprehensive written grammar with sufficient formal vocabulary in modern Chinese. Formal patterns generated by combining single characters are used for the foundation of written grammar. This course also offers students authentic academic readings in order to improve their abilities in academic writing and formal speech. Students are required to write and present their essays in formal Chinese.
Prerequisite: Chinese 140b or equivalent.

Chinese 150b. Formal Chinese Writing and Speaking
Catalog Number: 8111 Enrollment: Limited to 15.
Yu Feng
Half course (spring term). Tu., Th., at 10 and three additional hours to be arranged. EXAM GROUP: 12
Continuation of Chinese 150a.
Prerequisite: Chinese 150a

Chinese 163 (formerly Chinese 125). Business Chinese
Catalog Number: 6558
Yu Feng
Half course (fall term). M., W., at 11, and two additional hours to be arranged. EXAM GROUP: 4
Designed for students interested in international business or for students who intend to work or travel for business in Chinese-speaking communities (including China, Taiwan, Hong Kong, and Singapore), or for students who desire to improve their Chinese language proficiency. An introduction to business and economic climates, practices and customs of these communities. Students learn specialized business and economic vocabulary and the principles of business correspondence.
Note: Conducted in Chinese. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students.
Prerequisite: At least three years of Modern Chinese or equivalent (with instructor's permission).

Chinese 185. Masterworks of Chinese Literature
Catalog Number: 8601
Xiaofei Tian Owen
Half course (spring term). M., W., at 11. EXAM GROUP: 4
Introductory course on classical Chinese literature. We will engage in close reading of selected poems, classical prose works, and passages from fiction, with critical essays in Chinese. Students will develop skills for reading both literary Chinese and pre-modern vernacular, while learning the modern vernacular idioms of explaining and appreciating such works.
Note: Taught in Chinese.
Prerequisite: One year of literary Chinese (*wenyan*) or the equivalent.

Chinese 187. Art and Violence in the Cultural Revolution
Catalog Number: 1253
Xiaofei Tian Owen
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
This course examines the cultural implications of the Cultural Revolution (1966-1976) by asking how art was violent towards people and how violence was turned into an art. The course will consider fiction, essays, "revolutionary Peking operas," and movies produced during this period and about this period.
Note: Conducted entirely in Chinese.
Prerequisite: At least three years of Mandarin or equivalent (with instructor's permission).

Chinese 188 (formerly Chinese 130). Traditional Chinese Philology
Catalog Number: 2801
Shengli Feng
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Traditional Chinese philology consists of a set of principles and techniques in four major areas: paleography, historical phonology, exegesis, and historical syntax. Students will acquire proficiency in theories, principles, and techniques that enable them to decode the ancient language rationally and that facilitate their understanding and translation accurately.
Prerequisite: Chinese 107b or equivalent.

Literary Chinese Courses

Chinese 106a. Introduction to Literary Chinese
Catalog Number: 1185
Sarah Madeline Allen
Half course (fall term). Section I: M., W., 1–2:30; Section II: Tu., Th., 10–11:30. EXAM GROUP: 6, 7
Basic grammar and the reading of simple historical narrative.
Prerequisite: At least one year of modern Chinese, or familiarity with Chinese characters through knowledge of Japanese or Korean.

Chinese 106b. Introduction to Literary Chinese
Catalog Number: 3600
Sarah Madeline Allen
Half course (spring term). Section I: M., W., at 11 and an additional hour to be arranged; Section II: Hours to be arranged. EXAM GROUP: 4
Introduction to pre-Qin philosophical texts.
Prerequisite: Chinese 106a or permission of instructor.

Chinese 107a. Intermediate Literary Chinese
Catalog Number: 3343
Sarah Madeline Allen
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A second-year course in literary Chinese, covering the genres and styles used in the imperial period. *guwen* prose.
Prerequisite: One year of literary Chinese.

Chinese 107b. Intermediate Literary Chinese
Catalog Number: 6931
Sarah Madeline Allen
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Continuation of 107a; emphasis on poetry and lyric (*shi ci*), parallel prose (*pianti wen*), and rhapsody (*fu*).
Prerequisite: Chinese 107a or equivalent.

Primarily for Graduates

Chinese 215r. Cultural and Literary Discourse in Premodern China
Catalog Number: 8043
Xiaofei Tian Owen
Half course (fall term). Th., 1–4. EXAM GROUP: 15, 16, 17
An overview of literature and culture of the Southern Dynasties (317-589). We will read a series of literary, religious, and historical texts, and discuss the major cultural issues of this period.
Note: Conducted entirely in Chinese.
Prerequisite: Prerequisite: At least two years of literary Chinese or equivalent.

Chinese Linguistics 200. Introduction to Teaching of Modern Chinese Language
Catalog Number: 5108
Shengli Feng
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
Introduction to teaching Modern Standard Chinese as a second language at college level. Reviews concepts and publications relating to trends in second language teaching, pedagogical issues and materials concerned with teaching MSC, observation of teaching.

China: History Courses

For Undergraduates and Graduates

[Chinese History 111. Introduction to Chinese History: Pre-Imperial and Imperial China, ca. 1700 BC-AD 755]
Catalog Number: 7133
Michael James Puett
Half course (spring term). Hours to be arranged.
Survey of Chinese history from the Bronze Age to the middle of the T'ang Dynasty. Social, economic, and political institutions analyzed in relation to changes in philosophical and religious beliefs and cultural patterns.
Note: Expected to be given in 2005–06. No prior course work in Chinese history is presupposed.

[Chinese History 118. History of Relations between China and Inner Asia]
Catalog Number: 6134
Mark C. Elliott
Half course (spring term). Hours to be arranged.
Examines the political, military, economic, and social aspects of the relationship between China and Inner Asia from the 13th to the 20th century.
Note: Expected to be given in 2005–06. Some knowledge of Chinese is recommended but not required.

Chinese History 190. Women in Imperial China and Inner Asia
Catalog Number: 0465
Mark C. Elliott
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A general introduction to women's history in China and Inner Asia from the tenth to the eighteenth centuries through readings in secondary scholarship and selected primary sources in

translation. Special attention to problems of gender and ethnicity.
Note: Open to undergraduates and graduates, with differing requirements.
Prerequisite: Prior coursework in Chinese history.

Cross-listed Courses

[Foreign Cultures 48. The Cultural Revolution]
Historical Study A-13. China: Traditions and Transformations
Historical Study A-53. The Chinese Revolutionary Tradition
[History of Science 103. Chinese Medical History: Seminar]

Primarily for Graduates

Chinese History 211. Research on Chinese History and Civilization: Tools and Methods
Catalog Number: 4895
Endymion Porter Wilkinson
Half course (fall term). F., 1–3. EXAM GROUP: 6, 7
Covers basic problems encountered in doing research on China in the humanities and social sciences; surveys main types of primary sources; analyzes canons and praxis; introduces the most efficient printed and electronic reference tools.
Prerequisite: A working knowledge of Chinese and Japanese is helpful.

[Chinese History 225r. Topics in Song History: Seminar]
Catalog Number: 5075
Peter K. Bol
Half course (spring term). Hours to be arranged.
Examines various topics in the political, social, and intellectual history of Song China.
Note: Expected to be given in 2005–06.
Prerequisite: Knowledge of literary Chinese.

[Chinese History 226. Introduction to Sources for Local History]
Catalog Number: 7114
Peter K. Bol
Half course (fall term). Hours to be arranged.
Introduction to the reading and interpretation of various kinds of sources from the Sung, Yuan, and Ming periods useful in the study of local history. Recent scholarship and methodological issues are also discussed.
Note: Expected to be given in 2006–07.
Prerequisite: One year of literary Chinese or the equivalent.

[Chinese History 227r. Topics in Middle-Period Sociocultural History: Seminar]
Catalog Number: 7132
Peter K. Bol
Half course (fall term). Hours to be arranged.
Examines changes in Chinese society and culture from the Southern Sung period into the mid-Ming period through case studies in local history.

Note: Expected to be given in 2006–07.
Prerequisite: Knowledge of literary Chinese.

Chinese History 228. Introduction to Neo-Confucianism
Catalog Number: 2130
Peter K. Bol
Half course (fall term). M., 1–4. EXAM GROUP: 6, 7, 8
Introduces major Neo-Confucian texts for close reading and analysis. Selections from the writings and records of spoken instruction by Zhou Dunyi, Chang Zai, Cheng Yi, Cheng Hao, Zhu Xi, Liu Jiuyuan, and others.

Chinese History 229. Topics in Ming History
Catalog Number: 6649
Peter K. Bol
Half course (spring term). M., 1–4. EXAM GROUP: 6, 7, 8
Examines various topics in the intellectual and cultural history of Ming China.
Prerequisite: Knowledge of literary Chinese.

Chinese History 230. Gender and Creativity in the Visual Arts in China
Catalog Number: 1614
Felicity A. Lufkin
Half course (spring term). M., 4–6. EXAM GROUP: 9
This seminar looks at issues of gender and creativity through the lens of womens participation in the visual arts in late imperial and modern China. Where did women fit in the largely male-dominated fields of painting and calligraphy? What happens if we look at traditionally “female” fields like needlework as legitimate forms of artistic expression? How has the gendered nature of artistic creativity been restructured in the modern period?
Note: Prior knowledge of Chinese art history useful but not required.

Chinese History 232r (formerly Chinese History 232). Topics in Han History
Catalog Number: 7542
Michael James Puett
Half course (spring term). W., 12–3. EXAM GROUP: 5, 6, 7
Examines various topics in the history of the Han Dynasty.

[Chinese History 233. Sources for Early Chinese History]
Catalog Number: 9387
Michael James Puett
Half course (fall term). Hours to be arranged.
Chronological survey of recently-discovered paleographic texts and received materials from the late Shang through the early Warring States period, with discussion of problems of contextualization.
Note: Expected to be given in 2005–06.

Chinese History 235r (formerly Chinese History 235). Topics in Warring States History: Seminar

Catalog Number: 1499
Michael James Puett
Half course (fall term). W., 1–4. EXAM GROUP: 6, 7, 8
Close reading of texts from the Warring States period.

[Chinese History 251. Confucian Ethics: Conference Course]
Catalog Number: 2428
Wei-Ming Tu
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
An exploration of salient features in the Confucian mode of moral reasoning.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3857.

[Chinese History 252. The Conquest Dynasties]
Catalog Number: 6854
Mark C. Elliott
Half course (fall term). Hours to be arranged.
Examines the history of northern alien "regimes" established in China in comparative perspective. Attention given to historiographical as well as theoretical issues of conquest, colonialism, law, identity, language, and gender. The focus this year is on the Yuan.
Note: Expected to be given in 2005–06.
Prerequisite: Reading knowledge of modern Chinese and/or Japanese required.

Cross-listed Courses

Anthropology 1210. Chinese Archeology: Paleolithic to Shang
Anthropology 1880. Chinese Culture and Society
[Anthropology 2960r (formerly Anthropology 296r). Chinese Social Anthropology: Seminar]
History 1827. Nationalism and Ethnicity in China
History 1828. Christianity and Chinese Society: Conference Course
[History 2847. 20th-Century China: Seminar]
History 2848a. Introduction to Archival Research in Chinese History: Seminar
History 2848b. Introduction to Archival Research in Chinese History: Seminar

China: Literature Courses

For Undergraduates and Graduates

Chinese Literature 125. Modern Chinese Literature in Translation
Catalog Number: 1162
Eileen Cheng-yin Chow
Half course (fall term). M., W., at 11. EXAM GROUP: 4
Survey of important literary works of twentieth century China. Emphasis will be placed on short stories, but a few novels, plays, and poems will also be included. Class lectures will present important historical and literary background to the period under scrutiny: from the 1910s, through the May Fourth Movement, the radicalization of the 30s, the Anti-Japanese War, the

period of socialist construction, the Cultural Revolution, liberalization of the post-Mao era, and cultural commercialization of the 1990s.
Note: Readings in English.

[Chinese Literature 130. Screening Modern China: Chinese Film and Culture]
Catalog Number: 7241
Eileen Cheng-yin Chow
Half course (spring term). Hours to be arranged.
How do Chinese films between the two fin-de-siècles create the spectacle of "China" at home and abroad? Course topics include: the cinematic histories of China, Taiwan, and Hong Kong; the origins of early Chinese cinema; film's relationship to literary and pop culture discourses; aesthetic responses to historical crises; "spectacular" violence and the martial arts genre. Please see website for a more detailed course description.
Note: Expected to be given in 2005–06. Lectures and readings in English, plus weekly film screenings. No prior background in subject matter required. This course, when taken for a letter grade, meets the Core area requirement for Foreign Cultures.

[Chinese Literature 132. Chinatowns]
Catalog Number: 8316
Eileen Cheng-yin Chow
Half course (fall term). Hours to be arranged.
Explores ways that "Chinatown" has circulated as 'memory, fantasy, narrative, myth' in the dominant cultural imagination the last century and a half, and how realities of overseas communities, Asian American history, and conceptions of 'Chineseness' have engaged with real and phantom Chinatowns. Though emphasis is on cultural and theoretical issues rather than socio-historical study of the "Chinatown" phenomenon, participants are encouraged to pursue multi-disciplinary approaches, such as studies in urban history, economics, or creative projects.
Note: Expected to be given in 2006–07. Primarily for undergraduates; graduate students may enroll with permission of instructor.

[Chinese Literature 150. Diaspora and Transnationalism]
Catalog Number: 1470
Eileen Cheng-yin Chow
Half course (fall term). Hours to be arranged.
Examines historical and cultural notions of nations, diasporas, and homes intersecting with new economic and social arrangements that create flows of people across the globe. Readings on nationalism, transnationalism, and identity; their relation to memory, knowledge, and narrative; hybrid/minority cultural formations; and role mass media has played creating transnational publics. Perspectives from Anderson, Appadurai, Bhabha, Chow, Clifford, Gilroy, Hall, Radhakrishnan, Ong, Spivak; creative texts include those by Danticat, Lahiri, Ondaatje, Ozeki, Rushdie, and selected films.
Note: Expected to be given in 2005–06.

Chinese Literature 153. Epic Poetry, Narrative Verse, and Prosimetric Literature
Catalog Number: 1105
Wilt Lukas Idema

Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
The Chinese tradition of poetry is overwhelmingly lyrical in nature, but narrative poetry and epic dimensions are not absent. Moreover, Chinese literature developed an extremely rich body of chantable literature. Works in these genres tell their stories in an alternation of prose of verse. We look at the most important genres (bianwen, zhugongdiao, cihua, tanci, baojuan) and discuss some works in detail.

Cross-listed Courses

For related courses, see also *China: Language Courses* section.
[Foreign Cultures 68. Authority and the Claims of the Individual in Chinese Literary Culture]
Linguistics 171. Structure of Chinese
Literature and Arts A-63. Women Writers in Imperial China: How to Escape from the Feminine Voice
Literature and Arts B-48. Chinese Imaginary Space
Literature and Arts C-40. The Chinese Literati

Primarily for Graduates

[Chinese Literature 200. Pre-modern Chinese Literary Studies]
Catalog Number: 2533
Stephen Owen
Half course (fall term). Hours to be arranged.
An introduction to the study of pre-modern Chinese literature, its history and customs, sources and resources, and issues in research.
Note: Expected to be given in 2005–06. Primarily for first- and second-year graduate students in Chinese literature.

Chinese Literature 201a. History of Chinese Literature: Beginnings through Song
Catalog Number: 0165
Stephen Owen
Half course (fall term). Tu., 2:30–4, Th., 4–5:30. EXAM GROUP: 16, 17, 18
Basic scholarly introduction to major writers, works, and literary forms through the 13th century. Also includes bibliographical background and readings in primary texts.
Prerequisite: One year of literary Chinese.

Chinese Literature 201b. History of Chinese Literature: 900-1900
Catalog Number: 1760
Wilt Lukas Idema
Half course (spring term). W., 2–5. EXAM GROUP: 7, 8, 9
Continuation of Chinese Literature 201a. Provides an in-depth overview of the development of Chinese literature during the late imperial period, with special (but not exclusive) emphasis on the development of vernacular literature.

[Chinese Literature 222. The Long Twentieth Century: Seminar in Modern Chinese Literature]
Catalog Number: 4301
Eileen Cheng-yin Chow
Half course (spring term). Hours to be arranged.
Examines the "long twentieth century" of Chinese literature, from late Qing to present, emphasis on the urban and the popular (*tongsu*). Introduces the material, helps in generals preparation, and raises questions for further research.
Note: Expected to be given in 2005–06.
Prerequisite: Advanced command of modern Chinese, ability to read a heterogeneous range of texts (vernacular, semi-classical, 'new') in the original.

[Chinese Literature 224r. Topics in Modern Chinese Literature]
Catalog Number: 4997
Eileen Cheng-yin Chow
Half course (spring term). Hours to be arranged.
The focus of this year's seminar will be film studies.
Note: Expected to be given in 2005–06.
Prerequisite: Advanced command of modern Chinese.

[Chinese Literature 225. Visual Evidence]
Catalog Number: 7222
Eileen Cheng-yin Chow
Half course (fall term). Hours to be arranged.
Through texts and investigations into visual practices, explores interactions of social context, technology, and culture in Qing and Republican China, and the role material media plays in changing epistemological formations, and in defining the "modern".
Note: Expected to be given in 2006–07.
Prerequisite: Advanced command of modern Chinese; ability to read classical Chinese.

[Chinese Literature 227. Early Chinese Historiography: Seminar]
Catalog Number: 3773
Wai-yee Li
Half course (fall term). Hours to be arranged.
Studies *Zuozhuan* and *Shiji* and ponders early Chinese conceptions of history by examining rhetorical and narrative modes. The focus is problems of interpretation - how these texts represent the possibilities and limits of historical knowledge, the roles and functions of interpreters, and the evolution and disintegration of interpretive structures.
Note: Expected to be given in 2005–06.
Prerequisite: Reading knowledge of classical Chinese.

Chinese Literature 228. Asian Modernities: An Introduction to Critical and Cultural Theories
Catalog Number: 7357
Eileen Cheng-yin Chow
Half course (fall term). M., 3–5. EXAM GROUP: 8, 9

We look at the place of theory and criticism in the study of 'Asia' in the academy today. We engage in topics such as the construction of 'literature', literary traditions, and national cultures in a comparative context; articulations of internationalism and cosmopolitanism as counter-discourses; recent debates on nationalism and modernity, cultural studies, gender studies, translation and travel, and the proliferation of 'post-' studies (postmodern, post-colonial, post-ethnic) as they pertain to our research and writing.
Note: Graduate seminar; qualified undergraduates require permission of instructor. Knowledge of one Asian literary or cultural tradition helpful.

Chinese Literature 231. Late-Ming Literature and Culture
Catalog Number: 2770
Wai-yee Li
Half course (fall term). Tu., 12–2. EXAM GROUP: 14, 15
Surveys writings from second half of sixteenth century until fall of Ming, including prose (including "informal essays"), poetry, drama, fiction. Examines late-Ming literary-aesthetic sensibility (and questions how such a category may be justified.)
Prerequisite: Reading knowledge of classical and pre-modern vernacular Chinese required.

Chinese Literature 232. Early Qing literature and Culture
Catalog Number: 8447
Wai-yee Li
Half course (spring term). Tu., 1–4. EXAM GROUP: 15, 16, 17
Examines works in Qing prose, poetry, fiction, and drama. Focuses on memory and representation of the fall of the Ming in early Qing. Explores how this preoccupation merges and co-exists with developments in this period.
Prerequisite: Reading knowledge of classical and pre-modern vernacular Chinese required.

[Chinese Literature 239. Women in Late-Imperial Chinese Literature]
Catalog Number: 7569
Wai-yee Li
Half course (spring term). Hours to be arranged.
Introduces students to women writers in the Ming and Qing dynasties. Also examines modes of representing female talent, virtues and vices, as well as gender roles and boundaries in various genres.
Note: Expected to be given in 2005–06.

Chinese Literature 242. From History into Fiction
Catalog Number: 2949
David Der-Wei Wang
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
This seminar deals with the dialogics between historical dynamics and literary manifestation at select moments of twentieth century China. It focuses on two themes: history and representation; modernity and monstrosity.

Chinese Literature 243. Modern Chinese Literature and Culture
Catalog Number: 2790

David Der-Wei Wang
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
This seminar undertakes a critical appraisal of modern Chinese literary and cultural studies from the 1950's to date. Special attention is paid to interaction between theory and text.
Note: Advanced reading knowledge of Chinese is required.

Chinese Literature 251. Liaozhai Zhiyi: Editions and Adaptations
Catalog Number: 6657
Wilt Lukas Idema
Half course (fall term). W., 2–5. EXAM GROUP: 7, 8, 9
Examines stories from Pu Songling's masterwork, focusing on development of the text. Compares the author's handwritten copy to later manuscripts and the earliest printed versions; and examines annotated editions, and adaptations.

Chinese Literature 266r. Topics in Ancient Literature
Catalog Number: 6253
Stephen Owen
Half course (spring term). M., 1–4. EXAM GROUP: 6, 7, 8
The topic this term will be the *Shijing* and *Chuci*.
Prerequisite: Two years of literary Chinese, or the equivalent.

[Chinese Literature 267r. Topics in Tang Literature]
Catalog Number: 8521
Stephen Owen
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.

[Chinese Literature 268r. Topics in Song and Yuan Literature]
Catalog Number: 7143
Stephen Owen
Half course (fall term). Hours to be arranged.
The topic this semester will be song lyric (*ci*).
Note: Expected to be given in 2005–06.

Graduate Courses of Reading and Research

***Chinese 300. Reading and Research**
Catalog Number: 4849
Peter K. Bol 8014, Eileen Cheng-yin Chow 2308, Mark C. Elliott 3329, Robert M. Gimello (University of Arizona) 9240, Patrick D. Hanan 1413, Wilt Lukas Idema 2511, Philip A. Kuhn 8051, Wai-yee Li 3357, Stephen Owen 7418, Michael James Puett 1227, Wei-Ming Tu 7233 (on leave spring term), David Der-Wei Wang 5190, and Endymion Porter Wilkinson 4049

Japan: Language Courses

For Undergraduates and Graduates

Japanese Ba. Elementary Japanese
Catalog Number: 2014
Itsuko Nakamura
Half course (fall term). Sections M., W., F., at 9, 10, or 1, and two additional hours to be arranged for Tu. and Th. EXAM GROUP: 2, 3, 6
This course aims to develop a basic foundation of modern Japanese in the four skills: speaking, listening, reading and writing. Instruction is conducted in the proficiency-oriented method, in which authentic communication is emphasized. Mastery of *hiragana, katakana*, and 29 *Kanji* (Chinese characters).

Japanese Bb. Elementary Japanese
Catalog Number: 8728
Itsuko Nakamura
Half course (spring term). Sections M., W., F., at 9, 10, or 1, and two additional hours to be arranged for Tu. and Th. EXAM GROUP: 2, 3
Continuation of Japanese Ba, with an additional 151 *Kanji*.
Prerequisite: Japanese Ba or equivalent.

Japanese 106a. Classical Japanese
Catalog Number: 1492
Edwin A. Cranston
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Introduction to classical grammar and texts.
Prerequisite: Japanese 130b.

Japanese 106b. Kambun
Catalog Number: 2602
Edwin A. Cranston
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
Introduction to *Kambun*.
Prerequisite: Japanese 106a or equivalent.

[Japanese 106c. Later Classical Japanese]
Catalog Number: 7307
Edwin A. Cranston
Half course (spring term). Hours to be arranged.
Post-Heian writings in Classical Japanese.
Note: Expected to be given in 2006–07.
Prerequisite: Japanese 106a or equivalent.

Japanese 109. Translating Modern Fiction
Catalog Number: 0323
Jay Rubin
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
Practice translating a variety of prose styles in Meiji and later fiction.

Note: Conducted in English.
Prerequisite: Japanese 103b or equivalent.

Japanese 120a (formerly Japanese 101a). Intermediate Japanese I
Catalog Number: 8152
Satomi Matsumura
Half course (fall term). Sections M., W., F., at 9, 10, or 1, and two additional hours to be arranged for Tu. and Th. EXAM GROUP: 2, 3
Second-year intermediate level course aimed at consolidation of the basic grammatical patterns of Japanese and development of reading, writing, speaking, and listening skills to the level necessary for communication in everyday life in Japanese society. Introduction of approximately 300 Chinese characters beyond those introduced in Bb.
Prerequisite: Japanese Bb or equivalent.

Japanese 120b (formerly Japanese 101b). Intermediate Japanese I
Catalog Number: 6433
Satomi Matsumura
Half course (spring term). Sections M., W., F., at 9, 10, or 1, and two additional hours to be arranged for Tu. and Th. EXAM GROUP: 2, 3
Continuation of Japanese 101a. Approximately 300 additional Chinese characters.

Japanese 130a (formerly Japanese 103a). Intermediate Japanese II
Catalog Number: 4855
Emi Yamanaka
Half course (fall term). M. through F., at 9 or 1. EXAM GROUP: 2, 6, 11
Third-year intermediate advanced course. Development of skills in reading authentic materials from contemporary Japanese media and fiction and in aural comprehension of contemporary television news and drama with decreased reliance on pedagogical aids. Development of speaking and writing skills to an increasingly sophisticated level. Introduction of approximately 350 additional Chinese characters.
Prerequisite: Japanese 120b or equivalent.

Japanese 130b (formerly Japanese 103b). Intermediate Japanese II
Catalog Number: 6904
Emi Yamanaka
Half course (spring term). M. through F., at 9 or 1. EXAM GROUP: 2, 6, 11
Continuation of Japanese 130a. Approximately 350 additional Chinese characters.

Japanese 140a (formerly Japanese 104a). Advanced Modern Japanese
Catalog Number: 3688
Yuko K. Kageyama-Hunt
Half course (fall term). Sections M. through F., at 9, or 10. EXAM GROUP: 2, 11
Readings of modern texts in both rapid and in-depth modes. Comprehension of media news and drama. Advanced conversation and composition on topics related to the preceding.
Prerequisite: Japanese 130b.

Japanese 140b (formerly Japanese 104b). Advanced Modern Japanese
Catalog Number: 8551
Yuko K. Kageyama-Hunt
Half course (spring term). Sections M. through F., at 9, or 10. EXAM GROUP: 2, 11
Continuation of Japanese 140a.

Japanese 150a (formerly Japanese 110a). Readings and Discussions in Japanese Social Sciences
Catalog Number: 4693
Yuko K. Kageyama-Hunt
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Selected readings and discussions in contemporary Japanese on topics in social studies, culture, education, politics, business, economy, psychology, and anthropology, supplemented by selections from audiovisual materials on current social issues.
Note: Conducted in Japanese.
Prerequisite: Japanese 140b.

Japanese 150b (formerly Japanese 110b). Readings and Discussions in Japanese Social Sciences
Catalog Number: 0984
Yuko K. Kageyama-Hunt
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
Continuation of Japanese 150a.
Prerequisite: Japanese 150a.

Cross-listed Courses

[Linguistics 173. Linguistic Issues in the Teaching of Japanese]
Linguistics 174. Tense and Aspect in Japanese
[Linguistics 176. History of the Japanese Language]

Primarily for Graduates

Japanese 207. Japanese Historical Writing
Catalog Number: 9716
Harold Bolitho
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
An introduction to historical source materials from the Tokugawa period (1600-1868).

Japanese 210a (formerly Japanese 209a). Reading Scholarly Japanese for Students of Chinese and Korean
Catalog Number: 9182
Wesley M. Jacobsen
Half course (fall term). M., W., F., at 9, and an additional weekly section to be arranged. EXAM GROUP: 2
Development of skills in reading and translating academic genres of Japanese, with special

attention to secondary sources authored by Japanese scholars on topics of relevance to Chinese and Korean studies. Introduction to old kana usage and classical forms commonly used in scholarly writing.
Prerequisite: Japanese 120b, and graduate standing in some field of Chinese or Korean studies.

Japanese 210b (formerly Japanese 209b). Reading Scholarly Japanese for Students of Chinese and Korean
Catalog Number: 8918
Wesley M. Jacobsen
Half course (spring term). M., W., F., 9–10:30. EXAM GROUP: 2, 3
Continuation of Japanese 210a.
Prerequisite: Japanese 210a.

Japan: History Courses

For Undergraduates and Graduates

[Japanese History 111a. Ancient and Medieval Japan: Conference Course]
Catalog Number: 3616
Mikael Adolphson
Half course (fall term). Hours to be arranged.
A survey of Japan from its prehistoric origins to the early 1500s, focusing on the emergence of the imperial state, court rulership and the rise of the samurai. Though dominated by the rulership, religions, and lifestyles of courtiers and warriors, the course also explores the cultural context within which elites, commoners, and those in between lived and prospered.
Note: Expected to be given in 2005–06.

Japanese History 111b. The Shogun's Realm, 1600-1868
Catalog Number: 1244
Harold Bolitho
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
Reading and discussion of writings on political institutions, land systems and agriculture, commerce, population, and intellectual developments from the late 16th to the mid-19th century.

Japanese History 115. Religion and Society in Edo and Meiji Japan
Catalog Number: 5756
Helen Hardacre
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
Examination of religion and society in Japan from 1600-1912, beginning with an era of state control over religious institutions and religious affiliations of the populace, followed by the demise of the Edo-period system and diversification of religious practice in context of rapid social change, modernization, and imperialism during the Meiji period. Separate section for students able to utilize primary sources in Japanese will explore the Maruzen Meiji Microfilm collection in the Harvard-Yenching Library.
Prerequisite: General knowledge of Japanese history and religion is helpful.

Japanese History 120. Religion and Society in Twentieth-Century Japan
Catalog Number: 4903
Helen Hardacre
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
An examination of religion and society from the end of the Meiji period (1912) to the present. This course explores the meaning of the modern in Japanese religions, the development of the public sphere and religion's relations with it, religion and nationalism, and the interconnections of religion and social change with materialism, consumerism, pacifism, and spiritualism.
Prerequisite: General knowledge of Japanese history and religion is helpful. Enrollment in Japanese History 115 recommended but not required.

Japanese History 125. Japanese Religious Traditions
Catalog Number: 0725
Ryuichi Abe
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An introductory course designed for students outside Asian studies to understand some central values in Japanese religious culture. It first observes popular religious ceremonies, festivals, and rituals and studies their historical transformation; then investigates the interaction between Buddhism and native Japanese religion; and finally studies the permeating influence of religion on traditional Japanese art and literature. The concluding section considers wide-ranging contemporary and traditional religious issues in Japanese popular culture.

Japanese History 126. Shinto: Conference Course
Catalog Number: 3097
Helen Hardacre
Half course (spring term). Tu., 2–4 with occasional required film screenings. EXAM GROUP: 16, 17
An examination of Shinto, emphasizing its concepts of deity (*kami*), patterns of ritual and festival, shrines as religious and social institutions, political culture and interactions with party politics, and its contribution to contemporary youth culture.
Note: General knowledge of Japanese history and religion is helpful. Japanese language is not required, but several meetings will be held for students able to use Japanese-language sources.

Cross-listed Courses

Foreign Cultures 84. Tokyo
Historical Study A-14. Japan: Tradition and Transformation
[Historical Study B-67. Japan's Modern Revolution]
History 1851. 20th-Century Japan
[History 1854. Gender and Japanese History: Conference Course]
History 1855. Restoration and Revolution in the Mid-19th Century Japan: Conference Course
[History of Art and Architecture 18k. Introduction to Japanese Art]

Primarily for Graduates

[Japanese History 211. Introduction to Ancient and Medieval Japanese Historical Sources]
Catalog Number: 8174
Mikael Adolphson
Half course (spring term). F., 1–3. EXAM GROUP: 6, 7
An introduction to the reading and usage of original sources of ancient and medieval Japan with particular emphasis on Heian and Kamakura documents and diaries.
Note: Expected to be given in 2005–06.
Prerequisite: Knowledge of classical Japanese and Kambun.

Japanese History 212. Interpreting Edo Biographies
Catalog Number: 9718
Harold Bolitho
Half course (spring term). M., at 10 and an additional hour to be arranged. EXAM GROUP: 3
A seminar based on the study of selected Japanese language works which address the lives and social interactions of individuals, warriors, and others of the Tokugawa period.

[Japanese History 250. Religion, State, and Society in Modern Japan]
Catalog Number: 9710
Helen Hardacre
Half course (fall term). Hours to be arranged.
Examination of problems in the study of religion in modern and contemporary Japanese society. The subject this year will be the modernization of Japanese religions.
Note: Expected to be given in 2005–06.
Prerequisite: Reading knowledge of modern Japanese.

Japanese History 255. Topics in the Study of Shinto
Catalog Number: 9448
Helen Hardacre
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Examination of various themes and issues in the history of Shinto. The subject this year will be the Shinto festival (*matsuri*).
Prerequisite: Reading knowledge of modern Japanese.

Cross-listed Courses

***History 2851. Japanese History: Seminar**
[History 2854. Issues in Tokugawa and Meiji History: Seminar]

Japan: Literature Courses

For Undergraduates and Graduates

[Japanese Literature 121a. History of Japanese Literature]
Catalog Number: 5891
Adam L. Kern
Half course (fall term). Hours to be arranged.

A broad overview of some of the most consequential, absorbing, and exquisitely wrought works of Japanese literature of the classical, medieval, and early modern periods (up to 1868), available in English translation.
Note: Expected to be given in 2005–06.

[Japanese Literature 141. Edo's Spectacular Culture]
Catalog Number: 9347
Adam L. Kern
Half course (spring term). Hours to be arranged.
Explores the visual culture of Edo (the major urban center of early modern Japan) as seen through its literature, theatre, and woodblock prints. Japanese not required.
Note: Expected to be given in 2006–07.

Japanese Literature 181. Introduction to Traditional Japanese Theatre
Catalog Number: 0799
James R. Brandon (University of Hawaii)
Half course (spring term). Tu., W., Th., at 9. EXAM GROUP: 2, 11
Using film clips, slides, and translations, this course introduces the artistic characteristics of the three major genres of traditional Japanese theatre, Noh, Bunraku and Kabuki, and places them in their historical contexts. Plays will be analyzed in terms of dramatic structure and language. Selected scenes will be related to performative aspects (acting, music, staging).
Note: Conducted in English.

Cross-listed Courses

Literature and Arts C-42. Constructing the Samurai

Primarily for Graduates

Japanese Literature 220. Theories of Asian Drama and Theatre
Catalog Number: 2371
James R. Brandon (University of Hawaii)
Half course (spring term). Th., 2–5. EXAM GROUP: 16, 17, 18
Reading in translation of seminal writings of Asian drama and theatre theory: Bharata Muni's detailed Natya Sastra and Zeami's highly personal advice to Noh playwrights and actors in his collected treatises.
Note: Conducted in English. Knowledge of Japanese and/or Sanskrit useful but not required.

Japanese Literature 220r. The Development of Modern Japanese Fiction
Catalog Number: 1831
Jay Rubin
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
Reading and discussion of major works of prose fiction with practice in literary translation.

[Japanese Literature 222a. Survey of Japanese Poetry]
Catalog Number: 4226

Edwin A. Cranston
Half course (fall term). Hours to be arranged.
The tradition of *waka* poetry from its origins to the 15th century.
Note: Expected to be given in 2006–07.
Prerequisite: Japanese 106a or equivalent.

Japanese Literature 222b. Survey of Japanese Poetry
Catalog Number: 2311
Edwin A. Cranston
Half course (fall term). Th., 2–5. EXAM GROUP: 16, 17, 18
The development of *renga, haikai,* and *haiku* to the 18th century.
Prerequisite: Japanese 106a or equivalent.

Japanese Literature 233r. Nara and Heian Court Literature
Catalog Number: 8614
Edwin A. Cranston
Half course (spring term). W., 2–5. EXAM GROUP: 7, 8
Topic: Genji Monogatari and its translations.
Prerequisite: Japanese 106a or equivalent.

[Japanese Literature 235. No and Kyogen]
Catalog Number: 0869
Jay Rubin
Half course (fall term). Hours to be arranged.
Close reading of No and Kyogen texts.
Note: Expected to be given in 2005–06.

[Japanese Literature 241. Comic Imagination in Japanese Literature]
Catalog Number: 2732
Adam L. Kern
Half course (spring term). Hours to be arranged.
An exploration of the indefatigable Japanese comic imagination in its multifarious manifestations (humor, wit, satire, irony, parody, burlesque, literary Nonsense, anecdotes, jokes and so on) in a variety of genres from the classical to early modern periods.
Note: Expected to be given in 2005–06.
Prerequisite: Japanese 106a and 106b, or the instructor's permission.

[Japanese Literature 243r. Major Writers: Chikamatsu Monzaemon]
Catalog Number: 5558
Adam L. Kern
Half course (fall term). Hours to be arranged.
Close readings in the kabuki and puppet plays of Chikamatsu Monzaemon, widely considered to be the greatest playwright of early modern Japan.
Note: Expected to be given in 2005–06.
Prerequisite: Japanese 106a or equivalent.

Graduate Courses of Reading and Research

***Japanese 300. Reading and Research**
Catalog Number: 4627
Mikael Adolphson 1878 (on leave 2004-05), Harold Bolitho 1176, James R. Brandon (University of Hawaii) 5141 (spring term only), Edwin A. Cranston 1186, Andrew Gordon 1891, Helen Hardacre 3191, Wesley M. Jacobsen 3443, Adam L. Kern 4195 (on leave 2004-05), Satomi Matsumura 2665, and Jay Rubin 3544 (on leave fall term)

Korea: Language Courses

For Undergraduates and Graduates

Korean Ba. Elementary Korean
Catalog Number: 8739
Sung Hee Hong
Half course (fall term). M., W., F., at 10, and two additional hours to be arranged. EXAM GROUP: 3
Introduction to modern Korean: basic grammar, reading of simple texts, conversational skills, and writing short letters. After successful completion of this course, students are expected to be able to handle a limited number of interactive, task-oriented, and social situations and to have sufficient control of the writing system to interpret written language in areas of practical needs.

Korean Bb. Elementary Korean
Catalog Number: 8718
Sung Hee Hong
Half course (spring term). M., W., F., at 10, and two additional hours to be arranged. EXAM GROUP: 3
Continuation of Korean Ba.
Prerequisite: Korean Ba or equivalent.

Korean 120a (formerly Korean 102a). Intermediate Korean
Catalog Number: 5884
Sang-suk Oh
Half course (fall term). M., W., F., at 11 and two additional hours to be arranged. EXAM GROUP: 4
Continuation of elementary Korean to consolidate students' knowledge of the fundamental grammatical structures of Korean with an aim to increase their abilities to communicate using Korean in a wide range of daily-life transactional situations. After successful completion of second-year Korean, students are expected to handle most uncomplicated communicative tasks and social situations and read consistently with understanding of simple connected texts dealing with personal and social needs.
Prerequisite: Korean Bb or equivalent.

Korean 120b (formerly Korean 102b). Intermediate Korean
Catalog Number: 8590

Sang-suk Oh
Half course (spring term). M., W., F., at 11 and two additional hours to be arranged. EXAM GROUP: 4
Continuation of Korean 120a.
Prerequisite: Korean 120a or equivalent.

Korean 130a (formerly Korean 103a). Pre-advanced Korean
Catalog Number: 2071
Sung Hee Hong
Half course (fall term). M., W., 2–4; F., at 2 and one additional hour to be arranged. EXAM GROUP: 7, 8
Continuation of intermediate Korean, to consolidate the student's knowledge of the grammatical structures of Korean with an aim to increase their abilities to communicate using Korean in a wide range of familiar and everyday topics, current societal events, and factual and concrete topics relating to personal interests. After successful completion of third-year Korean, students are expected to be able to describe and narrate about concrete and factual topics of personal and general interest.
Prerequisite: Korean 120b or equivalent.

Korean 130b (formerly Korean 103b). Pre-advanced Korean
Catalog Number: 2662
Sung Hee Hong
Half course (spring term). M., W., 2–4; W., at 1; W., at 10 and one additional hour to be arranged. EXAM GROUP: 7, 8
Continuation of Korean 130a.
Prerequisite: Korean 130a or equivalent.

Korean 140a (formerly Korean 104a). Advanced Korean
Catalog Number: 5723
Sang-suk Oh
Half course (fall term). Tu., 2–4, Th., 2:30–4 and two additional hours to be arranged. EXAM GROUP: 16, 17
Development of skills in reading materials from contemporary Korean media and fiction and in aural comprehension of contemporary television news and drama with decreased reliance on pedagogical aids. After successful completion of fourth-year Korean, students should be able to satisfy the requirements of various everyday, school and work situations and follow essential points of written discourse which are abstract and linguistically complex, and also to write about a variety of topics in detail with precision.
Prerequisite: Korean 130b or equivalent.

Korean 140b (formerly Korean 104b). Advanced Korean
Catalog Number: 3011
Sang-suk Oh
Half course (spring term). Tu., Th., 2–4 and two additional hours to be arranged. EXAM GROUP: 16, 17

Continuation of Korean 140a.
Prerequisite: Korean 140a or equivalent.

Korean 150a (formerly Korean 110a). Readings in Cultural Studies
Catalog Number: 1936
Sang-suk Oh
Half course (fall term). F., 3–6. EXAM GROUP: 8, 9
Selected readings in contemporary Korean on topics in art, film, drama, and cultural studies, supplemented by selections from audio-visual media on traditional and current cultural events. After completion of Korean 150a and 150b, students are expected to be able to participate in most formal and informal conversations on practical, social, professional, and abstract topics and read with almost complete comprehension and at normal speed expository prose on unfamiliar subjects and a variety of literary texts.
Prerequisite: Korean 140b or equivalent.

Korean 150b (formerly Korean 110b). Readings in Cultural Studies
Catalog Number: 1282
Sang-suk Oh
Half course (spring term). Th., 2:30–5:30. EXAM GROUP: 16, 17, 18
Continuation of Korean 150a.
Prerequisite: Korean 140b or equivalent.

Korea: History Courses

For Undergraduates and Graduates

Korean History 111. Traditional Korea
Catalog Number: 3709
Sun Joo Kim
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Survey of the history of Korea, from earliest times to the 19th century. Examines various interpretive approaches and issues in the political, social, economic, intellectual, cultural, and diplomatic history of premodern Korea.

Korean History 118. History of the Chosôn Dynasty: Conference Course
Catalog Number: 3231
Sun Joo Kim
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Reading and discussion of Chosôn society and culture. We will try to understand social and political structures and institutions by examining the daily life of various groups of people from top to bottom.

Cross-listed Courses

Foreign Cultures 80. Korean Cultural Identities
[Historical Study A-75. The Two Koreas]

Primarily for Graduates

Korean History 230r. Readings in Premodern Korean History
Catalog Number: 4497
Sun Joo Kim
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
A study of social, political, economic, and intellectual history of premodern Korea reviewing major scholarship in the field. Designed primarily for graduate students preparing for the general examination. All readings are in English.
Prerequisite: Korean History 111 or equivalent.

[Korean History 235r. Historical Research in Korea]
Catalog Number: 7886
Sun Joo Kim
Half course (spring term). Hours to be arranged.
Explores current historical research in the field of premodern Korea by reviewing major publications in the field in Korean.
Note: Expected to be given in 2006–07.
Prerequisite: Korean History 111 or equivalent and proficiency in Korean.

Korean History 240r. Selected Topics in Premodern Korean History: Seminar
Catalog Number: 9837
Sun Joo Kim
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
Reading and research of selected primary sources and secondary works on premodern Korean history.
Prerequisite: Korean History 111 or equivalent and reading proficiency in Korean. Reading ability in classical Chinese and Japanese helpful.

Korean History 253r. Modern Korean History: Proseminar
Catalog Number: 0365
Carter J. Eckert
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
An introduction to some of the current issues in modern Korean history through selected readings. Designed primarily for entering graduate students.

[*Korean History 255r. Modern Korean History: Seminar]
Catalog Number: 0713
Carter J. Eckert
Full course (indivisible). Hours to be arranged.
Reading and research in modern Korean history. Students are required to write a project paper based largely on primary materials.
Note: Expected to be given in 2005–06.
Prerequisite: Korean History 253r or equivalent, and reading proficiency in Korean.

Korean History 260r. Readings in Modern Korean History
Catalog Number: 5372
Carter J. Eckert
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
Explores the history of the field through an examination of major scholarship. Designed primarily for graduate students preparing for the general examination.

Korea: Literature Courses

For Undergraduates and Graduates

Korean Literature 132. Korean Literature in Translation
Catalog Number: 7838
David McCann
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
A survey of modern and pre-modern Korean literature in translation. Major genres, authors, works, periods; historical development of the field, including sequences of interpretive models and positions, Korean and foreign.

Primarily for Graduates

Korean Literature 210r. Pre-Modern Korean Literature
Catalog Number: 6342
David McCann
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
Close reading in a number of literary forms, including the essay, histories, prose fiction, songs, poetry, and p'ansori.
Note: Readings in English and Korean.
Prerequisite: Korean Literature 132 or equivalent.

[Korean Literature 212. Modern Korean Poetry]
Catalog Number: 5627
David McCann
Half course (fall term). Hours to be arranged.
Major and minor voices in 20th and 21st-century Korean poetry. Attention to the practices of reading and translation, and to the political contexts of modern Korean poetry.
Note: Expected to be given in 2005–06. Readings in English and Korean.
Prerequisite: Korean Literature 132 or equivalent.

Cross-listed Courses

Visual and Environmental Studies 188k. Korean Cinema

Graduate Courses of Reading and Research

***Korean 300. Reading and Research**
Catalog Number: 8122
Carter J. Eckert 1178 (on leave spring term), Sun Joo Kim 3821, and David McCann 3635

Manchu: Language Courses

For Undergraduates and Graduates

Manchu A. Elementary Manchu
Catalog Number: 8961
Mark C. Elliott
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Introduction to Manchu grammar with elementary readings in Manchu script.

Manchu B. Elementary Manchu
Catalog Number: 1625
Mark C. Elliott
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Readings in a variety of historical and literary texts with emphasis on Manchu documentary sources, with and without diacritical marks.

[Manchu 120a (formerly Manchu C). Intermediate Manchu]
Catalog Number: 4190
Mark C. Elliott
Half course (fall term). Hours to be arranged.
Readings in a wide variety of Manchu texts. English to Manchu translation exercises.
Note: Expected to be given in 2005–06.

[Manchu 120b (formerly Manchu D). Advanced Manchu]
Catalog Number: 1414
Mark C. Elliott
Half course (spring term). Hours to be arranged.
Intensive reading in Manchu archival materials, other historical texts and literary texts. Some texts in pre-diacritical form. English to Manchu translation exercises.
Note: Expected to be given in 2005–06.

Primarily for Graduates

Manchu 210a. Introduction to Sources for Manchu Studies
Catalog Number: 5638
Mark C. Elliott
Half course (fall term). W., 2–5. EXAM GROUP: 7, 8, 9
Introduces a range of Manchu and Chinese texts used for research in Manchu studies. After reviewing the history and present state of Manjuristics, we will consider different source materials each week. Students will present oral reports and write a bibliographic essay on a topic of potential research interest.

Prerequisite: Ability in literary Chinese and Manchu, background in Qing history. Reading ability in Japanese strongly preferred but not required.

Manchu 210b. Introduction to Sources for Manchu Studies
Catalog Number: 4146
Mark C. Elliott
Half course (spring term). Hours to be arranged.
Research papers prepared on the basis of primary sources.
Prerequisite: Manchu 210a.

Graduate Courses of Reading and Research

***Manchu 300. Reading and Research**
Catalog Number: 8735
Mark C. Elliott 3329

Mongolian: Language Courses

For Undergraduates and Graduates

[Mongolian A. Elementary Written Mongolian]
Catalog Number: 2965
Mark C. Elliott
Half course (fall term). Hours to be arranged.
Study of classical Mongolian grammar, with introduction to pre-classical and classical Mongolian texts.
Note: Expected to be given in 2005–06.

[Mongolian B. Elementary Written Mongolian]
Catalog Number: 8489
Mark C. Elliott
Half course (spring term). Hours to be arranged.
Continuation of Mongolian A.
Note: Expected to be given in 2005–06.

[Mongolian 120a (formerly Mongolian C). Intermediate Written Mongolian]
Catalog Number: 0810
Mark C. Elliott
Half course (fall term). Hours to be arranged.
Readings in classical and modern Mongolian texts.
Note: Expected to be given in 2006–07.

[Mongolian 120b (formerly Mongolian D). Advanced Written Mongolian]
Catalog Number: 4032
Mark C. Elliott
Half course (spring term). Hours to be arranged.

Continuation of Mongolian 120a.
Note: Expected to be given in 2006–07.

Graduate Courses of Reading and Research

***Mongolian 300. Reading and Research**
Catalog Number: 1345
Mark C. Elliott 3329
Half course (fall term; repeated spring term). Hours to be arranged.

Tibetan and Himalayan Studies

Cross-listed Courses

[Religion 1705. Tibetan Religions]
Tibetan 219. Tibetan Religious Literature

Vietnam: Language Courses

For Undergraduates and Graduates

Vietnamese Ba. Elementary Vietnamese
Catalog Number: 3873
Binh Ngo
Half course (fall term). M. through F., at 9. EXAM GROUP: 2, 11
Surveys the fundamentals of Vietnamese phonetics, grammar, and vocabulary to provide students with basic ability to understand, speak, read, and write Vietnamese. Conversational ability is stressed through an interactive, communication-oriented approach.

Vietnamese Bb. Elementary Vietnamese
Catalog Number: 9940
Binh Ngo
Half course (spring term). Tu., Th., 8–10 and W., at 8. EXAM GROUP: 1, 10, 11
Continuation of Vietnamese Ba, with introduction of additional Vietnamese texts and advertisements to enhance reading skills.
Prerequisite: Vietnamese Ba or permission of the instructor.

Vietnamese 120a (formerly Vietnamese 101a). Intermediate Vietnamese
Catalog Number: 3276
Binh Ngo
Half course (fall term). Hours to be arranged.
Further development of speaking, reading, writing, and aural comprehension. Texts on Vietnamese geography, history, culture, and customs will be used, as well as audiotapes and videos. Students are expected to speak Vietnamese in all class discussions.
Note: Conducted entirely in Vietnamese.
Prerequisite: Vietnamese Bb or permission of the instructor.

Vietnamese 120b (formerly Vietnamese 101b). Intermediate Vietnamese
Catalog Number: 6178
Binh Ngo
Half course (spring term). Tu., 11–1 and F., 9–12. EXAM GROUP: 2, 3, 4, 13, 14
Continuation of Vietnamese 120a.
Note: Conducted entirely in Vietnamese.
Prerequisite: Vietnamese 120a or permission of the instructor.

Vietnamese 130a (formerly Vietnamese 103a). Advanced Vietnamese
Catalog Number: 6287
Binh Ngo
Half course (fall term). Hours to be arranged.
Development of high proficiency in Vietnamese. Introduction of complex grammar and vocabulary, using authentic Vietnamese texts, audiotapes, videos, and translation of English news articles into Vietnamese. Discussions focus on selected short stories and poems.
Note: Conducted entirely in Vietnamese.
Prerequisite: Vietnamese 120b or permission of the instructor.

Vietnamese 130b (formerly Vietnamese 103b). Advanced Vietnamese
Catalog Number: 3968
Binh Ngo
Half course (spring term). Th., 11–1 and F., 4–6. EXAM GROUP: 9, 13, 14
Continuation of Vietnamese 130a.
Note: Conducted entirely in Vietnamese.
Prerequisite: Vietnamese 130a or permission of the instructor.

Vietnam: History Courses

Cross-listed Courses

[Anthropology 2880 (formerly Anthropology 238). Reorienting Southeast Asia]
[Foreign Cultures 60. Individual, Community, and Nation in Vietnam]
Historical Study B-68. America and Vietnam: 1945-1975
[History 1820. Premodern Vietnam]
[History 1821. Modern Vietnam]

Graduate Courses of Reading and Research

***Vietnamese 300. Reading and Research**
Catalog Number: 7211
Binh Ngo 1383

Harvard University
Faculty of Arts and Sciences
Office of the Registrar

Economics

AN HISTORICAL EDITIONAL OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Economics

Alberto F. Alesina, Nathaniel Ropes Professor of Political Economy *(Chair)*
Philippe Aghion, Robert C. Waggoner Professor of Economics
Attila Ambrus, Assistant Professor of Economics
Pol Antràs, Assistant Professor of Economics
Silvia Ardagna, Assistant Professor of Economics
Beatriz Armendariz, Lecturer on Economics
Robert J. Barro, Paul M. Warburg Professor of Economics
Kaushik Basu, Visiting Professor of Economics *(Cornell University)*
Laurent E. Calvet, John L. Loeb Associate Professor of the Social Sciences *(on leave 2004-05)*
John Y. Campbell, Otto Eckstein Professor of Applied Economics *(on leave 2004-05)*
Francesco Caselli, Paul Sack Associate Professor of Political Economy *(on leave 2004-2005)*
Gary Chamberlain, Louis Berkman Professor of Economics *(on leave 2004-05)*
Richard N. Cooper, Maurits C. Boas Professor of International Economics *(on leave spring term)*
David M. Cutler, Professor of Economics and Dean for Social Sciences
Ulrich Doraszelski, Assistant Professor of Economics
Martin Feldstein, George F. Baker Professor of Economics
Erica M. Field, Assistant Professor of Economics
Christopher L. Foote, Lecturer on Economics
Richard B. Freeman, Herbert S. Ascherman Professor of Economics
Benjamin M. Friedman, William Joseph Maier Professor of Political Economy *(Director of Undergraduate Studies, fall term) (on leave spring term)*
Nicola C. Fuchs-Schuendeln, Assistant Professor of Economics
Drew Fudenberg, Frederic E. Abbe Professor of Economics
Edward L. Glaeser, Professor of Economics
Claudia Goldin, Henry Lee Professor of Economics
Gita Gopinath, Visiting Assistant Professor of Economics *(University of Chicago) (spring term only)*
Roger H. Gordon, Visiting Professor of Economics *(University of California, San Diego) (fall term only)*
Jerry R. Green, John Leverett Professor and David A. Wells Professor of Political Economy
Oliver S. Hart, Andrew E. Furer Professor of Economics
Elhanan Helpman, Galen L. Stone Professor of International Trade *(on leave spring term)*
Caroline M. Hoxby, Professor of Economics
Michael Jansson, Visiting Assistant Professor of Economics *(University of California, Berkeley) (spring term only)*
Dale W. Jorgenson, Samuel W. Morris University Professor *(on leave fall term)*
Lawrence F. Katz, Elisabeth Allison Professor of Economics
Michael R. Kremer, Gates Professor of Developing Societies
David I. Laibson, Professor of Economics
N. Gregory Mankiw, Allie S. Freed Professor of Economics *(on leave 2004-05)*

Stephen A. Marglin, Walter S. Barker Professor of Economics
James L. Medoff, Meyer Kestenbaum Professor of Labor and Industry *(FAS and Kennedy School)*
Marc J. Melitz, Associate Professor of Economics
Jeffrey A. Miron, Visiting Professor of Economics *(Boston University)*
Markus M. Möbius, Assistant Professor of Economics
Randall Morck, Visiting William Lyon MacKenzie King Professor of Canadian Studies *(University of Alberta) (spring term only)*
Marcelo J. Moreira, Assistant Professor of Economics
Julie H. Mortimer, Assistant Professor of Economics *(on leave fall term)*
Sendhil Mullainathan, Professor of Economics
Robert H. Neugeboren, Lecturer on Economics
Ariel Pakes, Professor of Economics
Dwight H. Perkins, Harold Hitchings Burbank Professor of Political Economy *(on leave fall term)*
Kenneth Rogoff, Thomas D. Cabot Professor of Public Policy
Alvin E. Roth, George Gund Professor of Economics and Business Administration *(FAS, Business School) (on leave spring term)*
Matthias Maria Schuendeln, Assistant Professor of Economics and of Social Studies
Amartya Sen, Lamont University Professor
Christine Shannon, Visiting Professor of Economics *(University of California, Berkeley) (spring term only)*
Andrei Shleifer, Whipple V. N. Jones Professor of Economics
Jeremy C. Stein, Professor of Economics
James H. Stock, Professor of Economics
Lawrence H. Summers, Professor of Economics and President of Harvard University
Samuel B. Thompson, Associate Professor of Economics
Aleh Tsyvinski, Visiting Assistant Professor of Economics *(University of California, Los Angeles)*
Tuomo O. Vuolteenaho, Associate Professor of Economics *(on leave spring term)*
Martin L. Weitzman, Ernest E. Monrad Professor of Economics
Jeffrey G. Williamson, Laird Bell Professor of Economics
Jeffrey Wolcowitz, Senior Lecturer on Economics and Associate Dean of Harvard College

Other Faculty Offering Instruction in the Department of Economics

Christopher N. Avery, Professor of Public Policy *(Kennedy School)*
George P. Baker, MBA Class of 1966 Professor of Business Administration *(Business School)*
Lucian Arye Bebchuk, William J. Friedman and Alicia Townsend Friedman Professor of Law, Economics, and Finance *(Law School)*
David Bloom, Clarence James Gamble Professor of Economics and Demography *(Public Health)*
David Canning, Professor of Economics and International Health *(Public Health)*
Estelle Cantillon, Assistant Professor of Business Administration *(Business School)*
George Carl Chacko, Associate Professor of Business Administration *(Business School)*
Randolph B. Cohen, Assistant Professor of Business Administration *(Business School)*

Mihir A. Desai, Assistant Professor of Business Administration *(Business School)*
Jeffrey A. Frankel, James W. Harpel Professor of Capital Formation and Growth *(Kennedy School)*
Pankaj Ghemawat, Jaime and Josefina Chua Tiampo Professor of Business Administration *(Business School)*
William C. Hsiao, K. T. Li Professor of Economics *(Public Health)*
Robert T. Jensen, Associate Professor of Public Policy *(Kennedy School)*
Louis E. Kaplow, Professor of Law *(Law School)*
Asim I. Khwaja, Assistant Professor of Public Policy *(Kennedy School)*
Joshua Lerner, Jacob H. Schiff Professor of Investment Banking *(Business School)*
Jeffrey B. Liebman, Associate Professor of Public Policy *(Kennedy School)*
Robert C. Merton, George Fisher Baker Professor of Administration *(Business School)*
Nolan H. Miller, Assistant Professor of Public Policy *(Kennedy School)*
Joseph P. Newhouse, John D. MacArthur Professor of Health Policy and Management *(Kennedy School, Medical School, Public Health)*
Matthew Rabin, Frank W. Taussig Research Professor of Economics *(University of California, Berkeley)*
James Robinson, Professor of Government
Dani Rodrik, Rafiq Hariri Professor of International Political Economy *(Kennedy School)*
Mark R. Rosenzweig, Professor of Public Policy *(Kennedy School)*
Robert N. Stavins, Albert Pratt Professor of Business and Government *(Kennedy School)*
Richard Tuck, Frank G. Thomson Professor of Government
Roberto Mangabeira Unger, Roscoe Pound Professor of Law *(Law School)*
Andres Velasco, Sumitomo Fasid Professor of International Development *(Kennedy School)*
Luis Manuel Viceira, Assistant Professor of Business Administration *(Business School)*
Paul C. Weiler, Henry J. Friendly Professor of Law *(Law School)*

Department of Economics course listings are numerically ordered as follows:

900-999: Tutorials and Senior Research Seminars in Economics

1000-1099 and 2000-2099: General Economics; Economic Theory; History of Economics

1100-1199 and 2100-2199: Econometrics and Quantitative Methods

1300-1399 and 2300-2399: Economic History; Development Economics

1400-1499 and 2400-2499: Monetary and Fiscal Theory and Policy; Public Sector Economics

1500-1599 and 2500-2599: International Economics

1600-1699 and 2600-2699: Industrial Organization and Regulation; Environmental Economics

1700-1799 and 2700-2799: Financial Economics

1800-1899 and 2800-2899: Labor, Human Resources, and Income Distribution; Urban

Economics

2000-2999: Open to honors undergraduates with the permission of the instructor

3000-3999: Graduate Courses of Reading and Research

Social Analysis 10: Principles of Economics, which is listed under the Core Curriculum, is the full-year introductory course in Economics. Social Analysis 10 is designed both for potential concentrators and for those who intend no further work in the field. The Department of Economics strongly encourages students considering concentration to take this course in their freshman year. This is a required course for all economics concentrators and a prerequisite for higher level courses in economics.

Tutorials and Senior Research Seminars in Economics

Primarily for Undergraduates

***Economics 910r. Supervised Reading and Research**
Catalog Number: 1020
Benjamin M. Friedman (fall term) and Jeffrey G. Williamson (spring term)
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised reading leading to a long term paper on a topic or topics not covered by regular courses.
Note: Does not count for concentration. Requires signatures of the adviser and of the Director of Undergraduate Studies. Application available at the Economics Undergraduate Office at 20 Garden Street.

***Economics 970. Tutorial — Sophomore Year**
Catalog Number: 7923 Enrollment: Limited to concentrators.
Samuel B. Thompson and members of the Department
Half course (spring term). Hours to be arranged.
A series of small seminars focusing on applications of economic theory to real problems.
Note: One term required of all Economics concentrators. First meeting Wed., 2/2, 2–3:30 in Emerson 105.
Prerequisite: Both terms of Social Analysis 10; Statistics 100; Economics 1010a or 1011a; and current enrollment in Economics 1010b or 1011b.

***Economics 980. Tutorial — Junior Year**
Catalog Number: 3281
Robert H. Neugeboren
Half course (fall term). M., W., (F.), at 12. EXAM GROUP: 5
A thorough review of intermediate microeconomics and macroeconomics.
Note: Required of and limited to concentrators who received below a B-/C+ average in the Economics 1010/1011 sequence.

Economics 985 Senior Research Seminars

These seminars are limited to seniors writing senior honor theses. Each seminar focuses on the research topics of interest to the participants. Emphasis is placed on research design, methodological problems, literature review, and sources of data. Regular student presentations of work in progress are required. The major course requirement is an original research paper each term. An Economics 985 seminar taken in the senior year substitutes for Economics 990, and seniors will not be allowed to enroll concurrently in both courses. All 985 seminars are limited to 12 students.

***Economics 985a. Research in Microeconomics**
Catalog Number: 7166
Jeffrey G. Williamson
Full course. W., 6–8 pm. EXAM GROUP: 9
Research seminar for seniors writing theses in theoretical and applied microeconomics. Written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis are required.

***Economics 985c. Research in Labor Economics**
Catalog Number: 5409
Lawrence F. Katz
Full course. W., 4:30–6:30. EXAM GROUP: 9
Senior thesis research seminar in labor economics and related topics. Emphasis on choice of research topics, methodology, and data sources. Written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis are required.

***Economics 985d. Research in Economic Development**
Catalog Number: 4989
Matthias Schuendeln
Full course. M., 4–6. EXAM GROUP: 9
Workshop for seniors writing theses in the areas of economic history and economic development. Emphasis on choice of research topics, primary sources, data sources, and research methods. Written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis are required.

***Economics 985e. Research in Macroeconomics**
Catalog Number: 3740
Christopher L. Foote
Full course. Tu., 4–6. EXAM GROUP: 18
Provides intellectual support and constructive criticism for students involved in research in the fields of monetary and fiscal policy, business cycles, and economic growth. Initial meetings focus on finalizing research topics, data sources, and research methods. Written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis are required.

***Economics 985f. Research in International Trade and Finance**
Catalog Number: 7157
Richard N. Cooper
Full course. M., 3:30–5:30. EXAM GROUP: 8, 9
Workshop for seniors writing theses in international trade and finance. Emphasis on choice of research topics, methodology, and international economic theory. Written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis are required.

***Economics 985h. Research in Financial Markets**
Catalog Number: 0350
Jeremy C. Stein
Full course. Th., 4–6. EXAM GROUP: 18
Workshop for seniors writing theses in finance. Emphasis on choice of research topics, methodology, and data sources. Written and oral presentations of work in progress leading toward completion of a major research paper or senior honor thesis are required. Topics include asset pricing and corporate finance.

***Economics 985i. Research in Health and Population**
Catalog Number: 3099
David Canning (Public Health)
Full course. Tu., 4:30–6:30. EXAM GROUP: 18
Senior thesis research seminar in health and population economics and related topics. Emphasis on choice of research topics, methodology, and data sources. Written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis are required.

***Economics 985k. Research in Public Economics**
Catalog Number: 0871
Jeffrey A. Miron (Boston University)
Full course. Fall: M., 2–4; Spring: Hours to be arranged. EXAM GROUP: Fall: 7, 8
Research seminar for seniors writing theses in public economics. Written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis are required. Topics have included taxation, health economics, environmental and resource economics, and education.

***Economics 990. Tutorial — Senior Year**
Catalog Number: 7342
Benjamin M. Friedman and members of the Department (fall term), Jeffrey G. Williamson and members of the Department (spring term).
Full course. Hours to be arranged.
Note: Students who are writing a senior thesis out of sequence (i.e., beginning in the spring) must enroll in Economics 990 in the spring and complete the course in the fall. Students must write a 25-page paper at the end of the first term of Economics 990. Students currently enrolled in Economics 985 may not enroll in Economics 990.

General Economics; Economic Theory; History of Economics

For Undergraduates and Graduates

Economics 1010a. Microeconomic Theory
Catalog Number: 1862
Jeffrey Wolcowitz
Half course (fall term). M., W., F., at 10; and a one-hour weekly section to be arranged. EXAM GROUP: 3
Focuses on the optimizing behavior of individual consumers and firms and the coordination of these individual decisions through markets, including the evaluation of market outcomes. Topics include the theory of the consumer, the theory of the firm, decisions involving time and risk, perfect competition, monopoly and monopsony, oligopoly and game theory, markets with asymmetric information, and externalities and public goods.
Note: Economics 1010a fulfills the intermediate microeconomic theory requirement for economics concentrators. Students may take either Economics 1010a or Economics 1011a for credit. This course, when taken for a letter grade, meets the Core area requirement for Social Analysis.
Prerequisite: Social Analysis 10 and Mathematics 1a or their equivalents.

Economics 1010b. Macroeconomic Theory
Catalog Number: 2924
Robert J. Barro
Half course (spring term). M., W., F., at 11 and a one-hour weekly section to be arranged. EXAM GROUP: 4
Theories and evidence on economic growth and fluctuations. Determination of gross domestic product, investment, consumption, employment, and unemployment. Analysis of interest rates, wage rates, and inflation. Roles of fiscal and monetary policies. Extensions to the international economy.
Note: Economics 1010b fulfills the intermediate macroeconomic theory requirement for economics concentrators. Students may take either Economics 1010b or Economics 1011b for credit. This course, when taken for a letter grade, meets the Core area requirement for Social Analysis.
Prerequisite: Social Analysis 10. While no specific mathematics course is required, knowledge of calculus at the level of Mathematics 1a is assumed.

Economics 1011a. Microeconomic Theory
Catalog Number: 7230
Edward L. Glaeser
Half course (fall term). Tu., Th., 11:30–1, and a one-hour weekly section to be arranged. EXAM GROUP: 13, 14
Economics 1011a is similar to Economics 1010a, but uses more mathematics and covers more material. The course aims to teach the basic tools of economics and to apply them to a wide range of human behavior. Tools include consumer theory, optimization under uncertainty, game theory, welfare economics, incentive theory, and the economics of information. Topics include industrial organization, public finance, law and economics, the economics of the family, religion,

and riots.
Note: Economics 1011a fulfills the intermediate microeconomic theory requirement for economics concentrators. Students may take either Economics 1010a or Economics 1011a for credit. This course, when taken for a letter grade, meets the Core area requirement for Social Analysis.
Prerequisite: Social Analysis 10 and Mathematics 20 or 21a, or permission of the instructor.

Economics 1011b. Macroeconomic Theory
Catalog Number: 6993
Philippe Aghion
Half course (spring term). Tu., Th., 10-11:30, and a one-hour weekly section to be arranged. EXAM GROUP: 12, 13
The same topics as in 1010b, but with a more mathematical approach.
Note: Economics 1011b fulfills the intermediate macroeconomic theory requirement for economics concentrators. Students may take either Economics 1010b or Economics 1011b for credit. This course, when taken for a letter grade, meets the Core area requirement for Social Analysis.
Prerequisite: Social Analysis 10. While no specific mathematics course is required, Mathematics 20 or 21 is recommended.

Economics 1013. Theory of Macroeconomic Policy
Catalog Number: 8959
Aleh Tsyvinski (University of California, Los Angeles)
Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11
Focus on macroeconomic policy, studied in a quantitative, rigorous way. We begin by studying household consumption and leisure choices, and the market clearing model. We then study inflation, unemployment, growth, taxation, government debt, business cycles, and monetary and fiscal policy. Operational knowledge of calculus is required; we will extensively use derivatives and optimization techniques such as Lagrangeans.
Prerequisite: Economics 1010a and 1011b required, Mathematics 20 or 21a strongly suggested.

Economics 1017. A Libertarian Perspective on Economics & Social Policy
Catalog Number: 1197
Jeffrey A. Miron (Boston University)
Half course (fall term). Tu., Th., 11:30–1 and a section to be arranged. EXAM GROUP: 13, 14
Analyses the libertarian perspective on economic and social policy. This perspective differs from both liberal and conservative views, arguing for minimal government in most arenas. Specific policies addressed include drug prohibition, gun control, public education, abortion rights, gay marriage, income redistribution, and campaign finance regulation.
Prerequisite: Social Analysis 10

Economics 1025. Theory of Capital and Income
Catalog Number: 0121
Martin L. Weitzman
Half course (fall term). M., W., 1–2:30; F., 1–2:30, and a section on Friday 1-2:30. EXAM GROUP: 6, 7

Mathematically advanced. Applies the maximum principle of optimal control theory to analyze a wide variety of dynamic economic models. Emphasizes basic principles and fundamental unity of all problems involving capital, investment, and time—including harvesting of renewable resources, extraction of non-renewable resources, analysis of dynamic environmental externalities, optimal growth, equilibrium of competitive stock markets, and the economic theory of the connection between income, accounting, sustainability, and share valuation.
Prerequisite: Economics 1011a and Mathematics 20.

Economics 1030. Psychology and Economics
Catalog Number: 4709 Enrollment: Limited to 80.
David I. Laibson and Andrei Shleifer
Half course (spring term). Tu., Th., 10–11:30, and a one-hour weekly section to be arranged.
EXAM GROUP: 12, 13
Integrates psychological and economic analysis of behavior. Psychological topics include social preferences, impulsivity, bounded rationality, loss-aversion, over-confidence, self-serving biases, hedonics, and neuroscience. Discusses how psychological experiments have been used to learn about preferences, cognition, behavior. Economic topics include arbitrage, equilibrium, rational choice, utility maximization, Bayesian beliefs, game theory. Integrates these psychological and economic concepts to understand behavioral phenomena such as credit card borrowing, portfolio choice, retirement saving, procrastination, addiction, asset pricing, auction bidding, labor supply, cooperation.
Prerequisite: Economics 1010a or 1011a, and knowledge of multivariate calculus.

Economics 1035. Policy Applications of Psychology and Economics
Catalog Number: 1687 Enrollment: Limited to 80.
Sendhil Mullainathan
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Integrates psychological with economic approaches to traditional public policy issues. International applications include public health, epidemics such as AIDS, fertility, education and psychological impacts of poverty. Domestic applications include discrimination and affirmative action, drugs, crime and unemployment.
Prerequisite: Economics 1010a or 1011a.

Economics 1052. Introduction to Game Theory
Catalog Number: 2634
Markus M. Möbius
Half course (spring term). Tu., Th., 10–11:30, and a one-hour weekly section to be arranged.
EXAM GROUP: 12, 13
An introduction to game theory and its applications to economics at a high level of rigor. Topics include extensive form and strategic form games, Nash equilibrium and Nash's existence theorem, subgame-perfect equilibrium, Bayesian equilibrium, and applications to repeated games, auctions, and bargaining.
Prerequisite: Economics 1011a and Mathematics 21b, or equivalent.

Primarily for Graduates

Economics 2001. The Behavioral & Experimental Economics Workshop
Catalog Number: 8732
David I. Laibson, Edward L. Glaeser, and Alvin E. Roth (FAS, Business School) (fall term)
Full course (indivisible). Tu., 2:30–4. EXAM GROUP: 16, 17
Presents current research in the Behavioral and Experimental Economics field.

***Economics 2010a. Economic Theory**
Catalog Number: 8656
Edward L. Glaeser and Drew Fudenberg
Half course (fall term). Tu., Th., 10–11:30, and a 1.5-hour weekly section to be arranged. EXAM GROUP: 12, 13
Covers the theory of individual and group behavior. Topics include consumer theory, producer theory, behavior under uncertainty, externalities, monopolistic distortions, game theory, oligopolistic behavior, and asymmetric information.
Note: Enrollment is limited to students in the economics and business economics PhD programs.
Prerequisite: Mathematics 116 or equivalent; can be taken concurrently.

Economics 2010b. Economic Theory
Catalog Number: 8659
Jerry R. Green and Christine Shannon (University of California, Berkeley)
Half course (spring term). Tu., Th., 10–11:30, and a 1.5-hour weekly section to be arranged. EXAM GROUP: 12, 13
Topics include general equilibrium, the core, externalities and public goods, moral hazard, social choice theory, signaling, and mechanism design.
Prerequisite: Economics 2010a.

Economics 2010c. Economic Theory
Catalog Number: 2041
Alberto F. Alesina, Benjamin M. Friedman, and Kenneth Rogoff
Half course (fall term). M., W., (F.), 8:30–10, and a 1.5 hour weekly section to be arranged. EXAM GROUP: 1, 2
A basic course in graduate macroeconomics, including models of business fluctuations, theories of consumption, investment and money demand, analyses of monetary and fiscal policy, and introduction to open economy macroeconomic issues.
Note: Enrollment is normally limited to students in the economics PhD program, doctoral candidates in a few other designated programs, and well-qualified undergraduates.
Prerequisite: Mathematics 116 or the equivalent; can be taken concurrently.

Economics 2010d. Economic Theory
Catalog Number: 4431
Robert J. Barro and David I. Laibson
Half course (spring term). Tu., Th., 1–2:30, and a 1.5-hour weekly section to be arranged. EXAM GROUP: 15, 16
Topics include discrete-time and continuous-time dynamic programming, consumption, investment, economic growth, and business cycles.
Prerequisite: Economics 2010c.

***Economics 2020a. Microeconomic Theory I**
Catalog Number: 0339 Enrollment: Limited to 102.
Christopher N. Avery (Kennedy School) and Nolan H. Miller (Kennedy School)
Half course (fall term). M., W., 8:30–10, and a one-hour weekly section to be arranged. EXAM GROUP: 1, 2
A comprehensive course in economic theory designed for doctoral students in all parts of the university. Consumption, production, uncertainty, markets, general equilibrium. Applications to policy analysis and business decisions. Emphasizes the use of economic theory in practical research.
Note: Offered jointly with the Kennedy School as API-111 and the Business School as 4010.
Prerequisite: Two years of calculus and one course in probability theory. Thorough background in microeconomic theory at the intermediate level. Undergraduates with the appropriate background are welcome.

***Economics 2020b. Microeconomic Theory II**
Catalog Number: 4058
Jerry R. Green, Christopher N. Avery (Kennedy School), and Nolan H. Miller (Kennedy School)
Half course (spring term). M., W., 8:30–10, and a one-hour weekly section to be arranged. EXAM GROUP: 1, 2
A continuation of Economics 2020a. Topics include game theory, economics of information, incentive theory, and welfare economics.
Note: Offered jointly with the Kennedy School as API-112 and the Business School as 4011.
Prerequisite: Economics 2010a or 2020a.

Economics 2030. Psychology and Economics
Catalog Number: 3828
David I. Laibson, Sendhil Mullainathan, and Matthew Rabin (University of California, Berkeley)
Half course (spring term). F., 9–12. EXAM GROUP: 2, 3, 4
Explores economic and psychological models of human behavior. Theoretical topics include bounded rationality, intertemporal choice, decision making under uncertainty, inference, choice heuristics, and social preferences. Economic applications include asset pricing, corporate finance, macroeconomics, labor, development, and industrial organization.
Prerequisite: Primarily for graduate students but open to undergraduates. Knowledge of multivariable calculus and econometrics.

[Economics 2035 (formerly Economics 2410h). Dynamic Programming]
Catalog Number: 1851
David I. Laibson
Half course (spring term). Hours to be arranged.
Covers dynamic programming, including both discrete and continuous-time methods. Considers applications to search, investment, option valuation, consumption, and finance. Discusses computational methods for generating numerical solutions.
Note: Expected to be given in 2005–06.

Economics 2040. Experimental Economics
Catalog Number: 8485 Enrollment: Limited to 48.

Alvin E. Roth (FAS, Business School)
Half course (fall term). F., 9–12. EXAM GROUP: 2, 3
An introduction to experimental economics, and some of the major subject areas that have been addressed by laboratory experiments. We concentrate on *series* of experiments, to see how experiments build on one another.
Note: Offered jointly with the Business School as 4160.

Economics 2052. Game Theory I: Equilibrium Theory
Catalog Number: 3690
Attila Ambrus and Drew Fudenberg
Half course (spring term). M., 4–7 pm and a weekly section to be arranged. EXAM GROUP: 9
Equilibrium analysis and its applications. Topics vary from year to year, but typically include equilibrium refinements (e.g. sequential equilibrium), the equilibria of various classes of games (e.g. repeated games, auctions, signaling games) and the definition and application of common knowledge.
Prerequisite: Economics 2010a or permission of the instructor.

Economics 2053. Game Theory II: Topics in Game Theory
Catalog Number: 1898
Attila Ambrus and Drew Fudenberg
Half course (fall term). M., 4–7 p.m. EXAM GROUP: 9
Aimed at students planning to do research in game theory. Topics vary from year to year; examples include evolutionary game theory, models of learning and imitation, epistemological models, coalitional agreements, and the foundations of games of incomplete information.

Economics 2054. Social Choice and Welfare Economics
Catalog Number: 1118
Amartya Sen and Kaushik Basu (Cornell University)
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
A basic course in social choice theory and its philosophical foundations. An examination of "impossibility" results, collective rationality, domain restrictions, interpersonal comparability, and the role of rights and liberties.

[Economics 2056. Market Design]
Catalog Number: 3634
Alvin E. Roth (FAS, Business School) and Estelle Cantillon (Business School)
Half course (spring term). Hours to be arranged.
Deals with the theory and practice of market design, with prominent examples drawn from auctions and labor markets.
Note: Expected to be given in 2005–06. Offered jointly with the Business School as 4150.

Economics 2058. Networks and Social Capital
Catalog Number: 2872
Markus M. Möbius
Half course (spring term). Tu., 4–7 p.m. EXAM GROUP: 18
Provides a rigorous theoretical introduction into network models. Discusses the emerging

empirical literature on economic and social networks. Topics include the role of networks in technological progress, buyer-supplier networks, and social capital.

Economics 2060. Contract Theory
Catalog Number: 1404
Oliver S. Hart
Half course (fall term). M., W., 4–5:30. EXAM GROUP: 9
Recent developments in contract theory. Includes hidden action and hidden information models, dynamic agency issues, incomplete contracts, and applications of contract theory to theories of the firm and corporate financial structure.

***Economics 2075hf. Political Economy Research Seminar**
Catalog Number: 7645
Stephen A. Marglin
Half course (throughout the year). Tu., 10–12. EXAM GROUP: 12, 13

[Economics 2080. Economics and Politics: The Foundations of Economics in Political Theory]
Catalog Number: 6576
Benjamin M. Friedman and Richard Tuck
Half course (fall term). Hours to be arranged.
Offers graduate students in relevant disciplines the chance to study the historical origins of central ideas in modern economics and to discuss their philosophical character.
Note: Expected to be given in 2005–06.
Prerequisite: A basic knowledge of economics is assumed.

Economics 2086. The Theory Workshop
Catalog Number: 6378
Jerry R. Green and members of the Department
Half course (fall term; repeated spring term). Th., 4–6. EXAM GROUP: 18

Econometrics and Quantitative Methods

For Undergraduates and Graduates

Economics 1123. Introduction to Econometrics
Catalog Number: 0813
James H. Stock (fall term) and Samuel B. Thompson (spring term)
Half course (fall term; repeated spring term). Fall: Tu., Th., 11:30–1; Spring: Tu., Th., 1–2:30; and a one-hour weekly section to be arranged. EXAM GROUP: Fall: 13, 14; Spring: 15, 16
An introduction to multiple regression techniques with focus on economic applications. Discusses extensions to discrete response, panel data, and time series models, as well as issues such as omitted variables, missing data, sample selection, randomized and quasi-experiments, and instrumental variables. Aims to provide students with an understanding of and ability to apply econometric and statistical methods using computer packages.
Note: Students may take either Economics 1123 or Statistics 139 for credit. Statistics 139 will

not count as econometrics requirement. Also, Economics 1123 may not be taken for credit if taken after Economics 1126, but credit will be given for both courses if Economics 1123 is taken first.
Prerequisite: Statistics 100.

Economics 1126. Quantitative Methods in Economics
Catalog Number: 4076
Michael Jansson (University of California, Berkeley)
Half course (spring term). Tu., Th., 11:30–1, and a one-hour weekly section to be arranged. EXAM GROUP: 13, 14
Topics include elements of statistical decision theory and related experimental evidence; some game theory and related experimental evidence; maximum likelihood; logit, normal, probit, and ordered probit regression models; panel data models with random effects; omitted variable bias and random assignment; incidental parameters and conditional likelihood; demand and supply.
Note: Economics 1123 may not be taken for credit if taken after Economics 1126, but credit will be given for both courses if Economics 1123 is taken first.
Prerequisite: Statistics 100 or preferably 110; Mathematics 20.

Cross-listed Courses

Statistics 100. Introduction to Quantitative Methods

Primarily for Graduates

Economics 2110. Introductory Probability and Statistics for Economists
Catalog Number: 7213
Marcelo J. Moreira
Half course (fall term). Tu., Th., 1–2:30, and a 1.5-hour weekly section to be arranged. EXAM GROUP: 15, 16
Introduction to probability and statistics. Emphasis on general methods applicable to both econometrics and economic theory. Topics include probability spaces, random variables, limit laws, estimation, hypothesis testing, and Bayesian methods.
Prerequisite: Statistics (Stat 100), Linear Algebra and Calculus (Math 21a and 21b), and Real Analysis (Math 112).

Economics 2120. Introduction to Applied Econometrics
Catalog Number: 2352
Dale W. Jorgenson
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Introduction to methods employed in applied econometrics, including linear regression, instrumental variables, panel data techniques, generalized method of moments, and maximum likelihood. Includes detailed discussion of papers in applied econometrics and computer exercises using standard econometric packages.
Note: Enrollment limited to PhD candidates in economics, business economics, public policy, political economy and government (PEG), and business administration (DBA).
Prerequisite: Economics 2110 or equivalent.

[Economics 2130 (formerly Economics 2131). Applied Econometrics]
Catalog Number: 2211
Dale W. Jorgenson
Half course (spring term). Hours to be arranged.
Advanced methods in applied econometrics, including nonlinear regression, discrete and limited dependent variables, models of selection, and stationary and non-stationary time series. Includes detailed discussion of empirical applications.
Note: Expected to be given in 2005–06. Students complete a short research project in applied econometrics.
Prerequisite: Economics 2120 or equivalent.

[Economics 2140. Econometric Methods]
Catalog Number: 7210

Half course (fall term). Tu., Th., 11:30–1, and a one-hour weekly section to be arranged. EXAM GROUP: 13, 14
Statistical decision theory with applications to portfolio choice, panel data topics, selection bias, demand and supply, qualitative choice, and quantile regression.
Note: Expected to be given in 2005–06.
Prerequisite: Economics 2120 or equivalent.

Economics 2141. Advanced Topics in Microeconometrics
Catalog Number: 9305
Marcelo J. Moreira
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Topics include censoring, sample selection, attrition, stratified sampling, estimation of average treatment effects, and duration analysis.

Economics 2142. Time Series Analysis
Catalog Number: 4414
James H. Stock
Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11
A survey of modern time series econometrics. Topics include univariate models, vector autoregressions, linear and nonlinear filtering, frequency domain methods, unit roots, structural breaks, empirical process theory asymptotics, forecasting, and applications to macroeconomics and finance.

Economics 2144. Advanced Applied Econometrics
Catalog Number: 7686
Ariel Pakes
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
An introduction to the theory and application of recently developed econometric techniques used in advanced applied work. Simulation techniques, estimation subject to inequality restrictions, as well as semiparametric and nonparametric tools will be studied in a variety of empirical contexts.

[Economics 2146. Topics in Financial Econometrics]
Catalog Number: 8715
Samuel B. Thompson
Half course (spring term). Hours to be arranged.
A discussion of modern topics in financial econometrics. Topics include testing for return predictability, inference in consumption-based asset pricing models, and estimation of continuous time models. Includes discussion of empirical applications.
Note: Expected to be given in 2005–06.
Prerequisite: Economics 2120 or equivalent.

Economics 2149. Computational Economics
Catalog Number: 7236
Ulrich Doraszelski
Half course (fall term). M., W., 4–5:30. EXAM GROUP: 9
Graduate introduction to computational approaches for solving economic models. We will formulate economic problems in computationally tractable form and use techniques from numerical analysis to solve them. We will study examples of computational techniques in the current economics literature.

Economics 2162. The Econometrics Workshop
Catalog Number: 2372
James H. Stock and members of the Department
Full course. Th., 4:30–6. EXAM GROUP: 18
Current research topics in theory and applications of econometrics.

Economic History; Development Economics

For Undergraduates and Graduates

Economics 1312. India in the Global Economy
Catalog Number: 1231
Kaushik Basu (Cornell University)
Half course (fall term). Tu., Th., 4–5:30; Tu., at 1. EXAM GROUP: 18
This new course will study the economy of independent India, paying special attention to India's integration into global business. Though the focus of the course will be the economy, this will be studied in the context of the country's social and political setting.
Prerequisite: Social Analysis 10 and Mathematics 1a or their equivalents.

Economics 1315. Economic Development in East Asia
Catalog Number: 1920
Dwight H. Perkins
Half course (spring term). M., W., (F.), at 11, and a one-hour weekly section to be arranged. EXAM GROUP: 4
Covers the modern development and economic history of East and Southeast Asia. Topics include explanations for the high economic growth rates in the region; the transition from economies based on central planning to economies relying on market forces; industrial policies

and the origins of the Asian financial crisis; the role of natural resources; differing approaches to income distribution and social welfare; and other related issues of importance to the region.
Prerequisite: Social Analysis 10.

Economics 1320. The Latin American Economy
Catalog Number: 2454
Beatriz Armendariz
Half course (spring term). Tu., Th., 11:30–1, and a one-hour weekly section to be arranged.
EXAM GROUP: 13, 14
Economic analysis of historical episodes that have shaped recent development strategies in the region. Focuses on the determinants of growth and income inequality, volatile financial markets, and rapid urbanization. Analyzes country-specific experiences to evaluate stabilization, trade, regulation, poverty alleviation, and environmental policies.
Prerequisite: Economics 1010a or 1011a. Prior knowledge of economic development and international finance would be an advantage.

Economics 1330. One Way or Many
Catalog Number: 7955
Richard B. Freeman and Roberto Mangabeira Unger (Law School)
Half course (spring term). M., 2:20–4:20 and a one-hour weekly section to be arranged. EXAM GROUP: 7, 8, 9
Is the world gradually converging toward the same set of economic practices and institutions, following the lead of the North Atlantic industrial democracies? Or can democratic market economies take institutional forms radically different from those now established in the US and Western Europe? International financial instability has lent new urgency to the controversy over alternatives. The course considers these themes by exploring their variations in major post-communist or developing societies, as well as in North Atlantic countries.
Note: Offered jointly with the Law School as 44160-31. Meets at the Law School.
Prerequisite: Social Analysis 10.

Economics 1340. Globalization and History
Catalog Number: 4025 Enrollment: Limited to 80.
Jeffrey G. Williamson
Half course (fall term). Tu., Th., 10–11:30, and a one-hour weekly section to be arranged.
EXAM GROUP: 12, 13
Globalization after 1492: first globalization boom 1800-1914, autarkic retreat 1914-1950, second globalization boom since 1950. Uses history to explore sources and impact of world market integration, emerging global capital markets, and mass migrations. Does going global foster growth? Who gains and who loses? Why doesn't more capital flow to poor countries? Why don't more poor people migrate? Who votes for protection? Who votes for migration restriction?
Note: Concentrators may not take pass/fail.
Prerequisite: Social Analysis 10 or permission of the instructor.

[*Economics 1357. Historical Perspectives on American Economic Ascendancy]
Catalog Number: 7554 Enrollment: Limited to 60.
Claudia Goldin

Half course (spring term). Hours to be arranged.
Concerns America's economic ascendancy ever since c.1790. Addresses whether the US lost economic leadership post-WWII or others converged on it. Explores how the US achieved economic supremacy, including natural resources, legal institutions, labor, education, and invention. Confronts domestic issues accompanying economic growth such as inequality, regional divisions, slavery, big business, and economic vicissitudes such as the Great Depression, and evaluates solutions such as big government. Readings include novels.
Note: Expected to be given in 2005–06. Concentrators may not take pass/fail. A research paper is required.
Prerequisite: Social Analysis 10 or permission of the instructor.

[Economics 1375. Gender Issues in Economic Development]
Catalog Number: 7348
Erica M. Field
Half course (spring term). Hours to be arranged.
Examines a range of economic issues related to gender in developing countries, with a focus on empirical methods and applied theory. We will analyze regional trends in women's education, labor force participation, wealth and political representation, and examine their theoretical and empirical relationship to economic growth and development. Specific topics include intra-household resource allocation; marriage markets and family structure; public policy and gender equity; and the implication of biological and psychological gender theories for economic behavior.
Note: Expected to be given in 2005–06.
Prerequisite: Economics 1010/1011

[Economics 1385. Introduction to Global Health and Population]
Catalog Number: 6193
David Bloom (Public Health)
Half course (spring term). Hours to be arranged.
Studies global health and population data in historical and comparative perspective. Discusses alternative frameworks and perspectives for understanding determinants and consequences of global disparities in health and population, and the place of health and population in the realm of international development. Covers approaches to the design, implementation, and evaluation of polices and programs to address health and population problems, including medical interventions, non-medical health interventions, and non-health interventions.
Note: Expected to be given in 2006–07. A research paper is required.

Economics 1386. Health, Education and Development
Catalog Number: 6436 Enrollment: Limited to 80.
Erica M. Field and Michael R. Kremer
Half course (spring term). Tu., Th., 10–11:30 and a weekly section to be arranged. EXAM GROUP: 12, 13
Advanced course addresses health and education issues in developing countries from the standpoint of economics, with a focus on modeling techniques and econometric methods. General topics include demographic transition, household models of production, and the role of health and educational inputs. Specific topics include: the return to education in developing

countries, structural problems in delivery, education finance, health inequality, technology adoption and behavior, AIDS, and the impact of disease.
Prerequisite: Economics 1010a (or 1011a) and 1123 (or 1126).

Economics 1393. Poverty and Development
Catalog Number: 6516
Beatriz Armendariz
Half course (fall term). M., W., 2:30–4, and an hour weekly section to be arranged. EXAM GROUP: 7, 8
Studies the relationship between economic growth, poverty, and income distribution. Discusses how globalization affects poverty and inequality. Studies the main theories of economic growth and the main potential sources of economic development, from physical capital accumulation, to education, to technology, to the role of government. Discusses various global issues such as public global health (e.g., the impact of malaria and AIDS on Africa), corruption and institutions, natural resources, the environment, international donor institutions, and population growth.
Prerequisite: Economics 1010a (or 1011a) and 1010b (or 1011b).

Primarily for Graduates

Economics 2325. World Development
Catalog Number: 8510
Jeffrey G. Williamson
Half course (spring term). M., W., 8:30–10. EXAM GROUP: 1, 2
Uses economic history to explore development the world round over the past two centuries, from the British industrial revolution to the contemporary Third World. Takes examples from Europe, Latin America, Asia, and North America.
Note: Satisfies the graduate distribution requirement.

Economics 2327. Economic Development: Theory, Policy, and Evidence
Catalog Number: 8092
Dani Rodrik (Kennedy School) and Mark R. Rosenzweig (Kennedy School)
Half course (fall term). M., W., 10–11:30, and a review section F., 1–2:30. EXAM GROUP: 3, 4
Provides a graduate-level overview of the theory of and evidence on economic development from a policy-oriented perspective. Aim is to allow students to analyze policy debates surrounding development from a broad and rigorous analytical base.
Note: Offered jointly with the Kennedy School as PED-101i. First meeting on Monday, September 13 at 10 in Belfer, Starr Auditorium, KSG.

[Economics 2330. The Development of the American Economy]
Catalog Number: 0123
Claudia Goldin
Half course (spring term). Hours to be arranged.
Covers topics in American economic history with an emphasis on the causes and consequences of economic growth from c. 1790. Explores the historical roots of current economic issues, such as productivity, technological change, inequality, female labor force, race, immigration,

education, big government, and macroeconomic fluctuations.
Note: Expected to be given in 2005–06. Satisfies the graduate distribution requirement.

Economics 2333. Historical Perspectives on Current Economic Issues
Catalog Number: 6800
Claudia Goldin
Half course (fall term). M., W., 10–11:30. EXAM GROUP: 3, 4
Comparative economic history emphasizing the sources of economic growth. Subjects include labor systems, population change, migration, technology, industrialization, market integration, education, government, inequality, and the Great Depression. Each topic is motivated by a current concern.
Note: Satisfies the graduate distribution requirement.

***Economics 2339. The Economic History Workshop**
Catalog Number: 8183
Claudia Goldin and Jeffrey G. Williamson
Full course. F., 2–4. EXAM GROUP: 7, 8
Intended for students writing dissertations related to economic history themes and/or methodology and for others with interests in economic history. Discusses research papers presented by scholars at Harvard and elsewhere.

Economics 2350. Workshop in Religion, Political Economy, and Society
Catalog Number: 0815
Robert J. Barro and members of the Department
Half course (fall term; repeated spring term). W., 12:30–2. EXAM GROUP: 5, 6
Topics on the interplay between religion and the social sciences.

Economics 2390b. Development Economics I: Microeconomic Issues
Catalog Number: 2990
Michael R. Kremer
Half course (fall term). Tu., Th., 10:30–12. EXAM GROUP: 12, 13
Topics include agricultural issues such as peasant behavior, land tenancy, interlinked markets; credit and insurance market problems and institutions; health, nutrition, and productivity; gender bias; education; and technology adoption.

Economics 2390c. Development Economics II: Growth
Catalog Number: 0388
Philippe Aghion
Half course (spring term). Tu., Th., 2:30–4 and a weekly section to be arranged. EXAM GROUP: 16, 17
Topics include innovation-based growth, innovations and capital accumulation, scale effects and convergence, exhaustible resources, learning-by-doing, growth and market structure, general purpose technologies, dynamics of wage inequality, and technical change and institutional change.

Economics 2390d. The Economic Growth and Development Workshop
Catalog Number: 1926
Phillipe Aghion, Michael R. Kremer, and members of the Department
Full course. Fall: Tu., 2:30–4; Spring: W., 2:30–4. EXAM GROUP: Fall: 16, 17; Spring: 7, 8
In the fall, speakers cover issues in growth and development. In the spring, speakers alternate between "growth and institutions," which will focus on the macro aspects of growth and development, and "labor and development," which will focus on the micro aspects.

Monetary and Fiscal Theory and Policy; Public Sector Economics

For Undergraduates and Graduates

Economics 1410. Public Sector Economics
Catalog Number: 6136
Caroline M. Hoxby, David M. Cutler, Mihir A. Desai (Business School), and Martin Feldstein
Half course (spring term). M., W., F., at 9, and a one-hour weekly section to be arranged. EXAM GROUP: 2
An economic analysis of taxation and government spending. Fundamental principles of taxation are developed and applied to current issues of tax policy. Discussion of government spending focuses on issues of health, education, and social security.
Note: Offered jointly with the Kennedy School as API-125.
Prerequisite: Economics 1010a or 1011a or permission of instructor.

Economics 1420. American Economic Policy
Catalog Number: 8110
Martin Feldstein and Jeffrey B. Liebman (Kennedy School)
Half course (spring term). M., W., F., at 10, and a one-hour weekly section to be arranged. EXAM GROUP: 3
Analyzes major issues in American economic policy including taxation, Social Security, welfare reform, budget policy, monetary and fiscal policy, and exchange rate management. Current economic issues and policy options discussed in detail and in the context of current academic thinking.
Note: Offered jointly with the Kennedy School as API-126.
Prerequisite: Economics 1010a or 1011a, or permission of instructor.

[Economics 1430. Macroeconomics and Politics]
Catalog Number: 5549
Robert J. Barro
Half course (spring term). Hours to be arranged, and a one-hour weekly section to be arranged.
Topics include the political economy of economic growth, including the roles of democracy and legal institutions; inflation, monetary policy, and fiscal policy; interplay between religion and political economy; and analyses of economic and monetary unions.
Note: Expected to be given in 2005–06.
Prerequisite: Economics 1010b or 1011b, or permission of the instructor.

Economics 1471 (formerly Economics 2475). Economics of Crime
Catalog Number: 6848 Enrollment: Limited to 80.
Jeffrey A. Miron (Boston University)
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Presents the economic model of crime and assesses the evidence that evaluates this model. Specific topics include the roles of guns, drugs, abortion, the death penalty, and criminal justice policies in determining crime.
Prerequisite: Social Analysis 10 and Statistics 100 (or equivalent).

[Economics 1480. Moral Perspectives on Economic Growth]
Catalog Number: 3441 Enrollment: Limited to 20.
Benjamin M. Friedman
Half course (fall term). Hours to be arranged.
Considers economic growth and policies that either promote or impede economic growth, from a social and moral perspective. The central question is whether rising living standards promote openness of opportunity, social mobility, tolerance of diversity, commitment to democracy, and other related characteristics of free societies. Approaches include economic, historical, and literary analyses.
Note: Expected to be given in 2005–06.
Prerequisite: Economics 1010a (or 1011a) and 1010b (or 1011b).

Cross-listed Courses

[Quantitative Reasoning 24. Health Economics]

Primarily for Graduates

Economics 2410d. Aggregate Implications of Household and Firm Behavior
Catalog Number: 9772
Nicola C. Fuchs-Schuendeln
Half course (spring term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11
Deals with microeconomic foundations of macroeconomics. Covers a variety of topics, including consumption, wealth holdings, investment, and unemployment. Studies theory as well as empirical evidence.

[Economics 2410e. Economic Growth]
Catalog Number: 0681
Philippe Aghion
Half course (spring term). Hours to be arranged.
Covers a variety of advanced topics in economic growth and development, including the roles of factor accumulation, differences in productivity, technology adoption and technology diffusion, institutions and politics, culture and social capital.
Note: Expected to be given in 2006–07. Spring 2005 Economic Growth has become part of the Development sequence. Students should attend 2390c in lieu of 2410e.

Economics 2410g. Political Economics
Catalog Number: 6758
Andrei Shleifer and James Robinson
Half course (spring term). W., 1:30–3:30. EXAM GROUP: 6, 7, 8
Discusses several research areas in political economy, including the origins of the state, comparative political systems, theories of economic reform, fiscal problems in democracies, rule of law, privatization, regulation, and elections and the economy.

Economics 2415. Dynamic Models of Optimal Policy: Theory and Computation
Catalog Number: 2855
Aleh Tsyvinski (University of California, Los Angeles)
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Macroeconomic approach to optimal policy. Fiscal and monetary policy over the long run and over the business cycle. Time-consistency problems: theory and computation. Dynamic taxation and monetary models with private information and other frictions.

Economics 2420. Monetary and Fiscal Policy Seminar
Catalog Number: 5946
Alberto F. Alesina, Robert J. Barro, and Benjamin M. Friedman
Full course. M., 2–4. EXAM GROUP: 7, 8

Economics 2435. Growth and Institutions Workshop
Catalog Number: 0382
Philippe Aghion, Robert J. Barro, and Dani Rodrik (Kennedy School)
Half course (spring term). W., 4:30–6. EXAM GROUP: 9
Effects of organizations and institutions on macroeconomic performance, with a particular focus on the interplay among institutions, technical change, and economic growth.

Economics 2450a. Public Economics and Fiscal Policy I
Catalog Number: 1339
Caroline M. Hoxby and Roger H. Gordon (University of California, San Diego)
Half course (fall term). M., W., 11:30–1. EXAM GROUP: 4, 5
Surveys theoretical and empirical analyses of taxation and government expenditures. Topics include tax incidence, optimal tax theory, public goods and externalities, and empirical analysis of responses to taxation.

Economics 2450b. Public Economics and Fiscal Policy II
Catalog Number: 6478
David M. Cutler and Martin Feldstein
Half course (spring term). M., W., (F.), 11:30–1. EXAM GROUP: 4, 5
Surveys theoretical and empirical analyses of taxation and government expenditures. Special topics include taxes and corporate finance, social insurance and fiscal policy, including social security and health care.

Economics 2460. Health Economics Workshop
Catalog Number: 7617

David M. Cutler, William C. Hsiao (Public Health), and Joseph P. Newhouse (Kennedy School, Medical School, Public Health)
Half course (spring term). W., 4:30–6. EXAM GROUP: 9
Focuses on theory, econometric models, and public policy of health care. Frontier work in health economics presented and discussed by instructors and outside speakers.
Note: May be taken for credit only by dissertation students writing a research paper. Offered jointly with the Kennedy School as HCP-581.

Economics 2480. The Public Economics and Fiscal Policy Workshop
Catalog Number: 6834
Caroline M. Hoxby, David M. Cutler, and Martin Feldstein
Full course. M., 4–6. EXAM GROUP: 9
Focuses on current issues in the theory and practice of public finance, including both tax and expenditure policies.

***Economics 2490. The Economics of National Security Seminar**
Catalog Number: 9061
Martin Feldstein
Half course (spring term). Tu., 6:30–9 p.m. EXAM GROUP: 18
Considers a range of issues relating to national security, including bioterrorism, the market for nuclear weapons, the defense industry, the dependence on imported oil, intelligence, sanctions, etc.
Note: Speakers will be both experts with experience in this field and economists doing research on these issues. Seminar participants will be economics department faculty and selected graduate students.

International Economics

For Undergraduates and Graduates

[Economics 1530. International Monetary Economics]
Catalog Number: 2269
Richard N. Cooper
Half course (spring term). Hours to be arranged.
The theory of exchange rate determination, capital markets, and macroeconomic policy in the open economy. Applications to such issues as the history of international monetary regimes, international policy coordination, the debt crisis, and the formation of currency unions.
Note: Expected to be given in 2005–06.
Prerequisite: Social Analysis 10.

Economics 1535. International Trade and Investment
Catalog Number: 2557 Enrollment: Limited to 50.
Marc J. Melitz
Half course (fall term). M., W., 1–2:30 and a one-hour weekly section to be arranged. EXAM GROUP: 6, 7
Analyzes the causes and consequences of international trade and investment. Focuses on the

interplay of economic theory and empirical descriptions of foreign trade and direct investment patterns.
Prerequisite: Economics 1010a or 1011a.

Economics 1540. Topics in International Trade
Catalog Number: 7470
Pol Antràs
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Covers advanced topics in international economics with a special emphasis on an analytical approach to the recent process of globalization. Topics include the effect of international outsourcing on wages, trade and industrial development, and the role of multinational firms in the global economy.
Prerequisite: Economics 1535 and knowledge of calculus.

[Economics 1542. International Trade Policy]
Catalog Number: 2613
Elhanan Helpman
Half course (spring term). Hours to be arranged.
Provides a discussion of international trade policies. Begins by reviewing the theory of trade and trade policy in both competitive and non-competitive environments, and proceeds to political economy of trade policy formation. The course requires knowledge of calculus and the ability to deal with analytical methods.
Note: Expected to be given in 2005–06.
Prerequisite: Economics 1010a or 1011a, or permission of instructor.

Economics 1545. International Financial and Macroeconomic Policy
Catalog Number: 5166 Enrollment: Limited to 30.
Gita Gopinath (University of Chicago)
Half course (spring term). Tu., Th., 11:30–1, and a one-hour weekly section to be arranged. EXAM GROUP: 13, 14
Advanced theoretical and empirical analysis of contemporary international macroeconomic policy issues in both industrialized and developing economies. Topics include exchange rates, international capital flows, debt crises, growth, and policy coordination.
Prerequisite: Economics 1010b or 1011b.

Economics 1550. Economics of International Financial Policy
Catalog Number: 5112
Jeffrey A. Frankel (Kennedy School)
Half course (spring term). M., W., 2:40–4. EXAM GROUP: 7, 8
Deals with international monetary economics, or the macroeconomics of open economies. Topics include the foreign exchange market, devaluation, and trade elasticities; simultaneous determination of the trade balance, GDP, the balance of payments, money flows, and price levels; increasingly integrated financial markets; monetary and fiscal policy; international macroeconomic interdependence and policy coordination; supply relationships and nominal anchors for monetary policy; and the determination of exchange rates.
Note: Offered jointly with the Kennedy School as ITF-220. The final exam will be scheduled by

the Kennedy School Registrar.
Prerequisite: Economics 1010a (or 1011a) and 1010b (or 1011b).

Primarily for Graduates

Economics 2530a. International Trade
Catalog Number: 4537
Elhanan Helpman
Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7, 8
Provides a broad overview of theory and evidence concerning international trade, direct foreign investment, and trade policy.
Note: Strongly recommended as preparation for Economics 2530b.

Economics 2530b. International Finance
Catalog Number: 7144
Kenneth Rogoff
Half course (spring term). M., 6–9:30 pm. EXAM GROUP: 9
Financial aspects of growth and income determination in open economies. Topics include international business cycle, monetary and exchange rate regimes, capital flows, and current issues in international macroeconomic policy.
Prerequisite: Economics 2530a provides extremely useful background.

Economics 2535. Advanced Topics in International Trade
Catalog Number: 6410
Pol Antràs
Half course (spring term). Hours to be arranged. EXAM GROUP: 18
Covers advanced theoretical and empirical topics concerning the determinants of world trade patterns.
Prerequisite: Economics 2530a or permission of instructor.

Economics 2537. International Trade Policy: Issues and Analysis
Catalog Number: 1699
Dani Rodrik (Kennedy School)
Half course (fall term). Hours to be arranged.
Develops expertise with economic models used for the analysis of international trade policies. Focuses on theoretical and empirical work relating to trade patterns, income distribution, growth, development, industrial policy, political economy, and the WTO.
Note: Students are expected to make presentations and write a research paper. Offered jointly with the Kennedy School as ITF-345.
Prerequisite: Graduate level microeconomics and econometrics.

Economics 2540. The International Economics Workshop
Catalog Number: 4008
Elhanan Helpman (fall term), Kenneth Rogoff (spring term), and members of the Department
Full course. W., 4–6. EXAM GROUP: 9

Research papers in all aspects of international economics, including theory, econometrics, and policy.

Industrial Organization and Regulation; Environmental Economics

For Undergraduates and Graduates

Economics 1640. Industrial Organization: Theory and Applications
Catalog Number: 7875 Enrollment: Limited to 30.
Philippe Aghion and Ariel Pakes
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Theoretical and empirical analysis of contemporary topics in industrial organization. Uses economic theory to analyze important issues facing firms, and examines the practical challenges of empirical applications of theory. Topics include horizontal relationships and mergers, vertical integration and control through contractual arrangements, price discrimination, information and search costs, innovation and intellectual property rights, and network externalities. Each topic combines theoretical analysis with a study of actual firm behavior.
Prerequisite: Economics 1010a or 1011a.

Economics 1661. Environmental and Resource Economics and Policy
Catalog Number: 2115
Robert N. Stavins (Kennedy School)
Half course (spring term). Tu., Th., 1-2:30 with optional review section F., 1-2:30. EXAM GROUP: 15, 16
Provides a survey, from the perspective of economics, of environmental and natural resource policy. Combines lectures on conceptual and methodological topics with examinations of public policy issues. Topics include principles of environmental and resource economics, nonrenewable resources (minerals and energy), renewable resources (water, forests, land, fisheries), air pollution (stationary and mobile sources, acid rain, and global climate change), water pollution (point and nonpoint sources), waste management, and sustainable development and political aspects of environmental policy.
Note: Offered jointly with the Kennedy School as ENR-201.
Prerequisite: Social Analysis 10 or permission of instructor.

Primarily for Graduates

Economics 2610. Industrial Organization I
Catalog Number: 3766
Ariel Pakes
Half course (fall term). M., W., 1–2:30. EXAM GROUP: 6, 7
Applied work in industrial organization. Static analysis (theory, estimation): demand systems, cost functions, and game theoretic concepts of equilibrium and their application. Dynamic analysis (theory, computation, estimation): single agent problems, dynamic games and their application.

Economics 2611. Industrial Organization II
Catalog Number: 2302
Julie H. Mortimer
Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7
Application of industrial organization to problems of public policy. Applied analysis of antitrust policy, network industries, vertical relationships, auctions, and other topics depending on interest.
Note: Students are urged to take Economics 2610 before Economics 2611.

***Economics 2640hf. The Industrial Organization Workshop**
Catalog Number: 5981
Ariel Pakes and members of the Department
Half course (throughout the year). M., 2:30–4. EXAM GROUP: 7, 8

Economics 2665. The Economics of Organizations Workshop
Catalog Number: 9819
Philippe Aghion, George P. Baker (Business School), and Oliver S. Hart
Half course (fall term; repeated spring term). Th., 2:30–4. EXAM GROUP: 16, 17
Note: Offered jointly with the Business School as 4230.

Economics 2670. Organizational Economics
Catalog Number: 6913
Oliver S. Hart and George P. Baker (Business School)
Half course (spring term). M., W., 10–11:30. EXAM GROUP: 3, 4
Theoretical and empirical work on organizations. Topics include agency problems inside organizations, boundaries of the firm, relational contracting, authority, hierarchies, delegation, decentralization, and nonstandard organizational arrangements (including joint ventures, venture capital, and public ownership).
Note: Offered jointly with the Business School as 4180.
Prerequisite: Economics 2020.

Economics 2680. Environmental and Natural Resource Economics
Catalog Number: 6529
Martin L. Weitzman
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Basic theory and models, including externalities, common property, instruments for controlling pollution. Applications of optimal control theory to renewable and non-renewable resources. Analysis of cost-benefit, discounting, uncertainty, environmental accounting, "sustainability," and biodiversity preservation.
Prerequisite: Graduate price theory at level of 2010 or 2020.

***Economics 2690hf. Environmental Economics and Policy Seminar**
Catalog Number: 4324
Robert N. Stavins (Kennedy School) and Martin L. Weitzman
Half course (throughout the year). W., 4–5:30. EXAM GROUP: 9
Selected topics in environmental and resource economics. Emphasizes theoretical models,

quantitative empirical analysis, and public policy applications. Includes invited outside speakers.
Note: Primarily for graduate students in economics or related fields with environmental interests. Offered jointly with the Kennedy School as ENR-551y.
Prerequisite: Graduate-level course in microeconomic theory.

Financial Economics

For Undergraduates and Graduates

Economics 1723. Capital Markets
Catalog Number: 1917
Tuomo O. Vuolteenaho
Half course (fall term). Tu., Th., 2:30–4, and a one-hour weekly section to be arranged. EXAM GROUP: 16, 17
An introduction to the economic analysis of investment decisions and financial markets. Concepts include time discounting, market efficiency, risk, and arbitrage. These concepts are applied to fixed-income securities, equities, and derivative securities.
Prerequisite: Mathematics 20 and Economics 1010a or 1011a.

[Economics 1733. Topics in Investment Management]
Catalog Number: 6748
Tuomo O. Vuolteenaho
Half course (fall term). Hours to be arranged.
Presents theory and empirical evidence on selected questions in financial economics, with an emphasis on recent empirical research on investment strategies. Focuses on the application of these ideas to investment management. Topics include behavioral finance and market efficiency, patterns in asset prices, and portfolio construction.
Note: Expected to be given in 2005–06.
Prerequisite: Economics 1723; or Economics 1745; or both Social Analysis 10 and permission of the instructor.

Economics 1745. Corporate Finance
Catalog Number: 5889
Randall Morck (University of Alberta)
Half course (spring term). M., W., 1–2:30, and a one-hour weekly section to be arranged. EXAM GROUP: 6, 7
Introduction to corporate finance, including capital budgeting, capital structure of firms, dividend policy, corporate governance, and takeovers.
Prerequisite: Economics 1010a or 1011a.

Economics 1760. Topics in Financial Economics
Catalog Number: 4594
Jeremy C. Stein
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Theory and empirical evidence on selected questions in financial economics, with an emphasis on current research. Topics include behavioral finance, market efficiency, and corporate

investment and financing decisions.
Prerequisite: Economics 1723.

Primarily For Graduates

Economics 2723. Asset Pricing I
Catalog Number: 2847
Jeremy C. Stein and Luis Manuel Viceira (Business School)
Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7
First half is an introduction to financial economics emphasizing discrete-time models and empirical applications. Reviews basic asset pricing theory. Second half deals with theoretical and empirical approaches to the study of financial markets using psychological or behavioral ideas.
Note: First half of course will be held at the Business School, second half will be held at the Department of Economics. Offered jointly with the Business School as 4209.
Prerequisite: Economics 2010a or 2020a, or permission of instructor.

Economics 2724 (formerly Economics 2424). Finance Theory in Continuous Time
Catalog Number: 2614
Robert C. Merton (Business School)
Half course (spring term). Tu., 2–5. EXAM GROUP: 16, 17, 18
Synthesis of finance theory from the perspective of continuous-time analysis covering individual financial behavior, financial markets and intermediaries, corporate finance, governmental and macro finance in an uncertain environment.
Note: Offered jointly with the Business School as 4256. For more information, visit www.hbs.edu/doctoral/registrar/course.html.
Prerequisite: At least one finance course including capital markets; elementary probability and statistics; multi-variate calculus; matrix algebra.

Economics 2725. Corporate Finance
Catalog Number: 1427
Andrei Shleifer and Jeremy C. Stein
Half course (spring term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11
Theory and empirical evidence of capital structure, dividends, investment policy, managerial incentives, and takeovers. Topics include market efficiency, agency problems, and ownership.
Prerequisite: Economics 2060.

Economics 2727. Topics in Empirical Corporate Finance
Catalog Number: 9055
Paul Gompers (Business School) and Joshua Lerner (Business School)
Half course (spring term). Th., 2:30–5:30. EXAM GROUP: 16, 17
Examines empirical research in corporate finance. Covers empirical research methodology, financial institutions, and financial policy. Major emphasis is on how to do well-executed and persuasive research in corporate finance.
Note: Offered jointly with the Business School as 4220. Structured to minimize overlap with Economics 2725. Seminar format; students write referee reports and a research paper.

[Economics 2728. Behavioral Finance]
Catalog Number: 8633
Jeremy C. Stein
Half course (spring term). Hours to be arranged.
Deals with theoretical and empirical approaches to the study of financial markets using psychological or behavioral ideas. Topics include limited arbitrage, predictability of security returns, and trading volume.
Note: Expected to be given in 2005–06.
Prerequisite: Economics 2723.

[Economics 2730. Asset Pricing II]
Catalog Number: 2235
Luis Manuel Viceira (Business School), George Carl Chacko (Business School), and Randolph B. Cohen (Business School)
Half course (spring term). Hours to be arranged.
Emphasis of course is both theoretical and empirical. First part of course develops continuous-time asset pricing models, and their estimation. Second part discusses empirical research on cross-sectional patterns in stock returns.
Note: Expected to be given in 2005–06. Offered jointly with the Business School as 4210.
Prerequisite: Graduate-level microeconomics, macroeconomics, and econometrics; Economics 2723 or equivalent.

***Economics 2770hf. The Financial Economics Workshop**
Catalog Number: 1379
Members of the Department
Half course (throughout the year). M., 4–5:30. EXAM GROUP: 9

Labor, Human Resources, and Income Distribution; Urban Economics

For Undergraduates and Graduates

Economics 1812. The US Labor Market
Catalog Number: 0421
James L. Medoff
Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 3
Presents the tools employed in research on the operation of the labor market and then uses them to discuss issues such as the determinants of earnings differentials, the impact of various firm characteristics on labor-market outcomes, discrimination, and unemployment.
Prerequisite: Economics 1010a (or 1011a) and Economics 1010b (or 1011b).

Economics 1813. The Indebted Society
Catalog Number: 6957
James L. Medoff
Half course (fall term). M., W., (F.), at 10. EXAM GROUP: 3
First charts trends in personal, corporate, and government indebtedness in the US, then discusses the impact of each change on societal well-being. Finally, asks about public policy concerning

the various forms of US debt.
Prerequisite: Economics 1010a (or 1011a) and Economics 1010b (or 1011b).

Economics 1815. Social Problems of the American Economy
Catalog Number: 3130
Lawrence F. Katz
Half course (fall term). Tu., Th., 10–11:30; Th., at 4, and a one-hour weekly section to be arranged. EXAM GROUP: 12, 13
Examines selected social and economic problems of the US and evaluates market and governmental solutions. Topics include discrimination, income and wage inequality, welfare reform, antipoverty strategy (including education and training programs), homelessness, crime, and charitable behavior.
Note: A research paper is required.
Prerequisite: Social Analysis 10 or permission of the instructor.

Economics 1818. Economics of Discontinuous Change
Catalog Number: 3029
Richard B. Freeman
Half course (spring term). Tu., Th., at 1, and a one-hour weekly section to be arranged. EXAM GROUP: 15
Explores discontinuous changes in the economic position of groups and countries and presents mathematical and computer simulation models designed to illuminate these changes. Examples include growth/decline of trade unions, segregation of groups, development of linkages on the internet, changes in corporate work culture, growth of social pathologies in neighborhoods, and Malthusian concerns about the environment. Models include nonlinear simulations, neural networks, finite automata, evolutionary stable strategies, causal conjunctures, agent-based simulations, and genetic algorithms.
Note: A research paper is required. Students should have some mathematical background, but there is no prerequisite.

Economics 1822. Economics of Education
Catalog Number: 1004 Enrollment: Limited to 40.
Caroline M. Hoxby
Half course (fall term). M., W., 2–3:30; and a one-hour weekly section to be arranged. EXAM GROUP: 7, 8
Explores why people attain different levels of education, what makes schools efficient, how schools should be financed, what explains rising college tuition, whether education propels macroeconomic growth. Uses labor economics (human capital investment, the market for teachers), public economics (financing K-12 education, public colleges), industrial organization (vouchers, charter schools, market for college education), macroeconomics (growth theory).
Note: A research paper is required of most students, which makes this a good course for those considering honors theses.
Prerequisite: Economics 1010a or 1011a, or permission of the instructor.

Primarily for Graduates

Economics 2810a. Labor Market Analysis
Catalog Number: 4862
Caroline M. Hoxby and Lawrence F. Katz
Half course (fall term). M., W., 10–11:30. EXAM GROUP: 3, 4
Theoretical and empirical research on labor markets. Wage determination covers equalizing differences, human capital, job mobility, and incentive models. Labor supply covers life-cycle models. Labor demand includes minimum wage and union models.

Economics 2810b. Labor Economics and Labor Market Institutions
Catalog Number: 3206
Lawrence F. Katz and Richard B. Freeman
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Examines the operation of the labor market and evaluation of labor market policies. Topics: labor econometrics, theories of wage determination, changes in the wage structure, unemployment, labor market institutions, social mobility, and social interactions.

Economics 2812. The Labor Economics Workshop
Catalog Number: 0230
Caroline M. Hoxby, Richard B. Freeman, and Lawrence F. Katz
Full course. W., 4–5:30. EXAM GROUP: 9
Focuses on research concerning the operation of labor markets.

***Economics 2813. Labor and Work Life Forum**
Catalog Number: 1415
Richard B. Freeman and Paul C. Weiler (Law School)
Half course (spring term). Th., 4–6. EXAM GROUP: 18
Research and discussion with trade union leaders and management concerning labor issues.

Graduate Courses of Reading and Research

***Economics 3000. Research Paper**
Catalog Number: 4174
Members of the Department
Intended to fulfill the Research Paper Requirement for the PhD degree in Economics. Ordinarily, this course is taken during the spring term of the second year of graduate study.

***Economics 3005. Reading and Research**
Catalog Number: 3493
Members of the Department
Individual work or work in small groups (with a professor or lecturer in residence) in preparation for the general examination for the PhD degree, or work on special topics not included in course offerings.

***Economics 3010. Direction of Doctoral Dissertations**
Catalog Number: 4579
Members of the Department

Note: In all cases, the thesis topic must have been formally submitted to, and approved by, a thesis advisor.

***Economics 3011. Research in Behavior in Games and Markets**
Catalog Number: 0109
Philippe Aghion 1263, Attila Ambrus 4665, Drew Fudenberg 3460, Jerry R. Green 1539, David I. Laibson 1241, Markus M. Möbius 3441, Matthew Rabin (University of California, Berkeley) 4741, and Alvin E. Roth (FAS, Business School) 564 (on leave spring term)
Half course (fall term; repeated spring term). W., 11:30–1.
Serves mainly as a forum for presentations by graduate students of their current research. Work presented can be very preliminary and conjectural.
Prerequisite: Economics 2010a (or 2020a) and 2010b (or 2020b).

***Economics 3163hf. Research in Econometrics**
Catalog Number: 4392
Dale W. Jorgenson 2000 (on leave fall term), Gary Chamberlain 1745 (on leave 2004-05), Marcelo J. Moreira 4365, James H. Stock 1783, and Samuel B. Thompson 3406
Half course (throughout the year). M., at 12:30.
Participants discuss recent research in econometrics and present their own work in progress. Open to doctoral students in economics.

***Economics 3336hf. Research in Economic History**
Catalog Number: 0639
Claudia Goldin 2667 and Jeffrey G. Williamson 7680
Half course (throughout the year). Hours to be arranged.
Participants discuss recent research in economic history and present their own work in progress.
Note: Primarily, but not exclusively, for doctoral students in economics who have passed their oral examinations.

***Economics 3390hf. Research in Economic Development**
Catalog Number: 2532
Michael R. Kremer 2112, Erica M. Field 5095 (spring term only), Robert T. Jensen (Kennedy School) 4548, Asim I. Khwaja (Kennedy School) 3994, Dwight H. Perkins 2300 (on leave fall term), Mark R. Rosenzweig (Kennedy School) 4595, and Jeffrey G. Williamson 7680
Half course (throughout the year). Fall: W., at 1; Spring: Tu., at 1.
Participants discuss recent research in development economics and present their own work in progress. Open to doctoral students in economics who have passed their oral examinations.

***Economics 3410dhf. Research in Macroeconomics**
Catalog Number: 2126
Alberto F. Alesina 2074, Robert J. Barro 1612, Francesco Caselli 1489 (on leave 2004-2005), and David I. Laibson 1241
Half course (throughout the year). Tu., 12–1:30.
Participants discuss recent research in macroeconomics and present their own work in progress. Open to doctoral students in economics who have passed their oral examinations.

***Economics 3450chf. Research in Public Economics and Fiscal Policy**
Catalog Number: 3436
Caroline M. Hoxby 1235, David M. Cutler 2954, Edward L. Glaeser 3219, and Lawrence F. Katz 1480
Half course (throughout the year). Tu., 1–2:30.
Participants discuss recent research in public economics and fiscal policy and present their own work in progress. Open to doctoral students in economics who have passed their oral examinations.

[*Economics 3460chf. Research in Health Economics]
Catalog Number: 5309
Joseph P. Newhouse (Kennedy School, Medical School, Public Health) 2425
Half course (throughout the year). Hours to be arranged.
Participants discuss recent research in health economics. Course may also include presentation of original research by participants. Open to doctoral students only.
Note: Expected to be given in 2005–06.

***Economics 3530hf. Research in International Economics**
Catalog Number: 5777
Pol Antràs 4666, Richard N. Cooper 7211 (on leave spring term), Elhanan Helpman 2334 (on leave spring term), Marc J. Melitz 3499, and Kenneth Rogoff 1746
Half course (throughout the year). W., at 12.
Participants discuss recent research in international economics and present their own work in progress. Open to doctoral students in economics who have passed their oral examinations.

***Economics 3650hf. Research in Industrial Organization**
Catalog Number: 3318
Ariel Pakes 1774 and Julie H. Mortimer 3993 (on leave fall term)
Half course (throughout the year). W., 2:30–4.
Participants present their own research in progress in an informal setting. Open to doctoral students in economics who have passed their general examinations and are in the early stages of their dissertations.

***Economics 3660hf. The Law, Economics, and Organizations Workshop**
Catalog Number: 4325
Lucian Arye Bebchuk (Law School) 2042, Oliver S. Hart 3462, Louis E. Kaplow (Law School) 3223, and Joshua Lerner (Business School) 1601
Half course (throughout the year). M., 12:30–2.
The presentation of work in progress in the field of law, economics, and organizations. Presentations by members of the various Harvard faculties, outside speakers, and graduate students.
Note: Offered jointly with the Law School as 96250-11 and the Business School as 4670.

***Economics 3723hf. Research in Financial Economics**
Catalog Number: 4107
George Carl Chacko (Business School) 3175, Randall Morck (University of Alberta) 2742

(spring term only), Jeremy C. Stein 3752, Luis Manuel Viceira (Business School) 3183, and Tuomo O. Vuolteenaho 3494
Half course (throughout the year). F., 12–1:30.
Participants discuss recent research in financial economics and present their own work in progress. Open to doctoral students in economics who have passed their oral examinations.

***Economics 3810chf. Research in Labor Economics**
Catalog Number: 4066
Lawrence F. Katz 1480, Claudia Goldin 2667, and Caroline M. Hoxby 1235
Half course (throughout the year). Tu., 1–2:30.
Participants discuss recent research in labor economics and present their own work in progress. Open to doctoral students in economics who have passed their oral examinations.

Engineering Sciences

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Division of Engineering and Applied Sciences Offering Instruction in Engineering Sciences

Frederick H. Abernathy, Gordon McKay Professor of Mechanical Engineering and Abbott and James Lawrence Professor of Engineering *(on leave fall term)*
Donald G. M. Anderson, Gordon McKay Professor of Applied Mathematics *(on leave spring term)*
Sean B. Andersson, Lecturer on Applied Mathematics
Michael J. Aziz, Gordon McKay Professor of Materials Science
Michael P. Brenner, Gordon McKay Professor of Applied Mathematics and Applied Physics *(on leave fall term)*
Roger W. Brockett, An Wang Professor of Electrical Engineering and Computer Science
Federico Capasso, Robert L. Wallace Professor of Applied Physics
Kenneth B. Crozier, Assistant Professor of Electrical Engineering on the Gordon McKay Endowment
David A. Edwards, Gordon McKay Professor of the Practice of Biomedical Engineering
Thomas C. Esselman, Lecturer on Engineering Sciences
Brian F. Farrell, Robert P. Burden Professor of Meteorology
Donhee Ham, Assistant Professor of Electrical Engineering on the Gordon McKay Endowment
Joseph J. Harrington, Gordon McKay Professor of Environmental Engineering *(FAS)*, Professor of Environmental Health Engineering *(Public Health)*
Paul Horowitz, Professor of Physics and of Electrical Engineering
Robert D. Howe, Gordon McKay Professor of Engineering

John W. Hutchinson, Abbott and James Lawrence Professor of Engineering and Gordon McKay Professor of Applied Mechanics *(on leave fall term)*
Daniel J. Jacob, Vasco McCoy Family Professor of Atmospheric Chemistry and Environmental Engineering *(on leave fall term)*
Aleksandar Kavcic, John L. Loeb Associate Professor of the Natural Sciences
Navin Khaneja, Assistant Professor of Electrical Engineering on the Gordon McKay Endowment
H. T. Kung, William H. Gates Professor of Computer Science and Electrical Engineering
Amala K. Mahadevan, Visiting Associate Professor of Applied Mathematics *(Boston University)*
L. Mahadevan, Gordon McKay Professor of Applied Mathematics and Mechanics
Scot T. Martin, Gordon McKay Professor of Environmental Chemistry *(Co-Director of Undergraduate Studies)*
Ralph Mitchell, Gordon McKay Professor of Applied Biology *(on leave spring term)*
David J. Mooney, Gordon McKay Professor of Bioengineering
Venkatesh Narayanamurti, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, Professor of Physics, Dean of the Division of Engineering and Applied Sciences and Dean for Physical Sciences
Kevin K. Parker, Assistant Professor of Biomedical Engineering on the Gordon McKay Endowment
Alan W. Rempel, Lecturer on Applied Mathematics
James R. Rice, Mallinckrodt Professor of Engineering Sciences and Geophysics
Peter P. Rogers, Gordon McKay Professor of Environmental Engineering
Frans A. Spaepen, John C. and Helen F. Franklin Professor of Applied Physics
Sumeeta Srinivasan, Lecturer on Engineering Sciences
Garrett B. Stanley, Associate Professor of Biomedical Engineering on the Gordon McKay Endowment *(Co-Director of Undergraduate Studies)*
Howard A. Stone, Harvard College Professor and Vicky Joseph Professor of Engineering and Applied Mathematics *(on leave spring term)*
Zhigang Suo, Gordon McKay Professor of Mechanics and Materials
Vahid Tarokh, Gordon McKay Professor of Electrical Engineering
Ashkan Vaziri, Lecturer on Engineering Sciences
Joost J. Vlassak, Associate Professor of Materials Engineering on the Gordon McKay Endowment
Gu-Yeon Wei, Assistant Professor of Electrical Engineering on the Gordon McKay Endowment
David A. Weitz, Gordon McKay Professor of Applied Physics and Professor of Physics *(on leave 2004-05)*
Steven C. Wofsy, Abbott Lawrence Rotch Professor of Atmospheric and Environmental Science and Associate Dean of the Faculty of Arts and Sciences *(on leave 2004-05)*
Patrick J. Wolfe, Assistant Professor of Electrical Engineering on the Gordon McKay Endowment
Woodward Yang, Visiting Professor of Electrical Engineering and Computer Science
Todd Zickler, Assistant Professor of Electrical Engineering on the Gordon McKay Endowment

Other Faculty Offering Instruction in Engineering Sciences

Yu-Chi Ho, T. Jefferson Coolidge Research Professor of Applied Mathematics and Gordon McKay Research Professor of Engineering

The Division of Engineering and Applied Sciences offers undergraduate and graduate courses in Applied Mathematics, Applied Physics, Computer Science, Earth and Planetary Sciences, and Engineering Sciences. Recommended course programs at the undergraduate level may be obtained from the Academic Office, Pierce Hall 110. Division faculty also offer several courses in the section entitled General Education Electives.

For information concerning concentration in Engineering Sciences, please consult the Co-Directors of Undergraduate Studies or the Academic Office, Division of Engineering and Applied Sciences, Pierce Hall 110.

Primarily for Undergraduates

Engineering Sciences 6. Environmental Science and Technology
Catalog Number: 2969
Scot T. Martin
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An introduction to the role of technology in environmental sciences with an emphasis on solving problems concerning human use and control of the environment. Cases from aquatic, terrestrial, and atmospheric environments are discussed. In each setting the basic scientific principles underlying engineering control are emphasized. Occasional field trips are part of the course. The course presumes basic knowledge in chemistry, physics, and mathematics at the high school level.
Note: This course, when taken for a letter grade, meets the Core area requirement for Science B.

***Engineering Sciences 50. Introduction to Electrical Engineering**
Catalog Number: 4499
Aleksandar Kavcic and Todd Zickler
Half course (spring term). M., W., F., at 2. EXAM GROUP: 7
A discussion of topics of central importance to the fields of electronics, communications and intelligent systems. The material concerns both the qualitative and quantitative analysis, as well as laboratory experiments and computer simulations. Examples of topics to be discussed range from relatively simple modules such as analog amplifiers and digital adders, to complex devices such as cell-phones and their supporting infrastructure.
Note: Students who have taken 100-level courses in electrical engineering will not be allowed to enroll in Engineering Sciences 50.

Engineering Sciences 51. Computer-Aided Machine Design
Catalog Number: 0322
Robert D. Howe
Half course (fall term). M., W., F., at 1. EXAM GROUP: 6
A first course in the design and construction of mechanical and electromechanical devices. Engineering graphics and sketching; dimensions and tolerances. Introduction to materials selection and structural design. Machine elements and two-dimensional mechanisms; DC motors. Design methodology. Emphasis on laboratory work and design projects using professional solid modeling CAD software and numerically controlled machine tools.

Note: Open to freshmen, sophomores, and juniors.
Prerequisite: Mathematics 1b (may be taken concurrently); high school physics.

***Engineering Sciences 91r. Supervised Reading and Research**
Catalog Number: 1113
Scot T. Martin and Garrett B. Stanley
Half course (fall term; repeated spring term). Hours to be arranged.
Guided reading and research.
Note: Normally open to candidates accepted for work on a specific topic by a member of the teaching staff of the Division of Engineering and Applied Sciences. Normally may not be taken for more than two terms; may be counted for concentration in Engineering Sciences if taken for graded credit. Applicants should file a project sheet before study cards are filed. Project sheets may be obtained from the Academic Office, Pierce Hall 110.

***Engineering Sciences 96. Engineering Design Seminar**
Catalog Number: 8461 Enrollment: Limited to 25.
Woodward Yang and Frederick H. Abernathy
Half course (spring term). M., Th., 4–5:30. EXAM GROUP: 9, 18
Group project selected to provide experience in the processes and practice of engineering problem definition and solution as well as design and evaluation. As part of the course, the class may participate in an off-site field trip. The design seminar is ordinarily taken in the spring term of the junior year.
Note: Preference given to SB candidates.

Cross-listed Courses

***Freshman Seminar 21s. Germs**

For Undergraduates and Graduates

Additional courses of interest to students in Electrical Engineering include: Computer Sciences 141, 143, 146, and 148.
***Engineering Sciences 100. Engineering Design Projects**
Catalog Number: 4268
Robert D. Howe
Half course (fall term; repeated spring term). Th., 4–6. EXAM GROUP: 18
Individual design projects selected to provide experience in the processes and practice of engineering design. Requires proficiency in electronic circuit construction as well as mechanical materials fabrication techniques.
Note: Ordinarily taken in the senior year. This one term version of *Engineering Sciences 100hf is open only to students in special circumstances. Enrolled students are required to file a proposed project form with the Academic Office early in the term. Project forms are available in Pierce Hall 110. Project approval rests with the faculty Engineering Design Review Board.
Prerequisite: *Engineering Sciences 96.

***Engineering Sciences 100hf. Engineering Design Projects**
Catalog Number: 7535
Robert D. Howe
Half course (throughout the year). Th., 4–6. EXAM GROUP: 18
Individual design projects selected to provide experience in the processes and practice of engineering design. Requires proficiency in electronic circuit construction as well as mechanical fabrication techniques.
Note: Ordinarily taken in the senior year. Enrolled students are required to file a proposed project form with the Academic Office early in the term. Project forms are available in Pierce Hall 110. Project approval rests with the faculty Engineering Design Review Board.
Prerequisite: *Engineering Sciences 96.

Engineering Sciences 101. Applied Statistics
Catalog Number: 3350
Joseph J. Harrington
Half course (fall term). M., W., 2–3:30. EXAM GROUP: 7
Broad introductory course for students in the applied sciences. Probability, statistical inference, estimation and stochastic processes introduced through the solution of several problems in applied science (e.g., environmental sciences, decision analysis, chemical kinetics, fluid and solid mechanics, and oceanography). Course deals with the material covered in more theoretical detail in Statistics 110, 111, and 139, in approximately equal proportions with more emphasis on applications. Computer exercises will be required.
Note: No previous knowledge of statistics or probability is presumed.
Prerequisite: Applied Mathematics 21b or Mathematics 21b or equivalent.

Engineering Sciences 102. Introduction to Operations Research
Catalog Number: 2844
Sean B. Andersson
Half course (spring term). M., W., 4:30–6. EXAM GROUP: 9
Introduction to analytical and numerical methods for optimization of deterministic and stochastic systems; survey of linear and nonlinear programming, game theory, decision analysis, Markov chains, queuing theory and simulation. Examples taken from a variety of fields. A conceptual introduction to materials covered in depth in Engineering Sciences 201, 202, 205, and 210. Segments of the weekly problem sets can be done on PCs, if desired.
Note: Students who have no background in probability should be prepared to do some extra work. Some PC experience useful but not essential.
Prerequisite: Applied Mathematics 21b or Mathematics 21b and some knowledge of probability and statistics at the level of Statistics 110 or Engineering Sciences 101.

Engineering Sciences 103. Spatial Analysis of Environmental and Social Systems
Catalog Number: 9277
Sumeeta Srinivasan
Half course (spring term). Tu., 8:30–10, and a laboratory to be arranged on Th. EXAM GROUP: 10, 11
Introduces the fundamental statistical and mapping tools needed for analysis of environmental systems. Topics will be linked by environmental and social themes and will include GIS

concepts; data models; spatial statistics; density mapping; buffer zone analysis; surface estimation;map algebra; suitability modeling. Students will acquire technical skills in both mapping and spatial analysis. Software packages used will include ArcGis. There will be guest lectures by researchers and practitioners who use GIS for spatial analysis.
Prerequisite: Applied Mathematics 21 or equivalent.

Engineering Sciences 120. Introduction to the Mechanics of Solids
Catalog Number: 1493
Zhigang Suo
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
A first course in the mechanical sciences which introduces elements of continuum mechanics and explains how materials and structures stretch, bend, twist, shake, buckle, and break. Stress-strain behavior of materials. Statically determinate and indeterminate structures. Stress and strain, equations of motion or equilibrium, strain-displacement relations. Stress waves. Torsion. Beam theory with applications to beam deflections, vibrations, and buckling. Four laboratory sessions required.
Prerequisite: Physics 11a or 15a, and Applied Mathematics 21a or Mathematics 21a (previously) and Applied Mathematics 21b or Mathematics 21b (previously or concurrently).

***Engineering Sciences 122 (formerly Engineering Sciences 119r). Cellular Engineering**
Catalog Number: 8439
Kevin K. Parker
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Summary of the physical laws governing cellular homeostasis; role of the tissue microenvironment on cell life, death, and differentiation; control of cellular function and genetic programs by adhesion to substrates; signal transduction pathways and cellular metabolic control; mechanochemical and mechanoelectrical signal transduction; cell motility; clinical and industrial applications of engineered cells.
Prerequisite: Inorganic chemistry, cell biology, physics, and mathematics at the level of Applied Mathematics 21 or Mathematics 21. Suggested courses include organic chemistry and molecular biology.

Engineering Sciences 123. Introduction to Fluid Mechanics
Catalog Number: 8323
Michael P. Brenner
Half course (spring term). M., W., F., at 10, and laboratory. EXAM GROUP: 3
Statics and dynamics of fluids. Buoyancy, stability, and hydrostatics. Laminar viscous flows, simple boundary layers. Dimensional analysis. Potential flows, origin of lift. Gravity waves, open channel flow. Navier-Stokes equation, Reynolds' stress, turbulent flows in boundary layers and pipes. Applications in environmental, biomedical, mechanical and chemical engineering, aerodynamics, physics, etc.
Prerequisite: Applied Mathematics 21a,b or Mathematics 21a,b; Engineering Sciences 120 and Applied Mathematics 105a or 105b recommended.

Engineering Sciences 125. Mechanical Systems
Catalog Number: 7274

Ashkan Vaziri
Half course (fall term). M., W., F., at 1. EXAM GROUP: 6
Modeling and analysis of mechanical and some electromechanical systems. Topics include resonance, damping, frequency response, Laplace Transform methods, Lagrange's equations, multiple degree-of-freedom systems, and 3-D rigid body dynamics. Computer exercises on simulation of linear and nonlinear dynamic systems. Laboratory: experiments on vibration, stabilization, and complex dynamical systems using modern electronic instrumentation and data reduction systems. Computer simulations of a few systems will become laboratory exercises.
Note: May not be taken for credit in addition to Physics 151.
Prerequisite: Applied Mathematics 21a,b or Mathematics 21a,b or Mathematics 23a,b; Physics 11a or 15a.

Engineering Sciences 128. Computational Solid and Structural Mechanics
Catalog Number: 0359
Zhigang Suo
Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11
Continuation of Engineering Sciences 120 in which continuum mechanics principles are developed at an intermediate level and implemented by computer, using the finite-element method, to solve problems of stressing, deformation, and motion of solid materials and structures. New concepts include plane stress and strain fields and introductions to wave propagation, vibrations, plate and shell structures, fracture mechanics, and creep and plasticity under general stress states. In computational work students develop simple finite-element analyses for beam structures and two-dimensional stress systems, using the general-purpose program ABAQUS, and do a project addressing a significant problem arising in mechanical, structural or materials engineering, biomechanics, or earth science.
Prerequisite: Engineering Sciences 120.

Engineering Sciences 139. Innovation in Science and Engineering: Conference Course
Catalog Number: 0994 Enrollment: Limited to 28.
David A. Weitz and Thomas C. Esselman
Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Explores factors and conditions contributing to innovation in science and engineering; how important problems are found, defined, and solved; roles of teamwork and creativity; and applications of these methods to other endeavors. Students receive practical and professional training in techniques to define and solve problems, and in brainstorming and other individual and team approaches.
Note: Taught through a combination of lectures, discussions, and exercises led by innovators in science, engineering, arts, and business.

[Engineering Sciences 142. Orthopedic Biomechanics]
Catalog Number: 6149

Half course (fall term). M., W., 3–4:30. EXAM GROUP: 8, 9
Introductory course in biomechanics as applied to orthopedic science. Review of anatomy, kinematics, and solid mechanics for the musculoskeletal system. Emphasis on the mechanics of joints (movement, force transmission), bone, soft tissues (e.g., cartilage, ligament, muscle) and

cellular mechanics. Examples from emerging technologies including imaging, cellular mechanics, and tissue engineering.
Note: Expected to be given in 2005–06.
Prerequisite: Mathematics 21a,b or Applied Mathematics 21a,b; Physics 11a or 15a; Engineering Sciences 120 or equivalent introductory solid mechanics course.

[Engineering Sciences 143. Biotechnology Startup]
Catalog Number: 4194
David A. Edwards
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
Provides undergraduate students an opportunity to translate basic scientific discoveries in the healthcare arena to society, with dual focus on developed and developing world healthcare issues. Students develop the ideas from technology and business points of view. Students provide business and technology plans and present their concepts to members of the biotechnology community. Focuses on transport phenomena as motif for scientific discovery in the biomedical field.
Note: Expected to be given in 2005–06.
Prerequisite: Undergraduates recommended to have the equivalent of undergraduate fluid mechanics or have taken Engineering Sciences 144 or Engineering Sciences 214 or permission of instructor.

***Engineering Sciences 144. Introduction to Biotechnology**
Catalog Number: 3580
David A. Edwards
Half course (spring term). Th., 3–6. EXAM GROUP: 17, 18
Introduces undergraduate students to early stage startup (public and private) biotechnologies related to healthcare in the developed and developing worlds. Students analyze basic technologies, as well as business plans and intellectual property protection, underlying existing biotechnology companies while learning of biotechnology development from discovery to commercialization.
Prerequisite: Students recommended to have some familiarity with organic chemistry or permission of the instructor.

Engineering Sciences 145. Introduction to Systems Analysis with Physiological Applications
Catalog Number: 8197
Garrett B. Stanley and guest lecturers
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A survey of systems theory with applications from bioengineering and physiology. Analysis: differential equations, linear and nonlinear systems, stability, the complementary nature of time and frequency domain methods, feedback, and biological oscillations. Applications: nerve function, muscle dynamics, cardiovascular regulation. Laboratory: neural models, feedback control systems, properties of muscle, cardiovascular function.
Prerequisite: Applied Mathematics 21b or Mathematics 21b or equivalent.

[Engineering Sciences 148. Neural Signal Processing]
Catalog Number: 0495
Garrett B. Stanley and guest lecturers
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Examines the generation, transmission, and processing of signals in single nerve cells and in neural ensembles, with emphasis on physical principles and contemporary mathematical models. Develops relevant analytical techniques, including systems theory, filtering, Fourier analysis, stochastic processes, estimation, and network theory. Special attention is given to the physiology of the mammalian visual system.
Note: Expected to be given in 2005–06.
Prerequisite: Applied Mathematics 21a or Mathematics 21a and physics at the level of Physics 15b. Engineering Sciences 145 is ideal preparation; Biological Sciences 80 may compensate for lesser preparation in mathematics or physics.

Engineering Sciences 150. Probability with Applications in Electrical Engineering
Catalog Number: 8997
Navin Khaneja
Half course (spring term). M., W., 2:30–4. EXAM GROUP: 7, 8
An introduction to basic probabilistic ideas that find application in the study of communications and systems. Topics include: random variables, distributions and densities. Probabilistic models in engineering. Markov chains and other discrete time stochastic processes. Conditional probabilities, Bayes' rule and application to the estimation of the value of a stochastic process. Examples from communication theory; characterization of communication channels. Introduction to decision theory and application to the control of uncertain systems.
Prerequisite: Mathematics 21a or Applied Mathematics 21a, and Mathematics 21b or Applied Mathematics 21b.

Engineering Sciences 151. Electromagnetic Engineering
Catalog Number: 5742
Donhee Ham
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Electromagnetism and its applications in modern science and technology, with special emphasis on wireless and fiber-optic communications. Topics include transmission lines and microwave circuits, Maxwell's equations, electromagnetic waves in free space, matter, and waveguides, ray optics, and antennae. Applications of electromagnetism in ultra-fast integrated circuits, wireless networking, and radio astronomy are also discussed to place the electromagnetic theory in practical contexts of the present-day science research and communication technology.
Prerequisite: Basic electromagnetism (Physics 11b or 15b or equivalent), basic circuit analysis (Engineering Sciences 50 or Engineering Sciences 154 or equivalent), basic vector calculus (Applied Math 21a or equivalent), basic differential equations (Applied Math 21b or equivalent) and familiarity with Fourier analysis (some part of Applied Math 105a or ES 156 or equivalent).

Engineering Sciences 154. Electronic Devices and Circuits
Catalog Number: 6319
Gu-Yeon Wei
Half course (fall term). Tu., Th., 10–11:30, plus labs to be arranged. EXAM GROUP: 12, 13

Introduction to physical models of the operation of semiconductor devices and examination of the design and operation of important circuits that utilize these devices. Topics include operational amplifier circuits; the physics of semiconductors; models of bipolar and unipolar transistors; basic diode and transistor circuits; linear and nonlinear analysis of electronic circuits; computer simulation of electronic circuits with SPICE; analysis of analog circuit designs; digital integrated circuits and logic-families. Additional laboratories illustrate techniques for measurement and design of real electronic circuits.
Prerequisite: Introductions to electronic circuits as in Engineering Sciences 50, differential equations and Fourier series as in Applied Mathematics 21b, and electricity and magnetism as in Physics 11b or 15b.

Engineering Sciences 156. Signals and Systems
Catalog Number: 6284
Vahid Tarokh
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Time and frequency domain representations and analysis of signals and systems. Convolution and linear input-output systems in continuous and discrete time. Fourier transforms and Fourier series for continuous- and discrete-time signals. Laplace and Z transforms. Analog and digital filtering. Modulation. Sampling. FFT. Applications in circuit analysis, communication, control, and computing.
Prerequisite: Applied Mathematics 21b or Mathematics 21b.

Engineering Sciences 157. Speech and Audio Processing
Catalog Number: 1724
Patrick J. Wolfe
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Introduction to speech and audio processing, including both mathematical models and practical applications thereof. Time-frequency analysis, synthesis, modification, and coding of information-carrying natural sound signals; relevant aspects ofacoustics and auditory perception; fundamental contemporary applications and methodologies.
Prerequisite: Engineering Sciences 156 or equivalent.

Engineering Sciences 158. Digital Communications
Catalog Number: 7721
Aleksandar Kavcic
Half course (fall term). M., W., 1–2:30. EXAM GROUP: 6, 7
Examines the fundamental theories behind modern digital communication systems. Topics include: fundamental limits on communications, channel coding theorem, channel capacity theorem; baseband communications, orthogonal signal bases, matched filter receiver; digital representations of analog signals, sampling; waveform coding; baseband waveform coding; baseband waveform shaping, pulse amplitude modulation and intersymbol interference channels; digital modulation techniques; elements of error-control coding/decoding, viterbi decoding/detection; elements of spread-spectrum communications.
Prerequisite: Engineering Sciences 156 and a course in probability theory and/or statistics.

Engineering Sciences 162. Environmental Hydrodynamics and Hydrology
Catalog Number: 4163
Amala K. Mahadevan (Boston University)
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Introduces hydrological principles and the fluid mechanics of natural waters in the environment. Topics include the hydrological cycle, water budgets, evapotranspiration, precipitation, infiltration, snowmelt and runoff. Discusses groundwater flow, free-surface flow, boundary layers, channelization and river networks. Processes described in lakes, rivers, and estuaries include sedimentation, convection, freezing, stratification, and gravity waves.
Note: Students who desire to take the course for graduate credit should enroll in Engineering Sciences 262.
Prerequisite: Applied Mathematics 21b, or equivalent.

Engineering Sciences 165. Introduction to Environmental Engineering
Catalog Number: 4274
Peter P. Rogers
Half course (spring term). M., W., 3:30–5. EXAM GROUP: 8, 9
Introduces engineering technologies for the control of the environment and relates them to underlying scientific principles. Efficient design of environmental management facilities and systems. Cases from aquatic, terrestrial, and atmospheric environments discussed.
Note: For undergraduates or graduates without background in environmental engineering.
Prerequisite: Exposure to the material in Applied Mathematics 21a or 21b (or equivalent), Engineering Sciences 101 and Chemistry 7 is recommended.

[Engineering Sciences 167. Environmental Assessment]
Catalog Number: 6885
Peter P. Rogers
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Examines the methods and approaches to environmental impact assessment currently being used and new approaches which rely on improved scaling and index development. Geographical Information Systems (GIS) will be used extensively. Models of impact and indices for air, water, and land impacts will be examined using data from Asia and North America. Cost-of-remediation and environmental elasticity indicators will be examined and their use in engineering design and regulation of the environment will be assessed.
Note: Expected to be given in 2005–06.
Prerequisite: Familiarity with the material of Engineering Sciences 6 and Social Analysis 10.

[Engineering Sciences 168. Aquatic Chemistry]
Catalog Number: 5874
Scot T. Martin
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Applications of organic, inorganic, and physical chemistry to describe and quantify processes occurring in natural waters. Thermodynamics and kinetics of aqueous solutions, acid-base chemical transformations, role of dissolved carbon dioxide, gas-water exchange, complexation of aqueous metal ions, precipitation and dissolution, oxidation and reduction, electrical aspects of solid-solution interfaces, particle aggregation, trace metal cycling, and photochemistry.

Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: Chemistry 5 and 7 or equivalent.

Engineering Sciences 173. Optoelectronics and Photonics: Principles and Applications
Catalog Number: 3490
Federico Capasso
Half course (spring term). W., F., 1–2:30. EXAM GROUP: 6, 7
Covers key topics in photonics and optoelectronics. Wave propagation, reflection, refraction, interference and diffraction, coherence. Dielectric waveguides and optical fibers: modes, dispersion, attenuation; bandwidth. Semiconductor concepts, energy diagrams, p-n junctions, LED materials and characteristics. Lasers: stimulated emission; optical amplifiers, gas lasers, diode lasers, quantum well lasers, single mode lasers. Photodetectors: p-i-n, avalanche, photoconductive and phototransistors, noise. Solar cells. Polarization and modulation of light: devices based on birefringence and on electrooptic, acousto-optic and nonlinear optical effects.
Prerequisite: Physics 11a and Physics 11b; or Physics 15a and Physics 15b.

Engineering Sciences 181. Thermodynamics
Catalog Number: 3889
Michael J. Aziz
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Introduction to engineering thermodynamics with emphasis on classical thermodynamics. Topics: zeroth law and temperature. Properties of single-component gases, liquids, and solids; steam tables. Equations of state for ideal and simple nonideal substances. First law, heat and heat transfer, work, internal energy, enthalpy. Second law, entropy, free energy. Third law. Heat engines and important engineering applications such as refrigerators, power cycles. Properties and simple models of solutions. Phase and chemical equilibrium in multicomponent systems; chemical potential. Laboratory included.
Prerequisite: Physics 11 or 15 and Applied Mathematics or Mathematics 21; chemistry at the level of a good secondary school course or Chemistry 5.

Engineering Sciences 190. Introduction to Materials Science
Catalog Number: 6973
Frans A. Spaepen
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Introduction to the structure and properties of materials. Crystallography, crystal defects and diffraction. Phase transformations: phase diagrams, diffusion, nucleation and growth. Mechanisms of deformation and fracture. Effect of microstructure on properties. Introduction to mechanical behavior of bio-materials.
Prerequisite: Engineering Sciences 181 or equivalent, Physics 11 or 15, and Applied Mathematics 21a,b or Mathematics 21a,b.

Cross-listed Courses

[Earth and Planetary Sciences 108. Environmental Geomechanics]
Earth and Planetary Sciences 133. Atmospheric Chemistry

Primarily for Graduates

Additional courses of interest to graduate students in Electrical Engineering includes Computer Sciences 246r. Additional courses of interest to graduate students in Decision, Control, and Communication include Economics 2010a, 2010b, 2010c, 2120, 2140; Statistics 110, 171.

Engineering Sciences 201. Decision Theory
Catalog Number: 2362
Roger W. Brockett
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
Mathematical analysis of decision making under uncertainty. Axiomatic derivation of subjective probability and utility. Decision trees, normal and extended form, value of information. Bayesian inference. Comparison with classical forms of inference. Estimation and sequential decision problems. Normal models and filtering.
Prerequisite: Applied Mathematics 21a,b or Mathematics 21a,b, and Statistics 110 or equivalents.

Engineering Sciences 202. Estimation and Control of Dynamic Systems
Catalog Number: 5080
Sean B. Andersson
Half course (fall term). M., W., 4–5:30. EXAM GROUP: 9
Study of dynamical systems with deterministic and stochastic inputs. Controllability and observability, linear quadratic control, dynamic programming and the Pontryagin maximum principle, Stochastic models and Kalman-Bucy filtering. Applications from engineering, and economics.
Prerequisite: Linear differential equations, matrix algebra, and introductory probability as covered in Mathematics 21a, b and Engineering Sciences 150 or equivalents.

Engineering Sciences 203. Stochastic Control
Catalog Number: 6982
Navin Khaneja
Half course (fall term). M., W., F., at 10. EXAM GROUP: 3
Introduction to the theory of stochastic differential equations based on Wiener processes and Poisson counters, and an introduction to random fields. The formulation and solution of problems in nonlinear estimation theory. The Kalman-Bucy filter and nonlinear analogues. Identification theory. Adaptive systems. Applications.
Prerequisite: Applied Mathematics 105a,b or equivalent. Some prior exposure to probability; Engineering Sciences 202 desirable but not essential.

[Engineering Sciences 209. Nonlinear Control Systems]
Catalog Number: 1194
Navin Khaneja
Half course (fall term). Hours to be arranged.
Study of nonlinear input-output systems including controllability, observability, uniqueness of models, stability, and qualitative behavior of nonlinear dynamical systems. Differential geometry and Lie theory methods developed to study control of classical and quantum mechanical systems.
Note: Expected to be given in 2005–06.

[Engineering Sciences 210. Mathematical Programming]
Catalog Number: 5499
Donald G. M. Anderson
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Introduction to basic optimization techniques. Linear programming: the simplex method and related algorithms, duality theory, interior-point methods. Unconstrained optimization, nonlinear programming, convexity.
Note: Expected to be given in 2005–06. Offered in alternate years.
Prerequisite: Applied Mathematics 21a and 21b, or Mathematics 21a and 21b; Applied Mathematics 120, or equivalent.

***Engineering Sciences 211. Cardiac Biophysics**
Catalog Number: 3906
Kevin K. Parker
Half course (fall term). W., 1–3 and a weekly section to be arranged. EXAM GROUP: 6, 7
A quantitative examination of cardiac excitation and excitation-contraction coupling. Cardiac membrane channels, the action potential (Hodgkin-Huxley and Luo-Rudy models), and action potential propagation (cable and bidomain models). Arrhythmias, drugs, and defibrillation.
Prerequisite: Electromagnetic field and electric circuit theories, calculus through partial differential equations, cell biology, physiology, and extensive MATLAB programming experience. C programming experience recommended.

[Engineering Sciences 212. Advanced Orthopedic Biomechanics]
Catalog Number: 3856
---------- *and guest lecturers*
Half course (fall term). M., W., 3–4:30. EXAM GROUP: 8, 9
Students are expected to meet all of the requirements of Engineering Sciences 142 and in addition are required to write a term paper with significant analytical and engineering emphasis.
Note: Expected to be given in 2005–06.
Prerequisite: Mathematics 21a,b or Applied Mathematics 21a,b; Physics 11a or 15a; Engineering Sciences 120 or equivalent introductory solid mechanics course.

[Engineering Sciences 213. Advanced Biotechnology Startup]
Catalog Number: 1083
David A. Edwards
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
Students are expected to meet all of the requirements of Engineering Sciences 143 and in addition are required to prepare a special written project motif for scientific discovery in the biomedical field.
Note: Expected to be given in 2005–06.
Prerequisite: Students recommended to have the equivalent of undergraduate fluid mechanics or have taken Engineering Sciences 144 or Engineering Sciences 214 or permission of instructor.

***Engineering Sciences 214. Advanced Introduction to Biotechnology**
Catalog Number: 2663
David A. Edwards

Half course (spring term). Th., 3–6. EXAM GROUP: 17, 18
Students are expected to meet all of the requirements of Engineering Sciences 144 and in addition are required to complete a project that encourages them to consider a contemporary problem of bioethics related to biotechnology.
Prerequisite: Students recommended to have some familiarity with organic chemistry or permission of instructor.

Engineering Sciences 215. Advanced Introduction to Systems Analysis with Physiological Applications
Catalog Number: 5493
Garrett B. Stanley and guest lecturers
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Students expected to meet all of the requirements of Engineering Sciences 145 and in addition required to write a term paper with significant analytic emphasis.
Prerequisite: Applied Mathematics 21b or Mathematics 21b or equivalent.

[Engineering Sciences 216. Biological Mechanics]
Catalog Number: 8148
L. Mahadevan
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Develops and applies continuum and statistical mechanics to biomechanical phenomena. Molecular, cellular and tissue mechanics. Motors, motility and muscle. Sensory physiology and mechanotransduction. Morphogenesis and development. Animal locomotion. Evolutionary mechanics.
Note: Expected to be given in 2005–06.
Prerequisite: Knowledge of undergraduate fluid/solid mechanics (or equivalent courses in physics), differential equations.

Engineering Sciences 217. Computational Neuroscience
Catalog Number: 8112
Garrett B. Stanley
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
A range of current topics in computational neuroscience at the systems level are presented. Discussions include spike trains, point processes, encoding/decoding, information theory, adaptation/plasticity, learning, and neural system identification.
Prerequisite: Applied Mathematics 105a and 105b or equivalent, linear algebra, probability and statistics. Coursework in signals and systems and/or control would be ideal.

[Engineering Sciences 218. Advanced Neural Signal Processing]
Catalog Number: 7709
Garrett B. Stanley and guest lecturers
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Students are expected to meet all of the requirements of Engineering Sciences 148 and in addition are required to write a term paper with significant analytic emphasis.
Note: Expected to be given in 2005–06.
Prerequisite: Applied Mathematics 21a or Mathematics 21a and physics at the level of Physics

15b. Engineering Sciences 145 is ideal preparation; Biological Sciences 80 may compensate for lesser preparation in mathematics or physics.

Engineering Sciences 220. Fluid Dynamics
Catalog Number: 2759
Howard A. Stone
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Vector and tensor calculus. Conservation laws; kinematics and constitutive equations. Exact solutions of the Navier-Stokes equations. Lubrication theory and flows at low Reynolds numbers. Potential flows and boundary layer theory. Introduction to turbulent flows and free-surface flows.
Prerequisite: Familiarity with classical mechanics, partial differential equations, and vector and tensor calculus. An undergraduate course in fluid dynamics is strongly recommended.

***Engineering Sciences 222 (formerly Engineering Sciences 219r). Advanced Cellular Engineering**
Catalog Number: 0696
Kevin K. Parker
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Students are expected to meet all requirements of Engineering Sciences 122 and to give a presentation on a cellular engineering topic of their choosing, subject to instructor approval, with handouts, homework, and examination questions.
Prerequisite: Inorganic chemistry, cell biology, physics, and mathematics at the level of Applied Mathematics 21 or Mathematics 21. Suggested courses include organic chemistry and molecular biology.

Engineering Sciences 223. Tissue Engineering
Catalog Number: 5718
David J. Mooney
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Fundamental engineering and biological principles underlying field of tissue engineering, along with examples and strategies to engineer specific tissues for clinical use. Student design teams propose new approaches to tissue engineering challenges.
Prerequisite: Biochemistry or cell biology background.

[Engineering Sciences 225r. Topics in Biological Fluid Mechanics]
Catalog Number: 3982
Michael P. Brenner and Howard A. Stone
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Spring Term 2003: Study of modern applications of fluid mechanics to problems in biology, biophysics, and biomedical engineering.
Note: Expected to be given in 2005–06.
Prerequisite: Engineering Sciences 220 or permission of the instructor.

Engineering Sciences 239. Advanced Innovation in Science and Engineering: Conference Course

Catalog Number: 8303 Enrollment: Limited to 28.
David A. Weitz and Thomas C. Esselman
Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Students are expected to meet all the requirements of Engineering Sciences 139 and in addition are required to prepare an individual term project with significant analytic emphasis in an area of scientific or technological innovation.

[Engineering Sciences 240. Solid Mechanics]
Catalog Number: 2984
John W. Hutchinson
Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11
Foundations of continuum mechanics, development of elasticity theory, and introduction to plasticity, conservation laws, stress, strain, and constitutive behavior. Vectorial, dyadic, and tensorial form of equations. Basic problems, bending, torsion, waves. Plate theory.
Note: Expected to be given in 2005–06.
Prerequisite: Applied Mathematics 105a,b or equivalent; introduction to solid mechanics at the level of Engineering Sciences 120, or Earth and Planetary Sciences 166, or Applied Physics 293.

Engineering Sciences 241. Advanced Elasticity
Catalog Number: 6711
James R. Rice and John W. Hutchinson
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Mechanics of finite deformation; buckling instability. Thermodynamics of continua; thermoelasticity, poroelasticity. Basic three-dimensional problems; inclusions and inhomogeneities. Plane elasticity and complex variable methods. Crack solutions. Elastic waves, vibrations; radiation from fractures.
Prerequisite: Engineering Sciences 240 and Applied Mathematics 201 or equivalents.

[Engineering Sciences 242r. Solid Mechanics: Advanced Seminar]
Catalog Number: 5379
Zhigang Suo
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
TThe mechanics of evolving small structures. Examples include self-assembled quantum dots, monolayer island arrays, and electromigration. The study follows the conceptual flow from atomic processes, to mesoscopic phenomena, and to engineering implications.
Note: Expected to be given in 2005–06.
Prerequisite: Familiarity with either applied mechanics or materials science.

Engineering Sciences 246. Plasticity
Catalog Number: 4271
Joost J. Vlassak
Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Phenomenological theories for strain hardening materials; flow and deformation theories. Variational principles and other general theorems. Mechanisms of plastic deformation, physical theories for strain hardening materials, and polycrystals. Ideal plasticity. Boundary value

problems, plastic collapse, buckling of structures.
Prerequisite: Engineering Sciences 240, or equivalent.

[Engineering Sciences 247. Fracture Mechanics]
Catalog Number: 7152
Joost J. Vlassak
Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Fundamentals of fracture with applications in materials and structural mechanics. Micromechanics of fracture in ceramics, metals, and polymers. Fracture of composite materials. Interfacial fracture mechanics. Fatigue crack propagation.
Note: Expected to be given in 2005–06.
Prerequisite: Engineering Sciences 240 or equivalent.

[Engineering Sciences 250. Information Theory]
Catalog Number: 8606

Half course (spring term). Hours to be arranged.
Fundamental concepts and results of C. E. Shannon's theory of information. Applications to classical, quantum and biological communications discussed as time permits. At the level of *Elements of Information Theory* by Cover and Thomas.
Note: Expected to be given in 2005–06.
Prerequisite: A full term of probability theory, imparting facility with conditional probability, random variables, random vectors, and the expectation operator.

[Engineering Sciences 255. Detection and Estimation]
Catalog Number: 9816
Vahid Tarokh
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Binary and M-ary random hypothesis testing, estimation theory, parameter estimation, Cramer-Rao bound, non-linear estimation, stochastic processes and systems, Poisson and other special processes, detection and estimation from waveform, waveform estimation, Wiener and Kalman filtering.
Note: Expected to be given in 2005–06.
Prerequisite: Mathematics 25.

[Engineering Sciences 256. Error Control Codes]
Catalog Number: 9677
Vahid Tarokh
Half course (spring term). Hours to be arranged.
Finite Fields. Weight Distribution. Cyclic, BCH and Reed-Solomon Codes. MDS Codes. Generalized BCH Codes. First , second and higher Order Reed-Muller Codes, Quadratic-Residue Codes. Fundamental Bounds. The Golay Codes. Convolutional codes and Turbo codes.
Note: Expected to be given in 2005–06.
Prerequisite: A course in linear algebra.

Engineering Sciences 257. Advanced Speech and Audio Processing
Catalog Number: 5006
Patrick J. Wolfe
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
The contents and course requirements are similar to Engineering Sciences 157, with the exception that students enrolled in Engineering Sciences 257 are required to prepare a term project analyzing aspecific problem of methodology in speech or audio signal processing.
Prerequisite: Engineering Sciences 156 or equivalent.

Engineering Sciences 258. Advanced Digital Communications
Catalog Number: 8645
Aleksandar Kavcic
Half course (fall term). M., W., 1–2:30. EXAM GROUP: 6, 7
The contents and the course requirements are similar to those of Engineering Sciences 158, with the exception that students enrolled in Engineering Sciences 258 are required to prepare a term project analyzing current research in a specific area of digital communications.
Prerequisite: Engineering Sciences 156 and a course in probability theory and/or statistics.

[Engineering Sciences 260. Engineering Systems for Environmental Control]
Catalog Number: 1180
Joseph J. Harrington
Half course (spring term). Hours to be arranged.
Provision of urban water; engineering aspects of collection and disposal of spent water and solid wastes; significant interchanges between gaseous, liquid, and solid phases of the environment; geographic interchanges; time-dependent developments. Data collection and processing for monitoring and control; maintenance and operation of pollution control systems.
Note: Expected to be given in 2005–06.
Prerequisite: Engineering Sciences 123 or permission of instructor.

Engineering Sciences 261. Design of Water Resource Systems
Catalog Number: 3919
Peter P. Rogers
Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11
Functional design of management systems for collection, storage, conveyance, treatment, and distribution of water. Uses techniques of operations research to develop methods for planning integrated systems of dams, reservoirs, canals, pipe networks, pumps, and treatment plants. Applications in water supply, irrigation hydropower, environmental protection, and conservation of wildlife.
Note: Expected to be omitted in 2005–06. Given in alternate years.
Prerequisite: Applied Mathematics 21b or Mathematics 21b or equivalent.

Engineering Sciences 262. Advanced Environmental Hydrodynamics and Hydrology
Catalog Number: 5658
Amala K. Mahadevan (Boston University)
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
The contents and course requirements are similar to those in Engineering Sciences 162, with the

exception that students are required to conduct extra reading and complete extra assignments.
Prerequisite: Applied Mathematics 21b, or equivalent.

[Engineering Sciences 265. Advanced Environmental Geomechanics]
Catalog Number: 1469
James R. Rice
Half course (fall term). Tu., Th., 10–11:30 and a weekly session to be arranged. EXAM GROUP: 12, 13
Meets together with Earth and Planetary Sciences 108, but provides advanced coverage of topics chosen from: seepage flows, solute transport, constitutive response, poroelasticity, failure mechanics, granular flows, seismic effects, open channel flows, turbulence, and sediment transport.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: Applied Mathematics 105a,b or equivalent, and study at an undergraduate level in solid or fluid mechanics comparable to Engineering Sciences 120 and 123.

Engineering Sciences 268. Environmental Chemical Kinetics
Catalog Number: 8711
Scot T. Martin
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Quantifying the time rate of change of chemical species in environmental systems. Common laboratory techniques to measure rate constants. Linear free energy relationships and structural contributions to estimate unknown rate constants. Formulating a coupled chemical system and application of the six principal approximations to obtain analytical solutions. Numerical analysis of complex systems. Concepts are taught by reference to topical problems of current interest in environmental systems. Literature assignments and discussion are part of the course.
Note: Expected to be omitted in 2005–06. Given in alternate years.
Prerequisite: Physical Chemistry (e.g., Chemistry 60 or Engineering Sciences 168) and Applied Mathematics 21a,b or Mathematics 21a,b or equivalent.

Engineering Sciences 272. RF and High-Speed Integrated Circuits
Catalog Number: 5157
Donhee Ham
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Analysis and design of RF and high speed integrated communication circuits at both transistor and system levels. Emphasis on intuitive design methods, physical understanding, analytical and simulational performance evaluation, and practical technology limitations.
Prerequisite: Solid-state devices and analog circuits (Engineering Sciences 154 or equivalent), basic electromagnetism (Physics 11b or 15b or some part of Engineering Sciences 151 or equivalent), basic differential equations (Applied Mathematics 21b or equivalent), and Fourier analysis (some part of Applied Mathematics 105a or Engineering Sciences 156 or equivalent).

Engineering Sciences 274. Quantum Technology I
Catalog Number: 5645
Federico Capasso
Half course (fall term). W., F., 1–2:30. EXAM GROUP: 6, 7

The focus is on devices based on bandstructure engineering that have impacted photonics and communications. Semiconductor heterostructures. Quantum size effect; tunneling; superlattices; excitons; quantum confined Stark effect. Quantum well lasers; modulators. Quantum Cascade Lasers.
Prerequisite: Undergraduate level quantum mechanics such as Physics 143a or equivalent. Familiarity with basic solid-state physics (Applied Physics 195 or equivalent), semiconductor physics and electronic devices (Applied Physics 282, Engineering Sciences 154 or equivalent).

Engineering Sciences 275. Nanophotonics
Catalog Number: 9815
Kenneth B. Crozier
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Recent developments in micro- and nano-photonic materials, devices and microscopy. Computational electromagnetics. Photonic crystals. Optical properties of metal nanostructures. Scanning near-field optical microscopy. Semester-long research project.
Note: Open to graduate students and advanced undergraduates.
Prerequisite: Electromagnetism (Physics 11b or 15b or Engineering Sciences 151 or equivalent).

Engineering Sciences 278. Custom Design of Advanced VLSI Circuits and Systems
Catalog Number: 8194
Gu-Yeon Wei
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Covers a broad range of topics in advanced VLSI design. The latter half of the term will focus on custom VLSI design group projects that will be fabricated through an external semiconductor foundry.
Prerequisite: Computer Science 141, Engineering Sciences 154, or equivalent courses, or approval of instructor.

Engineering Sciences 299r. Special Topics in Engineering Sciences
Catalog Number: 6710
John W. Hutchinson (spring term) and Howard A. Stone (fall term)
Half course (fall term; repeated spring term). Hours to be arranged.
Supervision of experimental or theoretical research on acceptable engineering and applied science problems and supervision of reading on topics not covered by regular courses of instruction.
Note: Open to graduate students and AB/SM candidates only. Students must arrange such work with a member of the Division. This course is graded and is ordinarily taken with the approval of the Committee on Higher Degrees. Applicants must file a project sheet before study cards are filed. Project sheets may be obtained from the Academic Office, Pierce Hall 110.

Cross-listed Courses

***Earth and Planetary Sciences 231. Climate Dynamics**
Earth and Planetary Sciences 263. Earthquake Source Processes

Additional courses of interest to graduate students in Environmental Science and Engineering might include courses offered at the Harvard School of Public Health.

Graduate Courses of Reading and Research

Reading courses are odd-numbered; research courses are even-numbered.

***Engineering Sciences 301,302. Photonics: Scanning Near-Field Optical Microscopy and Photonic Crystals**
Catalog Number: 7403,4838
Kenneth B. Crozier 5146

***Engineering Sciences 303,304. Topics in Electronic Materials and Semiconductor Heterostructure Physics**
Catalog Number: 8668,2824
Venkatesh Narayanamurti 5445

***Engineering Sciences 305,306. Manufacturing to Satisfy Stochastic Demand**
Catalog Number: 6157,6159
Frederick H. Abernathy 1047 (on leave fall term)

***Engineering Sciences 307,308. Control Theory, Robotics, Computer Vision, and Intelligent Machines**
Catalog Number: 7566,2719
Roger W. Brockett 3001

***Engineering Sciences 309,310. Design, Sensing, and Control**
Catalog Number: 5043,7419
Robert D. Howe 2789

***Engineering Sciences 311,312. Systems and Control, Quantum Information and Quantum Control, Computational Vision, Image Analysis and Understanding**
Catalog Number: 2025,9377
Navin Khaneja 4192

***Engineering Sciences 313,314. Image Processing and Computer Vision**
Catalog Number: 4254,8534
Todd Zickler 5143

***Engineering Sciences 315,316. Computer Networks**
Catalog Number: 2848,2849
H. T. Kung 3155

***Engineering Sciences 317,318. Systems and Control**
Catalog Number: 5089,1030
Yu-Chi Ho 1057

***Engineering Sciences 321,322. Shannon Theory, Digital Communications, and Reliable Transmission of Information**
Catalog Number: 9317,2330
Aleksandar Kavcic 1261

***Engineering Sciences 323,324. Statistical Signal Processing**
Catalog Number: 1174,5484
Patrick J. Wolfe 5144

***Engineering Sciences 325,326. Mixed-Signal VLSI Design**
Catalog Number: 8415,9336
Gu-Yeon Wei 4102

***Engineering Sciences 327,328. Circuit Design and Scientific Instrumentation**
Catalog Number: 4901,6521
Paul Horowitz 3537

***Engineering Sciences 329,330. Wireless Communication and Networking**
Catalog Number: 4111,7427
Vahid Tarokh 4368

***Engineering Sciences 331,332. RF and High-Speed Integrated Circuits**
Catalog Number: 9645,9655
Donhee Ham 4519

***Engineering Sciences 333,334. Mechanics and Materials in Small Structures**
Catalog Number: 6528,5449
Zhigang Suo 4761

***Engineering Sciences 335,336. Mechanics of Engineering Materials and Small Devices**
Catalog Number: 8173,2399
Joost J. Vlassak 3184

***Engineering Sciences 337,338. Mechanics of Solids and Fluids: Geomechanics; Faulting, Friction and Fracture**
Catalog Number: 4316,3948
James R. Rice 7270

***Engineering Sciences 341,342. Special Topics in Fluid Dynamics**
Catalog Number: 2231,2237
Howard A. Stone 2073 (on leave spring term)

***Engineering Sciences 343,344. Deformation and Fracture of Materials**
Catalog Number: 3907,2803
John W. Hutchinson 1573 (on leave fall term)

***Engineering Sciences 347,348. Biological Systems Analysis and Control**
Catalog Number: 6761,3310
Garrett B. Stanley 2797

***Engineering Sciences 351,352. Engineering Mammalian Cell Phenotype**
Catalog Number: 4879,6421
David J. Mooney 4879

***Engineering Sciences 353,354. Cellular Biophysics**
Catalog Number: 3813,3798
Kevin K. Parker 4788

***Engineering Sciences 357,358. Atmosphere-Biosphere Interactions**
Catalog Number: 7661,8060
Steven C. Wofsy 4396 (on leave 2004-05)

***Engineering Sciences 359,360. Stratospheric Chemistry and Transport**
Catalog Number: 8410,6856
Steven C. Wofsy 4396 (on leave 2004-05)

***Engineering Sciences 361,362. Atmospheric Chemistry**
Catalog Number: 7238,7514
Daniel J. Jacob 1781 (on leave fall term)

***Engineering Sciences 363,364. Dynamic Meterology**
Catalog Number: 3756,3757
Brian F. Farrell 7628

***Engineering Sciences 369,370. Urban and Regional Systems Analysis**
Catalog Number: 8775,8768
Peter P. Rogers 2804

***Engineering Sciences 375,376. Environmental Biology**
Catalog Number: 3985,2863
Ralph Mitchell 1587 (on leave spring term)

***Engineering Sciences 377,378. Transport Phenomena and Biomaterials for Drug Delivery**
Catalog Number: 6385,8671
David A. Edwards 3919

***Engineering Sciences 389,390. Environmental Chemistry**
Catalog Number: 6660,1639
Scot T. Martin 3365

***Engineering Sciences 391,392. Environmental Engineering**
Catalog Number: 3979,2860
Joseph J. Harrington 2427

English and American Literature and Language

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of English and American Literature and Language

James Engell, Gurney Professor of English Literature and Professor of Comparative Literature *(Chair)*
Daniel Albright, Ernest Bernbaum Professor of Literature, Associate in Mather House
Homi K. Bhabha, Anne F. Rothenberg Professor of English and American Literature and Language *(on leave 2004-05)*
Lisa T. Brooks, Lecturer on History and Literature and on English and American Literature and Language
Lawrence Buell, Powell M. Cabot Professor of American Literature *(on leave 2004-05)*
Glenda R. Carpio, Assistant Professor of African and African American Studies and English and American Literature and Language *(on leave spring term)*
Lan Samantha Chang, Briggs-Copeland Lecturer on English and American Literature and Language
J. D. Connor, Assistant Professor of Visual and Environmental Studies and of English and American Literature and Language
Leo Damrosch, Harvard College Professor and Ernest Bernbaum Professor of Literature
Leland P. de la Durantaye, Assistant Professor of English and American Literature and Language
Daniel G. Donoghue, John P. Marquand Professor of English
Lynn Mary Festa, Assistant Professor of English and American Literature and Language
Philip J. Fisher, Felice Crowl Reid Professor of English and American Literature
Marjorie Garber, William R. Kenan, Jr. Professor of English and American Literature and Language and of Visual and Environmental Studies
Henry Louis Gates, Jr., W.E.B. Du Bois Professor of the Humanities
Amitav Ghosh, Visiting Professor of English and American Literature and Language and History and Literature
Jorie Graham, Boylston Professor of Rhetoric and Oratory *(on leave fall term)*
Stephen J. Greenblatt, Cogan University Professor
Laura Harrington, Visiting Briggs-Copeland Lecturer on English and American Literature and Language
Joseph C. Harris, Francis Lee Higginson Professor of English Literature and Professor of Folklore

Seamus Heaney, Ralph Waldo Emerson Poet in Residence
Robert J. Kiely, Harvard College Professor and the Donald P. and Katherine B. Loker Professor of English *(on leave spring term)*
Jamaica Kincaid, Visiting Lecturer on African and African American Studies and on English and American Literature and Language
Barbara K. Lewalski, William R. Kenan, Jr. Professor of History and Literature and of English Literature *(on leave 2004-05)*
Elizabeth D. Lyman, Assistant Professor of English and American Literature and Languages
Michele C. Martinez, Lecturer on History and Literature and on English and American Literature and Language
Louis Menand, Anne T. and Robert M. Bass Professor of English and American Literature and Language
Kyoko Mori, Briggs-Copeland Lecturer on English and American Literature and Language
Elisa New, Professor of English and American Literature and Language *(Director of Undergraduate Studies)*
Peter C. Nohrnberg, Assistant Professor of English and American Literature and Language
John Parker, Assistant Professor of English and American Literature and Language *(on leave 2004-05)*
John M. Picker, Assistant Professor of English and American Literature and Language
Leah Price, Professor of English and American Literature and Language *(Acting Director of Graduate Studies)*
Peter D. Richards, Briggs-Copeland Lecturer on English and American Literature and Language
Alan Richardson, Visiting Professor of English and American Literature and Language *(Boston College)*
Ann Wierda Rowland, Assistant Professor of English and American Literature and Language
Peter Sacks, John P. Marquand Professor of English *(on leave fall term)*
Robert Scanlan, Visiting Lecturer on English and American Literature and Language
Elaine Scarry, Walter M. Cabot Professor of Aesthetics and the General Theory of Value
Sharmila Sen, Assistant Professor of English and American Literature and Language *(on leave spring term)*
Marc Shell, Irving Babbitt Professor of Comparative Literature and Professor of English
Michael Shinagel, Senior Lecturer on English
James Simpson, Professor of English and American Literature and Language
Werner Sollors, Henry B. and Anne M. Cabot Professor of English Literature and Professor of African and African American Studies
John Stauffer, Professor of English and American Literature and Language
Gordon Teskey, Professor of English and American Literature and Language
Katherine A. Vaz, Briggs-Copeland Lecturer on English and American Literature and Language
Helen Vendler, Arthur Kingsley Porter University Professor
Nicholas Watson, Professor of English and American Literature and Language *(Director of Graduate Studies) (on leave 2004-05)*
Sam Witt, Visiting Lecturer on English and American Literature and Language
James Wood, Visiting Lecturer on English and American Literature and Language

Other Faculty Offering Instruction in the Department of English and American Literature and Language

Christopher Hasty, Walter W. Naumburg Professor of Music *(on leave fall term)*
Barbara E. Johnson, Fredric Wertham Professor of Law and Psychiatry in Society *(on leave 2004-05)*

English 10a and 10b, both required of concentrators, are often chosen as entry points to the study of English at Harvard. Students are invited, however, to begin at any other point that might seem better suited to their interests and level of preparation: a Freshman Seminar taught by faculty members from the English Department; English 97, the Sophomore Seminar that is required of concentrators; English 13, 17, 20, 34, or a 100 level course, all of which are taught in lecture or seminar-like format according to enrollment size; or, space permitting and with instructor consent, a 90 level Undergraduate Seminar or a Creative Writing workshop.

I. Creative Writing

Primarily for Undergraduates

Without approval of the department, no student may take more than one full course in Creative Writing in any one year. A Creative Writing course may be repeated for credit provided the student has the permission of the instructor and the Director of Undergraduate Studies of the Department.

***English Cakr. Advanced Playwriting Workshop**
Catalog Number: 8581 Enrollment: Limited to 15.
Laura Harrington
Half course (spring term). Th., 2–5. EXAM GROUP: 16, 17, 18
The focus of this workshop is on writing a long one act play or a full length play. The advanced playwriting workshop is taught from overlapping perspectives of traditional and alternative techniques, including character development, narrative structure, collage, image, and gesture. Re-writing and revising following feedback will be emphasized. We will also read plays, view productions, and discuss the contributions of the designers, actors, and director.
Note: Prerequisite: Intro to Playwriting. Admission based on samples of previously submitted writing.

***English Capr. Advanced Poetry Workshop**
Catalog Number: 6523 Enrollment: Limited to 15.
Jorie Graham
Half course (spring term). W., 1–4. EXAM GROUP: 6, 7, 8
Open by application to both undergraduates and graduates. Please submit a portfolio including a letter of interest, ten poems, and a list of classes (taken at Harvard or elsewhere) that seem to have bearing on your enterprise. Class lasts 3 hours and includes the study of poetic practice in conjunction with the discussion of student work.

***English Ckr. Playwriting Workshop**
Catalog Number: 6781 Enrollment: Limited to 15.
Laura Harrington
Half course (fall term; repeated spring term). W., 2–5. EXAM GROUP: 7, 8, 9
The primary goals of this workshop are to teach basic craft and to create an environment that will

guide the writers' exploration of their individual voices. We concentrate on three major issues: storytelling, character, and structure. Students will write one 10 minute play each week, or a 10 page scene which will be outlined in an assignment. We will hear each other's plays, discuss them, and rewrite them with an eye to the overall theatricality of the scripts.
Note: Admission based on samples of previously submitted writing.

***English Clr. Screenwriting Workshop**
Catalog Number: 6121 Enrollment: Limited to 15.
Laura Harrington
Half course (fall term). Th., 2–5. EXAM GROUP: 16, 17, 18
This workshop introduces students to the structural format of the screenplay with a focus on text, story, and character development. Assignments include reading scripts and viewing films and adaptations, as practical models for writing a script.
Note: Admission based on samples of previously submitted writing.

***English Cmr. Poetry Workshop**
Catalog Number: 1980 Enrollment: Limited to 15.
Sam Witt
Half course (fall term; repeated spring term). Fall: M., 2–5; Spring: W., 3–6. EXAM GROUP: Fall: 7, 8, 9; Spring: 8, 9
Open by application to both undergraduates and graduates. Please submit a portfolio including five poems, a letter explaining your interest in the class, and a list of relevant classes taken at Harvard or elsewhere. Class includes the discussion of literary texts as well as work written by students.

***English Cpr. Poetry Writing**
Catalog Number: 3053 Enrollment: Limited to 15.
Peter D. Richards
Half course (fall term). Tu., 1–4. EXAM GROUP: 15, 16, 17
A poetry workshop open by application to undergraduate and graduate students alike. In this class students will study modern and contemporary poets and can expect to submit their own poems on a weekly basis for peer review.
Note: Admission based on previously submitted samples of writing.

[*English Cpwr. Poetry Workshop]
Catalog Number: 4606 Enrollment: Limited to 15.
Jorie Graham
Half course (spring term). Hours to be arranged.
Open by application to both undergraduates and graduates. Please submit a portfolio including five poems, a letter explaining your interest in the class, and a list of relevant classes taken at Harvard or elsewhere. Class includes the discussion of literary texts as well as work written by students.
Note: Expected to be given in 2005–06.

***English Cqr. Advanced Poetry Writing**
Catalog Number: 2644 Enrollment: Limited to 15.

Peter D. Richards
Half course (fall term; repeated spring term). Th., 1–4. EXAM GROUP: 15, 16, 17
An advanced poetry workshop with an emphasis on revision and aleatory methods for generating new work. Readings include John Ashbery, Gertrude Stein, Andre Breton, John Cage, Frank O'Hara, Raymond Queneau, Arthur Rimbaud, Robert Motherwell, Kenneth Koch, Francis Bacon, Marianne Moore, Wallace Stevens, James Merrill, Frank Stanford, Elaine De Kooning, John Keats, Lyn Hejinian, among others.
Note: Admission based on previously submitted samples of writing.

***English Crr. Beginning Fiction**
Catalog Number: 1893 Enrollment: Limited to 15.
Lan Samantha Chang
Half course (fall term; repeated spring term). Th., 1–3. EXAM GROUP: 15, 16
Fiction writing workshop with an emphasis on the short story. We begin with short exercises and move toward the completion and revision of original work. We read fiction by Chekhov, Joyce, Woolf, Barthelme, and others, and discuss the different ways in which these writers create character, movement, voice, etc. As the term continues, we'll devote increasing amounts of time to the discussion of student work.
Note: Written assignments include exercises, two short stories, and at least one extended revision. Admission based on previously submitted samples of writing.

***English Crw (formerly *English 186c). On Reading and Writing Poetry: A Workshop**
Catalog Number: 5289 Enrollment: Limited to 15.
Jorie Graham
Half course (spring term). Th., 1–4. EXAM GROUP: 15, 16, 17
Open by application to undergraduates. Explores, through lecture and discussion, what work poems undertake and what work they therefore ask of the reader. We examine one primary poem each week, and use the discussion to lead to writing assignments in poetry and prose. Please submit a portfolio that includes 3-5 poems as well as a [maximum] three-page "close reading" of a favorite poem.

***English Csr. Fiction Writing**
Catalog Number: 2601 Enrollment: Limited to 15.
Katherine A. Vaz
Half course (fall term; repeated spring term). Tu., 2–4. EXAM GROUP: 16, 17
An introduction to the art and craft of fiction writing. We'll address the basics of character, plot, dialogue, imagery, setting, and description with weekly exercises and informal lectures. Reading assignments will include works by Chekhov, O'Connor, Schultz, Cortázar, and Chute. Students will be required to submit two stories and to provide thorough commentary on the work of colleagues. Short stories or portions of novels are acceptable.
Note: Admission based on previously submitted samples of writing.

***English Ctr. Advanced Fiction**
Catalog Number: 7175 Enrollment: Limited to 15.
Lan Samantha Chang
Half course (fall term; repeated spring term). Th., 4–6. EXAM GROUP: 18

See English Crr. Students in the advanced class will be expected to revise work more often and to a higher standard.
Note: Admission based on previously submitted samples of writing. Generally for students who have taken fiction workshops previously.

***English Cvr. Fiction Writing**
Catalog Number: 1223 Enrollment: Limited to 15.
Jamaica Kincaid
Half course (fall term; repeated spring term). W., 1–3. EXAM GROUP: 6, 7
A seminar/workshop. Readings include Bruno Schultz, Jean Toomer, Robert Walser, and Rimbaud's *Illuminations*, among others.
Note: Admission based on previously submitted samples of writing. Submissions from experienced fiction writers are welcome.

***English Cwr. Advanced Fiction Writing**
Catalog Number: 7765 Enrollment: Limited to 15.
Katherine A. Vaz
Half course (fall term; repeated spring term). Th., 3–5. EXAM GROUP: 17, 18
Students will make weekly presentations on aspects of craft, and reading assignments will include works by Schultz, Morrison, García Marquez, Munro, Rodoreda, and Fitzgerald. Two stories (or portions of novels) will be required along with revisions of material (to be decided on a per project basis). Typed critiques must be provided for all work of colleagues under review.
Note: Admission based on previously submitted samples of writing.

***English Cyr. Nonfiction Writing**
Catalog Number: 8545 Enrollment: Limited to 15.
Kyoko Mori
Half course (fall term; repeated spring term). M., 1–3. EXAM GROUP: 6, 7
A workshop in nonfiction writing. Class meetings include discussions of student writing, assigned readings, and the craft of writing.
Note: Admission based on previously submitted samples of writing.

***English Czr. Advanced Nonfiction Writing**
Catalog Number: 5347 Enrollment: Limited to 15.
Kyoko Mori
Half course (fall term). M., 4–6. EXAM GROUP: 9
An advanced workshop for students who have had experience in writing nonfiction. Class meetings include discussions of student writing, assigned readings, and the craft of writing.

II. Literature

Primarily for Undergraduates

Introductory Lecture Courses (two lectures, one discussion section weekly)
English 10a. Major British Writers I
Catalog Number: 8327

Gordon Teskey
Half course (fall term). M., W., at 12. EXAM GROUP: 5
An introduction to the history and major works of English literature from the beginnings to Milton. Authors include the Beowulf poet (in translation), Chaucer, Spenser, Shakespeare, Jonson, Donne, Herbert, and Milton.
Note: Open to freshmen. Two lectures and one section meeting per week. Required of English concentrators. This course, when taken for a letter grade, meets the Core area requirement for Literature and Arts A.

English 10b. Major British Writers II
Catalog Number: 0550
Daniel Albright
Half course (spring term). Tu., Th., at 12. EXAM GROUP: 14
An introduction to the study of British literature from the early 18th century to the present.
Note: Open to freshmen. Two lectures and one section meeting per week. Required of English concentrators. This course, when taken for a letter grade, meets the Core area requirement for Literature and Arts A.

English 17x. 19th-Century American Novel
Catalog Number: 9173
John Stauffer
Half course (fall term). Tu., Th., at 12 and a weekly section to be arranged. EXAM GROUP: 14
A study of the emergence of the novel in America as both a popular and literary genre from Crèvecoeur through Cather. Readings include Crèvecoeur, *Letters From an American Farmer*; Cooper, *The Last of the Mohicans*; Melville, *Moby-Dick*; Stowe, *Uncle Tom's Cabin*; Douglass, *Heroic Slave*; Alcott, *Little Women*; James, *The American*; Twain, *Adventures of Huckleberry Finn*; Crane, *The Red Badge of Courage*; Chesnutt, *The Marrow of Tradition*; Wharton, *The House of Mirth*; Cather, *My Antonia*

English 17y. Hawthorne and His Precursors
Catalog Number: 9964
Elisa New
Half course (spring term). M., W., 2–3:30. EXAM GROUP: 7, 8
This course explores Hawthorne's major fiction and the traditions on which Hawthorne draws. The tale, the comic sketch and the romance; 17th century texts of Puritan fervor and filial obedience; 18th century documents of nationbuilding and expansion; 19th century selections from the incestuous writers' culture of Cambridge and Concord—these will provide context for our discussions of ambition, art, love, lust, freedom, obligation, sincerity, fraudulence, growth and regression in Hawthorne's art.

English 17z. American Literature to 1915
Catalog Number: 3883
Werner Sollors
Half course (spring term). M., W., at 11 and a weekly section to be arranged. EXAM GROUP: 4
An introduction to the study of American literature from its beginnings to the World War I period, from Edward Taylor to Gertrude Stein. Emphasis is on close readings of selected novels,

short fiction, poetry, and drama in the context of American cultural history and of international literary developments, from Puritanism and colonial writing to the literature of slavery, realism, and modernism.

[English 34. Elements of Rhetoric]
Catalog Number: 3820
James Engell
Half course (fall term). Hours to be arranged.
Classical rhetorical theory, as originating with Aristotle, in contemporary applications. The nature of rhetoric in modern culture; practical examples drawn from American history and literature 1765 to present; written exercises and attention to public speaking; briefly treats the history and educational importance of rhetoric in the West; stresses theory and practice as inseparable; non-concentrators encouraged.
Note: Expected to be given in 2005–06.

Undergraduate Seminars

These introductions to the specialized study of literature are restricted to undergraduates and have enrollments limited to 15. Preference is given to English concentrators.
[*English 90cf. Caribbean Fictions]
Catalog Number: 8964
Sharmila Sen
Half course (spring term). Hours to be arranged.
The Caribbean is a place for tourists, a paradise; it is an area of contemporary poverty, a realm of natural disasters; it is the promise of sugared profit and the site of unspeakable taboo acts; it is Caliban's fate. And perhaps it is none of these things. We focus on some of the current questions in Caribbean fictions, paying attention to the genealogies of such concerns and debates. Authors include Behn, Rhys, Naipaul, Lamming, Harris, Phillips, Condé, Cliff, and Powell.
Note: Expected to be given in 2005–06.

[*English 90ei. Images, Idolatry, and Iconoclasm]
Catalog Number: 8948
James Simpson
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Images are often regarded as threatening, even pathological. They sometimes threaten to displace words, to mesmerise the psyche, or to displace a sacred referent and thus become themselves the adored object. When they are imagined to do any of these things, they provoke powerfully violent, iconoclastic reactions. This course examines the profile of the image in late medieval and some early modern literature, in both erotic and religious traditions.

[*English 90fj. Ben Jonson]
Catalog Number: 6020
John Parker
Half course (spring term). Hours to be arranged.
A two-time murderer and dedicated adulterer, repeatedly imprisoned for the scandalous content of his plays, a drunk who inspired near-religious admiration in his fellow drinkers, a learned

classical scholar, poet of enormous talent, and arguably the first author in the modern sense. We'll ask to what extent this one man both represents and repudiates the "Renaissance," and what it means to pursue such broad historical questions through the narrow confines of an individual's oeuvre.
Note: Expected to be given in 2005–06.

***English 90fr. Shakespeare, Repetition, and Revenge**
Catalog Number: 0609
Marjorie Garber
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
The dynamic of repetition is the dynamic of revenge: the ghost, the clue, the trace, the compulsion to repeat. Drawing on selected works of Freud and contemporary literary criticism and theory, this course examines Elizabethan and Jacobean tragedies and the plays of Shakespeare together with a consideration of the history and politics of revenge from the early modern period to the present day.

***English 90hs. Satire: Augustan and Modern**
Catalog Number: 8795
Michael Shinagel
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
A study of satire in poetry, prose fiction, and drama. Authors covered are Dryden, Swift, Pope, Johnson, Gay, Voltaire, Orwell, Brecht, Vonnegut, and West.

***English 90ht. Politics and Poetics of Augustan and Modern Satire**
Catalog Number: 5137
Peter C. Nohrnberg
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
What are the formal characteristics of satire? Is satire a moral mode of writing, as satirists often claim? Does satire have a political bias: is it conservative or radical in its relation to society and tradition? Why did satire flourish in England during the early eighteenth century and then again in the early twentieth century? Authors include: Rochester, Pope, Swift, Gay, Johnson, T.S. Eliot, Huxley, Orwell, and Waugh.

***English 90hv. Sexing Victorian Fiction**
Catalog Number: 0225
Leah Price
Half course (spring term). M., 3–5. EXAM GROUP: 7, 8
Sex and money, reading and shopping, work and marriage, domestic realism and imperial fantasy, unsexed women and unmanned men, feminism and anti-feminism, single-sex communities and same-sex desire. Short stories and long novels by Austen, Brontë, Gaskell, Dickens, Collins, Eliot, Oliphant, and Conan Doyle, as well as essays by Ruskin, Mill, Trollope, and others.

***English 90ix. India in English**
Catalog Number: 7161
Sharmila Sen

Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
How is India represented in English? We shall look at the staging of a Mughal court for Charles II, a parliamentary speech, a set of colonial lithographs, an Anglo-Indian dictionary, and a series of European-style palaces built by Indian princes. Alongside these, we shall read authors such as Forster, Kipling, Narayan, Rushdie, Desai, Ghosh, Naipaul, Ezekiel, and Lahiri.

***English 90ka. The Brontës**
Catalog Number: 1097
Elaine Scarry
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
Writings by Emily, Anne, and Charlotte Brontë, as well as the later novels and films their work inspired.

[*English 90kw. The American Civil War]
Catalog Number: 1957
John Stauffer
Half course (spring term). Hours to be arranged.
Studies in the literature of the American Civil War, from letters, speeches, poetry, and photography to diaries, stories, and novels. Considers aesthetic, historical, and intellectual dimensions, and focuses in particular on national and sectional identities; the transition from romanticism to realism; generic modes in relation to gendered, class, racial, regional, and religious issues; and meanings of slavery and freedom. Authors include Stowe, Frederick Douglass, Lincoln, Whitman, Melville, Mary Chesnutt, Louisa May Alcott, Twain, Bierce, Crane, Tourgee, and others.
Note: Expected to be given in 2005–06.

***English 90lj. The Idea of Italy**
Catalog Number: 3054
Robert J. Kiely
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
An examination of 19th- and early-20th-century English and American representations of Italy in fiction, narrative poetry, and nonfictional prose. Authors include Byron, Ruskin, Pater, Browning, George Eliot, Hawthorne, Twain, James, and Forster. Special attention paid to art, religion, and conceptions of Italian character.

***English 90ln. The Landscape of Contemporary Native American Literature**
Catalog Number: 3005
Lisa T. Brooks
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Combining poetry and fiction with recent literary criticism, this course will offer an immersion in the landscape of contemporary Native American literature. Topics will include the intertwined and sometimes contested interplay between native oral traditions, the representation of Indian images, and the role of writer as witness to colonization.

***English 90lv. Consciousness from Austen to Woolf**
Catalog Number: 3200

James Wood
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
We look at the complex ways in which writers represent their characters' thought, in texts by Austen, Flaubert, James, Tolstoy, Chekhov, Giovanni Verga, and Woolf. More broadly, we trace the development of stream-of-consciousness, from Austen's incipient mastery of free indirect style, through Flaubert's more sophisticated use of it, to Woolf's full-blown inner monologues, seeing this development as not merely a fact of English and American literature, but as a phenomenon of world-literature and an element of our modernity.

***English 90pb. Dramatic Structure and Analysis**
Catalog Number: 4661
Robert Scanlan
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Introduces the Plot-Bead technique for analyzing and/or constructing artistic forms that are performance events. Several artworks, most of them plays, but some of them poems and one of them a musical composition, are studied in detail in the light of depth action analysis and codification of the artifact's time-form in a plot-bead diagram. The roots of these analytical techniques (which have practical utility for artists) are Aristotelian, but we will see them reflected in 20th-century practice.

***English 90ps. Subjects in Literature and Psychoanalysis**
Catalog Number: 8057
Lynn Mary Festa
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Love, labor, and loss in literature and psychoanalytic theory: topics include theories of gender and sexuality, identity, fetishism, the uncanny, trauma, and mourning and melancholia. Texts: Freud, Lacan, Shakespeare, Hitchcock, among others.

[*English 90qb. Celebrated Scripts: Award Winning Plays and Screenplays 1994-2004]
Catalog Number: 8426
Elizabeth D. Lyman
Half course (spring term). Hours to be arranged.
We will read the most celebrated scripts of the last ten years as measured by their selection for major awards. We will also study the culture of awards to uncover patterns and biases (if any) in individual competitions. Final projects may be critical or creative. At the end of the class, we will have our own awards ceremony, and vote on plays in each category which we, as victims of our own biases, most admire.
Note: Expected to be given in 2005–06.

***English 90qd. Campus Plays**
Catalog Number: 4307
Elizabeth D. Lyman
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Anchored by the American Repertory Theatre and enriched by diverse student and community organizations, Harvard is a vibrant site of theatrical activity. In this course we will study, attend, and critique plays produced on campus during the term. Selected readings will contextualize

works and enrich our understanding of their significance from disparate perspectives—as members of a literary genre, as expressions of culture, as scripts for performance, and as irreproducible live events.

***English 90qs. English Poetry: 1914+**
Catalog Number: 1640
Peter Sacks
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
English poetry written after 1914. "English" here means poets who are originally from England, not simply poets writing in the English language. Authors include Wilfred Owen, Edward Thomas, W.H. Auden, Philip Larkin, Thom Gunn, Geoffrey Hill, Stevie Smith, and others.

***English 90rs. Yeats**
Catalog Number: 5853
Peter Sacks
Half course (spring term). Tu., 1:30–3:30. EXAM GROUP: 15, 16, 17
Study of the poetry of Yeats.

***English 90s. Ethnic-American Autobiography**
Catalog Number: 5147
John Stauffer
Half course (fall term). Tu., 2–4. EXAM GROUP: 15, 16
A study of ethnic-American autobiographical writings in the 19th and 20th centuries, with a particular emphasis on African-American, Native-American, and Jewish-American authors. We explore historical and aesthetic dimensions, and focus on the relation between self-fashioning and social protest; integration versus separatism; and religious, gendered, and other components of ethnic identities.

***English 90sb. Samuel Beckett's Plays and Prose**
Catalog Number: 3487
Robert Scanlan
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
Studies systematically the arc of Samuel Beckett's literary career, with particular emphasis on Beckett's stage and video plays. The course proposes the idea of a "stable habitation for the Self" as one way of understanding both Beckett's thematic *matière* and his astonishing aesthetic innovations in three media: stage, page, and video screen. Video resources supplement reading and discussion of texts, and local productions of the plays are studied when available.

***English 90sh. The Poetry of Seamus Heaney**
Catalog Number: 5722
Helen Vendler
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
A study of the poetry of Seamus Heaney, with some attention to his prose. Topics: abstraction and topicality; the ethnic and the national; the erotic; gravity and lightness; the informality of the formal; allegorical, anthropological, and autobiographical forms of voice; the perceptual versus the conceptual.

***English 90sl. The Romance of Scotland**
Catalog Number: 8963
Ann Wierda Rowland
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Scottish literature and the place of Scotland in the British literary imagination of the 18th and 19th centuries. Attention to the myth of the Highlands, the romance of the Jacobite rebellion, the Ossian controversy, and the figure of the bard as well as to the larger question of what role literature has in the production of national identity. Readings in poetry, travel writing, national tales, historical novels, and philosophical prose by writers such as Smith, Hume, Smollett, Johnson, Burns, Scott, and Hogg.

***English 90tw. Transatlantic Literature**
Catalog Number: 3077
John M. Picker
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Considers concurrent trends and developments in American and British literary genres across the long 19th century. The focus is on transatlantic hauntings. We consider the development of the gothic phenomenon in texts that pose lingering questions about objectivity and the nature of perception, psychology, gender, and cross-cultural influence. Readings include fiction and poetry by Washington Irving, Edgar Allan Poe, Alfred Tennyson, Robert Browning, Charles Dickens, Nathaniel Hawthorne, George Eliot, Henry James, and others.

***English 90tx. Literatures of Travel in the 18th Century**
Catalog Number: 5301
Lynn Mary Festa
Half course (fall term). M., 3–5. EXAM GROUP: 8, 9
18th-century travel writings, from fictional adventures and scientific voyages to philosophical utopias and fantastical "true histories." Topics include: empire and domesticity; tourism and national identity; narrative continuity and the picaresque; natural history and scientific imperialism. Writings by Defoe, Swift, Boswell, Equiano, Sterne, Mary Wortley Montagu's *Turkish Embassy Letters*, and Mungo Park's *Travels to the Interior of Africa*.
Note: This course satisfies the English Department's pre-1800 requirement.

[*English 90vh. Harlem Renaissance]
Catalog Number: 3628
Henry Louis Gates, Jr.
Half course (spring term). Hours to be arranged.
An examination of the period of unprecedented African-American literary flowering during the 1920's and 1930's. Special attention will be given to the following: Harlem and other cultural centers; dialect in poetry and prose; the impact of women authors, editors, and critics; and the central positioning of the Harlem Renaissance in the African-American literary tradition.
Note: Expected to be given in 2005–06.

***English 90vn. Vladimir Nabokov**
Catalog Number: 6677
Leland P. de la Durantaye

Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
This seminar will examine the depth and breadth of the works of Vladimir Nabokov. Special attention paid to those works written directly into English. Special consideration will be accorded to Nabokov's irreverent and idiosyncratic opinions on the task of the critic. Readings will include: *Lolita, Speak, Memory, Pale Fire, Pnin, Ada, or Ardor, The Real Life of Sebastian Knight, Bend Sinister* and *The Gift*.

***English 90vp. Victorian Poetry**
Catalog Number: 4125
Michele C. Martinez
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
The major poetry of Tennyson, Browning, Barrett Browning, Arnold, D.G. and Christina Rossetti, Swinburne, Hopkins, and Michael Field, as well as criticism by their contemporaries. We will pay particular attention to innovations in poetic form and genre; the significance of Classical, Arthurian, and Renaissance sources; the representation of psychological and emotional states; and the poet's response to social questions.

***English 90wb. William Blake**
Catalog Number: 1287
Leo Damrosch
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
An intensive study of the works of William Blake, both poetic and pictorial, with attention to significant predecessors (the Bible, Boehme, Milton) and to modern critical and theoretical modes of interpretation.

***English 90wo. Writing the Ocean**
Catalog Number: 7815
Amitav Ghosh
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
A workshop and seminar dedicated to reading and writing about life at sea. Participants will read some classics of English and American nautical literature, including survival narratives and first hand accounts. They will also be expected to develop writing projects of their own, centered upon the general theme of life at sea.

Tutorials, for Undergraduates Only

***English 91r. Supervised Reading and Research**
Catalog Number: 1464
Elisa New and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Individual instruction in subjects of special interest that cannot be studied in regular courses. *Note:* A graded course. Offered only by professors, assistant and associate professors, and senior lecturers. May not be taken more than twice and only once for concentration.

***English 97. Seminar—Sophomore Year**
Catalog Number: 0280

Elisa New and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Introduction to methods of literary analysis. Selected texts in English and American literature studied along with readings in theory and criticism. Required of concentrators in the sophomore year.

***English 98r. Tutorial—Junior Year**
Catalog Number: 3831
Elisa New and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised small group tutorial in the study of English and American literature.
Note: Limited to honors concentrators.
Prerequisite: G.P.A. of 12.5 or above in the concentration.

***English 99r. Tutorial—Senior Year**
Catalog Number: 3901
Elisa New and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised individual tutorial in an independent scholarly or critical subject.
Note: Two terms required of all thesis honors seniors. To enroll, students must submit for approval a Thesis Proposal.
Prerequisite: Satisfactory completion of one term of English 98r, completion of an undergraduate seminar (90-level) taken junior year, and faculty approval of proposed thesis topic.

For Undergraduates and Graduates

[English 101. The History and Structure of the English Language]
Catalog Number: 1987
Daniel G. Donoghue
Half course (fall term). Hours to be arranged.
A survey of the changes in English phonology, morphology, syntax, spelling, and vocabulary, from the earliest times to the present. Along the way, we explore such topics as attitudes toward language, the impact of political and economic changes, literacy, attitudes toward grammar, the rise of American English, language and social class, and language and gender.
Note: Expected to be given in 2005–06. No previous knowledge of linguistics, Anglo-Saxon, or Middle English is required.

English 102a. Anglo-Saxon Language and Culture: Historicizing the Past
Catalog Number: 0151
Daniel G. Donoghue
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
How did the Anglo-Saxons interpret their past? How do we in turn interpret their culture? An introduction to the basic grammar of Old English will move hand in hand with translations, at first simple but progressively more challenging, which come from various historical texts. Secondary reading provide an opportunity to consider how we today appropriate the medieval

past.
Note: The sequence of English 102 and 103 can fulfill either the college's foreign language requirement or the English Department's Honors foreign literature requirement.

English 103f. Anglo-Saxon Language and Culture: Before Love
Catalog Number: 8069
Daniel G. Donoghue
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Some time aroung the twelfth century, Europeans began to fall in love—or so literary and cultural histories tell us. But what was love like before love? How were passionate attachments represented in literature? Building on the grammatical knowledge acquired in English 102, we translate various Old English texts concerning erotic relations. Secondary reading is supplemented by other medieval texts in translation.
Note: The sequence of Eng 102 and 103 can fulfill either the college's foreign language requirement or the English Department's Honors foreign literature requirement.
Prerequisite: Honors grade in English 102 or the equivalent.

[English 111. Introduction to Medieval Literature]
Catalog Number: 0444
Daniel G. Donoghue
Half course (fall term). Hours to be arranged.
A survey of medieval literature from ca. 800 to 1500, which will introduce students to various genres (lyric, epic, chronicle, saints' lives, fabliaux, romance, dream visions, drama, and others) across the centuries. Early and dialectical works will be read in translation. (Chaucer's *Canterbury Tales* will not be included, though *Troilus and Criseyde* will.)
Note: Expected to be given in 2005–06. No previous knowledge of Old or Middle English is required.

English 112. The Invention of Middle English Literature
Catalog Number: 8099
James Simpson
Half course (fall term). Tu., Th., at 10; Tu., at 11. EXAM GROUP: 12
Many ethically challenging, politically daring texts written in the period 1330-1400 invented a literary space of extraordinary freedom. Such texts establish the very possibility of writing literature of high ambition in English; they create a space for women authors, for religious reform, and for a literature of profound psychic range and historical depth. Chaucer, who does all these things, forms the centre, but romances, Langland, and Julian of Norwich each make decisive contributions.

English 120. Introduction to Shakespeare
Catalog Number: 7430
Gordon Teskey
Half course (fall term). M., W., at 1 and a weekly section to be arranged. EXAM GROUP: 6
A selection from Shakespeare's plays–comedies, tragedies, histories, and romances–giving an overview of his development as a dramatist and engaging in intensive reading of some of the most important plays, notably *Hamlet* and *King Lear*. Emphasis will be divided between

questions concerning performance and the literary qualities that make Shakespeare the most celebrated author ever.

English 121. Shakespearean Playwriting
Catalog Number: 8980
Stephen J. Greenblatt
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
Explores Shakespeare at work, transforming his sources, shaping his plots and characters, writing and revising his scripts. The goal is to understand the making and remaking of the plays for live performance in the theaters of Elizabethan and Jacobean England. In addition to critical assignments, students are given source materials for lost Shakespeare plays and are asked to invent scenes he might, if he was a contemporary, have written.

[English 127. Renaissance Narrative in Poetry and Prose]
Catalog Number: 4743
Gordon Teskey
Half course (spring term). Hours to be arranged.
A course on narrative fiction in the age of Shakespeare. We read mostly erotic narrative poems, including Shakespeare's "Venus and Adonis," Marlowe's "Hero and Leander," and Spenser's "Legend of Chastity," the third book of *The Faerie Queene*. Some brief examples of the early novel will also be read. We consider Renaissance anxieties about fiction—is it lying—and the emergence of the concept of literature.
Note: Expected to be given in 2005–06.

English 131. Milton: Major Poetry and Prose
Catalog Number: 8005
Gordon Teskey
Half course (spring term). M., W., at 1; M., at 4. EXAM GROUP: 6
An introduction to Milton's life and poetry, with emphasis on his epic poem, *Paradise Lost*. Milton will be studied in relation to the events of his day, in particular, the English revolution, but also in relation to later English poets, especially the romantics.

English 132. Metaphysical Poetry
Catalog Number: 0233
Gordon Teskey
Half course (spring term). M., W., at 12. EXAM GROUP: 5
A course on the major lyric poets of the 17th century, Donne, Jonson, Herbert, and Marvell. What is the relation between poetry and philosophy, between lyric expression and permanent order? In the seventeenth century, medieval notions of order gave way before the rise of science and of early modern philosophy. One result of these changes was the emergence of a new individualism in poetry.

English 147n. Women and the Novel to Jane Austen
Catalog Number: 1659
Lynn Mary Festa
Half course (fall term). M., W., at 11; Th., at 10; Th., at 11; Th., at 12; Th., at 1; W., at 1; Th., at

3. EXAM GROUP: 4
A study of the early novel, focusing on the roles of women—as heroines, readers, and writers—in the formation of the genre. Novels by Behn, Haywood, Burney, Edgeworth, and Austen. Additional background readings on the legal, medical, intellectual, and moral status of women in the long 18th century.
Note: This course satisfies the English Department's pre-1800 requirement.

English 149. Gothic
Catalog Number: 7198
Ann Wierda Rowland
Half course (spring term). Tu., Th., at 12. EXAM GROUP: 14
Why do we read and watch what terrifies us? What are the pleasures of fear? The Gothic tradition provides the modern age with its most compelling images and most persistent architecture of fear. We explore and define the Gothic mode in British and American literature from its beginnings in the late eighteenth century to more recent twentieth-century texts in literature and film. Readings include: *The Monk*, *Jane Eyre*, *The Turn of the Screw*, *Dracula*, *Dr. Jekyll and Mr. Hyde*, *Rebecca*, *The Shining*, *Beloved*; films include: *Psycho* and *Memento*.

English 150. English Romantic Poets
Catalog Number: 5274
James Engell
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
Readings in the poetry of Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and others.
Note: This course, when taken for a letter grade, meets the Core area requirement for Literature and Arts A.

English 151. The 19th-Century Novel
Catalog Number: 8396
Elaine Scarry
Half course (spring term). M., W., at 1 and a weekly section to be arranged. EXAM GROUP: 6
Realism and the problem of consciousness, social knowledge, mobility, the city, and the fantastic within experience. The ethos of self-construction and its recognition of childhood; the irrational, the accidental, and the unconscious. Binary structures, the biographical and the social form of fiction. Austen's *Emma*, Emily Brontë's *Wuthering Heights*, Mary Shelley's *Frankenstein*, Eliot's *Adam Bede*, Dickens's *Bleak House*, Stevenson's *Dr. Jekyll and Mr. Hyde*, Hardy's *Tess of the D'Ubervilles* and *Mayor of Casterbridge*.
Note: This course, when taken for a letter grade, meets the Core area requirement for Literature and Arts A.

[English 160. 20th-Century British Novel]
Catalog Number: 7052
Philip J. Fisher
Half course (spring term). Hours to be arranged.
From James' *Wings of the Dove* to Ian McEwan's *Atonement*. Topics include: modernism and its aftermath; the novel of consciousness; memory, time, and history; experimentation and its renormalization. Novels include, in addition to James and McEwan: Conrad, *Heart of Darkness*;

Lawrence, *The Rainbow*; Woolf, *To the Lighthouse*; Joyce, *Portrait of the Artist as a Young Man*; Naipaul, *A House for Mr. Biswas*; Lessing, *The Fifth Child*; Coetzee, *Disgrace*; Sebald, *The Emigrants*.
Note: Expected to be given in 2005–06.

English 160c. Modern British Fiction
Catalog Number: 7772
Peter C. Nohrnberg
Half course (spring term). M., W., at 12 and a weekly section to be arranged. EXAM GROUP: 5
A survey of major works of British fiction written in the first half of the twentieth century by Kipling, Conrad, Forster, Ford, West, Woolf, Joyce, Butts, and Beckett, among others. Topics covered include: innovations in narrative form, the representation of individual consciousness and identity, responses to imperialism, the Great War, mass culture and the rise of feminism.

English 161m. 20th-Century Irish Literature
Catalog Number: 4874
Peter C. Nohrnberg
Half course (fall term). M., W., at 12. EXAM GROUP: 5
A survey of plays, poetry, essays and fiction written from the beginning of the Irish Revival to the time of the Troubles in Northern Ireland. Authors include Synge, Yeats, Lady Gregory, Joyce, Beckett, O'Casey, Flann O'Brien, Friel, Trevor, and Heaney. Readings will focus on the preoccupation of these writers with Irish history, myth, and the literary construction of a national identity.

[English 163m. The Musical]
Catalog Number: 8972
Elizabeth D. Lyman
Half course (spring term). Hours to be arranged.
Musical theater is considered with film and jazz to be a quintessentially American art form. Our focus will be on moments of discovery, achievements of seminal creative teams and individuals, issues of authorship and collaboration (including lawsuits), the cultural contexts of works, negotiating tensions between market and product, and the curious ability of multiple stage languages (spectacle, music, dance, speech, etc.) to speak collectively what the "straight play" cannot.
Note: Expected to be given in 2005–06.

English 164c. Literature and Visuality in America
Catalog Number: 2438
J. D. Connor
Half course (fall term). M., W., at 1. EXAM GROUP: 6
Introduction to problems of working back and forth between film and literature, looking at adaptation, movies about adaptation, the Hollywood novel, memoir, and poem, adaptations of Hollywood novels, etc. We aim for a better understanding of the uneven passage from the modern to the postmodern along several axes: technological, formal, thematic and institutional. Authors range from Whitman to Doctorow to Orlean; films from *Uncle Josh at the Motion Picture Show*, to *Spiral Jetty*, to *Adaptation*.

English 165. Joyce, Modernism, and Aestheticism
Catalog Number: 1827
Philip J. Fisher
Half course (spring term). M., W., (F.,) at 11. EXAM GROUP: 4
Topics include: modernism; aesthetic experience; the life of art; the city; and the moment. Centering on Joyce's *Dubliners*, *Portrait of the Artist*, and *Ulysses* but also novels by Proust, Woolf, and Kawabata.
Note: Graduate section offered.

English 166c. The Novel Since World War II
Catalog Number: 5585
Leland P. de la Durantaye
Half course (fall term). Tu., Th., at 11 and a weekly section to be arranged. EXAM GROUP: 13
Examines a wide variety of narrative fiction from the second half of the 20th century. Special attention to stylistic questions—from changing linguistic conventions to changing narrative ones, from the question of the role and value of imitation to the question of the role and value of innovation, from the image of the individual to the image of society. Readings may include Nabokov, Naipaul, Pynchon, Morrison, Murdoch, Beckett, Sebald, Eugenides, Roth, Calvino, and others.

English 167p. Postcolonial Narratives
Catalog Number: 2511
Sharmila Sen
Half course (fall term). Tu., Th., at 12 and a weekly section to be arranged. EXAM GROUP: 14
An investigation of the major concerns, paradigms, and quarrels within postcolonial literary studies. While reading authors such as Achebe, Conrad, Dabydeen, Dangarembga, Ghosh, Phillips, Rushdie, and Salih, we shall pay close attention to the continuities and the discontinuities of the postcolonial experience as represented in literary texts from Africa, the Caribbean, and South Asia.
Note: This course, when taken for a letter grade, meets the Core area requirement for Literature and Arts C.

English 168d. Postwar American and British Fiction
Catalog Number: 8250
James Wood
Half course (spring term). M., W., at 2 and a weekly section to be arranged. EXAM GROUP: 7
We examine a range of works, including novels and stories by Saul Bellow, Philip Roth, Raymond Carver, Henry Green, Muriel Spark, Ian McEwan, Penelope Fitzgerald, and Martin Amis. Our attempt will be to situate these books in their larger historical traditions, while emphasizing that we are reading a living literature. Some of the selected authors may visit and address our class.

English 168x. American Cultures and Countercultures of the Sixties
Catalog Number: 4616
J. D. Connor
Half course (spring term). M., W., at 10 and a weekly section to be arranged. EXAM GROUP: 3

Beyond the received mythologies of Woodstock, *Easy Rider*, and "tenured radicals" critiques, the sixties marked a transformation of the relationship between the vernacular and the academic. Along this line, where theories of cultural opposition become youth practice and vice-versa, we find hybrid and hyper-realisms exemplified in Albee, Barth, The New Journalism (Capote, Didion, Mailer), alternative comix, Photorealism, Warhol, *cinema verité* (*Don't Look Back*, *Gimme Shelter*), happenings, the Black Arts Movement, and Robert McNamara's operations research.

English 169. The Road to Postmodernism
Catalog Number: 8840
Louis Menand
Half course (spring term). M., W., at 10. EXAM GROUP: 3
How we arrived at current assumptions about art and literature. We will discuss the development of modernism as a dominant cultural mode, challenges from other high-art schools and from popular and middlebrow culture, the rise and fall of critical schools such as the New Criticism and structuralism, and the emergence of the concept of postmodernity. The period covered is from, roughly, 1920 to 1980; readings consist of short literary works and critical and theoretical essays.

[English 175. American Literary Emergence]
Catalog Number: 3894
Lawrence Buell
Half course (fall term). Hours to be arranged.
Intensive study of the formative period of American writing, with special attention to the Transcendentalist movement (Emerson and Thoreau), the rise of American fiction (Hawthorne, Melville, and others), the rise of American poetry (Whitman and Dickinson), and slave narrative (Douglass, Stoddard).
Note: Expected to be given in 2005–06. This course, when taken for a letter grade, meets the Core area requirement for Literature and Arts C.

English 177. Art and Thought of the Cold War
Catalog Number: 7704
Louis Menand
Half course (fall term). M., W., at 10. EXAM GROUP: 3
Culture of the early cold war (1945-1965) in the context of political events and intellectual developments. We will be particularly interested in the unintended consequences of Cold War policies and in trans-Atlantic cultural exchange. Subjects include the literature of totalitarianism, Abstract Expressionism, the Beats, confessional poetry, the philosophy of higher education, the Warren Court, film noir, and the French New Wave.

English 178x. The American Novel: Dreiser to the Present
Catalog Number: 2168
Philip J. Fisher
Half course (fall term). M., W., at 11. EXAM GROUP: 4
A survey of the 20th-century novel, its forms, patterns of ideas, techniques, cultural context, rivalry with film and radio, short story, and fact. Dreiser, *Sister Carrie*; Wharton, *The House of*

Mirth; Jack London, *Stories*; Anderson, *Winesburg, Ohio*; Hemingway, *A Farewell to Arms* and stories; Faulkner, *The Sound and the Fury* and stories; Fitzgerald, *Tender is the Night*; Ellison, *Invisible Man*; Nabokov, *Lolita*; Bellow, *Herzog*; Pynchon, *The Crying of Lot 49*; DeLillo, *White Noise.*
Note: Graduate section offered.

English 185. Wit and Humor
Catalog Number: 3941
Leo Damrosch
Half course (spring term). Tu., Th., 1-2. EXAM GROUP: 15
Emphasizing wit and humor rather than "comedy" as classically understood, the course considers selected texts and films (for example, Mark Twain, P.G. Wodehouse, Dave Barry, *Dr. Strangelove, Annie Hall, Monty Python*), in the light of theoretical studies by psychologists, sociologists, and critics who have tried to explain why people laugh, want to laugh, and pay to be made to laugh.
Note: Non-English Department students welcome.

English 193. An Introduction to 20th-Century Literary Theory
Catalog Number: 8913
Leland P. de la Durantaye
Half course (spring term). M., W., at 12; W., at 2; W., at 4; W., at 6. EXAM GROUP: 5
An introduction to 20th-century literary theory. We examine the principal trends in 20th-century literary criticism, including New Criticism, phenomenological criticism, psychoanalytical criticism, semiology, the Frankfurt school, French structuralist and post-structuralist thought, new historicism, and multiculturalism. Readings may include Auerbach, Adorno, Curtius, de Man, Derrida, Foucault, Spitzer, Gadamer, Frye, Eco, Freud, Lacan.

English 198. Imagining the Archive (formerly titled Imagination and the Archive)
Catalog Number: 5217 Enrollment: Limited to 30.
Amitav Ghosh
Half course (spring term). Tu., 2–5. EXAM GROUP: 16, 17, 18
Interdisciplinary lecture-workshop focusing on the imaginative possibilities of archives, real and fictional. The course will be centred on themes that range from the nature of the colonial archive to the construction of imaginary archives such as that of the *The Aspern Papers*. Participants will be expected to write three short papers (of five pages each) and a term paper of fifteen pages.

***English 199t. Animals That Talk**
Catalog Number: 7511 Enrollment: Limited to 18.
Marc Shell
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Who speaks for those who do not speak? This seminar on animal ventriloquism focuses on literary works where animals talk like human beings (Brer Rabbit, Porky Pig) or speak with humans (Poe's raven, Balaam's ass). We consider works where human beings talk like animals or speak with animals (Dr. Doolittle, King Solomon) or think that's what they do. Texts include cartoons (Bugs Bunny), plays with animal disguises (*Midsummer Night's Dream*), folktales with animal metamorphoses, and Lewis Carroll's *Alice in Wonderland*.

Other Courses Offered by Members of the English Department

African and African American Studies 116. Autobiography and Literary Imagination
[African and African American Studies 122. Caribbean Women Writers]
African and African American Studies 131. African-American Literature to the 1920s
[*Comparative Literature 172 (formerly *Comparative Literature 269). Paralysis]
[Comparative Literature 174. American Babel]
[*Comparative Literature 227. Fictions of Kin and Kind in the Renaissance: Seminar]
[Comparative Literature 278. Moses and Multiculturalism]
***Comparative Literature 283. Language War: Seminar**
Dramatic Arts 64. Dramatic Literature from the Greeks to Ibsen
[*Folklore and Mythology 90a. Studies in Mythology: Seminar]
***Freshman Seminar 32p. Charles Dickens**
Freshman Seminar 33x. Complexity in Works of Art: *Ulysses* and *Hamlet
***Freshman Seminar 35g. Jean-Jacques Rousseau**
***Freshman Seminar 37w. Becoming J.R.R. Tolkien: Life and Medieval Sources**
***Freshman Seminar 37x. The Poetry of Emily Dickinson**
***Freshman Seminar 38e. Madness and the Creative Imagination: Literary and Biomedical Perspectives**
***Freshman Seminar 38j. Medicine and Literature**
Literature and Arts A-11. Arthurian Literature: Epic versus Romance
Literature and Arts A-20. Classics in Christian Literature
Literature and Arts A-22. Poems, Poets, Poetry
[Literature and Arts A-58. Ethnicity, Modernity, and Modernism in 20th-Century Literature, Art, and Culture]
[Literature and Arts A-64. American Literature and the American Environment]
Literature and Arts A-72. The Enlightenment Invention of the Modern Self
Literature and Arts A-86. American Protest Literature from Tom Paine to Tupac
Literature and Arts C-56. Putting Modernism Together
Visual and Environmental Studies 172h (formerly Visual and Environmental Studies 171x). Histories of Cinema II: Sound, Space, and Image to 1960
Visual and Environmental Studies 195. The Contemporary Hollywood Cinema

Primarily for Graduates

***English 204a. Elegy, Medieval and Modern: Graduate Seminar**
Catalog Number: 1029
Joseph C. Harris
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
How useful and valid is the label "elegy"? Medieval texts in Old and Middle English, medieval Latin, Norse, Irish, and Welsh will be combined with a "modern" component, including English classics (e.g., *Lycidas*) and folk poetry.
Note: Open to qualified undergraduates with instructor approval. Readings in translation or in the original.

***English 206. Suffering History: Exemplary Lives in Later Medieval Literature: Graduate Seminar**
Catalog Number: 2700
James Simpson
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Moments of great historical and cultural change in literate societies are always accompanied by the isolation of exemplary figures whose suffering, exemplary, and memorialised lives (and deaths) bear the marks of that change.

[*English 228y. Milton and His Contemporaries: Literature and Politics in the Era of the English Revolution (1629-1674): Graduate Seminar]
Catalog Number: 1277
Barbara K. Lewalski
Half course (fall term). Hours to be arranged.
Milton's poetry and prose, examined in relation to other texts that refract the experience and culture of the period: e.g., the poetry of Vaughan, Herrick, the Cavaliers, and Marvell; histories, sermons, political tracts, autobiography, biography.
Note: Expected to be given in 2005–06.

***English 229s. Spenser: Graduate Seminar**
Catalog Number: 1130
Gordon Teskey
Half course (spring term). Tu., 11–1. EXAM GROUP: 13, 14
An introduction to Spenser's poetry, concentrating on *The Faerie Queene*. We discuss such problems as the theory of allegory and the relation between Spenser's poetry and English romanticism.

***English 239. Romanticism and the Problem of History: Graduate Seminar**
Catalog Number: 2693
Ann Wierda Rowland
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
Pairs major Romantic texts with important critical work around the influential question of "history" in Romantic literature and criticism.

***English 240. Poetry, Politics, and Prophecy: Graduate Seminar**
Catalog Number: 6188
James Engell
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
Poetry and politics closely, publicly linked. Party politics, cultural politics, political satire. Sexual politics, women writers. Religion and modern prophecy. Dryden, Pope, Montagu, Swift, Johnson, Burke, Wollstonecraft, Blake, and others.
Note: Open to qualified undergraduates.

***English 256. Victorian Cultural Studies: Graduate Seminar**
Catalog Number: 4527
John M. Picker

Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Theory and practice of Victorian Cultural Studies. Reading and archival research in the Victorians and their media, with attention to questions of class, gender, professionalism, science, education, degeneration, and the urban condition.
Note: Open to qualified undergraduates with permission of instructor.

***English 256v. Reading in 19th-Century Culture: Graduate Seminar**
Catalog Number: 2852
Leah Price
Half course (fall term). M., 3–5. EXAM GROUP: 8, 9
The practice and representation of reading in nineteenth-century Britain. Texts by Brontë, Gaskell, Eliot, Gissing, Trollope, Ruskin, and Arnold, alongside later debates about reader-response theory, literacy, consumer culture, the periodical press, and the history of the book.
Note: Open to qualified undergraduates in English and History and Literature with instructor's permission.

[*English 264x. Sensation and Moral Action in Thomas Hardy: Graduate Seminar]
Catalog Number: 2714
Elaine Scarry
Half course (fall term). Hours to be arranged.
Hardy's novels, stories, and narrative poems will be approached through the language of the senses (hearing, vision, touch) and through moral agency (philosophic essays on "luck" and "action").
Note: Expected to be given in 2005–06. Open to upper-level undergraduates with permission of instructor.

***English 268. The Poetry of Wallace Stevens: Graduate Seminar**
Catalog Number: 5831
Helen Vendler
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
A study of the poetry of Wallace Stevens. Topics: *Harmonium* and "the whole of *Harmonium*"; stylistic variation; Stevens' genres, from the epigram to the sequence; second-order poetry; the social and the imaginative; allegorical personae.

***English 270. Puritans and Planters: The Colonial Literatures of New England and the Chesapeake: Graduate Seminar**
Catalog Number: 6906
Elisa New
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
Surveying the literature of the Chesapeake--including texts of contact and exploration, of the Revolution, nation building, and the early Republic --and the literature of early New England--including sermonic literature, history, devotional and homiletic verse. This course introduces students to the earliest American literature in its transatlantic context.

***English 274z. Douglass and Melville: Graduate Seminar**
Catalog Number: 7563

John Stauffer
Half course (spring term). W., 4–6. EXAM GROUP: 8, 9
A study of the major writings of Frederick Douglass and Herman Melville, with particular attention to dilemmas of race, freedom, and equality. We look at their works from both historical and aesthetic perspectives.

[*English 276x. African-American Literary Tradition: Graduate Seminar]
Catalog Number: 3536
Henry Louis Gates, Jr.
Half course (spring term). Hours to be arranged.
An exploration of the emergence and formal development of the African-American literary "tradition" from the 18th to the 20th century. Close reading of the canonical texts in the tradition, and their structural relationships are stressed.
Note: Expected to be given in 2005–06.

***English 277xr. Multilingual Literatures of the United States: Graduate Seminar**
Catalog Number: 7685
Werner Sollors and Marc Shell
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Non-English literature of what is now the US: The historiographic and critical treatment of non-Anglophone texts, general theoretical problems of an ongoing multilingual American tradition, and recuperation and presentation of texts. Focus is on work with original source materials, on new research possibilities, and on translation theory.
Note: Visiting scholars will attend several sessions

***English 278x. Twentieth-Century Texts: Graduate Seminar**
Catalog Number: 2889 Enrollment: Limited to 15.
Louis Menand
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
A reading course of works important for understanding twentieth-century literary and intellectual history. Four of the texts will be chosen by the class.
Note: Open to all students.

***English 282. Theories of Modernism: Graduate Seminar**
Catalog Number: 4337
Daniel Albright and Christopher Hasty
Half course (spring term). W., 10–12. EXAM GROUP: 3, 4
Interdisciplinary study of Modernism's theories of itself: manifestoes, polemics, declarations—tested against Modernist artistic practice and contemporary notions of Modernism. Principal figures: Yeats, Kandinsky, Schoenberg, Pound, Stravinsky, Picasso, Satie, Apollinaire, Cocteau, Breton, Klee, Brecht, Weill, Adorno, Mann.

***English 293. Solitary Reading: Prolonged Attention in Novels and Paintings: Graduate Seminar**
Catalog Number: 4166
Philip J. Fisher

Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
A phenomenological study of novels and paintings; reading and seeing as aesthetic modes; segmented and prolonged attention; solitary and social experiences of works of art; intimacy and non-reciprocal intimacy; superimposition, enchantment, occupied consciousness.
Note: Open to qualified undergraduates.

***English 294z. On Beauty: Graduate Seminar**
Catalog Number: 7277
Elaine Scarry
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
Philosophic and literary accounts of beauty from Greek through modern, including Plato, Aquinas, Dante, Kant, Keats, and Rilke. In addition, the major arguments against beauty; and its stability across four objects (God, gardens, persons, and poems).

***English 299. Proseminar: The Intellectual Life of the Profession**
Catalog Number: 7739
Marjorie Garber
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Recent developments in literary criticism and theory from the 1960s to the present (historicism, psychoanalysis, deconstruction, gender theory, postcoloniality, cultural studies, book history, performance studies), and an overview of the profession: publication, teaching, conferences, research methodologies, and other aspects of academic life.
Note: An introduction to graduate study in English, open to both first and second year graduate students.

Graduate Courses of Reading and Research

***English 300hf. Old and Middle English: Doctoral Conference**
Catalog Number: 2334
Daniel G. Donoghue 1469, Joseph C. Harris 1089, James Simpson 4791, and Nicholas Watson 3851 (on leave 2004-05)
Half course (throughout the year). Th., 4:30–6.
The Conference focuses upon theses in progress and other research topics of mutual concern. Membership limited to faculty members teaching or conducting research in medieval English language and literature and to graduate students working in this field.
Note: Enrollment is open to all graduate students but is required of those who have been admitted to candidacy for the PhD and who intend to work on a medieval subject.

***English 302hf. Renaissance: Doctoral Conference**
Catalog Number: 2814
James Engell 8076, Marjorie Garber 7264, Stephen J. Greenblatt 3436, Barbara K. Lewalski 7450 (on leave 2004-05), John Parker 3729 (on leave 2004-05), and Gordon Teskey 4466
Half course (throughout the year). Alternate W., at 4:15.
The Conference focuses upon theses in progress and other research topics of mutual interest.
Note: Limited to faculty members teaching or conducting research in Renaissance literary studies and to graduate students working in this field who have completed required course work for the

Master's degree. Enrollment is open to all such students, and is required of those who have been admitted to candidacy for the PhD and who intend to work on Renaissance topics.

***English 304hf. The Extended 18th Century: Doctoral Conference**
Catalog Number: 6110
Leo Damrosch 2200, James Engell 8076, Lynn Mary Festa 2331, Leah Price 3501, and Michael Shinagel 7659
Half course (throughout the year). Hours to be arranged.
Focuses on theses, theses in progress, and research topics of mutual interest.
Note: Required of graduate students working, or intending to work, on the Restoration, 18th century, or Romanticism (the periods 1660–1830), and who have been admitted to candidacy for the PhD. Open to other students working on topics in Restoration and 18th-century literature.

***English 305. Narrative (1800 to the Present): Doctoral Conference**
Catalog Number: 4846
Robert J. Kiely 1621 (on leave spring term) and Philip J. Fisher 1470
Half course (fall term; repeated spring term). Hours to be arranged.
The Conference focuses on theses in progress and other research topics of mutual concern.
Note: Limited to faculty members teaching or conducting research in 19th- and 20th-century British and American fiction and to graduate students working in the field. Enrollment is open to all such students, and is required of those who have been admitted to candidacy for the PhD and who intend to work in the field.

***English 306hf. 19th- and 20th-Century British Literature: Doctoral Conference**
Catalog Number: 5268
Robert J. Kiely 1621 (on leave spring term), Leah Price 3501, and Ann Wierda Rowland 2582
Half course (throughout the year). Hours to be arranged.

***English 308hf. Drama: Doctoral Conference**
Catalog Number: 6909
Elaine Scarry 2206 and Marjorie Garber 7264
Half course (throughout the year). Hours to be arranged.
Focuses on research topics related to dramatic literature, theatre, and performance. Open to all faculty members and graduate students teaching or conducting research in the field.

***English 310hfr. American Literature and Culture: Doctoral Conference**
Catalog Number: 6235
Lawrence Buell 2655 (on leave 2004-05), Elisa New 2428, and Werner Sollors 7424
Half course (throughout the year). Hours to be arranged.
Colloquium open to all graduate students working in the area of American literature and culture. Papers delivered by students writing seminar papers or theses, faculty members, and visiting scholars.

***English 314hf. 20th-Century Literature and Cultural Theory: Doctoral Conference**
Catalog Number: 1410
Homi K. Bhabha 4100 (on leave 2004-05) and Sharmila Sen 2509 (on leave spring term)

Half course (throughout the year). Hours to be arranged.
Topics include African-American literature, contemporary literature, drama, film and/or performance, modernism, literary and cultural theory, postcolonial studies, and postmodernism. Work in progress, as well as dissertation chapters and potential articles and conference papers, encouraged.
Note: Open to all graduate students and faculty working in 20th-century literature and cultural theory.

***English 350. Teaching Colloquium**
Catalog Number: 8208
Marjorie Garber 7264
Half course (fall term). M., 4–6 (biweekly).
The craft of teaching (discussion, lectures, tutorials, course descriptions, syllabi). This colloquium, designed for third-year graduate students, will also consider issues related to the field exam, prospectus, and other aspects of advanced graduate study in English.
Note: Required of all third-year graduate students.

***English 397. Directed Study**
Catalog Number: 6588
Members of the Department

***English 398. Direction of Doctoral Dissertations**
Catalog Number: 5968
Daniel Albright 4615, Homi K. Bhabha 4100 (on leave 2004-05), Lawrence Buell 2655 (on leave 2004-05), Glenda R. Carpio 4408 (on leave spring term), Leo Damrosch 2200, Leland P. de la Durantaye 4457, Daniel G. Donoghue 1469, James Engell 8076, Lynn Mary Festa 2331, Philip J. Fisher 1470, Marjorie Garber 7264, Henry Louis Gates, Jr. 2899, Jorie Graham 2358 (on leave fall term), Stephen J. Greenblatt 3436, Joseph C. Harris 1089, Barbara E. Johnson 7626 (on leave 2004-05), Robert J. Kiely 1621 (on leave spring term), Barbara K. Lewalski 7450 (on leave 2004-05), Elizabeth D. Lyman 4433, Louis Menand 4752, Elisa New 2428, Peter C. Nohrnberg 4726, John Parker 3729 (on leave 2004-05), John M. Picker 3728, Leah Price 3501, Peter Sacks 2161 (on leave fall term), Elaine Scarry 2206, Sharmila Sen 2509 (on leave spring term), Marc Shell 3176, Michael Shinagel 7659, James Simpson 4791, Werner Sollors 7424, John Stauffer 1006, Gordon Teskey 4466, Helen Vendler 7226, Nicholas Watson 3851 (on leave 2004-05), and Ann Wierda Rowland 2582
Note: Normally limited to students reading specifically in the field of a proposed doctoral thesis. Open only by petition to the Department; petitions should be presented during the term preceding enrollment, and must be signed by the instructor with whom the reading is to be done. All applicants for admission should first confer with the Director of Graduate Studies.

***English 399. Reading and Research**
Catalog Number: 1825
Members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Conducted through regular conferences and assigned writing. Limited to students reading specifically on topics not covered in regular courses. Open only by petition to the Department;

petitions should be presented during the term preceding enrollment, and must be signed by the instructor with whom the reading is to be done. All applicants for admission should first confer with the Director of Graduate Studies.

Environmental Science and Public Policy

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Degrees in Environmental Science and Public Policy

James J. McCarthy, Alexander Agassiz Professor of Biological Oceanography in the Museum of Comparative Zoology *(Chair)*
William C. Clark, Sidney Harman Professor of International Science, Public Policy, and Human Development *(Kennedy School)*
Richard T. T. Forman, Professor of Advanced Environmental Studies in the Field of Landscape Ecology *(Design School)*
Jerry R. Green, John Leverett Professor and David A. Wells Professor of Political Economy
N. Michele Holbrook, Charles Bullard Professor of Forestry
John P. Holdren, Professor of Environmental Science and Public Policy *(FAS)* and Teresa and John Heinz Professor of Environmental Policy *(Kennedy School)*
Sheila S. Jasanoff, Pforzheimer Professor of Science and Technology Studies *(Kennedy School)*
Michael B. McElroy, Gilbert Butler Professor of Environmental Studies
Peter P. Rogers, Gordon McKay Professor of Environmental Engineering
Daniel P. Schrag, Professor of Earth and Planetary Sciences
John H. Shaw, Harry C. Dudley Professor of Structural and Economic Geology
Robert N. Stavins, Albert Pratt Professor of Business and Government *(Kennedy School)*

Other Faculty Offering Instruction in Environmental Science and Public Policy

Henry Ehrenreich, Clowes Research Professor of Science
Paul R. Epstein, Lecturer on Environmental Science and Public Policy
James S. Hoyte, Lecturer on Environmental Science and Public Policy
Claus Wedekind, Lecturer on Environmental Science and Public Policy

The Environmental Science and Public Policy concentration is overseen by a Standing Committee functioning as a Board of Tutors including representatives from several departments of the Faculty of Arts and Sciences and from other schools as appropriate to ensure the requisite breadth of the program.

The concentration is designed to provide a multidisciplinary introduction to current problems of

the environment. It is founded on the premise that the ability to form rational judgments concerning many of the complex challenges confronting society today involving the environment requires both an understanding of the underlying scientific and technical issues and an appreciation for the relevant economic, political, legal, historical, and ethical dimensions. It offers students an opportunity to specialize in a specific area of either natural or social science relating to the environment. All students have to satisfy a core of requirements in biology, chemistry, earth and planetary sciences, economics, government, and mathematics.

Primarily for Undergraduates

Environmental Science and Public Policy 10. Introduction to Environmental Science and Public Policy
Catalog Number: 6383
William C. Clark (Kennedy School)
Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7
Headlines announce environmental degradation from local places, “Pesticides Pollute Wells”, to the entire globe, “World’s Warmest Year.” Strategies for addressing these problems are urgently at the center of science and policy debates from local to international levels. This course provides a dynamic and interdisciplinary exploration of such debates through in-depth case studies. As such, it seeks to foster critical thinking about how to analyze and address human-environment interactions characterized by complexity, conflict, and contested knowledge.
Note: Intended for interested students from all concentrations.

Environmental Science and Public Policy 78. Environmental Politics
Catalog Number: 3613
Sheila S. Jasanoff (Kennedy School)
Half course (fall term). M., W., at 10; W., at 11; Th., at 1. EXAM GROUP: 3
An introduction to the history, organization, goals, and ideals of environmental protection in America. Examines the shift in emphasis from nature protection to pollution control to sustainability over the 20th-century and develops critical tools to analyze changing conceptions of nature and the role of science in environmental policy formulation. Of central interest is the relationship between knowledge, uncertainty, and political or legal action. Theoretical approaches are combined with case studies of major episodes and controversies in environmental protection.

Environmental Science and Public Policy 90. Junior Seminars

Enrollment in these seminars is limited, with preference given to Environmental Science and Public Policy concentrators in their junior year. One junior seminar fulfills the junior seminar requirement for Environmental Science and Public Policy concentrators.
[*Environmental Science and Public Policy 90a. Public Communication and the Science and Politics of Global Climate Change]
Catalog Number: 2189
Michael B. McElroy
Half course (fall term). Hours to be arranged.
The Kyoto Protocol of 1997 set binding limits on greenhouse gas emissions, though many

nations, including the United States, have yet to ratify this accord. Meanwhile, the scientific evidence of human-induced climate change continues to emerge amid some controversy, with indications that global warming and other potentially catastrophic climate changes may already be underway. What is this scientific evidence, and how is it being communicated to the public and policy makers? How should the United States respond to international efforts to mitigate climate change? Led by a scientist and a journalist, the seminar explores scientific, diplomatic, and public communication methods driving the global climate change debate.
Note: Expected to be given in 2005–06.

***Environmental Science and Public Policy 90c. Ecology and Land-Use Planning**
Catalog Number: 3792
Richard T. T. Forman (Design School)
Half course (spring term). M., 2–5:15, with intensive field study, including a required one-week field study, plus a one-day field study. EXAM GROUP: 7, 8, 9
Investigation of how local and regional human activities such as housing, agriculture, water supply, and natural resource use can be arranged in the landscape so that environmental processes are not disrupted and ecosystems are maintained for the long term. The focus is on learning and applying spatial and ecological principles to land-use planning with the intention of regional biodiversity conservation, maintenance of water quality, and addressing other environmental issues.

***Environmental Science and Public Policy 90d. Status of Environmental Justice as a Public Policy Issue**
Catalog Number: 5824
James S. Hoyte
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Examines the influences of race, socioeconomic status, and interest group politics in the formulation and implementation of US federal and state environmental policy. Topics include the civil rights struggle and the environmental justice movement, role of race in environmental policymaking, residential and occupational exposure patterns of environmental pollution, racial diversity in the environmental movement, socioeconomic factors shaping the research agenda for environmental affairs, facilities siting and community impacts, and lead contamination as an environmental justice issue.
Note: Offered jointly with the Kennedy School as ENR-205.

***Environmental Science and Public Policy 90e. Conservation Biology**
Catalog Number: 6879
Claus Wedekind
Half course (spring term). Th., 2:30–5. EXAM GROUP: 16, 17, 18
The course will explore the moral and scientific motivations for preserving biodiversity, introduce you into some principles that can be used to protect biodiversity, and practice decision making under conflicting interests. Case studies will focus on major contemporary issues in conservation biology such as habitat protection, habitat restauration, exotic species invasions, and sustainable population management (protection, monitoring, harvesting, captive and supportive breeding and subsequent reintroduction, etc.).
Note: Local field trips within New England to be arranged.

***Environmental Science and Public Policy 90f. Global Change and Human Health**
Catalog Number: 4434
James J. McCarthy and Paul R. Epstein
Half course (spring term). W., 2:30–5. EXAM GROUP: 7, 8
Global consequences of increasing human population and our consumption of natural resources include extensive changes in many natural ecosystems and in the composition of Earth's atmosphere. In the last decade, geographic ranges of certain well known infectious diseases have expanded and new diseases have become threats to human health. This seminar explores hypothesized linkages between changes in ecosystems, climate, and the epidemiology of certain infectious diseases.

[*Environmental Science and Public Policy 90h. Energy Problems and Promises]
Catalog Number: 2284
Henry Ehrenreich
Half course (spring term). Hours to be arranged.
The likely exhaustion of cheap oil in the near future and ambiguous political attitudes toward pollution mandate the development of alternative energy resources and technologies. The seminar will consider fossil fuel, wind, solar, nuclear energy, electrical and hydrogen mediated transmission, and novel technologies such as fuel cells and hybrid cars, all historically related to economic and social needs. Student participation includes a term paper, an oral class presentation, and involvement in seminar discussions.
Note: Expected to be given in 2005–06.
Prerequisite: High school physics or chemistry or instructor's permission.

[*Environmental Science and Public Policy 90i. What Causes Environmental Degradation?]
Catalog Number: 9228
John P. Holdren (Kennedy School) and Daniel P. Schrag
Half course (spring term). Hours to be arranged.
Using a series of examples of major environmental concerns, we explore what are both the proximal and underlying causes of environmental degradation. For example, to understand what is driving global climate change, we examine contributing effects of energy use, overpopulation, inefficient technology, styles of land use, and industrialization. We use the analysis to discuss various approaches to adaptation and mitigation of these problems.
Note: Expected to be given in 2005–06.

[*Environmental Science and Public Policy 90m. Technological Approaches to Mitigation of Climate Change]
Catalog Number: 0545
Daniel P. Schrag and James J. McCarthy
Half course (fall term). Hours to be arranged.
A variety of technological approaches have been proposed to mitigate the risks posed by human-induced climate change. Prominent among these are carbon sequestration mechanisms. In addition, the hydrogen fuel cell might replace fossil fuels in distributed energy generation. In this seminar, we explore these emerging technologies and consider the technological limitations, the

geological and ecological consequences, and the political and economic implications.
Note: Expected to be given in 2005–06.

***Environmental Science and Public Policy 91r. Supervised Reading and Research**
Catalog Number: 1705
James J. McCarthy and members of the Committee
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised reading and research on topics not covered by regular courses of instruction. Students must complete a registration form, including permission from their faculty sponsor, with the concentration office before course enrollment. A final paper describing the research/reading completed during the term is due in duplicate to the Head Tutor on the first day of reading period.
Note: Intended for junior and senior concentrators in Environmental Science and Public Policy; open to sophomore concentrators only under exceptional circumstances. Permission of the Head Tutor is required for enrollment. May be counted for concentration only with the special permission of the Head Tutor.

***Environmental Science and Public Policy 99r. Tutorial — Senior Year**
Catalog Number: 5666
James J. McCarthy and members of the Committee
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Senior honors candidates must take at least one term of this course (fall or spring) while writing a thesis. If taken for two terms, only one term can be counted toward meeting concentration requirements.

Ethnic Studies

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Ethnic Studies

Kay Kaufman Shelemay, G. Gordon Watts Professor of Music and Professor of African and African American Studies *(Chair)*
Lisa T. Brooks, Lecturer on History and Literature and on English and American Literature and Language
Vincent Brown, Assistant Professor of History
Prudence L. Carter, Assistant Professor of Sociology
Joyce E. Chaplin, Professor of History
Eileen Cheng-yin Chow, Assistant Professor of Chinese Literary and Cultural Studies
Kimberly McClain DaCosta, Assistant Professor of African and African American Studies and

of Social Studies *(on leave 2004-05)*
William L. Fash, Bowditch Professor of Central American and Mexican Archaeology and Ethnology
Deborah D. Foster, Senior Lecturer on Folklore and Mythology
William E. Granara, Professor of the Practice of Arabic on the Gordon Gray Endowment
Jennifer L. Hochschild, Henry LaBarre Jayne Professor of Government and Professor of African and African American Studies
Michèle Lamont, Professor of Sociology *(on leave spring term)*
Susan W. Lewis, Director of the Core Program
Marc Shell, Irving Babbitt Professor of Comparative Literature and Professor of English
Werner Sollors, Henry B. and Anne M. Cabot Professor of English Literature and Professor of African and African American Studies
Maria Tatar, Harvard College Professor, John L. Loeb Professor of Germanic Languages and Literatures and Dean for Humanities

The Committee on Ethnic Studies is an Interdisciplinary Coordinating Committee constituted of faculty members from across the disciplines appointed to encourage and promote course offerings on ethnicity in the US. Ethnic studies might briefly be described as the study of aspects of collective identity shaped by factors ranging from descent to affinity. The field has emerged from and continues to flourish within individual departments as well as across disciplinary boundaries. Methodologies for the study of ethnicity vary, as does subject matter, which ranges from expressive culture to social organization, but scholars in ethnic studies share the challenge of studying intensely heterogeneous populations and materials. American ethnic communities have provided an important focus as well as particularly rich units of study for scholars of ethnicity, giving rise to many of the foundational works in the field. At the same time, both research and pedagogy in ethnic studies is often international and comparative in its purview due to the interaction between and among communities within individual locales as well as the global flow of people in diaspora. Ethnic studies have further given rise to a lively and growing body of theoretical work, sparked in part by the necessity to document and interpret the redefinition of identity through on-going processes shaped both by descent and consent.

The Committee on Ethnic Studies oversees the disposition of two FTE's annually to bring to campus visitors who offer courses in Native American, US Latino, and Asian American Studies. Past course offerings have spanned such topics as Native American Art and Architecture, Asian American Literature, Spanish Caribbean Music, Comparative Urban Latino Politics, and the relationship among Native Americans, Hispanos, and Anglos in the American Southwest.

To see additional committee activities, please see the website.

The Committee does not offer an undergraduate concentration or an advanced degree. However, concentrations focusing on topics relating to ethnic studies can be undertaken through many departments, as well as within programs such as Social Studies, History and Literature, Folklore and Mythology, and Special Concentrations.

The Committee on Ethnic Studies is housed in the Office of Academic Programs.

Core Courses in Ethnic Studies

Foreign Cultures 46. Caribbean Societies: Socioeconomic Change and Cultural Adaptations
[Foreign Cultures 60. Individual, Community, and Nation in Vietnam]
[Foreign Cultures 70. Understanding Islam and Contemporary Muslim Societies]
[Foreign Cultures 74. Cultures of Southern Europe]
Foreign Cultures 80. Korean Cultural Identities
Foreign Cultures 82. Modern Arabic Narratives: Self, Society, and Culture
Foreign Cultures 86. West African Cultures
Foreign Cultures 88. The African Experience: Tradition and Modernity
Historical Study A-14. Japan: Tradition and Transformation
Historical Study A-16. The Making of Modern South Asia
[Historical Study A-40. The Middle East and Europe since the Crusades: Relations and Perceptions]
Historical Study A-53. The Chinese Revolutionary Tradition
Historical Study A-67. Gendered Communities: Women, Islam, and Nationalism in the Middle East and North Africa
Historical Study B-52. Slavery and Slave Trade in Africa and the Americas
Historical Study B-61. The Warren Court and the Pursuit of Justice, 1953–1969
[Historical Study B-64. The Cuban Revolution, 1956-1971: A Self-Debate]
[Historical Study B-67. Japan's Modern Revolution]
[Literature and Arts A-48. Modern Jewish Literature]
[Literature and Arts A-58. Ethnicity, Modernity, and Modernism in 20th-Century Literature, Art, and Culture]
[Literature and Arts B-78. Soundscapes: Exploring Music in a Changing World]
[Literature and Arts B-82. Sayin' Something: Jazz as Sound, Sensibility, and Social Dialogue]
Social Analysis 54. American Society and Public Policy
Social Analysis 66. Race, Ethnicity, and Politics in the United States
[Social Analysis 68. Race, Class, and Poverty in Urban America]

Courses with a Primary Focus on Ethnicity in the United States

[African and African American Studies 140z. The Other African Americans]
[African and African American Studies 143. African-Americans and a New Racial Divide]
African and African American Studies 154. Language and Discourse, Race, Class, and Gender: Seminar
***English 90ln. The Landscape of Contemporary Native American Literature**
[General Education 175. Native Americans in the 21st Century: Nation-Building I]
History 1612. African Diaspora in the Americas
***History 1635. Race and Race Relations Since *Plessy:* Conference Course**
History 1638. United States Social History, from 1920 to the Present
***History 1645. History of American Immigration: Conference Course**
***History 1661. Social Thought in Modern America**

Sociology 60. Race and Ethnic Relations
Sociology 166. Poverty, Public Policy, and Controversy

Courses Related to Ethnicity and the United States

Anthropology 1670 (formerly Anthropology 157). Muslims in Multicultural America
[Anthropology 1760 (formerly Anthropology 153). Nationalism and Bureaucracy]
[Chinese Literature 132. Chinatowns]
[*Economics 1357. Historical Perspectives on American Economic Ascendancy]
Economics 1815. Social Problems of the American Economy
*English 90s. Ethnic-American Autobiography
Government 20. Introduction to Comparative Politics
Government 90ej. Social Identities
Government 90q. US-Latin American Relations
[*Government 1582. Who Are We? Issues of American National Identity]
[History 1610. Confronting Objects/Interpreting Culture: Interdisciplinary Perspectives on North America: Conference Course]
[History 1690. The US and Imperialism: Conference Course]
History of Art and Architecture 17y. American Encounters: Art, Contact, and Conflict, 1565-1865
Religion 16 (formerly Religion 1004). Religious Dimensions in Human Experience
*Social Studies 98fj. Asians in the United States
*Social Studies 98fp. Theories of Citizenship
Sociology 60. Race and Ethnic Relations
[Sociology 149. Ethnicity: Comparative and Historical Perspectives: Conference Course]
[Studies of Women, Gender, and Sexuality 1101 (formerly Women's Studies 110c). Borders and Betrayals: Engendering Cultural Identities]
[Visual and Environmental Studies 189r. (Trans)Cultural Cinema: Aesthetics, Ideology, and Cultural Difference in Nonfiction Filmmaking]

Courses Related to Ethnicity outside the United States

African and African American Studies 141. Afro-Atlantic Religions
Anthropology 1660 (formerly Anthropology 155). Anthropology of Islam in Comparative Perspective
[Anthropology 1760 (formerly Anthropology 153). Nationalism and Bureaucracy]
[Chinese Literature 132. Chinatowns]
[Comparative Literature 112. Religion and Literature in the Middle Ages]
Comparative Literature 166. The Comic Tradition in Jewish Culture
[Folklore and Mythology 90b (formerly Folklore and Mythology 115). The African Oral Narrative Tradition: Seminar]
French 70c. Introduction to French Literature III: The Francophone World
[Government 90gs. Civil Society in Asia]
Government 90hh. International Migration and the Political Economy of Development
Government 1295. Comparative Politics in Latin America
Government 1760. International Relations of East Asia

[History 1610. Confronting Objects/Interpreting Culture: Interdisciplinary Perspectives on North America: Conference Course]
[History 1897. Nation, Reason and Religion in South Asia]
[History 1958. Islam and Ethnicity: Conference Course]
[History of Art and Architecture 191x. Manuscripts in Colonial Peru and Mexico]
[History of Art and Architecture 193. Painting Traditions in Africa]
[Indian Studies 117 (formerly *Indian Studies 216). Early History of South Asia]
Islamic Civilizations 124. Central Asian Culture and Society
[Islamic Civilizations 125. History and Culture of Islamic Peoples of the Former Soviet Union]
[Islamic Civilizations 160. The Meanings of Islam in Central Asia]
Music 190r. Topics in World Music: Proseminar
Music 206r. Research Methods in Ethnomusicology: Musical Ethnography
Music 207r. Ethnomusicology: Seminar
Portuguese 37. Brasil hoje: Contemporary Brazilian Culture through Media
Portuguese 44 (formerly Portuguese 38). Images of Brazil: Contemporary Brazilian Cinema
Religion 11. World Religions: Diversity and Dialogue
***Social Studies 98gf. Modernity and Social Change in East Asia**
[Sociology 149. Ethnicity: Comparative and Historical Perspectives: Conference Course]
[Sociology 182. Race & Ethnic Relations: Conference Course]
[Studies of Women, Gender, and Sexuality 1101 (formerly Women's Studies 110c). Borders and Betrayals: Engendering Cultural Identities]
[Studies of Women, Gender, and Sexuality 1102 (formerly Women's Studies 101r). Money Changes Everything: Gender and Globalization]
Studies of Women, Gender, and Sexuality 1201 (formerly Women's Studies 110a). Bodies and Boundaries: Conference Course

European Studies

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on European Studies

Peter A. Hall, Harvard College Professor and Krupp Foundation Professor of European Studies *(Chair)*
David Blackbourn, Coolidge Professor of History
Peter J. Burgard, Professor of German
Pepper D. Culpepper, Associate Professor of Public Policy *(Kennedy School)*
Grzegorz Ekiert, Professor of Government

Peter E. Gordon, John and Ruth Hazel Associate Professor of the Social Sciences
Patrice Higonnet, Robert Walton Goelet Professor of French History *(on leave fall term)*
Stanley Hoffmann, Paul and Catherine Buttenwieser University Professor
Torben Iversen, Professor of Government *(on leave spring term)*
Mary D. Lewis, Assistant Professor of History *(on leave 2004-05)*
Charles S. Maier, Leverett Saltonstall Professor of History
Cindy Skach, Assistant Professor of Government *(on leave fall term)*
Theda Skocpol, Victor S. Thomas Professor of Government and Sociology
Judith Surkis, Assistant Professor of History and of History and Literature
Roman Szporluk, Mykhailo S. Hrushevs'kyi Professor of Ukrainian History
Daniel F. Ziblatt, Assistant Professor of Government and of Social Studies

The Standing Committee on European Studies is the formal oversight body for the Minda de Gunzburg Center for European Studies. It is comprised of those permanent faculty members who have offices in the Center and selected other representatives of FAS and of other universities in the Boston area who remain active in the study and teaching of modern Europe.

For over thirty years, the Center for European Studies has offered an interdisciplinary program designed to enhance the knowledge and understanding of political, social, economic, and cultural developments in modern Europe. Its members' intellectual approaches encompass history, political science, political economy, anthropology, sociology and cultural studies. Its purview includes all the regions of Europe as well as the institutional structures within individual countries and the European Union. The Center funds undergraduate thesis travel, dissertation fellowships, and offers several post-doctoral fellowships. Its quarters in Busch Hall provide office space for faculty, visiting scholars, and doctoral students on Europe. At the same time, the Center supports several study groups that maintain a schedule of seminars and presentations by visiting scholars and speakers from the world of public affairs and it organizes periodic conferences and workshops on European affairs. It maintains a program for the study of Germany and Europe initially funded by the Federal Republic of Germany and now supported by the Center's endowments. The Center is actively engaged in cooperation to advance European studies with other Harvard Faculties and Boston-area universities.

Expository Writing

Faculty of the Subcommittee on Expository Writing

Benedict H. Gross, George Vasmer Leverett Professor of Mathematics and Dean of Harvard College *(Chair)*
Elizabeth Doherty, Senior Lecturer on Social Studies and Associate Dean for Academic Programs *(ex officio)*
Patrick K. Ford, Margaret Brooks Robinson Professor of Celtic Languages and Literatures
Gordon C. Harvey, Senior Preceptor in Expository Writing and Associate Director of Expository Writing *(ex officio)*
John Huth, Professor of Physics
Stephen M. Kosslyn, John Lindsley Professor of Psychology *(on leave 2004-2005)*
Susan W. Lewis, Director of the Core Program *(ex officio)*
David McCann, Korea Foundation Professor of Korean Literature
Elizabeth Studley Nathans, Dean of Freshmen *(ex officio)*
Nancy Sommers, Senior Lecturer in Expository Writing and Sosland Director of Expository Writing *(ex officio)*

Other Faculty Offering Instruction in the Expository Writing Program

Thomas Akbari, Preceptor in Expository Writing
Patricia M. Bellanca, Preceptor in Expository Writing *(on leave spring term)*
James E. Berg, Preceptor in Expository Writing
Nancy E. Bernhard, Preceptor in Expository Writing
Susan E. Carlisle, Preceptor in Expository Writing
Anthony B. Cashman, III, Preceptor in Expository Writing
Kathryn Ann Chadbourne, Preceptor in Expository Writing, Contin Ed/Spec Prog Instructor, Associate of the Department of Celtic Languages and Literatures, Teaching Assistant in Folklore and Mythology
Michele D. Cotton, Preceptor in Expository Writing
Sarah Emsley, Preceptor in Expository Writing
William D. Evans, Preceptor in Expository Writing
Barry S. Gilbert, Preceptor in Expository Writing
Paul L. Harding, Preceptor in Expository Writing
Gregory A. Harris, Preceptor in Expository Writing
Karen L. Heath, Preceptor in Expository Writing
David K. Hecht, Preceptor in Expository Writing
Charles W. M. Henebry, Preceptor in Expository Writing and Lecturer on History and Literature
Luciana L. Herman, Preceptor in Expository Writing
James Patrick Herron, Preceptor in Expository Writing
Thomas R. Jehn, Preceptor in Expository Writing
Jeannine Johnson, Preceptor in Expository Writing
Eric C. LeMay, Preceptor in Expository Writing
Judith A. Murciano, Preceptor in Expository Writing
Emily D. O'Brien, Preceptor in Expository Writing
Sonja B. Plesset, Preceptor in Expository Writing
Lillian P. Porten, Preceptor in Expository Writing
Jane A. Rosenzweig, Preceptor in Expository Writing
Susanna E. Ryan, Preceptor in Expository Writing

Eliezra Hava Schaffzin, Preceptor in Expository Writing
Damion Searls, Preceptor in Expository Writing
Steven Shoemaker, Preceptor in Expository Writing and Lecturer on History and Literature
Stephen Brett Sutherland, Preceptor in Expository Writing
Janet H. Sylvester, Preceptor in Expository Writing
Thomas A. Underwood, Preceptor in Expository Writing
Thane D. Weedon, Preceptor in Expository Writing
Eric A. Weinberger, Preceptor in Expository Writing
Justin P. Wolff, Preceptor in Expository Writing
Suzanne H. Young, Preceptor in Expository Writing

For Undergraduates Only

Expository Writing 20 fulfills the basic requirement in Expository Writing, a requirement for all undergraduates in their first year of residence. No Expository Writing courses have midterm or final examinations.

Expository Writing 10. Introduction to Expository Writing
Catalog Number: 6344 Enrollment: Limited to 10 students per section.
Members of the Department
Half course (fall term). Hours to be arranged.
A rigorous, intensive elective that helps students prepare for the demands of college writing. In small classes, students work closely with instructors on developing and organizing ideas; analyzing sources; and writing clear, lively essays. Students read essays, articles, and short stories and receive a great deal of individual attention.
Note: After taking Expository Writing 10, a student must pass Expository Writing 20 to meet the College's Expository Writing requirement.

Expository Writing 20. Expository Writing
Catalog Number: 5518 Enrollment: Limited to 15 students per section.
Members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Aims to improve each student's ability to discover and reason about evidence through the medium of essays. Since writing requires an intellectual occasion and familiarity with some subject, each section focuses on a particular theme or topic, as described in the *Guide to Expos Courses and Registration* (available from the Expository Writing office). All sections give students experience in formulating questions; analyzing both primary and secondary sources, and properly acknowledging them; supporting assertions with strong and detailed evidence; and shaping clear, lively essays. All sections emphasize revision.

[Expository Writing 52. Style and Styles in Prose]
Catalog Number: 0674
Gordon C. Harvey and staff
Half course (spring term). Hours to be arranged.
For students who have completed Expository Writing 20 and wish to continue thinking about the art of writing and about the style of their own prose. Readings include pieces by distinctive stylists past and present: Bacon, Browne, Johnson, Emerson, Dickinson, Twain, Lawrence,

Woolf, Orwell, Baldwin, Didion, Gass, and others—including contemporary journalists and professors. Class discussions consider the technique of particular sentences and passages and ponder fundamental but sometimes ambiguous concepts like clarity, voice, vividness, cliché, rhythm, irony,and wit. Students attend regular one-on-one conferences on their own writing, the topics for which will be of their own choosing.
Note: Expected to be given in 2005–06. Open to graduate students with permission of instructor.

Folklore and Mythology

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Members of the Steering Committee on Degrees in Folklore and Mythology

Jan Ziolkowski, Arthur Kingsley Porter Professor of Medieval Latin *(Chair)*
Julie A. Buckler, Professor of Slavic Languages and Literatures
Deborah D. Foster, Senior Lecturer on Folklore and Mythology *(Head Tutor)*
Joseph C. Harris, Francis Lee Higginson Professor of English Literature and Professor of Folklore
Barbara L. Hillers, Assistant Professor of Celtic Languages and Literatures *(on leave 2004-05)*
Stephen A. Mitchell, Professor of Scandinavian and Folklore *(on leave 2004-05)*
David G. Mitten, James Loeb Professor of Classical Art and Archaeology
Gregory Nagy, Francis Jones Professor of Classical Greek Literature and Professor of Comparative Literature
Kimberley C. Patton, Associate Professor in the Comparative and Historical Study of Religion *(Divinity School)*
Panagiotis Roilos, Associate Professor of Modern Greek
James R. Russell, Mashtots Professor of Armenian Studies *(on leave spring term)*
John Stauffer, Professor of English and American Literature and Language
Lawrence E. Sullivan, Professor of the History of Religions *(Divinity School)*
Maria Tatar, Harvard College Professor, John L. Loeb Professor of Germanic Languages and Literatures and Dean for Humanities
Nur Yalman, Professor of Social Anthropology and of Middle Eastern Studies

Affiliated Members of the Committee on Degrees in Folklore and Mythology

Ali S. Asani, Professor of the Practice of Indo-Muslim Languages and Cultures
Patrick K. Ford, Margaret Brooks Robinson Professor of Celtic Languages and Literatures
Michael Herzfeld, Professor of Anthropology *(on leave spring term)*
Philip A. Kuhn, Francis Lee Higginson Professor of History and of East Asian Languages and Civilizations

Jon D. Levenson, Albert A. List Professor of Jewish Studies *(Divinity School)*
Peter Machinist, Hancock Professor of Hebrew and other Oriental Languages
J. Lorand Matory, Professor of Anthropology and of African and African American Studies
Robb Moss, Rudolf Arnheim Lecturer on Filmmaking
John E. Murdoch, Professor of the History of Science *(on leave fall term)*
Tomás Ó Cathasaigh, Henry L. Shattuck Professor of Irish Studies
Kay Kaufman Shelemay, G. Gordon Watts Professor of Music and Professor of African and African American Studies
P. Oktor Skjaervo, Aga Khan Professor of Iranian *(on leave fall term)*
Laurel Thatcher Ulrich, Harvard College Professor and the James Duncan Phillips Professor of Early American History
Michael Witzel, Wales Professor of Sanskrit *(on leave 2004-05)*

Other Faculty Offering Instruction in the Department of Folklore and Mythology

Maureen N. McLane, Lecturer on History and Literature

Tutorials in Folklore and Mythology

Primarily for Undergraduates

***Folklore and Mythology 91r. Supervised Reading and Research**
Catalog Number: 2425
Deborah D. Foster and members of the Committee
Half course (fall term; repeated spring term). Hours to be arranged.
Instruction and direction of reading on material not treated in regular courses of instruction; special work on topics in folklore, mythology, and oral literature. Normally available only to concentrators in Folklore and Mythology.
Note: Applicants must consult the Chairman of the Committee or the Head Tutor. The signature of the Chairman or the Head Tutor is required.

***Folklore and Mythology 97a (formerly *Folklore and Mythology 105). Fieldwork and Ethnography in Folklore**
Catalog Number: 3789 Enrollment: Limited to 12.
Deborah D. Foster
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
Introduces concentrators to the study of traditions—their performance, collection, representation and interpretation. Both ethnographic and theoretical readings serve as the material for class discussion and the foundation for experimental fieldwork projects.
Note: Required of all, and limited to, concentrators.

***Folklore and Mythology 97b (formerly *Folklore and Mythology 103). Oral Literature and the History of Folkloristics**
Catalog Number: 5039 Enrollment: Limited to 12.
Joseph C. Harris
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17

Considers the implications of orality, literacy, performance, and transmission from ethnographic, literary and historical points of view. Examples and case-studies typically drawn from the Balkans, the American Southwest, Africa, and medieval Europe. Tutorial readings include works by Parry, Lord, Nagy, Ong, Foley, Zumthor, and Bauman.
Note: Required of all, and limited to, concentrators.

***Folklore and Mythology 98. Tutorial — Junior Year**
Catalog Number: 3685
Deborah D. Foster and members of the Committee
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Required of all concentrators. The signature of the Head Tutor or of the Chairman of the Committee on Degrees in Folklore and Mythology required. Normally taken in the second term of the junior year.

***Folklore and Mythology 99. Tutorial — Senior Year**
Catalog Number: 3886
Deborah D. Foster and members of the Committee
Full course. Hours to be arranged.
Note: Required of all concentrators. The signature of the Head Tutor or of the Chairman of the Committee on Degrees in Folklore and Mythology required. Graded SAT/UNSAT.

Folklore and Mythology Courses

Primarily for Undergraduates

[*Folklore and Mythology 90a. Studies in Mythology: Seminar]
Catalog Number: 3843
Joseph C. Harris
Half course (fall term). Hours to be arranged.
A variety of approaches to "myth" as related to religion, literature, and nation. Readings in comparative and anthropological mythology, including Dumézil, Eliade, Lévi-Strauss, Lincoln, and Puhvel; in primary mythological complexes drawn from the ancient Near East, Scandinavia, Ireland and the Baltic; and in literary, oral-literary, and sociohistorical applications.
Note: Expected to be given in 2005–06. For Folklore and Mythology concentrators, or with permission of the instructor.

[Folklore and Mythology 90b (formerly Folklore and Mythology 115). The African Oral Narrative Tradition: Seminar]
Catalog Number: 5663
Deborah D. Foster
Half course (spring term). Hours to be arranged.
Examines African oral narrative, focusing on composition and performance techniques of oral performers. Considers the way in which symbol and metaphor work in oral art forms; compares methods of oral narrative analysis, including structuralism, semiotics, and performance theory; investigates the function of the trickster figure, and studies the role of the hero in epic narrative.

Note: Expected to be given in 2005–06. For Folklore and Mythology concentrators, or with permission of the instructor. All readings in English.

Folklore and Mythology 90c. Tolkien's Sources in Folkloristic Perspective
Catalog Number: 4545
Joseph C. Harris
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
A seminar on the texts and traditions, chiefly myths and heroic tales, that most influenced J.R.R. Tolkien in the creation of his fiction. The seminar will not be a course on Tolkien's fiction itself though a few less well-known stories will be assigned. Instead, we will operate under the assumption that you are what you read and, in the case of the philologist-medievalist Tolkien, what you study, teach, and analyze.
Note: For Folklore and Mythology concentrators, or with permission of the instructor.
Prerequisite: a reading of *The Lord of the Rings*.

For Undergraduates and Graduates

Folklore and Mythology 114. Embodied Expression/Expressive Body: Dance as a Medium of Cultural and Personal Meaning
Catalog Number: 7982 Enrollment: Limited to 24.
Deborah D. Foster
Half course (spring term). Th., 1–4. EXAM GROUP: 15, 16, 17
An examination of the ways in which the dancing body is both a site of personal experience and a sign of cultural meaning. By observing dance performances (live and on film), participating in dance workshops, and reading ethnographic and theoretical texts, we attempt to understand the emergent meaning of dance performances from the perspective of both dancer and observer.

Folklore and Mythology 150. Orality, Textuality, Mediality: Case Studies in Poetry 1760-2004
Catalog Number: 4093
Maureen N. McLane
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
An intriguingly elastic category, "poetry" encompasses everything from oral tradition (e.g., the ballad) to literary forms (e.g., sonnet, villanelle, ode) to experimental media (e.g., e-poetry). What is the interface between oral tradition and literary production? between ideas of "the folk," "the primitive," and emergent poetries? What is the impact of new media on poetic practice and theory? Among our test cases: Anglo-Scottish balladry, British romantic poetry, contemporary poetries (including "slam," neo-Dada, neo-formal, and experimental modes).

***Folklore and Mythology 191r. Supervised Reading and Research**
Catalog Number: 3255
Deborah D. Foster and members of the Committee
Half course (fall term; repeated spring term). Hours to be arranged.
Advanced reading in topics not covered in regular courses.

Cross-listed Courses

Harvard University
Faculty of Arts and Sciences
Office of the Registrar

For a complete up-to-date list of cross-listed courses, please visit our department's courses website at www.fas.harvard.edu/~folkmyth/indexcourses.htm

Germanic Languages and Literatures

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Germanic Languages and Literatures

Judith Ryan, Robert K. and Dale J. Weary Professor of German and Comparative Literature *(Acting Chair)*
David Bathrick, Visiting Professor of Germanic Languages and Literatures *(Cornell University) (spring term only)*
Peter J. Burgard, Professor of German *(Director of Graduate Studies)*
Karl S. Guthke, Kuno Francke Professor of German Art and Culture *(on leave fall term)*
John T. Hamilton, Assistant Professor of Comparative Literature and of Germanic Languages and Literatures
Annette Johansson-Los, Preceptor in Swedish
Kristin Kopp, Assistant Professor of German *(Head Tutor)*
Charles P. Lutcavage, Senior Preceptor in German
Stephen A. Mitchell, Professor of Scandinavian and Folklore *(on leave 2004-05)*
Eric Rentschler, Arthur Kingsley Porter Professor of Germanic Languages and Literatures *(on leave 2004-05)*
Sylvia Rieger, Preceptor in German *(Coordinator of Language Instruction)*
Helmut Schneider, Visiting Professor of Germanic Languages and Literatures *(University of Bonn) (fall term only)*
Eckehard Simon, Victor S. Thomas Professor of Germanic Languages and Literatures
Maria Tatar, Harvard College Professor, John L. Loeb Professor of Germanic Languages and Literatures and Dean for Humanities

Other Faculty Offering Instruction in the Department of Germanic Languages and Literatures

Joseph C. Harris, Francis Lee Higginson Professor of English Literature and Professor of Folklore
Jay Jasanoff, Diebold Professor of Indo-European Linguistics and Philology
Peter Nisbet, Senior Lecturer on History of Art and Architecture

Graduate students in the Faculty of Arts and Sciences may enroll in certain foreign language

courses for the grade of Satisfactory/Unsatisfactory. Students should consult with course heads to determine if a course is offered on that basis.

German

Primarily for Undergraduates

The placement test in German is offered during Freshman Week and during Intersession.

German A. Elementary German
Catalog Number: 4294
Sylvia Rieger and staff
Full course (indivisible). M. through Th., sections at 9, 10, 11, or 12. EXAM GROUP: 2, 11
A thorough introduction to German language and culture designed for students with little or no knowledge of the language. Encompasses all four skills: speaking, listening, reading, and writing. Class time is focused on developing oral proficiency. Language instruction is supplemented by literary and non-literary texts, films, and Internet activities.
Note: The first half of this course may not be taken as a half course for credit toward the AB degree; there are no exceptions to this rule. May not be taken Pass/Fail. Not open to auditors.

German Bab. Elementary German (Intensive)
Catalog Number: 8629
Sylvia Rieger and staff
Full course (fall term; repeated spring term). M. through F., sections at 9, 10, or 12; and an additional hour to be arranged. EXAM GROUP: 2, 11
A complete first-year course in one term for students with no knowledge of German. Provides a thorough introduction to German culture and language, encompassing all four skills: speaking, listening, reading, and writing. Class time is focused on developing oral proficiency; by the end of the course, students should be able to engage in everyday conversation with native speakers. Language instruction is supplemented by literary and non-literary texts, films, and Internet activities.
Note: May not be taken Pass/Fail. Not open to auditors.

German Da. Intermediate German: Speaking, Listening Comprehension, Reading, and Writing
Catalog Number: 5779
Sylvia Rieger and staff
Half course (fall term; repeated spring term). Fall term: M., W., F., sections at 9, 11, or 12. Spring term: M., W., F., at 9. EXAM GROUP: Fall: 2, 4; Spring: 2
Aims at enhancing students' proficiency in all four skills and offers a thorough grammar review. Students explore a broad range of cultural issues in the German-speaking countries. Course materials consist of literary and non-literary texts and films.
Note: Conducted in German. Not open to auditors.

German Db. Intermediate German: Speaking, Listening Comprehension, Reading, and Writing
Catalog Number: 2608

Sylvia Rieger and staff
Half course (fall term; repeated spring term). Fall term: M., W., F., at 9. Spring term: M., W., F., sections at 9, 11, or 12. EXAM GROUP: Fall: 2; Spring: 2, 4
Continuation of German Da. Discussion materials include literary texts and film. Emphasis on speaking proficiency and on strengthening writing skills. Course includes a review of selected grammatical structures and exercises in vocabulary-building.
Note: Conducted in German. Not open to auditors.
Prerequisite: German Da or permission of the instructor.

German S. German for Reading Knowledge
Catalog Number: 7177
Charles P. Lutcavage and staff
Half course (fall term; repeated spring term). M., W., 4–5:30. EXAM GROUP: 9
Development of reading proficiency for students with little or no knowledge of German. Emphasizes translation of academic German prose into English.
Note: Not open to auditors.

German 50a. Introduction to 19th-Century German and Austrian Literature
Catalog Number: 3213
Kristin Kopp
Half course (fall term). M., W., F., at 1. EXAM GROUP: 6
The course examines representative authors of the 19th century within the framework of major historical developments, social contexts, and central literary movements. Through close readings of texts in a variety of literary genres by such authors as Kleist, Tieck, Hoffmann, Grillparzer, Heine, Ebner-Eschenbach, Stifter, Hauptmann, Fontane, and Schnitzler, the course aims at improving writing and reading competence.
Note: Expected to be omitted in 2005–06. Conducted in German.
Prerequisite: Satisfaction of the language requirement, equivalent preparation, or permission of the instructor.

German 50b. Introduction to 20th-Century German and Austrian Literature
Catalog Number: 5412
Kristin Kopp
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
The course examines representative authors of the 20th century within the framework of major socio-historical developments, central literary movements, and key cultural debates. Through close readings of shorter texts and poetry by Schnitzler, Rilke, Mann, Benn, von Hoddis, Kafka, Toller, Brecht, Sachs, Celan, Borchert, Böll, Bachmann, Frisch, Seghers, Strau, Biermann, Kirsch, and Wolf, the course aims at improving writing and reading competence.
Note: Expected to be omitted in 2005–06. Conducted in German.
Prerequisite: Satisfaction of the language requirement, equivalent preparation, or permission of the instructor. German 50a is not a prerequisite for 50b.

German 60. Advanced Reading, Conversation, and Composition
Catalog Number: 1807
Peter J. Burgard and staff

Half course (fall term). M., W., F., at 10 or 11. EXAM GROUP: 3, 4
Reading and discussion of 20th-century literature to improve grammar and vocabulary (through linguistic analysis of texts) and to develop conversational strategies (through discussion of the issues raised by the texts). The linguistic and thematic aspects of discussions merge in the writing of short essays. Advanced grammar instruction and review.
Note: Conducted in German. Not open to auditors.
Prerequisite: German D, equivalent preparation, or permission of the instructor.

German 65. Wirtschaftsdeutsch
Catalog Number: 2678
Charles P. Lutcavage
Half course (fall term). M., W., F., at 10. EXAM GROUP: 3
Communication, reading, and writing skills for a business environment. Attention to grammar and specialized vocabulary, as well as cultural and political issues relevant to conducting business in German-speaking countries. Writing practice includes business correspondence and job applications. Supplemented by articles from the German-language press, the Internet, and videos.
Note: Conducted in German. May not be taken Pass/Fail. Not open to auditors.
Prerequisite: German D, equivalent preparation, or permission of the instructor.

German 68. Deutschland, Österreich, Europa
Catalog Number: 6537
Charles P. Lutcavage
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
An advanced language course focusing on current events in Germany, Austria, and the European Union. Readings, discussions, and projects based on a variety of contemporary political, social, economic, and cultural topics. Materials from various sources, including the German-language press, the Internet, videos, and television news.
Note: Conducted in German. May not be taken Pass/Fail. Not open to auditors.
Prerequisite: German 60, German 65, or permission of the instructor.

***German 91r. Supervised Reading and Research**
Catalog Number: 1059
Kristin Kopp and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Advanced reading in topics not covered in regular courses.
Note: Permission of the Head Tutor is required.

***German 97. Tutorial — Sophomore Year**
Catalog Number: 1774
Judith Ryan and members of the Department
Half course (fall term). Hours to be arranged.
Introduction to German literary and cultural history and to the analysis of poetry, drama, narrative, and film.
Note: Required of all concentrators.

***German 99. Tutorial — Senior Year**
Catalog Number: 3286
Kristin Kopp and members of the Department
Full course. Hours to be arranged.
Note: Open to concentrators writing an honors thesis under faculty supervision. Students are expected to enroll for the entire year. Permission of the Head Tutor is required.

Cross-listed Courses

Freshman Seminar 32y. Goethe's *Faust
Yiddish A. Elementary Yiddish

For Undergraduates and Graduates

German 101. Introduction to Medieval Literature and Culture
Catalog Number: 6745
Eckehard Simon
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Selected readings of major literature from the Old High German period to the Reformation (800–1500), focusing on the great Middle High German works (1170–1250): the *Nibelungenlied*, Hartmann's *Erec*, Gottfried's *Tristan*, Wolfram's *Parzival*, *Minnesang*, Walther von der Vogelweide. Extended discussion of historical and cultural background. Texts read in modern German translations.
Note: Expected to be omitted in 2005–06. Conducted in German. Graduate students upgrade the course to graduate credit by reading original texts.
Prerequisite: A reading knowledge of German.

German 110. Baroque
Catalog Number: 8078
Peter J. Burgard
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
Examines the literature of the German Baroque as well as the art of the European Baroque. Discussions of poetry, drama, and narrative. Focuses on questions of identity and excess, which are introduced via consideration of European Baroque art. Readings include Fleming, Grimmelshausen, Gryphius, Hofmannswaldau, Lohenstein, Opitz, and Zesen. Artists considered include Asam, Bernini, Borromini, Caravaggio, Carracci, Rubens, and Velázquez.
Note: Expected to be omitted in 2005–06. Readings in German, discussions in English.

[German 120. The Age of Goethe]
Catalog Number: 5099
Karl S. Guthke
Half course (spring term). Hours to be arranged.
Major writers and movements from the middle of the 18th to the beginning of the 19th century. Lessing, Herder, Goethe, Schiller, and others. Reading list is flexible to accommodate students' needs and interests.

Note: Expected to be given in 2005–06. Readings in German, lectures and discussions in English.

German 130. German Romanticism: Modernity's Imagination
Catalog Number: 0794
Helmut Schneider
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Close readings of major prose works of German Romanticism—fairy tales and literary tales *(Kunstmärchen)*, novellas, and novels—in their cultural-historical context. Authors include Wackenroder, Tieck, Novalis, Achim von Arnim, Clemens Brentano, Chamisso, Hoffmann, Fouqué, Hauff, and Heine. Discusses poetic imagination and the subconscious, images of the female, the competing roles of the pictorial arts and music, the artist and bourgeois society, aesthetic creativity and economic productivity.
Note: Expected to be omitted in 2005–06. Readings and discussions in German.

German 142 (formerly German 242). Germany and the Greeks: Philhellenism from Winckelmann to Heidegger
Catalog Number: 0516
John T. Hamilton
Half course (spring term). M., 4–6. EXAM GROUP: 9
Topics include the relation of epic to German national identity; originality; genius and tradition; pedagogy and revolution; the formation of the lyrical subject and concepts of the modern *vates*; representations of the classical body; Dionysus and tragedy; *Mutterrecht*; the rise of Antiquarianism, philology, and classical scholarship.
Note: Expected to be omitted in 2005–06. Readings and discussions in English; students with language proficiency read texts in the original.

[German 147. Nietzsche]
Catalog Number: 6994
Peter J. Burgard
Half course (spring term). Hours to be arranged.
Readings and discussions of Nietzsche's major works (in translation), including *The Birth of Tragedy, Untimely Meditations, Human, All Too Human, The Gay Science, Thus Spoke Zarathustra, Beyond Good and Evil, The Genealogy of Morals, Twilight of the Idols, The Antichrist, Ecce Homo,* and *The Will to Power*.
Note: Expected to be given in 2006–07. No knowledge of German required. All readings and discussions in English.

[German 148. Freud]
Catalog Number: 5403
Peter J. Burgard
Half course (fall term). Hours to be arranged.
Readings and discussions of Freud's major works (in translation), including *The Interpretation of Dreams, The Psychopathology of Everyday Life, Jokes and Their Relation to the Unconscious, Three Essays on the Theory of Sexuality, Totem and Taboo, Beyond the Pleasure Principle, Group Psychology and the Analysis of the Ego, The Ego and the Id,* and *Civilization and Its*

Discontents.
Note: Expected to be given in 2006–07. No knowledge of German required. All readings and discussions in English.

[German 151. Franz Kafka: Modernity and Its Discontents]
Catalog Number: 0169
Judith Ryan
Half course (spring term). Hours to be arranged.
Close readings of Kafka's novels and stories. Kafka's development of his characteristic narrative modes, the relation of his works to the cultural context in which they originated, the function of humor and parody in his works, and the challenges his texts pose for readers.
Note: Expected to be given in 2006–07. No knowledge of German required. Readings and discussions in English; German concentrators read texts in the original.

[German 170. Goethe's *Faust* in Context]
Catalog Number: 1246
Karl S. Guthke
Half course (fall term). Hours to be arranged.
Close analytical reading of parts I and II in the context of cultural and intellectual history. Major controversies over the interpretation of significant features of the work will be discussed, including the role of "post-Christian" and "post-Enlightenment" elements.
Note: Expected to be given in 2005–06. Readings in German, discussions in English.

German 178. Rescreening the Holocaust
Catalog Number: 2826
David Bathrick (Cornell University)
Half course (spring term). Tu., Th., at 10; M., 6–8 p.m.; M., at 4; M., at 5; and an additional hour to be arranged. EXAM GROUP: 12
Focuses on the major issues of the debate around the possibilities and limits of representing the Holocaust cinematically based on screenings of and readings about representative films.
Note: Expected to be omitted in 2005–06. Readings and discussions in English.

[German 180 (formerly Comparative Literature 215). Melopoeia: On German Music and Letters]
Catalog Number: 9138
John T. Hamilton
Half course (spring term). Hours to be arranged.
Examines music theories in relation to German literature, philosophy, and criticism. Topics include harmony of the spheres, synesthesia, Romanticism and *Universalpoesie*, Wagner and *Gesamtkunstwerk*, the tone-poem, secularization and the rise of chromatization, the semiotics of music, and *Kulturpolitik*.
Note: Expected to be given in 2006–07. No knowledge of German required. Readings and discussions in English; German concentrators read texts in the original.

[German 188 (formerly German 282). Poetry After Auschwitz]
Catalog Number: 0379

Judith Ryan
Half course (fall term). Hours to be arranged.
Engaging with Adorno's dictum about "poetry after Auschwitz" and related theoretical readings, the course focuses on lyric poetry from 1945 to the present.
Note: Expected to be given in 2005–06. Readings in German, discussions in English.
Prerequisite: Good knowledge of German essential.

German 189. Postwall German Cinema
Catalog Number: 7437
Kristin Kopp
Half course (fall term). Tu., Th., at 1; M., 6:30–9 p.m. EXAM GROUP: 15
A survey of German cinema since the fall of the Berlin Wall, this course studies socio-cultural discourses and their representations in feature films from 1989 to the present. Topics include the difficulties in the unification of East and West Germany; redefinitions of who and what is "German" in the light of a multicultural populace and a transnational world; renegotiations of the German past and national identity; and nostalgia for the lost GDR.
Note: Expected to be omitted in 2005–06. No knowledge of German required. All readings and discussions in English.

German 193. Stylistic Studies and Expository Writing
Catalog Number: 6370
Karl S. Guthke
Half course (spring term). W., 4–6. EXAM GROUP: 9
Close analysis and informal discussion of the style and significance of very short keynote literary and cultural texts, followed by written work (one page per week). Designed to develop appreciation of stylistic qualities and cultural implications of representative works and of the finer nuances of the German language. Authors: Luther, Goethe, Brentano, Brothers Grimm, Heine, C. F. Meyer, G. Keller, Fontane, Wedekind, Morgenstern, W. Busch, Schnitzler, Hofmannsthal, Rilke, Hesse, Mann, Brecht, Enzensberger, Johnson, Grass, and others.
Note: Conducted in German. Required of concentrators in German literature.
Prerequisite: Completion of German 60 or permission of the instructor.

Cross-listed Courses

[Comparative Literature 151. The Faust Legend in Literature]
Comparative Literature 161. The Modernist Movements, 1909-1939
[Comparative Literature 167. Contemporary Fiction: The Novel After Theory]
[Comparative Literature 174. American Babel]
***Comparative Literature 299ar. Theory and Comparative Literature: Proseminar**
[Foreign Cultures 30. Forging a Nation: German Culture from Luther to Kant and Beyond]
[Foreign Cultures 32. Jugend gegen Hitler]
[Foreign Cultures 76. Nazi Cinema: Fantasy Production in the Third Reich]
Historical Study A-76. Germany 1871–1990: From Unification to Reunification
[*History 1476. The Frankfurt School: Conference Course]
[Literature and Arts A-16. Lives Ruined by Literature: The Theme of Reading in the

Novel]
[Literature and Arts A-18. Fairy Tales, Children's Literature, and the Construction of Childhood]
Literature and Arts A-82. Orpheus: Literary, Artistic, and Cultural Figurations
[Literature and Arts C-25. The Medieval Stage]
Literature and Arts C-43. The Medieval Court
Literature and Arts C-65. Repression and Expression: Literature and Art in *Fin-de-siècle* Germany and Austria
Literature and Arts C-67. The German Colonial Imagination
[Visual and Environmental Studies 187x. New German Cinema: Oppositional Energies and Utopian Designs]
Yiddish 102r. Modern Yiddish Literature I: The Yiddish Short Story

Primarily for Graduates

German 200 (formerly Germanic Philology 200). Introduction to Middle High German
Catalog Number: 4639
Eckehard Simon
Half course (fall term). M., 2–4; Tu., at 12. EXAM GROUP: 7, 8, 14
Teaches reading knowledge of Middle High German through grammar study, translation, and explication of short literary and cultural texts. Introduces *Minnesang* and major narrative works of the courtly period (1170-1250). Some work with manuscripts and bookhands.
Note: Open to graduate students from other departments who wish to learn to read medieval and early modern German for research.
Prerequisite: A reading knowledge of German.

German 221. Goethe: Seminar
Catalog Number: 7666
Peter J. Burgard
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Examines selected major works, including poetry, dramas, novels, and essays on art, literature, and science.
Note: Readings in German, discussions in English.

German 225 (formerly Germanic Philology 225). History of the German Language
Catalog Number: 5192
Eckehard Simon
Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 3
A cultural history of the German language, from pre-literate Germanic dialects to the present. The relationship between spoken and written German. Close reading and philological analysis of representative texts, handwritten and printed, from all periods.
Note: Expected to be omitted in 2005–06. Conducted in German.
Prerequisite: Command of German, one term of Middle High German, or the equivalent.

German 226r. Theories of Literature and Culture: Proseminar
Catalog Number: 1364

John T. Hamilton
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
An introduction to current trends and issues in German Studies and *Germanistik*, with an emphasis on methodologies, resources, literary theory, and critical theory.
Note: Readings in German, discussions in German and English.

German 235. Kleist and the Deconstruction of Classical Humanism: Seminar
Catalog Number: 4358
Helmut Schneider
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Close readings of major works, including letters and essays. Emphasis on structural features (e.g., deconstruction of teleological narrative, literalization of metaphor), the relation of Kleist's writing to enlightenment rationality and classical (Weimar) humanism, and the historico-political context.
Note: Expected to be omitted in 2005–06. Readings in German, discussions in German and English.

[German 244. Readings in Film Theory]
Catalog Number: 6388
Eric Rentschler
Half course (fall term). Hours to be arranged.
Classical film theory, from the formalist perspectives of Arnheim and Eisenstein to critical assessments of cinema's potential by Balázs, Kracauer, Benjamin, and Adorno. We contemplate the pertinence of these contributions for recent work in film and media studies.
Note: Expected to be given in 2005–06. Conducted in English. Readings in English; students with German-language proficiency read texts in the original.

[German 248. Schiller's Dramas: Seminar]
Catalog Number: 7091
Karl S. Guthke
Half course (spring term). Hours to be arranged.
Discussion of the entire range of Schiller's plays in light of recent research trends.
Note: Expected to be given in 2005–06. Open to qualified undergraduates.

[German 255. Introduction to German Hermeneutics]
Catalog Number: 2000
John T. Hamilton
Half course (spring term). Hours to be arranged.
Interpretation theories from biblical exegesis to modern hermeneutics. Topics: allegoresis and typology, historicism, poetic obscurity, psychoanalysis, reception theory. Readings: Lessing, Herder, Goethe, Hölderlin, Schleiermacher, Schlegel, Kleist, Hoffmann, Nietzsche, Dilthey, Freud, Kafka, Heidegger, Gadamer, Habermas, Jauss.
Note: Expected to be given in 2005–06. Readings in German, discussions in English.

German 257. Bertolt Brecht, Heiner Müller, and the Theatrical Avant-Garde: Seminar
Catalog Number: 1616

David Bathrick
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Readings of selected works of two major theatrical practitioners of 20th-century German drama within the historical, cultural, and aesthetic contexts from which they emerged. Special attention paid to the relation of their works to theories of modern and post-modern theater.
Note: Expected to be omitted in 2005–06. Readings in German, discussions in English.

[German 261. Film and Nation]
Catalog Number: 1903
Eric Rentschler
Half course (spring term). Hours to be arranged.
Probes film's relation to history and memory and the role of modern media in the formation of local and global identities. A comparative case study of postwar/postwall German films that recast the Nazi legacy.
Note: Expected to be given in 2006–07. Conducted in English. Readings in English; students with German-language proficiency read texts in the original.

[German 264. German Literary Criticism from the Enlightenment to Naturalism]
Catalog Number: 2411
Karl S. Guthke
Half course (fall term). Hours to be arranged.
A survey focusing on the analysis of representative critical texts. Lecture and discussion.
Note: Expected to be given in 2006–07. Open to qualified undergraduates.

Cross-listed Courses

***Comparative Literature 299ar. Theory and Comparative Literature: Proseminar**

Graduate Courses of Reading and Research

***German 300. Special Reading Programs and Research Problems for Advanced Students**
Catalog Number: 3646
Peter J. Burgard 2217, Karl S. Guthke 1715 (on leave fall term), John T. Hamilton 3977, Kristin Kopp 4133, Peter Nisbet 1738, Eric Rentschler 2325 (on leave 2004-05), Judith Ryan 1135, Eckehard Simon 2670, and Maria Tatar 3645

Germanic Philology

Primarily for Graduates

Germanic Philology 280. Introduction to Current Methods in Teaching German
Catalog Number: 5944
Sylvia Rieger
Half course (spring term). Hours to be arranged.
A thorough introduction to current teaching approaches in foreign language teaching. Emphasis on development of practical skills for beginning to advanced German language courses.

Graduate Courses of Reading and Research

***Germanic Philology 300. Special Reading Programs and Research Problems for Advanced Students**
Catalog Number: 1045
Joseph C. Harris 1089, Jay Jasanoff 1661, Stephen A. Mitchell 7056 (on leave 2004-05), and Eckehard Simon 2670

Cross-listed Courses

[English 101. The History and Structure of the English Language]
Linguistics 110. Introduction to Linguistics
[Linguistics 168. Introduction to Germanic Linguistics]
Linguistics 247. Topics in Germanic Linguistics
Yiddish 105. Yiddish Language and Linguistic Theory

Dutch

For Undergraduates and Graduates

Dutch A (formerly Dutch Aa). Elementary Dutch
Catalog Number: 7660
Charles P. Lutcavage
Full course (indivisible). M., W., F., at 12. EXAM GROUP: 5
A thorough introduction to Dutch, focusing on speaking, listening, reading, and writing skills. Class sessions emphasize the development of oral proficiency. Readings include short stories, poems, and newspaper articles. Videos, films, and the Internet provide supplementary material for discussion of current events and culture.
Note: The first half of this course may not be taken as a half course for credit toward the AB degree. Not open to auditors.

Scandinavian

Primarily for Undergraduates

Scandinavian 60. Viking Age and Medieval Scandinavian Literature and Culture
Catalog Number: 6320
Judith Ryan and members of the Department
Half course (fall term). Tu., Th., at 11; and an additional hour to be arranged. EXAM GROUP: 13
An exploration of the dramatic transformations in Scandinavian society and culture from the era of the Vikings to the Middle Ages. The course examines the heroic ideal and the status of women as well as reflecting on modern approaches to the medieval period. Readings include the *Saga of the Volsungs, Laxdaela saga, Njal's saga,* and *Kristin Lavrandsdatter*. Films by Hrafn Gunnaugsson and Liv Ullman.
Note: Expected to be omitted in 2005–06. All readings and discussions in English.

Scandinavian 61. Introduction to Literature and Culture in Modern Scandinavia
Catalog Number: 7379
Judith Ryan and members of the Department
Half course (spring term). Tu., Th., at 11; and an additional hour to be arranged. EXAM GROUP: 13
Studies the literature and art of the "new" Scandinavia at the turn-of-the-century and scrutinizes the three "s" stereotypes: sex, socialism, and suicide. The course also considers questions of national identity, the construction of a culture, and the place of ethnic minorities. Novels by Strindberg, Ibsen, Moberg, Martinsson, and others. Films by Ingmar and Daniel Bergman, Colin Nutley, and Lukas Moodysson.
Note: Expected to be omitted in 2005–06. All readings and discussions in English.

***Scandinavian 91r. Supervised Reading and Research**
Catalog Number: 7308
Joseph C. Harris and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Advanced reading in topics not covered in regular courses.
Note: Permission of the Head Tutor required.

***Scandinavian 97. Tutorial — Sophomore Year**
Catalog Number: 1592
Joseph C. Harris and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Group or individual tutorial designed to supplement course work and acquaint students with appropriate analytical methods.
Note: Open to concentrators in the Scandinavian option. Permission of the Head Tutor required.

***Scandinavian 98. Tutorial — Junior Year**
Catalog Number: 4255
Joseph C. Harris and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Group or individual tutorial designed to supplement course work and to develop analytical techniques.
Note: Permission of the Head Tutor required.

***Scandinavian 99. Tutorial — Senior Year**
Catalog Number: 5542
Joseph C. Harris and members of the Department
Full course. Hours to be arranged.
Note: Open to concentrators writing an honors thesis under faculty supervision. Students are expected to enroll for the entire year. Permission of the Head Tutor required.

Swedish A. Introduction to Swedish Language and Literature
Catalog Number: 7438
Annette Johansson-Los
Full course (indivisible). M. through Th., at 12. EXAM GROUP: 5, 14

Concentration on listening comprehension, oral expression, and elementary reading and writing skills. Spring term: emphasis on more advanced conversational skills and introducing Swedish culture and civilization through selected articles and videos.
Note: The first half of this course may not be taken as a half course for credit toward the AB degree. Not open to auditors.

Swedish Ba. Intermediate Swedish
Catalog Number: 3104
Annette Johansson-Los
Half course (fall term). M., W., at 1; Th., at 1; and an additional hour to be arranged. EXAM GROUP: 6
Review of the essentials of Swedish grammar and development of vocabulary. Readings in modern Swedish literature are selected to encourage class discussion and to improve the student's speaking and writing skills. Authors include Hjalmar Söderberg, Selma Lagerlöf, and Ingmar Bergman.
Note: Conducted in Swedish. Not open to auditors.
Prerequisite: Swedish A or equivalent.

Swedish Bb. Intermediate Swedish
Catalog Number: 3405
Annette Johansson-Los
Half course (spring term). M., W., at 1; and an additional hour to be arranged. EXAM GROUP: 6
Continuation of Swedish Ba. Readings from works in classical and modern Swedish literature and other texts of cultural and social interest. Authors include August Strindberg, Pär Lagerkvist, Carl Michael Bellman, Tomas Tranströmer, and Vilhelm Moberg.
Note: Conducted in Swedish. Not open to auditors.
Prerequisite: Swedish Ba or equivalent.

For Undergraduates and Graduates

[Scandinavian 160a. Old Norse Language, Literature, and Culture: The Viking Legacy]
Catalog Number: 1139 Enrollment: Limited to 12.
Stephen A. Mitchell
Half course (fall term). Hours to be arranged.
Introduction to the language and literary culture of medieval Scandinavia, emphasizing works treating the Viking Age and their valorization of an heroic ideal. In addition to basic language skills, students acquire familiarity with key critical tools of the field. Readings include scaldic poetry, selections from *Egils saga* and the Vinland sagas, and various runic monuments.
Note: Expected to be given in 2005–06. May be counted toward the Folklore and Mythology 90 requirement.

[Scandinavian 160b. Old Norse Language, Literature, and Culture: Mythology]
Catalog Number: 7588 Enrollment: Limited to 12.
Stephen A. Mitchell
Half course (spring term). Hours to be arranged.

Builds on Scandinavian 160a, continuing the language study and cultural survey of the first term, but now considers mythological texts relating to Viking religious life, mainly selections from the prose and poetic *Eddas*. Special attention is paid to scholarly tools and debates concerned with the interpretation of these cultural monuments.
Note: Expected to be given in 2005–06. May be counted toward the Folklore and Mythology 90 requirement.
Prerequisite: Scandinavian 160a or equivalent.

Cross-listed Courses

***English 204a. Elegy, Medieval and Modern: Graduate Seminar**
***Freshman Seminar 37w. Becoming J.R.R. Tolkien: Life and Medieval Sources**
Literature and Arts A-68. Poets and Poetry in the Celtic Literary Tradition
[Literature and Arts A-78. The Vikings and the Nordic Heroic Tradition]

Graduate Courses of Reading and Research

***Scandinavian 300. Special Reading Programs and Research Problems for Advanced Students**
Catalog Number: 1708
Joseph C. Harris 1089 and Stephen A. Mitchell 7056 (on leave 2004-05)
Half course (fall term; repeated spring term). Hours to be arranged.

Government

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Government

Nancy Lipton Rosenblum, Senator Joseph S. Clark Professorship of Ethics in Politics and Government *(Chair)*
Jeffrey B. Abramson, Visiting Professor of Government *(Brandeis University)*
James E. Alt, Frank G. Thomson Professor of Government *(on leave spring term)*
Daniele Archibugi, Lauro de Bosis Visiting Lecturer in the History of Italian Civilization *(fall term only)*
Robert H. Bates, Eaton Professor of the Science of Government *(on leave fall term)*
Terri Bimes, Lecturer on Government *(spring term only)*
Bear F. Braumoeller, Associate Professor of Government *(on leave 2004-2005)*
Barry C. Burden, Associate Professor of Government *(on leave spring term)*
Andrea L. Campbell, Assistant Professor of Government *(Head Tutor)*

Daniel P. Carpenter, Professor of Government *(Director of Graduate Studies)*
Timothy J. Colton, Morris and Anna Feldberg Professor of Government and Russian Studies
Michael C. Dawson, Professor of Government *(on leave 2004-05)*
Jorge I. Domínguez, Clarence Dillon Professor of International Affairs
Grzegorz Ekiert, Professor of Government
Margarita Estevez-Abe, Assistant Professor of Government, Associate Professor of Government
Jeffry Frieden, Stanfield Professor of International Peace
Andrea M. Gates, Lecturer on Government *(fall term only)*
Peter A. Hall, Harvard College Professor and Krupp Foundation Professor of European Studies
Yoshiko M. Herrera, Associate Professor of Government
D. Sunshine Hillygus, Assistant Professor of Government
Michael J. Hiscox, John L. Loeb Associate Professor of the Social Sciences
Jennifer L. Hochschild, Henry LaBarre Jayne Professor of Government and Professor of African and African American Studies
Stanley Hoffmann, Paul and Catherine Buttenwieser University Professor
William G. Howell, Assistant Professor of Government, Associate of Dunster House *(on leave 2004-2005)*
Samuel P. Huntington, Albert J. Weatherhead, III University Professor
Torben Iversen, Professor of Government *(on leave spring term)*
Alastair Iain Johnston, Governor James Albert Noe Sr. and Linda and Christel Noe Laine Kelley Professor of China in World Affairs
Devesh Kapur, Frederick S. Danziger Associate Professor of Government
Gary King, David Florence Professor of Government
Sharon R. Krause, Associate Professor of Government *(on leave 2004-2005)*
Andrew Harriman Kydd, Associate Professor of Government
Steven R. Levitsky, John L. Loeb Associate Professor of the Social Sciences *(on leave spring term)*
Roderick MacFarquhar, Leroy B. Williams Professor of History and Political Science *(on leave 2004-2005)*
Daniel J. Mahoney, Visiting Associate Professor of Government *(Assumption College) (spring term only)*
Harvey C. Mansfield, William R. Kenan, Jr., Professor of Government *(on leave 2004-2005)*
Lisa L. Martin, Clarence Dillon Professor of International Affairs *(on leave fall term)*
Rachel M. McCleary, Lecturer on Government *(spring term only)*
Jens Meierhenrich, Lecturer on Government, Contin Ed/Spec Prog Instructor
Tamara Metz, Lecturer on Government
Glyn Morgan, Associate Professor of Government and of Social Studies *(on leave spring term)*
Russell Muirhead, Associate Professor of Government
Pippa Norris, Lecturer on Government *(fall term only)*
Thomas Oatley, Visiting Associate Professor of Government, Visiting Scholar in the Weatherhead Center for International Affairs *(University of North Carolina) (spring term only)*
Robert L. Paarlberg, Visiting Professor of Government *(Wellesley College) (spring term only)*
John W. Patty, Visiting Assistant Professor of Government *(Carnegie Mellon University) (fall term only)*
Elizabeth M. Penn, Visiting Assistant Professor of Government *(Carnegie Mellon University) (fall term only)*

Elizabeth J. Perry, Henry Rosovsky Professor of Government
Paul E. Peterson, Henry Lee Shattuck Professor of Government
Susan J. Pharr, Edwin O. Reischauer Professor of Japanese Politics
Robert D. Putnam, Peter and Isabel Malkin Professor of Public Policy
Kevin M. Quinn, Assistant Professor of Government
James Robinson, Professor of Government
Stephen Peter Rosen, Harvard College Professor and Beton Michael Kaneb Professor of National Security and Military Affairs
Carol R. Saivetz, Lecturer on Government *(spring term only)*
Michael J. Sandel, Anne T. and Robert M. Bass Professor of Government
Eric Schickler, Professor of Government
John S. Schoeberlein, Lecturer on Government *(spring term only)* and Lecturer on Near Eastern Languages and Civilizations *(fall term only)*
Jasjeet Singh Sekhon, Associate Professor of Government *(on leave fall term)*
Catherine R. Shapiro, Lecturer on Government, Allston Burr Senior Tutor in Leverett House
Kenneth A. Shepsle, George D. Markham Professor of Government
Beth A. Simmons, Professor of Government
Cindy Skach, Assistant Professor of Government
Theda Skocpol, Victor S. Thomas Professor of Government and Sociology
Christina Tarnopolsky, Assistant Professor of Government and of Social Studies
Dennis F. Thompson, Alfred North Whitehead Professor of Political Philosophy *(FAS and Kennedy School) (on leave 2004-2005)*
Richard Tuck, Frank G. Thomson Professor of Government
Sidney Verba, Carl H. Pforzheimer University Professor
Mark E. Williams, Antonio Madero Visiting Associate Professor for the Study of Mexican and Latin American Politics *(Middlebury College) (spring term only)*
Daniel F. Ziblatt, Assistant Professor of Government and of Social Studies

Other Faculty Offering Instruction in the Department of Government

Graham T. Allison, Jr., Douglas Dillon Professor of Government *(Kennedy School)*
Garrett M. Fitzmaurice, Associate Professor of Biostatistics *(Public Health)*
Lee Fleming, Associate Professor of Business Administration *(Business School)*
J. Bryan Hehir, Parker Gilber Montgomery Professor of the Practice in Religion and Public Life *(Kennedy School)*
Michael Ignatieff, Carr Professor of Human Rights Practices *(Kennedy School)*
David Little, T. J. Dermot Dunphy Professor of the Practice in Religion, Ethnicity, and International Conflict *(Divinity School)*
Roger B. Porter, IBM Professor of Business and Government *(Kennedy School)*
Donald B. Rubin, John L. Loeb Professor of Statistics *(on leave spring term)*
Roberto Mangabeira Unger, Roscoe Pound Professor of Law *(Law School)*
William Julius Wilson, Lewis F. and Linda L. Geyser University Professor
Christopher Winship, Professor of Sociology
Alan Zaslavsky, Professor of Health Care Policy *(Medical School)*

A full list of courses that count toward undergraduate concentration is available in the Office of

the Head Tutor.

Department of Government course listings are numerically ordered as follows:

10–50: Introductory and General Courses

90 (with one or more letter suffix): Junior Seminars

91–99: Supervised Reading and Research, and Tutorials

1000–1029 and 2000–2029: Political Methodology and Formal Theory

1030–1099 and 2030–2099: Political Thought and Its History

1100–1299 and 2100–2299: Comparative Government

1300–1599 and 2300–2599: American Government, Public Law, and Administration

1700–1999 and 2700–2999: International Relations

3000–3999: Graduate Courses of Reading and Research and Dissertation Workshops

Introductory and General Courses

Primarily for Undergraduates

Government 10. Introduction to Political Thought
Catalog Number: 8836
Jeffrey B. Abramson (Brandeis University)
Half course (fall term). Tu., Th., 2–3:30 and a section to be arranged. EXAM GROUP: 16, 17
Deals with the principal issues debated by political theorists from antiquity down to the present day. The issues include justice, democracy, rights, the state and international relations; thinkers include Plato, Aristotle, Machiavelli, Hobbes, Rousseau, Kant, Hegel, Marx, and Mill.

Government 20. Introduction to Comparative Politics
Catalog Number: 6166
Pippa Norris
Half course (fall term). M., W., at 12. EXAM GROUP: 5
Provides an introduction to key concepts and theoretical approaches in comparative politics. Major themes include democratization and good governance, institutional structures, political culture, economic development, political participation, and ethnic conflict. Examines and critically evaluates major contemporary controversies in comparative politics and applies these in group workshop exercises focused on state-building in Afghanistan and Iraq. Compares cases from Africa, Asia, Europe, and Latin America to illustrate the basic tools and methods of comparative analysis.

Government 30. American Government: A New Perspective
Catalog Number: 0263
Andrea L. Campbell and Paul E. Peterson
Half course (spring term). M., W., F., at 11, and a weekly section to be arranged. EXAM GROUP: 4
Provides an overview of contemporary American politics, showing how recent changes in elections and media coverage have helped shape key aspects of American government. From the courts, Congress, and the Presidency, to the workings of interest groups and political parties, and, also to the making of public policy, the pressure on political leaders to run permanent campaigns has altered governmental institutions and processes. The course explains how and why.

Cross-listed Courses

Historical Study A-12. International Conflict and Cooperation in the Modern World

Government 90. Junior Seminars

These half courses are limited to 16 participants with preference given to government concentrators in their junior years. Students who have elected the honors program may take two junior seminars (90), two junior tutorials (98) or one of each. Enrollment in both 90 and 98 is determined by a lottery based on student preferences. Undergraduate non-concentrators may enroll in junior seminars and tutorials on a space available basis. All students wishing to enroll in Government 90 or 98 must participate in the lottery.
Government 90a. Contemporary British Politics
Catalog Number: 6263
James E. Alt
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
Focuses on changes in economy, society, and politics in the transition from empire to small country. Topics include the evolving party system, electoral behavior, and a range of policy questions involving economic management, the welfare state, the European Community, race relations, Northern Ireland.

Government 90ai. Urban Politics
Catalog Number: 0373
Elizabeth M. Penn (Carnegie Mellon University)
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
Over eighty percent of Americans live in the nation's 300 largest metropolitan regions. Within these regions, thousands of cities compete for residents and revenue through the use of taxes, zoning codes and development practices. This seminar will look broadly at the politics of local governance and the issues of concern to local communities. Topics will include municipal secession and competition, fiscal inequality, land use, and the segregation of residents by income, class, and race.

[Government 90au. Political Economy]
Catalog Number: 8213

Torben Iversen
Half course (fall term). Hours to be arranged.
Examines modern theories of political economy and their applications to macro problems in advanced democracies. Why do some governments and countries generate better economic performance than others? Why are some economies more egalitarian than others? How do politicians manipulate the economy for partisan gain, and how are politicians constrained by institutions and the global economy? We seek to answer these questions using the most promising theories in political science and economics.
Note: Expected to be given in 2005–06.

Government 90aw. Contemporary European Politics
Catalog Number: 0957
Daniel F. Ziblatt
Half course (fall term). W., 4–6. EXAM GROUP: 9
The course traces key issues in contemporary Europe focusing on the impact of the May 2004 expansion of the EU on the new members of the EU. How has EU expansion affected the newly admitted states? What lessons can be learned from earlier cases of EU expansion about the prospects for economic growth and political stabilization? What are and will be the political reactions to the ongoing processes of transformation?

[Government 90ax. Crucial Events in Chinese Elite Poltics]
Catalog Number: 7481
Roderick MacFarquhar
Half course (spring term). Hours to be arranged.
A critical reexamination of major events in the politics of the People's Republic and of the hitherto accepted Western analyses of them, using the new data made available in the PRC in recent years. The objective is to outline new hypotheses where necessary and more importantly, to explore what need there might be for new ways of studying Chinese politics.
Note: Expected to be given in 2005–06.

[Government 90bw. Markets and Morals]
Catalog Number: 5921
Michael J. Sandel
Half course (fall term). Hours to be arranged.
Examines controversial cases of commodification, and asks whether there are some things money cannot or should not buy. Topics to include organ sales, surrogacy, college financial aid, pollution permits, for-profit prisons, mercenary armies, and others.
Note: Expected to be given in 2005–06. A previous course in political theory or moral reasoning is recommended.

Government 90cl. Human Rights
Catalog Number: 7846
Jens Meierhenrich
Half course (fall term). W., 4–6. EXAM GROUP: 9
Analyzing the theory and history of human rights, this seminar provides an introduction to salient themes in foreign, comparative, and international law. Several themes are addressed: the

contested meanings and conflicting imperatives of human rights, the tension between universality and cultural specificity in the application of human rights, the adjudication of human rights in courts and tribunals, the promotion of human rights by activists beyond borders, and the limits of human rights for achieving justice.

Government 90cy. The Political Economy of Law
Catalog Number: 5241
Jens Meierhenrich
Half course (spring term). M., 4–6. EXAM GROUP: 9
Examining the origins of law and courts, and their effects on politics and society, this seminar introduces students to the political economy of law. It explores strategic choice and collective action in the formation, deformation, and transformation of legal norms and institutions, with particular reference to nineteenth and twentieth century Africa. By analyzing the logic of law and the forces that shape it, the seminar debates law's promise—its real and imagined place in society.

Government 90dd. Education Politics and Policy
Catalog Number: 3796
Paul E. Peterson
Half course (fall term). M., 4–6. EXAM GROUP: 9
Analysis of political forces shaping elementary and secondary education governance and policy. Major contemporary issues discussed. Students expected to write term papers.

Government 90ee. Hard Cases, Tough Choices
Catalog Number: 3502
Jeffrey B. Abramson (Brandeis University)
Half course (fall term). W., 4–6. EXAM GROUP: 9
Political life often presents us with moral dilemmas requiring hard choices. Can political philosophy help us achieve coherence in our choices? Seminar will read classic and contemporary political theory and confront issues regarding religious liberty, property rights, equality, good samaritan laws, same-sex marriage, surrogate motherhood, abortion, euthanasia, HIV, poverty and public health.

Government 90ej. Social Identities
Catalog Number: 9514
Yoshiko M. Herrera
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
An introduction to theories of social identity in political science and social psychology. Considers a range of traditional identity categories, including race, ethnicity, nationality, class, status, gender, and religion. Emphasizes techniques and strategies that have been developed to measure identity. Course readings consist mainly of empirical works on identity from a variety of geographical areas.

Government 90eo. Globalization and American Foreign Economic Policy
Catalog Number: 9955
Thomas Oatley (University of North Carolina)

Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Examines the foreign economic policies of the US in the context of increasing global economic integration. Topics include: globalization benefits and costs, winners and losers; lessons from history; trade policy; multinational corporations; debt crises; labor standards; and international environmental issues.

Government 90fj. Political Persuasion
Catalog Number: 5033
D. Sunshine Hillygus
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Examines political persuasion and democratic decision-making, with particular attention paid to government persuasion campaigns such as presidential elections. What is the function of political persuasion in American democracy? What techniques do political elites use to attempt to influence mass opinions and behavior? Who is most likely to be influenced by such appeals? What is the role of the mass media? Readings drawn from political communication, political psychology, and political behavior.

Government 90gc. Gender, Politics, and Markets
Catalog Number: 1496
Margarita Estevez-Abe
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Although improvements have been made during the past century, women are still treated differently within the family, workplace and in politics. Where does this difference originate? Is gender difference either necessary or desirable? Why does the status of women differ across countries?

[Government 90gs. Civil Society in Asia]
Catalog Number: 7546
Susan J. Pharr
Half course (spring term). Hours to be arranged.
This seminar explores the concept of civil society with a focus on Asia. It looks at the Western origins of the idea of civil society, public space, and social capital; debates over their applicability outside the West; the relation between civil society and democracy; the forms civil society takes under conditions of repression; and how civil societies arise in the first place. Special attention to China, Japan, Korea, Taiwan, and India.
Note: Expected to be given in 2006–07.

Government 90hd. Liberalism and Its Critics
Catalog Number: 7233
Tamara Metz
Half course (spring term). Tu., 4–6. EXAM GROUP: 18
Examines the debate between defenders of liberalism and its many critics. Focuses on contemporary liberals and their feminist, communitarian, democratic, libertarian, post-modern and pluralist critics.

Government 90hh. International Migration and the Political Economy of Development
Catalog Number: 9044
Devesh Kapur
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Examines the economic, political and social consequences of international migration and diasporas, particularly on developing countries. Is the phenomenon of greater import in the current (and future) context than it has historically been and if so, why? When are diasporas likely to be more influential and how does this influence shape well-being in their country of origin? What are the implications of looser concepts of citizenship? Country examples include China, India, Mexico, and Turkey.

[Government 90ia. Sino-US Relations in an Era of Rising Chinese Power]
Catalog Number: 9006
Alastair Iain Johnston
Half course (spring term). Hours to be arranged.
Assesses theoretical arguments and empirical evidence concerning the implications of Chinese economic and military modernization for conflict and cooperation between China and the US. Some issues examined include global arms control, trade, the environment, and regional security.
Note: Expected to be given in 2005–06.

Government 90ij. Partisanship
Catalog Number: 6866
Russell Muirhead
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Partisanship has a bad name: it is often thought an expression of inherited prejudice, petty ambition, narrow interest, or dogmatic ideology. Does it merit more esteem? Readings from historical and contemporary political thinkers such as Aristotle, Hobbes, Burke, Schmidt, Shumpeter, Habermas, Rawls, Mouffe, Hampshire, and Gray.

Government 90iq. Japan in the Social Sciences
Catalog Number: 0663
Susan J. Pharr
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
This seminar analyzes politics, society, and policy in contemporary Japan. It brings theories and approaches from political science, sociology, economics, and other disciplines to bear on basic issues and problems relating to Japan in comparative perspective over the period from 1868 to the present, focusing mainly on the past decade. It takes the measure of Japanese democracy; of the socio-political system that is emerging from the "lost decade"; and of Japan's evolving international role.

Government 90jf. Leaders, Politicians, and Visionaries
Catalog Number: 3754
Catherine R. Shapiro
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
What is the role of leadership in US politics? Why have particular individuals—Thomas Jefferson, Elizabeth Cady Stanton, Franklin Delano Roosevelt, Martin Luther King—had

tremendous impact on the ways we think and behave politically? Can one learn effective leadership skills? Can one learn to be charismatic? What is the relationship between leaders and followers? How do leaders handle adversity? Students consider classic readings on leadership, analyses of specific US leaders, and conduct independent research.

[Government 90km. The Political Economy of Africa]
Catalog Number: 3776
Robert H. Bates
Half course (spring term). Hours to be arranged.
Covers recent writings on the politics and economics of Africa. Emphasis placed on recent writings on political reform (democratization), state disintegrations, and violence.
Note: Expected to be given in 2006–07.

Government 90kp. Politics, Institutions and Prosperity
Catalog Number: 6593
James A. Robinson
Half course (fall term). W., 4–6. EXAM GROUP: 9
This course examines the role of politics, institutions, culture and geography in explaining why some countries are prosperous and others are not over the long-run. Key questions include: Why were the Americas so backward economically compared to Europe at the time of the conquest initiated in 1492? Why was it Europe and not China where the industrial revolution took place? What explains why African countries are so poor today?

Government 90mk. Politics and Aesthetics
Catalog Number: 0395
Christina Tarnopolsky
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Examines the relationship between political institutions and aesthetic practices in the works of Plato, Aristotle, Rousseau, Nietzsche, Adorno and Horkheimer. The central question of the course will be whether and how the arts play a role in moral and political education and/or corruption. More specifically, we will try to determine which aspects of the arts are important for a democratic politics and which aspects are dangerous for such a politics.

Government 90nb. Topics in Law and Political Theory: The Jury and Democracy
Catalog Number: 4149
Jeffrey B. Abramson (Brandeis University)
Half course (spring term). W., 4–6. EXAM GROUP: 9
Explores issues that lie at the intersection of law and political theory such as: what it means to call the jury a "representative" body? Do jurors divide along racial, gender, and ethnic lines? Are ordinary persons competent to do justice? Should jurors be permitted to disregard the law in order to render "verdicts according to conscience?" Other topics to be covered include civil disobedience, law versus justice, and the ethics of the adversary system.

Government 90oa. Inequality and American Democracy
Catalog Number: 2053
Theda Skocpol

Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
The "rights revolutions" of the 1960s and 1970s removed barriers to full citizenship for African Americans, women, and other formerly marginalized groups. But inequalities of wealth and income have grown since the 1970s. How do changing social and economic inequalities influence American democracy? This seminar explores empirical research and normative debates about political participation, about government responsiveness to citizen preferences, and about the impact of public policies on social opportunity and citizen participation.

[Government 90ot. Black Political Thought]
Catalog Number: 4092
Michael C. Dawson
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
An intensive introduction to black political thought. Texts considered during the first part of the course are from key authors such as W. E. B. Du Bois, Marcus Garvey, Malcolm X, Martin Luther King, Jr., and Patricia Hill Collins. The second part of the course considers selected examples of how political discourse between blacks and whites has mutually shaped what is known as "black" political thought and "American" political thought.
Note: Expected to be given in 2005–06.

Government 90pa. Seminar on Mexican Politics
Catalog Number: 2926
Mark E. Williams (Middlebury College)
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Examines Mexico's post-Revolutionary political development and political economy. Central themes include construction of the post-Revolutionary presidentialist regime and its remarkable stability, state-led economic modernization, ruling party hegemony and political liberalization, economic crises and political instability, the rise of the technocrats, neoliberal market reforms, democratic transition, and Mexican-US relations. The seminar probes these issues using historical, contemporary, and theoretical literature, toward the goal of explaining political and economic outcomes.

[Government 90ph. Electoral Politics in America and Japan]
Catalog Number: 2135
Barry C. Burden
Half course (fall term). Hours to be arranged.
An examination of elections in the US and Japan that explores their similarities and differences in a broader comparative perspective. Much is paid to the effects of electoral laws on candidates, parties, and voters. Other topics include party systems, incumbency, strategic voting, and corruption.
Note: Expected to be given in 2006–07.

Government 90q. US-Latin American Relations
Catalog Number: 5153
Jorge I. Domínguez
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
A study of political and economic relations between the United States and Latin American

countries, and of the international relations of Latin America since 1960. Attention also given to foreign policy decision making in the United States and Latin America, and to alternative approaches to the study of international relations and foreign policy.

Government 90qa. Community in America
Catalog Number: 4941
Robert D. Putnam
Half course (spring term). W., 1:30–3:30. EXAM GROUP: 6, 7, 8
Has the social fabric of America's communities and the civic engagement of its citizens changed over the last generation? Why? Does it matter? What lessons might we find in American history? These questions are at the focus of this seminar.

Government 90qb. International Human Rights and International Law
Catalog Number: 4995
Beth A. Simmons
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
This course explores the political conditions—international and domestic—that influence the creation, acceptance, operation and effectiveness of the international rules governing individual human rights. The course addresses international human rights law and practice in theoretical terms; considers social science methodologies for studying human righs law and practice; and examines in detail the international human rights regime itself. Four meetings are reserved to allow for individual and small group presentation of research projects and findings.
Note: Preference given to students who have completed Government 1740.

[Government 90qm. International Relations Theory]
Catalog Number: 9031
Bear F. Braumoeller
Half course (spring term). Hours to be arranged.
Critical evaluation of modern theories of international relations, with an emphasis on the consistency and logic of theoretical argument as well as the relevance of evidence brought to bear on the question at hand. Subject matter covers, in part, systemic theories, conflict and cooperation, international institutions, domestic institutions and foreign policy, and individual decision processes, with applications in international security, international political economy, and human rights.
Note: Expected to be given in 2006–07.

[Government 90qv. Democracy and the Information Technology Revolution]
Catalog Number: 6801
Michael C. Dawson
Half course (fall term). Hours to be arranged.
The revolution in information technologies has serious implications for democratic societies. We examine which populations have the most access to technology-based information sources, and how identities are being forged online. Severe tensions between national security and individual privacy rights in the US are explored. Attention is also paid to examining the relationship between the IT revolution and changing understandings of property rights. We analyze both

works on the IT revolution as well the work of democratic theorists.
Note: Expected to be given in 2005–06.

[Government 90se. Domestic Politics and the Use of Force]
Catalog Number: 0404
William G. Howell
Half course (fall term). Hours to be arranged.
Analyzes the domestic politics of international engagement. Examines how legislatures, courts, and public opinion define the range of options available to the executives who coordinate a military response or otherwise to perceived foreign crises. Also considers whether different kinds of crises are more or less likely to attract the attention of the federal government. While many readings focus on US foreign policymaking, connections are made to other systems of government.
Note: Expected to be given in 2005–06.

Government 90sp. Future of War
Catalog Number: 6012
Stephen Peter Rosen
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Examines the character and implications of political and technological factors that could affect the future conduct of war.

Government 90td. Comparative Leadership Politics
Catalog Number: 6687
Timothy J. Colton
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Do political leaders make a difference? Under what conditions do they matter more or less? How are leaders and leadership qualities formed? The course considers these questions, as played out in a variety of societies and political regimes.

Government 90tj. Tocqueville: Political History and Political Philosophy
Catalog Number: 8171
Daniel J. Mahoney (Assumption College)
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
Tocqueville was a profound political thinker but only ambiguously a political philosopher. Through an analysis of his major writings, this course will explore Tocqueville's decidedly "historical" approach to political theorizing. The course will examine Tocqueville's understanding of democracy, his comparative analysis of English, the American, and French political life, as well as his political and literary efforts on behalf of " liberty and dignity" of human beings. Tocqueville's relevance for contemporary political analysis will also be explored.

Government 90tn. Religion and Politics
Catalog Number: 0728
Rachel M. McCleary
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
This seminar introduces students to the major social science theories of religion. We look at the

explanatory value of these theories for various aspects of politics: institutions and structures, political parties, civil society and social movements, conflict, and economic development. What effect does religion have on politics within and across societies? How effective are current theories in accounting for the interplay between religion and political life?

[Government 90ua. Conflict Resolution]
Catalog Number: 2853
Andrew Harriman Kydd
Half course (fall term). Hours to be arranged.
The post-Cold War world is characterized by continuing international and civil conflicts. Some take place along ethnic lines, some along religious lines, some reflect a total breakdown of the state. Some conflicts persist, while others are seemingly resolved. We cover the main approaches to conflict resolution and study some of the salient cases. Topics include: theories of conflict and conflict resolution, negotiation, the role of external powers, mediation, and peacekeeping.
Note: Expected to be given in 2006–07.

Government 90vc. International Law: Theory and Research
Catalog Number: 1382
Beth A. Simmons
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Addresses advanced issues on the links between international law and international politics. Focus is on theories of international law creation and diffusion, theories of commitment (international law's signaling role) and theories of compliance. Empirical literature includes case studies and quantitative studies in a range of issue areas. Research design and methods are stressed. Grades are based on participation and an individual research paper.
Prerequisite: Government 1740

[Government 90vo. Democratic Theory and the Electoral Process]
Catalog Number: 3640
Dennis F. Thompson
Half course (spring term). Hours to be arranged.
An exploration of the theoretical dimensions of contemporary controversies about the electoral process in the US. Among the topics considered are concepts of representation in racial districting, the meaning of free choice in a two-party system, and the limits of majoritarianism in the governance of elections. Readings in political theory and election law.
Note: Expected to be given in 2005–06.

Government 90w (formerly Government 90rw). Ethics and Biotechnology
Catalog Number: 9437
Michael J. Sandel
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
The seminar explores the moral and political implications of recent advances in biotechnology. Topics include cloning, stem cell research, genetic engineering, eugenics, and the patenting of life forms.
Prerequisite: A previous course in moral reasoning or political theory is recommended.

Government 90xe. Democracy and the European Union
Catalog Number: 6031
Andrea M. Gates
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
Among the questions we will address: How are decisions made in the EU? What influence do interest groups, voters, and member state legislators have on EU decision-making? What is the 'democratic deficit' and does the EU suffer such a deficit? How are we to compare the EU to other democratic systems? What are the implications of recent EU expansion?

[Government 90za. Political Agency]
Catalog Number: 5631
Sharon R. Krause
Half course (spring term). Hours to be arranged.
Examines the nature and sources of political agency. What motivates civil disobedience, or tireless advocacy on behalf of the oppressed, or responsible representation, or impartial deliberation, or simple voting? What forms of reason figure in political agency and what sorts of desires and emotions? What is the relationship between the motives that animate political agency and the ideals and identities that orient it? Readings include Kant, Aristotle, Hume, Arendt, Rawls, Habermas, and others.
Note: Expected to be given in 2005–06.

Tutorials

***Government 91r. Supervised Reading and Research**
Catalog Number: 2444
Andrea L. Campbell
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised reading leading to a term paper in a topic or topics not covered by regular courses of instruction.
Note: Limited to juniors and seniors. Does not count for concentration. Offered at the discretion of the individual instructors. Written proposal and signature of Head Tutor required.

***Government 97a. Tutorial — Sophomore Year**
Catalog Number: 3023
Andrea L. Campbell and Russell Muirhead
Half course (fall term). Hours to be arranged.
Issues in American politics used to investigate the fundamental political questions that confront any society. Readings in classics of American politics and of liberal political theory; great speeches; important Supreme Court cases.
Note: Fall enrollment required of sophomores.

***Government 97b. Tutorial — Sophomore Year**
Catalog Number: 4403
Stanley Hoffmann and Cindy Skach
Half course (spring term). Hours to be arranged.
Examines a number of episodes in world history, from the Greek city states to the present, in

order to study the interrelationships between domestic and international politics, as well as the ideas of relevant political philosophers.
Note: Spring enrollment required of sophomores.

***Government 98r. Tutorial — Junior Year**
Catalog Number: 7179
Andrea L. Campbell and members of the Department
Half course (fall term; repeated spring term). Fall: M., 4–6; Tu., 11:30–1; Spring: Th., 2–4; M., 2–4.
Note: Ordinarily taken as two half courses by juniors who have elected the honors program, but open to all junior Government concentrators. Students may take two junior tutorials (Government 98), two junior seminars (Government 90), or one of each. Enrollment determined by a lottery based on student preferences. Students planning on being off campus during part or all of junior year should see the Head Tutor about permission to take junior tutorials or seminars before or after their absence. Undergraduate nonconcentrators may enroll in junior tutorials or seminars if space is available. All students wishing to enroll in Government 90 or 98 must participate in the lottery.

***Government 99r. Tutorial — Senior Year**
Catalog Number: 3652
Andrea L. Campbell and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Taken as two half courses by those who have elected the honors program and in order to write their senior theses.
Prerequisite: Two half courses of Government 98 or 90, in any combination.

Political Methodology and Formal Theory

For Undergraduates and Graduates

Government 1000. Quantitative Methods for Political Science I
Catalog Number: 3990
Kevin M. Quinn
Half course (fall term). M., 4–6. EXAM GROUP: 9
An introduction to statistical research in political science. The focus is the key ideas that underlie statistical and quantitative reasoning, including such topics as probability spaces, random variables, distributions, descriptive and summary statistics, sampling, hypothesis testing, and estimation.
Note: Frequently taken by graduate students satisfying department requirements. Also open to qualified undergraduates.

[Government 1001. Introduction to Quantitative Methods in Political Science]
Catalog Number: 0881
Jasjeet Singh Sekhon
Half course (spring term). Hours to be arranged.
Specifically designed for undergraduates who wish to use quantitative research methods in their

own work. Topics include research design, causal inference, descriptive and summary statistics, probability, sampling, and statistical inference including estimation and tests of hypotheses. The course emphasizes multiple regression. Applications focus on a number of substantive research questions such as "How do citizens evaluate elected officials?" or "Is it really the economy, stupid?"
Note: Expected to be given in 2005–06.
Prerequisite: High school algebra.

[Government 1005. The Practice of Research in Political Science]
Catalog Number: 4607
Barry C. Burden
Half course (spring term). Hours to be arranged.
A first course in the methods of research as practiced across a broad range of the social sciences. It is meant to enable you to be critical in your evaluations of claims about politics, society, and the economy. Students learn how to construct and test hypotheses, design research projects, and bring data to bear on political questions. The course is especially helpful to thesis writers.
Note: Expected to be given in 2005–06.

Government 1010. Survey Research Methods
Catalog Number: 8482
D. Sunshine Hillygus
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Political surveys and public opinion polls are fundamental to the study of mass political behavior, and they play an increasingly prominent role in electoral politics and governance. This course introduces students to the history, theories, and methods of survey research. We will focus on the design, development, execution, interpretation and analysis of political surveys and polls. Topics include survey mode (mail, telephone, in-person, web), measurement and questionnaire design, survey sampling, and survey error.

Government 1015. Strategic Models of Political Economy
Catalog Number: 5117
John W. Patty (Carnegie Mellon University)
Half course (fall term). M., W., 2–3:30. EXAM GROUP: 7, 8
A first course in formal methods in political economy. The course is meant to introduce students to modeling techniques as well as the practice of applying such techniques to the study of political science and economics. Though theoretically motivated, the course will also discuss the role of empirical evaluation in model building and testing.
Note: First course meeting on 9/22/04.

Cross-listed Courses

[Social Analysis 46. Thinking about Politics: A Rational Choice Approach]

Primarily for Graduates

Government 2000. Introduction to Quantitative Methods II
Catalog Number: 2281
Jasjeet Singh Sekhon
Half course (spring term). Th., 4–6. EXAM GROUP: 18
Introduction to modern statistical methods including least squares, robust estimation, propensity score matching, maximum likelihood and Bayesian inference. Emphasizes theoretical principles and making inferences from actual data using the minimum of assumptions.
Prerequisite: Government 1000.

Government 2001. Advanced Quantitative Research Methodology
Catalog Number: 8941
Gary King
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
Introduces theories of inference underlying most statistical methods and how new approaches are developed. Examples include discrete choice, event counts, durations, missing data, ecological inference, time-series cross sectional analysis, compositional data, causal inference, and others.
Prerequisite: Government 1000 or the equivalent.

[Government 2002. Topics in Quantitative Methods]
Catalog Number: 8168
Jasjeet Singh Sekhon
Half course (spring term). Hours to be arranged.
Explores various topics in quantitative methods. Focuses on the robust estimation of generalized linear models but also covers some time series cross section methods.
Note: Expected to be given in 2005–06.
Prerequisite: Government 1000 or equivalent.

***Government 2003. Hierarchical Bayesian Modeling**
Catalog Number: 3713
Kevin M. Quinn
Half course (spring term). W., 10–12. EXAM GROUP: 3, 4
Provides students a solid understanding of Bayesian inference and Markov chain Monte Carlo methods. Topics covered include: Bayesian treatment of the linear model, Markov chain Monte Carlo methods, assessing model adequacy, and hierarchical models.
Note: Government 1000 and Government 2000, the equivalents, or permission of the instructor are prerequisites.

[*Government 2004. Qualitative Analysis: Analytic Frameworks for Explaining and Predicting Decisions in Foreign Affairs]
Catalog Number: 5002 Enrollment: Limited to 12.
Graham T. Allison, Jr. (Kennedy School)
Half course (fall term). Hours to be arranged.
Examines the philosophical and conceptual assumptions embodied in alternative models for explaining and predicting decisions and actions in both foreign and domestic affairs. The principal case to be examined is the Cuban missile crisis.

Note: Expected to be given in 2005–06. Offered jointly with the Kennedy School as ISP-305. Meets at the Kennedy School.

Government 2005. Formal Political Theory I
Catalog Number: 1719
Kenneth A. Shepsle
Half course (fall term). W., 4–6. EXAM GROUP: 9
A graduate seminar on micro-economic modeling, covering price theory, decision theory, social choice theory, and game theory.
Note: Students enrolled in this seminar are required to meet twice weekly for Economics 2020a lectures.

Government 2006. Formal Political Theory II
Catalog Number: 5487
Kenneth A. Shepsle
Half course (spring term). W., 4–6. EXAM GROUP: 9
Continuation of Government 2005.
Note: Students enrolled in this seminar are required to meet twice weekly for Economics 2020b lectures.

***Government 2009. Methods of Political Analysis**
Catalog Number: 1080 Enrollment: Limited to 15.
Peter A. Hall
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Covers the issues and techniques central to designing and researching a good dissertation, whether quantitative or qualitative, including principles of research design, case selection, comparison, measurement, and causal relations, with many practical examples.
Note: Open to all doctoral students, regardless of year, and to advanced undergraduates.

[Government 2010. Strategies of Political Inquiry]
Catalog Number: 7421
Gary King
Half course (fall term). Hours to be arranged.
Introduces how to do research—assessing scholarly literatures, identifying interesting questions, formulating research designs, learning methods, and writing up results. We discuss each for both quantitative and qualitative studies.
Note: Expected to be given in 2005–06. Primarily for graduate students; also taken by undergraduates preparing for senior thesis research.

Government 2012. Formal Models in American Politics
Catalog Number: 8864
John W. Patty (Carnegie Mellon University)
Half course (fall term). Th., 12–2. EXAM GROUP: 14, 15
Examines formal models of American politics, focusing on elections, legislative bargaining, and delegation. Considers existing literature (both classic and current) as well as the application of formal techniques to new topics in American politics.

Political Thought and Its History

For Undergraduates and Graduates

Government 1050. Sex, Gender, and Political Theory
Catalog Number: 8786
Tamara Metz
Half course (fall term). Tu., Th., at 1. EXAM GROUP: 15
Through critical engagement with feminist political theorists and those they critique, this course examines the roles of sex and gender in Western political theory and practice. Topics include: ideas of human nature; public and private spheres; citizenship; marriage, work and the family.

[Government 1056. Identity Politics: Pluralism and Democracy]
Catalog Number: 3415
Nancy Lipton Rosenblum
Half course (fall term). Hours to be arranged.
Examines the political theory of pluralism. What is the difference between identity politics and interest group politics? When should democracies recognize and accommodate particular religious, racial, cultural groups (or others) in awarding rights and benefits, providing exemptions from law, and guaranteeing political representation? How much self-government should groups be permitted to exercise over their members? Readings combine legal cases and historical and contemporary political theory.
Note: Expected to be given in 2006–07.

Government 1058. Tyranny in Western Political Thought
Catalog Number: 9934
Daniel J. Mahoney (Assumption College)
Half course (spring term). Tu., Th., at 1. EXAM GROUP: 15
This course will examine freedom and despotism in the western political tradition. We will begin by analyzing Aristotle's and Montesquieu's canonical accounts of tyranny and despotism. We will then explore Constant's and Tocqueville's deep forebodings about new kinds of "democratic despotism." Finally, we will turn to the writings of Arendt, Strauss, and Solzhenitsyn in order to illuminate both the novelty of twentieth century totalitarianism as well as its continuities with traditional despotism.

Government 1060. The History of Ancient and Medieval Political Philosophy
Catalog Number: 4978
Richard Tuck
Half course (fall term). M., W., (F.), at 10; W., at 3; Th., at 1. EXAM GROUP: 3
Philosophical debates about politics from Plato to Leonardo Bruni.

Government 1061. The History of Modern Political Philosophy
Catalog Number: 5035
Nancy Lipton Rosenblum
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
Political philosophy from Machiavelli to Neitzsche.

[Government 1067. Liberalism]
Catalog Number: 7139
Glyn Morgan
Half course (spring term). Hours to be arranged.
Examines liberalism as a political doctrine. Focuses on four theorists (J. S. Mill, Friedrich Hayek, Robert Nozick, and John Rawls) and four topics (the market, the family, the state, and international society).
Note: Expected to be given in 2005–06.

Government 1092. The Past and Future of the Left
Catalog Number: 6197
Roberto Mangabeira Unger (Law School)
Half course (spring term). Th., 4–6 and a section to be arranged. EXAM GROUP: 18
Political and social theory reconsidered from the vantage point of a major tradition in modern politics. Explaining and overcoming the disorientation of the Left in contemporary societies. The rise and fall in the nineteenth and twentieth centuries of the idea of a progressive alternative to established institutions. The directions the Left today is taking, can take, and should take. The relation of programmatic thought to the understanding of change and constraint.
Note: Offered jointly with the Law School as 44170-31.

Cross-listed Courses

Note: These courses do *not* satisfy the political theory field requirement in Government.
[Economics 2080. Economics and Politics: The Foundations of Economics in Political Theory]
Historical Study B-34. The World in 1776
[History 2472. Republics and Republicanism]
[Moral Reasoning 22. Justice]
Moral Reasoning 50. The Public and the Private in Politics, Morality, and Law
[Moral Reasoning 58. Slavery in Western Political Thought]
Moral Reasoning 64. Ethics and Everyday Life: Work and Family
[Moral Reasoning 68. Legalism: Ruly and Unruly Thought and Practices]
[Moral Reasoning 70. Rights]
Social Analysis 78. Globalization and Its Critics

Primarily for Graduates

***Government 2030. Political Concepts: Field Seminar**
Catalog Number: 0551
Nancy Lipton Rosenblum
Half course (fall term). W., 12–2. EXAM GROUP: 5, 6
Reading and discussion of rival accounts of the basic concepts of political thinking.
Note: Open to qualified undergraduates.

[*Government 2034. Ethics and Economics]
Catalog Number: 4652

Michael J. Sandel
Half course (spring term). Hours to be arranged.
The seminar explores the moral limits of markets. Topics to include organ sales, pollution permits, for-profit prisons, mercenary armies, vote-selling, the patenting of life forms, and the commercialization of medicine, law, and higher education.
Note: Expected to be given in 2005–06.
Prerequisite: Intended for graduate students.

***Government 2035. Topics in Political Theory**
Catalog Number: 3770
Russell Muirhead
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Advanced seminar in political theory on selected topics in contemporary political thought.
Note: Intended for graduate students.

Government 2046. Roman Politics and Political Thought
Catalog Number: 7880
Richard Tuck
Half course (fall term). Tu., 12–2. EXAM GROUP: 14, 15
Rome was the first mass electoral democracy, whose political structures and history have been formative for all subsequent politics. We study the politics of Republican and early Imperial Rome, and the writings of their philosophers, historians, and lawyers.

[*Government 2049. Philosophical Foundations of Rational Choice Theory]
Catalog Number: 3552
Richard Tuck
Half course (fall term). Hours to be arranged.
This course will look first at the idea of rationality in modern economics, and then at the application of this idea to a number of important issues in political science, culminating in the question of social co-operation.
Note: Expected to be given in 2005–06. Open to qualified undergraduates.

Government 2055. Platonic Rhetoric
Catalog Number: 4277
Christina Tarnopolsky
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
This course examines the role of rhetoric in democratic deliberation and philosophy in Plato's middle dialogues: Gorgias, Symposium and Phaedrus. It will focus on the relationship between rhetorical persuasion and Plato's theory of the psyche.
Note: Open to qualified undergraduates.

Government 2068. Social Theory and Comparative Politics
Catalog Number: 9039
Margarita Estevez-Abe and Glyn Morgan
Half course (fall term). Tu., 7–9 p.m. EXAM GROUP: 18
This course provides an introduction to social theory and its application to comparative politics.

Theorists addressed include: Aristotle, Smith, Mill, Marx, Weber, Durkheim, and Foucault. Topics covered include: nationalism, democratization, etc.

***Government 2072. Rousseau's Political Thought**
Catalog Number: 2456
Richard Tuck
Half course (spring term). Tu., 12–2. EXAM GROUP: 14, 15
This course is an opportunity to read through Rousseau's work on political theory and to discuss his relationship to both earlier and later writers.
Note: Open to qualified undergraduates.

[Government 2077. Thomas Hobbes]
Catalog Number: 6774
Richard Tuck
Half course (spring term). Hours to be arranged.
Investigates the philosophy of Thomas Hobbes: his metaphysics, physics, ethics, and political theory. A wide range of his writings are studied, and placed in their historical context.
Note: Expected to be given in 2005–06.

[Government 2082. Marx and Marxism]
Catalog Number: 2472
Richard Tuck
Half course (fall term). Hours to be arranged.
Studies the origins of Karl Marx's ideas and their connection to traditional views of democracy, property, and the economy; and how far his theories were misunderstood or misrepresented in the twentieth century.
Note: Expected to be given in 2006–07.

***Government 2090. Ethics and Biotechnology**
Catalog Number: 0942
Michael J. Sandel
Half course (fall term). Tu., 2:20–4:20. EXAM GROUP: 16, 17, 18
The seminar explores the moral and political implications of recent advances in biotechnology. Topics include cloning, stem cell research, genetic engineering, eugenics, and patenting of life forms.
Note: Offered jointly with the Law School as 93370-11. Meets at the Law School. Open to GSAS students with permission of the instructor.

Comparative Government

For Undergraduates and Graduates

Government 1100. Political Economy of Development
Catalog Number: 7687
Devesh Kapur
Half course (fall term). Tu., Th., at 11; M., at 6; Th., at 4; Th., at 6; F., at 2; F., at 3; F., at 6.

EXAM GROUP: 13
Comparative analysis of political economy of development drawing on case studies from Africa, Asia, the Middle East, and Latin America.

[Government 1102. Democratization and Economic Reform]
Catalog Number: 6232
Yoshiko M. Herrera
Half course (spring term). Hours to be arranged.
A comparative investigation of market-oriented economic reforms and transitions to democracy in Latin America, Eastern Europe, and East Asia. Considers the bases of democracy and economic prosperity, and analyzes the consolidation of political institutions under conditions of economic crisis, as well as the possibilities for economic reform under conditions of weak political institutions.
Note: Expected to be given in 2005–06.

[*Government 1115. Collective Action, Protest Movements, and Politics]
Catalog Number: 5508 Enrollment: Limited to 15.
Grzegorz Ekiert
Half course (fall term). Hours to be arranged.
Reviews the contemporary literature on collective action, protest, and social movements. Focuses primarily on political factors facilitating protest, repertoires of contention, the role of cultural factors and the construction of identities through collective action, and methods of studying collective action. Cases drawn from different regions and historical periods.
Note: Expected to be given in 2005–06. Preference given to seniors and juniors. Weekly meetings are divided between lecture and discussion.

Government 1145. Comparative Constitutional Engineering
Catalog Number: 4678
Cindy Skach
Half course (spring term). Tu., 4–6. EXAM GROUP: 18
Critically examines when, and how, institutional design affects the performance and stability of democracy. Topics include the manipulation of party systems via electoral systems; incentive structures in the presidential, parliamentary, and semi-presidential constitutional types: the "problems" of divided government, minority government, and divided minority government; the increasingly important role of constitutional courts; and the challenge of engineering in deeply divided societies. Examples are drawn from a variety of world regions and historical periods.

***Government 1158. Culture and Politics**
Catalog Number: 8848
Samuel P. Huntington
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
The political implications of the similarities and differences among the world's major cultures (European, American, Russian, Arab, Indian, Chinese, Japanese, Latin American, African). Is globalization replacing them with a single global culture? What are the consequences of the spread of American culture throughout the world? How do cultures affect economic development and effectiveness, democracy and democratization, governmental performance, social and

economic equity, international negotiations, alliances, and antagonisms, war and peace?
Note: Enrollment limited.

Government 1170. Nation-Building and Democracy in the Development of Europe
Catalog Number: 2585
Daniel F. Ziblatt
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
The course introduces students to the political development of western and eastern Europe, providing students with key historical context for understanding the challenges of the European Union's 2004 eastward enlargement. The main focus will be on the issues of feudalism, state-formation, revolution, industrialization, nationalism, and democracy to explore the origins and consequences of the historic divide between the two halves of Europe.

Government 1180. Comparing Welfare States
Catalog Number: 7293
Margarita Estevez-Abe
Half course (spring term). W., 1–3; Th., at 7 p.m. EXAM GROUP: 6, 7
Can contemporary welfare states cope with demographic aging? Can they help women balance work and family? Are some countries doing better than others? Can others emulate the more successful? This courses tackles these questions by examining different institutional structures of welfare states and politics behind them. Drawing on the theoretical literature developed to explain welfare states in advanced industrial countries, this course also considers welfare issues in other regions of the world.

Government 1185. Electoral Systems
Catalog Number: 3955
Elizabeth M. Penn (Carnegie Mellon University)
Half course (fall term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
Voting procedures provide the commonest means of aggregating individual preferences into social outcomes. These procedures play an integral role in our daily lives; from having a show of hands to decide which type of pizza to order, to electing our leaders. Broadly speaking, this course will explore how groups make decisions. We will analyze this topic both theoretically and comparatively by applying the mechanics of social choice theory to electoral systems used around the world.

Government 1188. The Transformation of Modern Italian Politics: From the First to the Second Republic
Catalog Number: 3216
Daniele Archibugi
Half course (fall term). M., 2–4 and section Th., 7–9. EXAM GROUP: 7, 8
The fall of the major political parties and industrial groups and the rise of new ones, the frequent changes in government majorities, the challenge of immigration in a country of former emigrants, the ongoing European integration and the introduction of the Euro, and the demographic decline in one of the most Catholic countries will be the key themes discussed in the course. Selected Italian films will be used to scrutinize the changing nature of Italian society.

Government 1197. The Political Economy of Africa
Catalog Number: 9130
Robert H. Bates and James A. Robinson
Half course (spring term). M., W., (F.), at 11. EXAM GROUP: 4
The basic social science literature on Africa's development. Particular emphasis on political economy.

***Government 1203. Political Transitions in East Central Europe**
Catalog Number: 7078 Enrollment: Limited to 15.
Grzegorz Ekiert
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Examines three critical periods in post-1945 East European politics: the imposition of communist regimes, crises of de-Stalinization, and the collapse of these regimes in 1989. The recent literature on regime change and democratization provides the framework for analysis of these developments.
Note: Preference given to juniors and seniors. Weekly meetings are divided between lecture and discussion.

Government 1243. Russian Politics in Transition
Catalog Number: 1982
Timothy J. Colton
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
An examination of politics in the Russian Federation since the collapse of Soviet communism, focusing on the factors promoting and impeding the development of a stable democratic regime. Topics include the general dynamics of political and economic transformation, leadership, institution building, political culture, regionalism and federalism, electoral and party politics, state-society relations and interest groups, and Russian nationalism and neo-imperialism.

[Government 1246. Comparative Politics of the Post-Soviet States]
Catalog Number: 8809
Yoshiko M. Herrera
Half course (spring term). Hours to be arranged.
A comparative examination of politics and government among the 15 successor states to the Soviet Union, focusing on variation in the development of institutions, the degree of democratization, state strength, and economic prosperity. Topics include mass politics and political action institutions, nationalism and identity politics, and economic transformations since the end of the USSR in 1991.
Note: Expected to be given in 2005–06.

Government 1273. The Political Economy of Japan
Catalog Number: 1365
Margarita Estevez-Abe
Half course (fall term). Tu., Th., at 12; Th., at 10; Th., at 3; F., at 1; Th., at 2; Th., at 3; Th., at 11. EXAM GROUP: 14
Examines the history of Japan's political economy, its recent success and its current problems. Why did Japan succeed in becoming the first non-Western society to industrialize? Did Japan

develop a particular brand of capitalism? What role did the political system play? What are its advantages and disadvantages of the Japanese model? Can it overcome the current technological changes and global pressures? Or is it no longer a viable model to emulate?

[Government 1280. Government and Politics of China]
Catalog Number: 1643
Elizabeth J. Perry
Half course (fall term). Hours to be arranged.
General introduction to the politics of contemporary China. Basic objectives are to provide a working knowledge of Chinese political programs and practices, and to encourage a critical evaluation of the positive and negative aspects of China's socialist experiment.
Note: Expected to be given in 2005–06.

Government 1295. Comparative Politics in Latin America
Catalog Number: 4241
Mark E. Williams (Middlebury College)
Half course (spring term). M., W., 2–3:30, and a section to be arranged. EXAM GROUP: 7, 8
Examines dynamics of political and economic change in modern Latin America, focusing on Argentina, Brazil, Chile, Cuba, Mexico, and Venezuela. Topics include the rise of populism and import-substituting industrialization, revolutions and revolutionary movements, the causes and consequences of military rule, the politics of economic reform, democratic transitions, and democratic consolidation. The course analyzes these phenomena from a variety of different theoretical perspectives, including cultural, dependency, institutionalist, and leadership-centered approaches.

Cross-listed Courses

Economics 2410g. Political Economics
[Foreign Cultures 48. The Cultural Revolution]
Historical Study A-15. Politics and Society in the Making of Modern India
Historical Study A-53. The Chinese Revolutionary Tradition
[Historical Study A-71. Constitutionalism]
Historical Study A-73. The Political Development of Western Europe
[Historical Study B-64. The Cuban Revolution, 1956-1971: A Self-Debate]
History 1466. Vichy France: Conference Course
***History 2782. The Economic History of Latin America: Seminar**
[Social Analysis 52. The Political Economy of Development]

Primarily for Graduates

***Government 2105. Comparative Politics: Field Seminar**
Catalog Number: 0154 Enrollment: Preference given to FAS Government graduate students
Jorge I. Domínguez and Torben Iversen
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Surveys topics in comparative politics (both the developed and the developing world), including the rise of the modern state; institutions of government; interest mediation; democracy and

authoritarianism; revolution; political parties; mass and elite political behavior; political economy.
Note: Preference given to FAS Government graduate students.

[Government 2114. Analysis of the Political Economy of Development]
Catalog Number: 7029
Robert H. Bates
Half course (fall term). Hours to be arranged.
Students will attend lectures of Social Analysis 52 and then meet as a separate seminar. The readings and discussion will focus on the political economy of agriculture and industrialization; of ethnicity and political conflict; and of state formation and political collapse.
Note: Expected to be given in 2005–06.

[Government 2131. Comparative Politics of Latin America]
Catalog Number: 3337
Jorge I. Domínguez
Half course (fall term). Hours to be arranged.
Topics: historical paths, economic strategies, inflation and exchange rates, international explanations of domestic outcomes, authoritarian and democratic regimes, state institutions, the Roman Catholic Church, social movements, parties and party systems, and voters and voting behavior.
Note: Expected to be given in 2005–06.

[Government 2138. Gender, Markets and Politics]
Catalog Number: 2747
Margarita Estevez-Abe
Half course (spring term). Hours to be arranged.
Women in different countries fare better or worse in terms of their family life, work life, and political life. Examines the causes underlining these differences.
Note: Expected to be given in 2005–06. Open to qualified undergraduates.

***Government 2140. Conceptualizing and Measuring Identity**
Catalog Number: 7502
Yoshiko M. Herrera and Alastair Iain Johnston
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Analyzes the concept of identity in social science, especially history and political science. Focuses on defining identity more precisely and exploring new measurement techniques. Examines classic works on ethnic, class, gender, religious, and transnational identity.

Government 2148. Civil Society, West and East
Catalog Number: 4675
Susan J. Pharr and Grzegorz Ekiert
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Focusing in particular on European and Asian settings, the seminar examines debates over what civil society is, notions of public space and social capital, and the role of civil society in political transitions.

***Government 2158. Political Institutions and Economic Policy**
Catalog Number: 6448 Enrollment: Limited to 16.
Kenneth A. Shepsle and Jeffry Frieden
Half course (spring term). M., 4–6. EXAM GROUP: 9
We explore the role of political institutions in the formation, implementation, and regulation of economic policy. Theories from positive political theory and comparative and international political economy are examined and applied to substantive issue areas.

***Government 2160. Politics and Economics**
Catalog Number: 7780 Enrollment: Limited to 16.
James E. Alt and Torben Iversen
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Covers the political economy of policymaking and institutional change. Readings include a mixture of foundational approaches and recent research, covering a variety of methodological perspectives. The topical emphasis is on democracy, accountability, inequality, redistribution, and growth.

[Government 2162. Perspectives on Political Economy]
Catalog Number: 1999
Robert H. Bates and Kenneth A. Shepsle
Half course (fall term). Hours to be arranged.
A microperspective on various topics in political economy. This year, the focus will be on demography (the size and composition of populations and the structure of the family); its impact and politics; and the impact of politics on it.
Note: Expected to be given in 2006–07.

Government 2204. Radicalization of Islam in the Former Communist World
Catalog Number: 0592
John S. Schoeberlein
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Examines rise of radical Islamism in the former Communist Bloc from Tsarist rule to al-Quaeda. Covers Islamist ideologies, conditions promoting radicalism, and comparative theories of Islamic mobilization, in Afghanistan, Chechnya, Tajikistan, Uzbekistan and Xinjiang.

[Government 2213. Comparative Politics of Post-Socialism]
Catalog Number: 6876
Timothy J. Colton and Grzegorz Ekiert
Half course (fall term). Hours to be arranged.
A research seminar designed to define an agenda for the comparative analysis of political developments among post-socialist systems. Emphasis placed on the formation of research proposals, methods of analysis, theory-building, and the presentation of comparative empirical research.
Note: Expected to be given in 2005–06.

Government 2214. Government and Politics in the Post-Soviet States
Catalog Number: 0922

Timothy J. Colton and Yoshiko M. Herrera
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
The collapse of the Soviet Union was followed by the formation of 15 independent states that manifest remarkable variation in political regimes, institutions, and policies. The course examines this variation and ways of explaining it.

[Government 2218. Topics in Russian Politics]
Catalog Number: 0872
Timothy J. Colton
Half course (spring term). Hours to be arranged.
A research seminar on selected problems in the politics and government of post-Soviet Russia. Intended for students with some prior study of the subject.
Note: Expected to be given in 2005–06.

[Government 2262. Politics and Political Economy in Japan]
Catalog Number: 7446
Susan J. Pharr
Half course (fall term). Hours to be arranged.
Japanese politics and political economy in comparative perspective. Analyzes the: 1955 system and post-1993 changes; political economy debates; changing role of parties and bureaucracy; electoral system effects; social policy choices; and problems of marginality. Open to qualified undergraduates.
Note: Expected to be given in 2005–06. Open to qualified undergraduates.

***Government 2275. Politics and Reform in the Giants: India and China Compared**
Catalog Number: 8791
Devesh Kapur and Elizabeth J. Perry
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
A graduate seminar that will examine the problems of rule and reform in the world's two most populous polities: China and India. Issues of statebuilding, central-local relations, economic reform, etc. will be considered.
Note: Open only to graduate students, with preference given to Government doctoral students.

[Government 2284. Chinese Authors on Chinese Politics]
Catalog Number: 7556
Roderick MacFarquhar
Half course (fall term). Hours to be arranged.
An examination of how PRC authors have analyzed the politics of their country and comparisons with relevant Western accounts.
Note: Expected to be given in 2005–06. Open to qualified undergraduates.
Prerequisite: A good reading knowledge of Chinese and previous course work on Chinese politics.

Government 2285. Political Science and China
Catalog Number: 1566
Elizabeth J. Perry

Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
This graduate seminar gives students control over the secondary literature on Chinese politics, with special attention to competing theoretical and methodological approaches.
Note: Open only to graduate students who have taken the equivalent of an undergraduate course in Chinese politics.

[*Government 2286. Research Seminar on Chinese Politics]
Catalog Number: 7361
Elizabeth J. Perry
Half course (spring term). Hours to be arranged.
Focuses on primary sources for the study of Chinese politics: archives, documents, gazetteers, yearbooks, interviews, etc. Students write a major research paper, using primary sources.
Note: Expected to be given in 2005–06.
Prerequisite: Government 2285.

American Government, Public Law and Administration

For Undergraduates and Graduates

Government 1300. The Politics of Congress
Catalog Number: 8868
Eric Schickler
Half course (spring term). M., W., at 10. EXAM GROUP: 3
Intended as a broad survey of the legislative branch of the American government. Topics include representation and elections, party leadership, committee power, rules and procedures, and inter-branch relations. Special attention devoted to changes in Congress, as well as current political and scholarly controversies such as congressional war powers, the influence of parties, and campaign finance. The place of Congress in the US separation of powers system will be a theme throughout the course.

Government 1315. American Democracy
Catalog Number: 4342
Robert D. Putnam and Roberto Mangabeira Unger (Law School)
Half course (spring term). W., 4–6 and a weekly section to be arranged. EXAM GROUP: 9
This course addresses what makes the US special as a society and a culture. How are the institutional arrangements of the country and its dominant beliefs related? It also discusses how divergent understandings of American realities may inform contrasting proposals for the reforms needed to realize American ideals more fully. We confront clashes of vision and method in the social sciences and humanities. Ethnic diversity provides one focus among others for these concerns.
Note: Offered jointly with the Kennedy School as PAL-220 and with the Law School as 30500-31.

Government 1340. Civil Liberties in America
Catalog Number: 1721
Jeffrey B. Abramson (Brandeis University)

Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
Civil liberties and civil rights in the US, with special attention to the political theory implicit in constitutional doctrines. Topics include: (1) freedom of religion; (2) freedom of speech; (3) privacy, including issues related to abortion, medical care and assisted suicide; (4) racial and gender discrimination and affirmative action; and (5) terrorism and national security.

Government 1341. Civil Liberties in America
Catalog Number: 5544
Jeffrey B. Abramson (Brandeis University)
Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
Civil liberties and civil rights in the US, with special attention to the political theory implicit in constitutional doctrines. Topics include: (1) freedom of religion; (2) freedom of speech; (3) privacy, including issues related to abortion, medical care and assisted suicide; (4) racial and gender discrimination and affirmative action; and (5) terrorism and national security.

Government 1350. Political Parties and Interest Groups
Catalog Number: 8825
Terri Bimes
Half course (spring term). Tu., Th., at 12. EXAM GROUP: 14
This course covers the historical development of parties and interest groups inthe US and the ways in which parties and interest groups influence individualvoting behavior, elections, and the governmental process. Special attention willbe paid to the alleged culture wars between the two parties and to the roleparties and interest groups have played in recent elections.

Government 1352. Campaigns and Elections
Catalog Number: 5665
D. Sunshine Hillygus
Half course (fall term). M., W., at 10. EXAM GROUP: 3
Examines US congressional and presidential campaigns and elections, including candidates and the incentives and constraints they face, the role of political parties, and the evolution of the presidential nomination process. Considers how voters acquire information and make vote choices. Discussion of media coverage, negative advertising, campaign finance, and electoral reform.

Government 1360. American Public Opinion
Catalog Number: 8196
Barry C. Burden
Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12
Analyzes several related questions about contemporary American public opinion. What do Americans know and think about politics? Why do people hold these particular opinions? How do politicians, the media, and other people influence an individual? How do researchers know what they do about public opinion? Finally, in what ways does public opinion affect (or not affect) public policy?

Government 1370. Psychology of Politics in the United States
Catalog Number: 4116

Catherine R. Shapiro
Half course (fall term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 4
At each level of the American political system, outcomes are shaped not only by existing laws and institutions, but also by the behavior of human beings - citizens, representatives, judges, political operatives etc. This class examines how models of behaviors such as rationality decisionmaking, groupthink, risk-taking, cognitive dissonance, and others shape what we know about mass and elite political behavior in the US.

***Government 1540. The American Presidency**
Catalog Number: 4925 Enrollment: Limited to 150. Enrollment limit applies to fall term only. Signature of course head applies to fall term only.
Roger B. Porter (Kennedy School)
Half course (fall term). Fall: Tu., Th., 11:30–1; Spring: Course will not be offered Spring 2005 but will be offered by Howell in 2005-2006. EXAM GROUP: 13, 14
Fall Term: Course analyzes the development and modern practice of presidential leadership. Examines the institutional presidency, presidential selection, decision making, and the relationship of the presidency with the executive branch, Congress, courts, interest groups, the press and the public. Considers the political resources and constraints influencing the President's ability to provide leadership in the US political system. *Spring Term*: Examines the historical and institutional foundations of presidential power; the president's relationships with Congress, the bureaucracy, courts, interest groups, and the public; and the influence presidents wield in domestic and foreign policymaking. Special efforts will be made to incorporate theories of political organization and power that have emerged in the field of political science.
Note: During the fall term, this is offered jointly with the Kennedy School as PAL-115. Meets at FAS.

[Government 1572. Black Americans and the Political System]
Catalog Number: 5796
Michael C. Dawson
Half course (spring term). Hours to be arranged.
Focuses on how the continuing struggle for black empowerment has helped to shape both the current American political environment as well as the social and economic conditions of the black community. The unique nature of African-American politics necessitates a multi-disciplinary approach to the subject. Consequently, materials and lectures also show how the study of race relations, psychology, economics, and sociology can inform our understanding of the critical importance of black politics to American politics.
Note: Expected to be given in 2006–07.

[*Government 1582. Who Are We? Issues of American National Identity]
Catalog Number: 9119
Samuel P. Huntington
Half course (fall term). Hours to be arranged.
A limited enrollment discussion course for both graduate and undergraduate students. Topics include: ethnic, racial, cultural, and ideological concepts of American identity; the relation between national and other identities; contemporary debates over national identity; immigration,

assimilation, and Anglo-Hispanic biculturalism; America as the "exceptional" or "universal" country; the problem of the lack of an opposing "evil empire;" the impact of different conceptions of identity on America's international role.
Note: Expected to be given in 2007–08.

Cross-listed Courses

Moral Reasoning 74. The Theory and Practice of Republican Government
Social Analysis 54. American Society and Public Policy
Social Analysis 66. Race, Ethnicity, and Politics in the United States

Primarily for Graduates

***Government 2305. American Government and Politics: Field Seminar**
Catalog Number: 2305
Barry C. Burden and Eric Schickler
Half course (fall term). W., 10–12. EXAM GROUP: 3, 4
Designed to acquaint PhD candidates in Government with a variety of approaches that have proved useful in examining important topics in the study of American government and politics.

Government 2310. Social Capital and Public Affairs: Research Seminar
Catalog Number: 7051
Robert D. Putnam
Half course (fall term). W., 4:10–6. EXAM GROUP: 9
Topics in the relationship between politics and civil society in the US.
Note: Offered jointly with the Kennedy School as API-420. Meets at the Kennedy School.

***Government 2326. American Political Development and Contemporary Politics**
Catalog Number: 8914
Theda Skocpol
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Analyzes the US polity employing an institutionalist and developmental approach sensitive to processes and structural transformations. Examines empirical studies of changing state capacities, public policies, and patterns of civic engagement and interest intermediation.
Note: Open to Government graduate students and other graduate students by permission.

Government 2335. Power in American Society
Catalog Number: 2649
Jennifer L. Hochschild
Half course (spring term). Th., 12–2. EXAM GROUP: 14, 15
Considers theories of power in American political science and political theory; how to measure and use these theories to understand political stratification choices. Attention to race, gender, class, legal standing, policies, and institutional frameworks.

***Government 2340. Proseminar on Inequality and Social Policy ll**
Catalog Number: 5491

Torben Iversen and William Julius Wilson
Half course (spring term). Th., 3:10–5. EXAM GROUP: 17, 18
Considers the effects of policies and institutions in creating or reducing inequality in the US and other advanced democracies, as well as the reciprocal effects of inequality on political activity and policy choices.
Note: Offered jointly with the Kennedy School as HLE-512. Meets at the Kennedy School. Cannot be used toward satisfaction of Departmental requirement of 8 half-courses in Government.

[Government 2392. American Political Ideologies]
Catalog Number: 6079
Jennifer L. Hochschild
Half course (spring term). Hours to be arranged.
Combines American political thought and history?canonical works (Federalist Papers, Tocqueville, Lincoln) are read for their explicit philosophy as well as assumptions about power and status. Also examines the social, economic, and political context of the writings.
Note: Expected to be given in 2005–06.

[Government 2470. Political Behavior]
Catalog Number: 3591
Andrea L. Campbell and D. Sunshine Hillygus
Half course (spring term). Hours to be arranged.
An examination of mass and elite political behavior in the US, with an emphasis on elections, voting behavior, political participation, political inequality, and political organizations.
Note: Expected to be given in 2006–07.

***Government 2490. The Political Economy of the School**
Catalog Number: 3399
Paul E. Peterson
Half course (fall term). Tu., 2:10–4. EXAM GROUP: 16, 17
Examination of political and economic influences on education policy and governance. Background in statistics expected.
Note: Limited enrollment. Permission of instructor required for all students who are not graduate degree candidates in the FAS Department of Government. Offered jointly with the Kennedy School as HLE-348. Meets at the Kennedy School.

Government 2500. Bureaucratic Politics and Behavior
Catalog Number: 8621
Daniel P. Carpenter
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
A theoretically and empirically intensive examination of public bureaucracies in the US and other nations. Empirical issues include administrative behavior, bounded rationality, delegation, hierarchy, organizational capacity, bureaucratic learning, redundancy, bureaucratic delay, and political influence.

[Government 2505. Inter-Institutional Dynamics in American Politics]
Catalog Number: 4546
William G. Howell
Half course (spring term). Hours to be arranged.
Examines the relationships between the president, Congress, judiciary, and bureaucracy, and the strategies each employs to affect political outputs. Emphasis is placed on testing theories of lawmaking and political organization.
Note: Expected to be given in 2005–06.

Government 2515. Early Development of American Political Institutions and Organizations
Catalog Number: 5040
Daniel P. Carpenter
Half course (spring term). W., 12–2. EXAM GROUP: 5, 6
An intensive examination of political institutions and organizations in the US from the Revolution to the Civil War, including the rise of state governments, the Constitution, mass parties, congressional committees, abolitionism, and fiscal centralization.

[*Government 2575. Research in African-American Politics]
Catalog Number: 7245 Enrollment: Limited to 20.
Michael C. Dawson
Half course (fall term). Hours to be arranged.
A research-oriented course focused on African-American politics. A central theme is how the intersection of structures of gender, class, and race influence black politics. Both quantitative and qualitative approaches considered.
Note: Expected to be given in 2005–06.

Cross-listed Courses

Government students interested in taking the following course must consult with the Director of Graduate Studies:
***Sociology 296a. Proseminar on Inequality and Social Policy I**

International Relations

For Undergraduates and Graduates

Government 1730. War and Politics
Catalog Number: 6806
Stephen Peter Rosen
Half course (fall term). M., W., 2–4 and a weekly section to be arranged. EXAM GROUP: 7, 8
Explores the organized use of violence for the purposes of the state, with particular attention paid to the question of strategy and the sources of victory.

Government 1735. Arms and Arms Control
Catalog Number: 1366
Andrew Harriman Kydd

Half course (fall term). Tu., Th., 10–11:30 and a weekly section to be arranged. EXAM GROUP: 12, 13
Introduces students to the topic of arms racing, arms control and the proliferation of weapons of mass destruction. Covers the causes and consequences of arms racing, theory and practice of arms control, nuclear, chemical and biological weapons proliferation, and arms control issues in Europe, Korea, South Asia, and the Middle East.

Government 1740. International Law
Catalog Number: 7406
Beth A. Simmons
Half course (fall term). Tu., Th., 10–11:30; M., at 11; M., at 12; M., at 1; Th., at 1; Th., at 2; Th., at 3; Th., at 4; Th., at 6; M., at 2; M., at 3; M., at 4. EXAM GROUP: 12, 13
An introduction to public international law for students of international relations. The primary purpose is to enhance students' understanding of the ways in which international law orders international politics. Emphasis is on the substantive rules of international law, the relationship between law and politics, and cases that illustrate the issues. Topics include international human rights law, international economic law and institutions, the use of force, war crimes, and terrorism.

Government 1760. International Relations of East Asia
Catalog Number: 2733
Alastair Iain Johnston
Half course (fall term). M., W., 2–3:30 and a weekly section to be arranged. EXAM GROUP: 7, 8
Introduction to the historical, military, political, economic, and cultural features of interstate relations in East Asia and the Pacific. The course also presents some theoretical and methodological tools for more systematic analysis of these issues. The goal is to understand changing levels of conflict and cooperation in the region.

Government 1780. International Political Economy
Catalog Number: 0272
Jeffry Frieden
Half course (spring term). M., W., 2–3:30. EXAM GROUP: 7, 8
Analyzes the interaction of politics and economics in the international arena. Focuses on international trade, investment, monetary, and financial relations. Includes discussion of developed, developing, and formerly centrally-planned nations.

Government 1790. American Foreign Policy
Catalog Number: 8017
Robert L. Paarlberg (Wellesley College)
Half course (spring term). Tu., Th., at 12. EXAM GROUP: 14
Examines and explains the international actions of the US Government. Explanations drawn from history, international relations theory, and from the study of American political andbureaucratic institutions. Emphasis is placed on the recent rise of the US to a position of unprecedented military dominance, how this military power has been used, and how other states, non-state actors, or global governance institutions have responded.

***Government 1968. International Politics in the Middle East**
Catalog Number: 9335 Enrollment: Limited to 150.
Carol R. Saivetz
Half course (spring term). M., W., at 11. EXAM GROUP: 4
Explores interaction between indigenous Middle East conflicts and policies of the outside powers. Examines roots of the Arab-Israeli-Palestinian conflict and addresses questions such as: Did the Cold War always exacerbate the local conflicts in the region or did it actually dampen and control them as well? In the aftermath of the collapse of the Oslo peace process, September 11, and the war in Iraq, what is the future role for the outside powers?

[Government 1982. Chinese Foreign Policy, 1949–2000]
Catalog Number: 8908
Alastair Iain Johnston
Half course (fall term). Hours to be arranged.
Introduction to the descriptive history of China's international relations with special focus on different theoretical explanations for changes in foreign policy behavior (e.g. polarity, history, ideology, leadership, bureaucracy, among others).
Note: Expected to be given in 2005–06. No prior background in China or international relations theory required.

Cross-listed Courses

Historical Study A-51. The Modern World Economy, 1873-2000
[Moral Reasoning 28. Ethics and International Relations]
[Quantitative Reasoning 38. The Strategy of International Politics]

Primarily for Graduates

***Government 2710. International Relations: Field Seminar**
Catalog Number: 8310
Michael J. Hiscox and Andrew Harriman Kydd
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
A survey of the field. Suitable for students preparing for general examinations.
Note: Limited to Government graduate students.

[*Government 2720. The Politics of International Monetary and Financial Relations]
Catalog Number: 5442
Jeffry Frieden
Half course (fall term). Hours to be arranged.
Covers two interrelated topics. The first is the political economy of international finance: sovereign lending, international banking, international financial integration. The second is the politics of international monetary relations: monetary regimes, inter-state monetary interactions, national macroeconomic policy.
Note: Expected to be given in 2005–06.

Government 2726. The Use of Force: Political and Moral Criteria
Catalog Number: 7160
Stanley Hoffmann and J. Bryan Hehir (Kennedy School)
Half course (fall term). Tu., Th., 1:10–2:30. EXAM GROUP: 15, 16
The course examines normative discourse about the use of force. Attention will be paid to the "Just War/Just Defense" ethic, and will assess the ethic in light of challenges to it, including current ones.
Note: KSG students have priority. Offered jointly with the Divinity School as 2853, and with the Kennedy School of Government as ISP-340. Meets at KSG.

***Government 2738. Game Theory and International Relations**
Catalog Number: 7791
Andrew Harriman Kydd and Michael J. Hiscox
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
A survey of applications of game theory to international relations. Focuses on the central debates in international relations theory and how game theory has contributed to advancing and understanding them.
Note: Government 2005 or permission of instructor required.

[Government 2740. Models of Politics]
Catalog Number: 7181
Bear F. Braumoeller
Half course (spring term). Hours to be arranged.
Focuses on the history of, and new directions in, the quantitative study of politics, especially but not exclusively those relating to international affairs. “Quantitative” will be interpreted quite broadly to include both formalized theories and empirical/statistical testing.
Note: Expected to be given in 2005–06.

[*Government 2742. Statistics and Deadly Quarrels]
Catalog Number: 4314
Bear F. Braumoeller
Half course (spring term). Hours to be arranged.
Critical survey of statistical research on conflict and war.
Note: Expected to be given in 2005–06.
Prerequisite: Two terms of statistics or equivalent or permission of instructor.

[*Government 2744. Quantitative Analysis in International Relatons]
Catalog Number: 3302
Bear F. Braumoeller and Beth A. Simmons
Half course (spring term). Hours to be arranged.
Course will expose students to how various kinds of statistical models have been used in security and IPE. Focus will be on the nature, assumptions, and appropriateness of models and interpretation of results.
Note: Expected to be given in 2005–06.
Prerequisite: First semester statistics class or concurrent enrollment in same, or permission of instructors.

[Government 2755. International Political Economy]
Catalog Number: 7392
Beth A. Simmons and Lisa L. Martin
Half course (fall term). Hours to be arranged.
A graduate-level introduction to the theoretical and empirical literature on the political economy of international trade, monetary, regulatory, and investment policies.
Note: Expected to be given in 2005–06.

[*Government 2761. International Organization]
Catalog Number: 8442
Lisa L. Martin
Half course (fall term). Hours to be arranged.
International politics increasingly means institutionalized interaction among states. We examine the sources and effects of international institutions. It draws on institutional theories from many fields: international relations, American politics, economics. The purpose is to generate topics for research.
Note: Expected to be given in 2006–07.

Government 2782. State Failure and Civil War
Catalog Number: 0742
Robert H. Bates
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
The study of modern works on civil wars, terrorism, and state failure.

***Government 2784. War, Peace, and Global Politics**
Catalog Number: 1915 Enrollment: Limited enrollment
Samuel P. Huntington
Half course (spring term). W., 4–6. EXAM GROUP: 9
Patterns of conflict and cooperation in contemporary global politics: relations among the major powers; economic, military, and "soft" power; weapons proliferation; ethnic conflicts; neo-realism, the end of history, transnationalism, and the clash of civilizations.

Government 2785. Religion in Global Politics
Catalog Number: 4773
Samuel P. Huntington, Michael Ignatieff (Kennedy School), and David Little (Divinity School)
Half course (fall term). W., 4–6. EXAM GROUP: 9
The historical and contemporary roles of religious beliefs and religious organizations with respect to war and peace, civil conflict, national identities, legitimacy of governments, human rights, democracy, conflict management, conceptions of world order. Case studies.
Note: Open to qualified undergraduates. Offered jointly with the Kennedy School as ISP-432 and with the Divinity School as 2816. Meets at FAS.

***Government 2790. Central Issues of American Foreign Policy**
Catalog Number: 3567
Graham T. Allison, Jr. (Kennedy School)
Half course (spring term). Hours to be arranged.

Examination of central issues of American foreign policy today. For each issue, analysis of the international environment, identification of specific policy options, consideration of pros and cons, reflection on processes for choice and action.
Note: Offered jointly with the Kennedy School as ISP-202. Meets at the Kennedy School.

[Government 2791. Comparative Foreign and Security Policy]
Catalog Number: 7696
Alastair Iain Johnston
Half course (fall term). Hours to be arranged.
Focus is on the theory, methods, and data used in the empirical analysis of the foreign security policies of states. Examines the sources of state preferences, the structural and domestic constraints on state action, and foreign policy change.
Note: Expected to be given in 2005–06.
Prerequisite: Prior training in international relations theory strongly recommended.

[*Government 2795. Military Organizational Politics]
Catalog Number: 9111
Stephen Peter Rosen
Half course (spring term). Hours to be arranged.
Examines organizational behavior theory with particular reference to the politics of military organizational behavior.
Note: Expected to be given in 2005–06.

Government 2900. US-Latin American Relations
Catalog Number: 8020
Jorge I. Domínguez
Half course (fall term). W., 4–6. EXAM GROUP: 9
Studies US-Latin American political, military, and economic relations and Latin American international relations. Includes foreign policy decision making in the US and Latin America and alternative approaches to the study of the subject.

Graduate Courses of Reading and Research

***Government 3000. Reading and Research**
Catalog Number: 3391
Jeffrey B. Abramson (Brandeis University) 3687, James E. Alt 1593 (on leave spring term), Daniele Archibugi 5028 (fall term only), Robert H. Bates 1251 (on leave fall term), Terri Bimes 4690 (spring term only), Bear F. Braumoeller 3330 (on leave 2004-2005), Barry C. Burden 2524 (on leave spring term), Andrea L. Campbell 2508, Daniel P. Carpenter 4509, Timothy J. Colton 2269, Michael C. Dawson 4434 (on leave 2004-05), Jorge I. Domínguez 3823, Grzegorz Ekiert 2718, Margarita Estevez-Abe 3565, Jeffry Frieden 1627, Andrea M. Gates 4694 (fall term only), Peter A. Hall 7272, Yoshiko M. Herrera 1622, D. Sunshine Hillygus 4617, Michael J. Hiscox 4104, Jennifer L. Hochschild 3785, Stanley Hoffmann 1757, William G. Howell 4342 (on leave 2004-2005), Samuel P. Huntington 1765, Torben Iversen 1250 (on leave spring term), Alastair Iain Johnston 3213, Devesh Kapur 3071, Gary King 1723, Sharon R. Krause 3353 (on leave 2004-2005), Andrew Harriman Kydd 3965, Steven R. Levitsky 2395 (on leave spring term),

Roderick MacFarquhar 7856 (on leave 2004-2005), Daniel J. Mahoney (Assumption College) 4997 (spring term only), Harvey C. Mansfield 1731 (on leave 2004-2005), Lisa L. Martin 1048 (on leave fall term), Rachel M. McCleary 4400 (spring term only), Tamara Metz 4998, Glyn Morgan 2184 (on leave spring term), Russell Muirhead 1012, Pippa Norris 2218 (fall term only), Thomas Oatley (University of North Carolina) 5021 (spring term only), Robert L. Paarlberg (Wellesley College) 4696 (spring term only), John W. Patty (Carnegie Mellon University) 4999 (fall term only), Elizabeth M. Penn (Carnegie Mellon University) 5000 (fall term only), Elizabeth J. Perry 3074, Paul E. Peterson 2114, Susan J. Pharr 1518, Robert D. Putnam 6193, Stephen Peter Rosen 2721, Nancy Lipton Rosenblum 3786, Carol R. Saivetz 3341 (spring term only), Michael J. Sandel 7065, Eric Schickler 4643, John S. Schoeberlein 1016 (spring term only), Jasjeet Singh Sekhon 2244 (on leave fall term), Catherine R. Shapiro 4047, Kenneth A. Shepsle 1421, Beth A. Simmons 4487, Cindy Skach 3386, Theda Skocpol 1387, Christina Tarnopolsky 4362, Dennis F. Thompson 1426 (on leave 2004-2005), Richard Tuck 1704, Sidney Verba 4072, Mark E. Williams (Middlebury College) 5060 (spring term only), and Daniel F. Ziblatt 4641
Note: Requires written work of sufficient quantity and quality so that the course is equivalent to a lecture course or a seminar. Students who want supervised reading without substantial written work should take TIME-C (catalog number 8899) instead.

***Government 3000a. Reading and Research Seminar**
Catalog Number: 4143
Members of the Department
Small seminar on special topics. May be arranged with faculty listed under Government 3000. Requires written work as does Government 3000, but also involves regular class meetings.

Research Workshops

All Department of Government graduate students who have passed generals are eligible to enroll in one of the following research workshops. Others may attend with permission of instructor.
***Government 3004. Research Workshop in American Politics**
Catalog Number: 8566
Daniel P. Carpenter 4509, D. Sunshine Hillygus 4617, and Paul E. Peterson 2114
Full course (indivisible). F., 2–4.
A forum for the presentation and discussion of research in progress by graduate students (second year and above), faculty, and visiting scholars. Anyone working on contemporary American politics or on US political development welcome. Occasional presentations by invited speakers.

***Government 3005b. Research Workshop in International Relations: New Approaches to Security Studies**
Catalog Number: 1016
Stephen Peter Rosen 2721
Full course (indivisible). Tu., 12–2.
Research workshop for advanced graduate students working on dissertation proposals in security studies.

***Government 3006. Research Workshop in Comparative Politics**
Catalog Number: 0910
Timothy J. Colton 2269, Yoshiko M. Herrera 1622, and Susan J. Pharr 1518
Full course (indivisible). W., 4–6.
The workshop offers advanced graduate students an opportunity to present their work-in-progress, benefit from critiques of it, and discuss theoretical and methodological issues.
Note: Doctoral students from other departments and faculties admitted if space permits.

***Government 3007. Research Workshop in Political Economy**
Catalog Number: 0968
James E. Alt 1593 (on leave spring term), Jeffry Frieden 1627, Andrew Harriman Kydd 3965, and Beth A. Simmons 4487
Full course (indivisible). M., 12–2.
Intended for graduate students in the third year and above, this course welcomes scholarship of all types and on all aspects of political economy. Intended to provide a venue in which to develop and to debate work in progress.

***Government 3009. Research Workshop in Applied Statistics**
Catalog Number: 8142
Garrett M. Fitzmaurice (Public Health) 4067, Lee Fleming (Business School) 3839, Gary King 1723, Kevin M. Quinn 4737, Donald B. Rubin 7966 (on leave spring term), Jasjeet Singh Sekhon 2244 (on leave fall term), and Christopher Winship 3189
Full course (indivisible). W., 12–2.
A forum for graduate students, faculty, and visiting scholars to present and discuss work in progress. Features a tour of Harvard's statistical innovations and applications with weekly stops in different disciplines. Occasional presentations by invited speakers.

Health Policy

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Higher Degrees in Health Policy

Joseph P. Newhouse, John D. MacArthur Professor of Health Policy and Management *(Kennedy School, Medical School, Public Health) (Chair)*
Alyce S. Adams, Assistant Professor of Ambulatory Care and Prevention *(Medical School)*
Nancy Dean Beaulieu, Assistant Professor of Business Administration *(Business School)*
Robert J. Blendon, Professor of Health Policy and Political Analysis *(Public Health, Kennedy*

School)
David Bloom, Clarence James Gamble Professor of Economics and Demography *(Public Health)*
Allan M. Brandt, Professor of the History of Science *(FAS)* and Amalie Moses Kass Professor of the History of Medicine *(Medical School)*
Andrea L. Campbell, Assistant Professor of Government
Daniel P. Carpenter, Professor of Government
Nicholas A. Christakis, Professor of Medical Sociology *(Medical School)*
Paul D. Cleary, Professor of Medical Sociology *(Medical School)*
David M. Cutler, Professor of Economics and Dean for Social Sciences
Norman Daniels, Professor of Ethics and Population Health *(Public Health)*
Amy C. Edmondson, Professor of Business Administration *(Business School)*
Arnold M. Epstein, John H. Foster Professor of Health Care Policy and Management *(Public Health)*
Richard G. Frank, Margaret T. Morris Professor of Health Economics *(Medical School)*
Susanne J. Goldie, Associate Professor of Health Decision Science *(Public Health)*
Edward Guadagnoli, Professor of Health Care Policy *(Medical School)*
James K. Hammitt, Professor of Economics and Decision Sciences *(Public Health)*
Haiden A. Huskamp, Associate Professor of Health Economics *(Medical School)*
Gary King, David Florence Professor of Government
Karen M. Kuntz, Associate Professor of Health Decision Science *(Public Health)*
Peter V. Marsden, Professor of Sociology *(on leave fall term)*
Marie C. McCormick, Professor of Pediatrics *(Medical School)* and Sumner and Esther Feldberg Professor of Maternal and Child Health *(Public Health)*
Thomas G. McGuire, Professor of Health Economics *(Medical School)*
Barbara J. McNeil, Ridley Watts Professor of Health Care Policy and Professor of Radiology *(Medical School)*
Peter J. Neumann, Associate Professor of Policy and Decision Sciences *(Public Health)*
Sharon-Lise T. Normand, Professor of Health Care Policy *(Medical School, Public Health)*
Gary Pisano, Harry E. Figgie Jr. Professor of Business Administration *(Business School)*
Meredith B. Rosenthal, Assistant Professor of Health Economics and Policy *(Public Health)*
Donald B. Rubin, John L. Loeb Professor of Statistics *(on leave spring term)*
Stephen B. Soumerai, Professor of Ambulatory Care and Prevention *(Medical School)*
B. Katherine Swartz, Professor of Health Economics *(Public Health) (Director of Graduate Studies)*
Kimberly M. Thompson, Associate Professor of Risk Analysis and Decision Science *(Public Health)*
Milton C. Weinstein, Henry J. Kaiser Professor of Health Policy and Management and Biostatistics *(Public Health)* and Professor of Medicine *(Medical School)*
Alan Zaslavsky, Professor of Health Care Policy *(Medical School)*
Richard J. Zeckhauser, Frank Plumpton Ramsey Professor of Political Economy *(Kennedy School)*

I. Undergraduate Instruction in Health Policy

The Interfaculty Initiative in Health Policy offers support for the study of health policy by undergraduate students concentrating in departments or committees. For information on this and for a copy of "A Course Guide for Undergraduates Interested in Health Policy, Harvard University," please visit the Health Policy website atwww.fas.harvard.edu/~healthplo or contact Joan Curhan, Administrative Director, Interfaculty Initiative in Health Policy at: joan—curhan@harvard.edu (i.e. joan(type the underscore character)curhan@harvard.edu).

Courses of Interest

Economics 2460. Health Economics Workshop
General Education 186. Introduction to Health Care Policy
***General Education 187. The Quality of Health Care in America**
[Quantitative Reasoning 24. Health Economics]

II. Graduate Program in Health Policy

The PhD in Health Policy, awarded by the Faculty of Arts and Sciences, draws upon the resources of five faculties: The Faculty of Arts and Sciences, the School of Public Health, the Medical School, the John F. Kennedy School of Government, and the Harvard Graduate School of Business Administration. This degree is intended primarily for students seeking teaching careers in institutes of higher learning and/or research careers in policy.

Students in the PhD Program in Health Policy choose a concentration and meet specific curriculum requirements in one of seven disciplines: decision sciences, economics, ethics, evaluative science and statistics, management, medical sociology, or political analysis. In addition to choosing a concentration, students specialize in one of five areas of policy interest: environmental health, health care services, international health, mental health, or public health.

Decision Sciences (Professor Milton C. Weinstein, Chair). Decision Sciences are the collection of quantitative techniques that are used for decision making at the individual and collective level. They include decision analysis, cost-benefit and cost-effectiveness analysis, decision modeling, and behavioral decision theory. The concentration in decision sciences prepares students for research careers that involve the application of these methods to health problems.

Economics (Professor Joseph P. Newhouse, Chair). The concentration in economics focuses on the economic behavior of individuals, providers, insurers, and federal, state, and local governments as their actions affect health and medical care. In addition to examining the literature on health economics, the training emphasizes microeconomic theory, econometrics, public finance, industrial organization, labor economics, and interactions with other disciplines, including clinical medicine. This concentration prepares students for research and teaching careers as health economists.

Ethics (Professor Norman Daniels, Chair). The ethics concentration integrates quantitative, qualitative, and normative approaches to the analysis of ethical issues in health policy and clinical practice. Increasingly, the investigation of ethical issues in medicine and health policy

has not only drawn on normative ethics and political philosophy, but has included empirical research concerning attitudes and practices in clinical and broader institutional settings. A grasp of normative theories and tools is important because ethical principles and approaches are explicitly cited in the formulation of particular health policies at both the macro and micro level. Students in this track will focus on developing skills in a range of disciplines, with the goal of evaluating how ethical and socio-cultural values shape—and should shape—health policies as well as clinical and public health practices.

Research in health policy and ethics would include such topics as: policies for the allocation of scarce resources to individuals (e.g., human organs for transplantation, newly developed drugs, hospital beds) and across categories of patients (treatment vs. prevention for HIV/AIDS, or for HIV/AIDS vs. malaria); policies for care at the beginning and end of life; evaluation of informed consent protocols and their effectiveness; issues of equity in the evaluation of policies determining access to health services and the reduction of risk factors; policies responding to cross-cultural variation in ethical norms; ways in which health professionals are educated; policies regarding the balance between the individual and the collective (e.g., in bio-terrorism, epidemic control, etc.). All students in this track will develop core skills for the conduct of both normative analysis and empirical research in ethics.

Evaluative Science and Statistics (Professor Barbara J. McNeil and Professor Stephen Soumerai, Co-Chairs). Training in this concentration in health services and policy evaluation will enable students to evaluate the effects of a wide range of health services and policies (e.g., insurance, health care quality improvement, and cost-containment) on behaviors, access, processes and quality of care, health outcomes or costs. Students in this concentration will develop proficiency in experimental and quasi-experimental research design, statistics, other methodological approaches (e.g., epidemiology, program evaluation, qualitative methods, and survey design) and relevant social sciences. Previous students in this track have used innovative methodological and statistical approaches to study, for example: the effects of drug coverage on access to essential medications in Medicare; the effects of employment on population health; international differences in outcomes of medical care for acute myocardial infarction; the health effects of HMO reductions and subsequent government increases in maternity lengths of stay; and effects of regulatory changes in legal drinking ages on health and mortality.

Management (Assistant Professor Nancy Dean Beaulieu and Professor Amy C. Edmondson, Co-Chairs). The management concentration emphasizes the organizational, managerial, and strategic issues facing health care providers, payers, and other players in the health care market. Students will learn how theories and concepts from fields such as technology and operations management, organizational behavior, organizational economics, and competitive strategy can be applied to health care organizations. Areas of research include: the design and improvement of health care delivery processes, approaches for improving health care quality and productivity, development and adoption of new medical technologies, financial incentives in health care, new role of patients as consumers of health care, appropriate ownership and organizational structure of hospitals and other health care providers, and management of professional health care staff. Students will be required to take MBA, economic theory, and quantitative methods courses, as well as the Management and Markets course, at the Harvard Business School. We expect students completing this track to find jobs in academic and research institutions which have an

interest in the impact of management on health care.

Medical Sociology (Professor Paul D. Cleary and Professor Peter V. Marsden, Co-Chairs). In this track, students will learn about and contribute to knowledge in several research areas that are extremely important to health policy, including the study of professions and professional behavior; the structure of health care organizations and systems; the impact of organizational and professional change on the structure of medical work; organizational improvement programs and their evaluations; evaluation of intervention programs; the diffusion of innovations across providers and organizations; and the behavior of patients and consumers—including consumer evaluations of health care quality and patient perspectives on the process and outcomes of care.

Political Analysis (Professor Robert J. Blendon, Chair). This concentration is intended for students who wish to do research on political behavior and its effect in the health field. Students will study theories of public opinion formation, voting behavior, legislative behavior, interest group influence, and political strategy as well as examine the role of both political institutions and the media on influencing health policy outcomes. The research methodologies most utilized in this track include survey research methods and quantitative statistical methods appropriate for large-scale databases. Graduates of this concentration will likely teach and do research on the politics of health care and will be involved with government, professional, and consumer groups on research projects related to the politics of public policy in the health field.

Applications: The application deadline is mid-December for admission in the following fall. To request admissions material, applicants should contact the Harvard University Graduate School of Arts and Sciences, Byerly Hall, 8 Garden Street, Cambridge, MA 02138, (617-495-5315), or visit the Graduate School of Arts and Sciences website at www.gsas.harvard.edu/admissions to apply on-line or to request an application. Important additional information on financial aid and other aspects of the PhD Program in Health Policy are available from Joan P. Curhan, Director, PhD Program in Health Policy, 79 John F. Kennedy Street, Cambridge, MA 02138, email: *joan—curhan* or (617-496-5412). Website: www.fas.harvard.edu/~healthpl

Cross-listed Courses

[*Economics 3460chf. Research in Health Economics]

Health Policy Courses

Health Policy 2000. Core Seminar in Health Policy
Catalog Number: 4522
David M. Cutler, Richard G. Frank (Medical School), and Joseph P. Newhouse (Kennedy School, Medical School, Public Health)
Full course (indivisible). Tu., Th., 4–6. EXAM GROUP: 18
Topics include the financing and organization of health care, public health, political analysis, medical manpower, health law and ethics, technology assessment, prevention, mental health, long-term care, and quality of care.
Note: Required for doctoral candidates in Health Policy and open to others by permission of instructor. Offered jointly with the Kennedy School as HCP-597.

***Health Policy 3000. Doctoral Dissertation Research**
Catalog Number: 8422
Members of the Committee on Higher Degrees in Health Policy
Dissertation research.

***Health Policy 3002. Graduate Reading Course: Mental Health Policy**
Catalog Number: 3528
Richard G. Frank (Medical School) 1371 and Joseph P. Newhouse (Kennedy School, Medical School, Public Health) 2425

***Health Policy 3010. Graduate Reading Course: Ethics**
Catalog Number: 9241
Norman Daniels (Public Health) 4722 and Allan M. Brandt 3031

***Health Policy 3020. Graduate Reading Course: Political Analysis**
Catalog Number: 3781
Robert J. Blendon 2712
Provides a forum for the presentation of research concerning the politics surrounding health policy. Participants discuss recent examples of research from a range of methodological approaches and present their own work-in-progress. Graduate students, faculty, and visiting scholars are welcome to present research at all stages.

***Health Policy 3030. Graduate Reading Course: Medical Sociology**
Catalog Number: 1826
Paul D. Cleary (Medical School) 2713

***Health Policy 3040hf. Research Seminar in Health Policy**
Catalog Number: 8870
B. Katherine Swartz (Public Health) 2461
Half course (throughout the year). Hours to be arranged.

***Health Policy 3050hf (formerly *Health Policy 3050). Racial and Ethnic Disparities in Health Care Access and Outcomes**
Catalog Number: 9717
B. Katherine Swartz (Public Health) 2461, Robert J. Blendon 2712, and David M. Cutler 2954
Half course (throughout the year). Hours to be arranged.
The seminar will focus on methodological issues connected to investigating reasons for racial and ethnic disparities in health care access and outcomes that have been observed in the US. *Note:* Faculty and graduate students in the PhD programs in health policy, social policy, sociology, economics, and government are particularly encouraged to participate.

***Health Policy 3060. Graduate Reading Course: Decision Sciences**
Catalog Number: 2133
Milton C. Weinstein 3043

***Health Policy 3070. Graduate Reading Course: Economics**
Catalog Number: 7439
Joseph P. Newhouse (Kennedy School, Medical School, Public Health) 2425

***Health Policy 3080. Graduate Reading Course: Evaluative Sciences and Statistics**
Catalog Number: 9516
Stephen B. Soumerai (Medical School) 1906

***Health Policy 3090. Graduate Reading Course: Management**
Catalog Number: 2492
Amy C. Edmondson (Business School) 4613 and Nancy Dean Beaulieu (Business School) 4308

History

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of History

Andrew Gordon, Lee and Juliet Folger Fund Professor of History *(Chair)*
Emmanuel K. Akyeampong, Harvard College Professor and Professor of History and of African and African American Studies
David R. Armitage, Professor of History
Sven Beckert, Professor of History *(on leave 2004-05)*
Thomas N. Bisson, Henry Charles Lea Professor of Medieval History *(on leave fall term)*
David Blackbourn, Coolidge Professor of History
Ann M. Blair, Professor of History *(on leave 2004-05)*
Sugata Bose, Gardiner Professor of Oceanic History and Affairs *(Director of Graduate Studies)*
Daniel V. Botsman, Associate Professor of History *(on leave 2004-05)*
Vincent Brown, Assistant Professor of History
Joyce E. Chaplin, Professor of History *(Head Tutor)*
John H. Coatsworth, Monroe Gutman Professor of Latin American Affairs
Lizabeth Cohen, Howard Mumford Jones Professor of American Studies
Fernando Coronil, Visiting Associate Professor of History *(University of Michigan)*
Nancy F. Cott, Jonathan Trumbull Professor of American History
Caroline M. Elkins, Assistant Professor of History *(on leave spring term)*
Drew Gilpin Faust, Lincoln Professor of History
Ruth Feldstein, Associate Professor of History and of History and Literature *(on leave 2004-05)*
Niall Ferguson, Laurence A. Tisch Professor of History *(on leave fall term)*
Timothy George, Visiting Associate Professor of History *(University of Rhode Island)*
Peter E. Gordon, John and Ruth Hazel Associate Professor of the Social Sciences

James Hankins, Professor of History
Jonathan M. Hansen, Visiting Lecturer on History *(Boston University)*
Henrietta Harrison, Visiting Associate Professor of History *(University of Leeds)*
Evelyn Brooks Higginbotham, Victor S. Thomas Professor of History and of African and African American Studies
Patrice Higonnet, Robert Walton Goelet Professor of French History *(on leave fall term)*
Akira Iriye, Charles Warren Professor of American History *(on leave spring term)*
Robert D. Johnson, Visiting Professor of History *(Brooklyn College) (spring term only)*
Christopher P. Jones, George Martin Lane Professor of the Classics and of History
Cemal Kafadar, Vehbi Koc Professor of Turkish Studies, Associate of Currier House *(on leave 2004-05)*
Edward L. Keenan, Andrew W. Mellon Professor of History
William C. Kirby, Edith and Benjamin Geisinger Professor of History and Dean of the Faculty of Arts and Sciences
Mark A. Kishlansky, Frank B. Baird, Jr. Professor of History
James T. Kloppenberg, Harvard College Professor and David Woods Kemper ‘41 Professor of American History
Philip A. Kuhn, Francis Lee Higginson Professor of History and of East Asian Languages and Civilizations
Angeliki E. Laiou, Dumbarton Oaks Professor of Byzantine History
Jill M. Lepore, Professor of History
Mary D. Lewis, Assistant Professor of History *(on leave 2004-05)*
Charles S. Maier, Leverett Saltonstall Professor of History
Erez Manela, Assistant Professor of History *(on leave 2004-05)*
Terry D. Martin, John L. Loeb Associate Professor of the Social Sciences
Kenneth R. Maxwell, Visiting Lecturer on History
Ernest R. May, Charles Warren Professor of American History *(on leave fall term)*
Michael McCormick, Francis Goelet Professor of Medieval History
Lisa M. McGirr, Dunwalke Associate Professor of American History *(on leave 2004-05)*
Georg Michels, Visiting Professor of History *(University of California, Riverside)*
Roy Mottahedeh, Gurney Professor of History
Afsaneh Najmabadi, Professor of History and of Studies of Women, Gender, and Sexuality
Frank Ninkovich, Visiting Professor of History *(St. John’s University)*
Susan E. O’Donovan, Assistant Professor of African and African American Studies and of History
E. Roger Owen, A. J. Meyer Professor of Middle East History
Steven Ozment, McLean Professor of Ancient and Modern History
Mariano B. Plotkin, Lecturer on History and Literature
Eric W. Robinson, Associate Professor of the Classics and of History *(on leave fall term)*
Emma Rothschild, Visiting Professor of History *(King’s College, Cambridge)*
Judith Surkis, Assistant Professor of History and of History and Literature
Roman Szporluk, Mykhailo S. Hrushevs’kyi Professor of Ukrainian History
Hue-Tam Ho Tai, Kenneth T. Young Professor of Sino-Vietnamese History *(on leave fall term)*
Nathaniel Taylor, Visiting Lecturer on History, Contin Ed/Spec Prog Instructor
Stephan Thernstrom, Winthrop Professor of History
T. Robert Travers, Assistant Professor of History

Laurel Thatcher Ulrich, Harvard College Professor and the James Duncan Phillips Professor of Early American History
John Womack, Jr., Robert Woods Bliss Professor of Latin American History and Economics *(on leave 2004-05)*
Bradley S. Zakarin, Lecturer on History

Other Faculty Offering Instruction in the Department of History

Bernard Bailyn, Adams University Professor, Emeritus and James Duncan Phillips Professor of Early American History, Emeritus
Peter K. Bol, Charles H. Carswell Professor of East Asian Languages and Civilizations
Harold Bolitho, Professor of Japanese History
Kathleen M. Coleman, Harvard College Professor and Professor of Latin
Albert M. Craig, Harvard-Yenching Professor of History, Emeritus
Charles Donahue, Jr., Professor of Law *(Law School)*
Carter J. Eckert, Yoon Se Young Professor of Korean History *(on leave spring term)*
Mark C. Elliott, Mark Schwartz Professor of Chinese and Inner Asian History
William L. Fash, Bowditch Professor of Central American and Mexican Archaeology and Ethnology
Franco Fido, Carl A. Pescosolido Professor of Romance Languages and Literatures
Donald Fleming, Jonathan Trumbull Research Professor of American History
Ivan Gaskell, Senior Lecturer on History
David D. Hall, Bartlett Professor of New England Church History *(Divinity School) (on leave 2004-2005)*
Jay M. Harris, Harvard College Professor and Harry Austryn Wolfson Professor of Jewish Studies
Stanley Hoffmann, Paul and Catherine Buttenwieser University Professor
Morton J. Horwitz, Charles Warren Professor of American Legal History *(Law School)*
Geoffrey Jones, Professor of Business Administration *(Business School)*
Alexander Keyssar, Matthew W. Stirling, Jr. Professor of History and Social Policy *(Kennedy School)*
Elisabeth L. Laskin, Lecturer on History
Harvey C. Mansfield, William R. Kenan, Jr., Professor of Government *(on leave 2004-2005)*
Thomas K. McCraw, Isidor Straus Professor of Business History *(Business School)*
John E. Murdoch, Professor of the History of Science *(on leave fall term)*
Robert A. Orsi, Charles Warren Professor of History of Religion in America *(Divinity School)*
Orlando Patterson, John Cowles Professor of Sociology *(on leave spring term)*
Richard Pipes, Frank B. Baird, Jr Professor of History, Emeritus
Michael James Puett, Professor of Chinese History
Bernard Septimus, Jacob E. Safra Professor of Jewish History and Sephardic Civilization
Wei-Ming Tu, Harvard-Yenching Professor of Chinese History and Philosophy and of Confucian Studies *(on leave spring term)*
Jan Ziolkowski, Arthur Kingsley Porter Professor of Medieval Latin

Courses numbered 10–999 are Primarily for Undergraduates; courses numbered 1000–1999 are for Undergraduates and Graduates. These are distributed as follows:

1050–1099 Ancient History

1101–1299 Medieval and Renaissance History

1300–1599 Early and Modern Europe

1600–1699 United States

1700–1799 Latin America

1800–1930 Asia, Africa and Australasia

1931–3910 Historiography, Methodology, Global, and Comparative

Courses numbered 2000 and over are Primarily for Graduates. They are distributed as above, but stepped up by 1000. Courses designated as "Primarily for Graduates" may, with the permission of the instructor, be taken by senior History concentrators who are candidates for honors.

Directed Study for Undergraduates

The Department makes available, so far as its resources permit, opportunity for individual instruction in fields of special interest in which a regular course is not offered.

***History 91r. Supervised Reading and Research**
Catalog Number: 1458
Joyce Chaplin and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Limited to juniors and seniors. Students wishing to enroll must petition the Head Tutor for approval, stating the proposed project, and must have the consent of the proposed instructor. Ordinarily, students are required to have taken some course work as background for their project.

Tutorials in History

***History 97. Sophomore Tutorial**
Catalog Number: 4469
T. Robert Travers, Vincent Brown, Caroline M. Elkins, and Susan E. O'Donovan
Half course (fall term). Hours to be arranged.
Introduction to the ways in which historians recreate the past. Students will read prototypes of historical genres and write their own histories in alternating sessions. Discussion sections and small tutorials.
Note: Required of, and limited to, all History concentrators in the fall term of their sophomore year.

***History 98. Honors Research Seminar**
Catalog Number: 3556
Nancy F. Cott (spring term), James Hankins, Timothy George (University of Rhode Island),

Michael McCormick (fall/spring) and Nathaniel Taylor (fall term)
Half course (fall term; repeated spring term). Hours to be arranged.
Methods of historical research and writing.
Note: Required of, and ordinarily limited to, honors juniors concentrating in History. Must be taken in the fall unless approved by the Head Tutor for the spring term.
Prerequisite: Admission to the honors program in History.

***History 99. Tutorial — Senior Year**
Catalog Number: 5803
Joyce Chaplin and members of the Department
Full course. Hours to be arranged.
Research and writing the senior honors essay in History.
Note: Required of, and ordinarily limited to, honors seniors concentrating in History. Permission must be obtained in the Tutorial Office. Either half year may be taken as a half course with the consent of the Head Tutor.
Prerequisite: History 98 and recommendation of the 98 tutor.

History 90. Historiography Seminars

These half-courses are limited to 15 participants. All History concentrators are required to take the History 90 in their field, ordinarily in the spring of their sophomore year. Other undergraduates may be admitted into History 90 at the discretion of the instructor. History 90 is closed to graduate students.

History 90a. Major Themes in Medieval History
Catalog Number: 0708
Thomas N. Bisson
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
Designed in collaboration with students to introduce research topics while complementing other courses. Themes typically include power and society, work, sanctity, gender, learning, theology, crusading, and personality. Stress on views and confusions of modern historians.

***History 90b. Thought and Culture in the European Renaissance and Reformation**
Catalog Number: 1833
Steven Ozment
Half course (spring term). W., 1–3 or Th., 2–4. EXAM GROUP: 6, 7, 16, 17
In what sense, if any, were the centuries between 1300 and 1600 a period of transition from medieval to modern times? Eight scholarly debates pertinent to answering this question are addressed: the crisis of the late Middle Ages; church and state; the Renaissance of the Italian humanists; prophecy, heresy, and dissent; popular culture, sex, marriage, and family life; witches and witch hunts; and the Reformation and Counter Reformation.

***History 90c. Major Themes in Modern European History**
Catalog Number: 5303
Judith Surkis
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Examines major trends in the historiography of modern Europe. The course will be organized

around the themes of "publicity" and "privacy" Topics to include: revolution and political rights; reading publics and civil society; markets and advertising, domesticity and social welfare; citizenship and consumption.

***History 90d. Intellectual History**
Catalog Number: 4955
David R. Armitage
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
An introduction to the methods of intellectual history, drawing primarily on sources from early modern and modern Europe. Designed for sophomores concentrating in History, though students with similar preparation and needs may be admitted with instructor's permission.

***History 90e. Major Themes in American Historical Writing**
Catalog Number: 4577
Susan E. O'Donovan and Jonathan M. Hansen (Boston University)
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
An examination of critical themes in American historical writing from the late 17th century to the present. Students will read selections from classics in American historiography and will examine debates among historians on some of the most important issues in US history. Among the themes explored will be the origins of the American Revolution, the frontier, slavery, immigration, and the Cold War.
Note: First meeting on Thurs., 2/3, 2–4 in Harvard Hall 103.

***History 90f. International Relations**
Catalog Number: 4422
Robert D. Johnson (Brooklyn College) and Bradley S. Zakarin
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Major themes in modern international history.

***History 90g. Major Themes in World History: Colonialism, Imperialism, and Post-Colonialism**
Catalog Number: 0119
Hue-Tam Ho Tai
Half course (spring term). W., 2–3 with discussion section Th., at 1 or W., at 3. EXAM GROUP: 7
A general introduction to theories of imperialism, nationalism, and post-colonialism. Case studies to include Africa, Asia, and Latin America. Will combine the study of theory with examination of particular anti-colonial and anti-imperialist movements.

[*History 90i. Major Themes in Ancient History]
Catalog Number: 4922 Enrollment: Limited to 18.
Eric W. Robinson
Half course (spring term). Hours to be arranged.
An overview of some of the major issues in Greco-Roman history, with special attention given to the methodologies of the ancient historian.
Note: Expected to be given in 2005–06.

Introductory Courses

Primarily for Undergraduates

History 10a. Western Societies, Politics, and Cultures: From Antiquity to 1650
Catalog Number: 0213
Christopher P. Jones, Angeliki E. Laiou, and Steven Ozment
Half course (fall term). Tu., Th., at 12. EXAM GROUP: 14
A survey of Mediterranean and West European societies from Greco-Roman antiquity to the Scientific Revolution.
Note: Required of all history concentrators. This course, when taken for a letter grade, meets the Core area requirement for Historical Study B.

History 10b. Western Societies, Politics, and Cultures: From 1650 to the Present
Catalog Number: 0262
Peter E. Gordon
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
Second half of a survey of European history from the first cities and empires to modern times. Also treats some major aspects of the history of the Americas insofar as they form part of overarching Western developments. Topics include absolute monarchy and enlightened despotism; the Enlightenment and age of revolutions; industrialization and nation building; imperialism and the world wars; cultural and social change; the rise and fall of totalitarian regimes.
Note: Required of all history concentrators.

History 10c (formerly History 1954). The World in the 20th Century
Catalog Number: 1925
Charles S. Maier
Half course (spring term). M., W., (F.), at 11; F., at 11. EXAM GROUP: 4
A history of world societies from the end of the 18th century until the present. Covers such transnational forces as demographic change, religious revivals, and technological and economic development; comparative political transformations, such as the impact of revolutionary ideologies on rural and urban life; and the interactions between different global regions, whether as a consequence of imperialism and war, economic trade and investment, or cultural diffusion.

History 20a. Western Intellectual History: Greco-Roman Antiquity
Catalog Number: 6308
James Hankins
Half course (fall term). M., W., at 12. EXAM GROUP: 5
A survey of major themes in the intellectual history of the Greek and Roman World, with special attention to metaphysics, psychology, epistemology, ethics, politics, and the philosophic life. Readings in the Presocratics, Plato, Aristotle, Lucretius, Epictetus, Cicero, Seneca, Marcus Aurelius, Plotinus, Augustine and Boethius.

History 20b. Western Intellectual History: The Middle Ages to the Seventeenth Century
Catalog Number: 7573

James Hankins
Half course (spring term). M., W., at 12. EXAM GROUP: 5
A survey of major themes in medieval and early modern intellectual history. Readings in Anselm, Abelard, Thomas Aquinas, William of Ockham, Petrarch, Machiavelli, Thomas More, Martin Luther, Montaigne, Francis Bacon, Descartes, Hobbes.

[History 71a. America: Colonial Times to the Civil War]
Catalog Number: 6647

Half course (fall term). Hours to be arranged.
Covers American history from the period of colonial settlement to the Civil War. Topics include the collision of European, African, and native cultures in the age of settlement; colonial British North America; the American Revolution; geographic expansion and social, economic, and cultural change in the Jacksonian era; and slavery and the sectional conflict.
Note: Expected to be given in 2005–06.

History 71b. The Rise of Modern America, 1865 to Present
Catalog Number: 7671
Jonathan M. Hansen (Boston University)
Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
This course introduces students to the history and historiography of the US from the end of the Civil War to the present. We will examine cultural and intellectual trends as well as political, economic, social, and legal developments. Through primary and secondary readings, print, visual, and other popular media, students will explore, among other topics, the consolidation of American nationalism, corporate capitalism, the labor movement, cultural pluralism, social reform, mass culture, and global America.

Ancient History

For Undergraduates and Graduates

See also Classical Archaeology 180 and 181.
[History 1085. The Roman Empire, Augustus to Constantine]
Catalog Number: 3109
Christopher P. Jones
Half course (spring term). Hours to be arranged.
The Roman Empire from its foundation by Augustus to the death of Constantine; its social, political, and military development; its institutions (emperor, senate, army); Roman imperial art and coinage; Greek and Roman literature of the imperial period; religious developments, including Judaism and Christianity under Roman rule; women and minorities. Sections will focus on issues of particular interest and on the study of primary documents. No knowledge of ancient languages required.
Note: Expected to be given in 2005–06.

[History 1092. The Emperor Hadrian: Conference Course]
Catalog Number: 1455
Christopher P. Jones
Half course (spring term). Hours to be arranged.
The emperor Hadrian is a crucial actor in Roman imperial history, whose memory retained a firm hold on later antiquity, the Middle Ages, and modern times down to the present. We aim to build up a picture of Hadrian through his own pronouncements and the opinions of others about him (including Jewish and Christian sources), and through art, archaeology, and urbanism.
Note: Expected to be given in 2005–06.
Prerequisite: Knowledge of Greek and Latin not required; knowledge of either French or German recommended.

Cross-listed Courses

Historical Study B-04. Ancient Greek Democracy
Historical Study B-09. The Christian Revolution

Medieval and Renaissance History

For Undergraduates and Graduates

See also Committee on Medieval Studies. Students are also directed to Divinity School courses.
[History 1101. Medieval Europe]
Catalog Number: 4278
Michael McCormick
Half course (spring term). Hours to be arranged.
The formation of a European civilization from the conversion of Constantine to the 15th century, Germanic settlements; Carolingian order; power, violence; salvation; crusades; heresy; peasants; knights; gender; monks; friars; a saint-king; schism; the Hundred Years' War. Stress on France, Germany, Italy, and Spain.
Note: Expected to be given in 2005–06. Given in alternate years. Students prepared to pursue special topics can be accommodated.

[History 1111. World of Late Antiquity]
Catalog Number: 6019
Michael McCormick
Half course (spring term). Hours to be arranged.
Studies the changes, violent or subtle, that transformed the late Roman world—the fall of the Roman Empire—to produce medieval civilization between ca. 300 and 700. Topics include the imperial meritocracy; Constantine's conversion; the coming of the barbarians; sports, propaganda, and political belief; women and power. Emphasizes reading of primary texts in translation.
Note: Expected to be given in 2005–06.

History 1133. Medieval England (ca. 871-1485)
Catalog Number: 7756

Thomas N. Bisson
Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 3
English societies, from Anglo-Saxon times to the Tudors. Stress on the Norman conquest, constitutional innovation, the formation of political culture and the origins of Parliament, and agrarian disorder, culture, and war.
Note: Given in alternate years. Normally alternates with Medieval Studies 117.

History 1139. Kingdoms, Communities, and Civilizations of Medieval Spain, 456-1516
Catalog Number: 2909
Nathaniel Taylor
Half course (fall term). Tu., Th., at 10 and a weekly section to be arranged. EXAM GROUP: 12
The diverse societies of the medieval Iberian peninsula produced a united kingdom with profound influence on the modern world. We trace the peoples and kingdoms of Iberia from the barbarian settlement of the Visigoths (5th century) to the dawn of the 'Golden Age'. We explore the Islamic society of the Caliphate of Córdoba; the rise and competition of the Christian kingdoms; the paradox of Reconquista and coexistence; and the flowering of high-medieval Spanish culture.

History 1150. The Jews in Muslim and Christian Spain
Catalog Number: 5331
Bernard Septimus
Half course (spring term). Tu., Th., at 12. EXAM GROUP: 14
A study of the political, social, and cultural history of the Hispano-Jewish community from the Muslim conquest of Spain in 711 to the expulsion of the Jews from Christian Spain in 1492. Emphasis on literary and intellectual developments and on the complex relationship of the Jews to Iberian Christendom and Islam. Combines material from former courses History 1151 and 1152.
Note: Offered jointly with the Divinity School as 3675. This course, when taken for a letter grade, meets the Core area requirement for Historical Study B.

History 1158. The Mediterranean in the Late Middle Ages, 1204-1500: Conference Course
Catalog Number: 2711
Angeliki E. Laiou
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Examines the economic, social, and political developments in the Mediterranean basin during a critical period. Investigates patterns of economic dominance, trade patterns, forms of colonization, the function of the merchant groups in Venetian, Genoese, Byzantine, and Muslim societies. The development of shipping, maps, and financial and commercial techniques is discussed; travel, war, and politics are also examined in their relation to economic and social developments.

[History 1166. Family, Sex, and Marriage in Western Europe, East and West in the Medieval and Early Modern Period: Conference Course]
Catalog Number: 2725
Steven Ozment
Half course (fall term). Hours to be arranged.

Reading and discussion of major sources and studies illustrative of the development of family life in the Byzantine Empire and in medieval and early modern Western Europe, in a comparative perspective. Attention will be given to important historiographical controversies and to a variety of national traditions.
Note: Expected to be given in 2005–06.

History 1212. The Imperial System: Byzantine Society and Civilization, 8thc.-1204: Conference Course
Catalog Number: 6078
Angeliki E. Laiou
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
An examination of Byzantine society from the time of the Iconoclastic controversy until the conquest of Constantinople by the participants of the Fourth Crusade. Topics will include state ideology and diplomacy, social structure, the formation of the aristocracy, the economy, urban and rural life, the role of women, relations with Western Europe and the Muslim world, art and culture. Considerable emphasis will be given to primary sources (in translation).

[History 1214. History of the Soul: Conference Course]
Catalog Number: 5436
James Hankins
Half course (spring term). Hours to be arranged.
The history of Western ideas about the soul, from the ancient Greeks to the 17th century. Special attention to the connections between psychological theory and ethics, politics, natural philosophy and theology, as well as to the shift from the premodern soul/body dichotomy to the modern mind/body dichotomy. Readings in Plato, Aristotle, the Stoics, Plotinus, Augustine, Aquinas, Ficino, Pomponazzi, Descartes, Hobbes, Leibniz, and Locke.
Note: Expected to be given in 2005–06.

Cross-listed Courses

[Historical Study A-40. The Middle East and Europe since the Crusades: Relations and Perceptions]
[Historical Study B-19. The Renaissance in Florence]
[Medieval Studies 101. The Auxiliary Disciplines of Medieval History: Proseminar]
[Medieval Studies 117. Constitutional and Legal History of Medieval England]
Medieval Studies 119. Constitutional and Legal History of Medieval Continental Europe

Primarily for Graduates

***History 2101. Medieval Societies and Cultures: Proseminar**
Catalog Number: 6693
Michael McCormick
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
Introduction to the study of medieval history, and to the literature basic to the examination field. Stress on the values (and limitations) of older institutionalist scholarship and on the challenges of *annaliste* and theoretically informed approaches.

Note: May not ordinarily be credited as one of the research seminars required in the first-year program.
Prerequisite: Reading knowledge of French and/or German.

[*History 2120. Problems in Byzantine History: Proseminar]
Catalog Number: 9720
Angeliki E. Laiou
Half course (fall term). Hours to be arranged.
Graduate colloquium for students preparing for general examinations in Byzantine history. Focus on major issues and historiographical debates, 4th-12th century.
Note: Expected to be given in 2005–06. May not be credited as a research seminar.
Prerequisite: Reading knowledge of French or German.

History 2122. Early Medieval History: Seminar: Communications in the Early Medieval Mediterranean
Catalog Number: 5011
Michael McCormick
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
Communications, travel, and commerce in the early medieval Mediterranean. Meetings will include close philological and historical analysis of relevant Latin sources, and research papers by participants.
Prerequisite: Latin, with either German or French, is required.

History 2126. Medieval Law
Catalog Number: 3140
Charles Donahue, Jr. (Law School)
Half course (spring term). Tu., 4:30–6:30. EXAM GROUP: 18
Readings focused alternately on English legal tradition and on the Roman-canonical tradition. Short papers analyzing texts will be required but not a research paper. Topics for 2004-05: the Romano-canonical legal tradition.
Prerequisite: Some Latin required.

History 2271r. Topics in Byzantine History: Seminar
Catalog Number: 3868
Angeliki E. Laiou
Half course (fall term; repeated spring term). M., 4–6. EXAM GROUP: 9
Topic to be announced.
Prerequisite: Reading knowledge of Greek, Ancient or Medieval, French and/or German.

[History 2314. Research Methods in Renaissance History: Seminar]
Catalog Number: 1442
James Hankins
Half course (spring term). Hours to be arranged.
Introduction to paleography, codicology, textual and source criticism, critical bibliography, and methods of manuscript research.

Note: Expected to be given in 2005–06.
Prerequisite: Reading knowledge of Latin, German, French, and Italian.

Early and Modern Europe

For Undergraduates and Graduates

[History 1318. History of the Book and of Reading]
Catalog Number: 7410
Ann M. Blair
Half course (spring term). Hours to be arranged.
An introduction to the cultural history of the book and its functions as both material object and text. Major themes include the techniques of book production, authorship, popular and learned readership, libraries and censorship, with a focus on printing and developments in early modern Europe (notably in France, 16th-18th centuries).
Note: Expected to be given in 2005–06.

***History 1336. The Reign of Charles I: Conference Course**
Catalog Number: 1531 Enrollment: Limited to 12.
Mark A. Kishlansky
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
An examination of the Stuart monarchy during its most tempestuous period. Topics include court culture, religion, and the Constitution. Readings focus on the rich primary literature of the age. Original research required.

History 1418. Political Justice Since 1789: Conference Course
Catalog Number: 3904
Charles S. Maier
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Examines selected trials and debates, and some comparative and theoretical material, to open up key problems in recent history as well as general legal and moral issues.

History 1431. The Transformation of Britain, 1760-1870
Catalog Number: 3665
T. Robert Travers
Half course (fall term). Tu., Th., at 12. EXAM GROUP: 14
Introduction to British history from the accession of George III to Gladstone's first administration, with particular attention to political and social change. Covers war and the growth of national identity, industrial development, changing attitudes to gender and social class, and Britain's relationship with its colonies. Readings include primary texts by Burke, Paine, Wollstonecraft, John Stuart Mill, and Carlyle, as well as a variety of works by modern historians.

[History 1439. India and the British Empire in the 18th Century: Conference Course]
Catalog Number: 3259
T. Robert Travers
Half course (spring term). Hours to be arranged.

Considers how a British trading company emerged in the late eighteenth century as a major territorial power in India. Examines the course and causes of British conquests, and the impact of these conquests both in India and in Britain. Topics include ideas of empire, the British-Indian army, the administration of law and property, 'orientalist' scholarship, and colonial towns. Emphasis on primary research based on numerous contemporary sources including parliamentary debates, travel accounts, and paintings.
Note: Expected to be given in 2006–07.

History 1443. Peter Paul Rubens (1577-1640), Scholar, Diplomat, Artist: Conference Course
Catalog Number: 4061
Ivan Gaskell
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
An investigation of how 21st-century responses to artworks by Rubens may relate to the development of historical understanding. Examines the tensions between the specificity of Rubens's artworks and other actions, and broader patterns and conventions of behavior in art, politics, and the western European social fabric more generally in the first half of the 17th century. Will examine artworks associated with Rubens's paintings, drawings, prints, illustrated books in Harvard and Boston collections.

History 1444. John Locke: Conference Course
Catalog Number: 6655 Enrollment: Limited to 15.
David R. Armitage
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
A comprehensive survey of the work of the philosopher and political theorist John Locke in historical context. Treats major works including the "Essay Concerning Human Understanding," the "Two Treatises of Government," "A Letter Concerning Toleration," "Some Thoughts Concerning Education," and "The Reasonableness of Christianity."

[History 1450. France 1500-1715]
Catalog Number: 7575
Ann M. Blair
Half course (spring term). Hours to be arranged.
A general survey of the history and historiography of early modern France ca. 1500-1715, with a special emphasis on topics in cultural history, including: humanism and printing; Protestantism; political thought; royal and court rituals; and the beginnings of the Enlightenment. Assigned readings from Rabelais, Montaigne, Pascal, Racine, and Voltaire among the primary sources; from Fernand Braudel, Natalie Davis, Robert Darnton among the secondary sources.
Note: Expected to be given in 2006–07. All assignments in English. Primary source readings can be done in French, if interested.

[History 1451. The History of France from Louis XIV to Charles deGaulle]
Catalog Number: 6683
Patrice Higonnet
Half course (fall term). Hours to be arranged.

The history of France from the French Revolution to Charles deGaulle.
Note: Expected to be given in 2006–07.

History 1454. French Social Thought from Rousseau to Foucault and Beyond
Catalog Number: 4665
Judith Surkis
Half course (fall term). M., W., at 12; F., at 12. EXAM GROUP: 5
Examines traditions and trends in French social thought as dialogues between thinkers and between thinkers and their historical contexts. Examines the "schools" of liberalism, conservatism, republicanism, socialism, existentialism, structuralism, Marxism, feminism, and anti-colonialism. Readings from Rousseau, de Maistre, Saint-Simon and the Saint-Simoniennes, Michelet, Tocqueville, Comte, Durkheim, Mauss, Kojeve, Bataille, Canguilhem, Levi-Strauss, Sartre, de Beauvoir, Fanon, Lyotard, Althusser, Foucault, and Bourdieu.

[History 1458. "French Modern", 1848-Present]
Catalog Number: 5919
Judith Surkis
Half course (fall term). Hours to be arranged.
Examines impact of and significant responses to modernity in France from the mid-19th century forward. Themes include: republicanism and revolt; social reform and bourgeois order; population anxiety and anti-Semitism.
Note: Expected to be given in 2006–07.

[History 1459. Gender and Sexuality in Modern Europe: Conference Course]
Catalog Number: 1562
Judith Surkis
Half course (fall term). Hours to be arranged.
Examines the social organization and cultural construction of gender and sexuality in modern Europe from 1789. Major focus on France, Britain, and German-speaking countries, with some discussion of Russia. Particular attention will be paid to how normative concepts of femininity and masculinity play a role in the legitimization of social and political order as well as in attempts to effect and respond to social change.
Note: Expected to be given in 2005–06.

[History 1463. Paris From the French Revolution Through the 19th Century: Conference Course]
Catalog Number: 6355 Enrollment: Limited to 15.
Patrice Higonnet
Half course (fall term). Hours to be arranged.
Examines the art, literature, and history of the "capital of the 19th century." Subjects will include Balzac, Flaubert, and Baudelaire; Delacroix, Manet, and Degas; the Revolutions of 1789, 1848, and 1871.
Note: Expected to be given in 2005–06.

History 1466. Vichy France: Conference Course
Catalog Number: 8154

Patrice Higonnet and Stanley Hoffmann
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
We cover the background of the Vichy years and the legacy of 1789; military affairs; Vichy's social policy; Vichy, the Germans, and the Jews; Vichy and Free France; and the legacy of the Vichy years.
Note: Students interested in this course should contact Professor Higonnet at higonnet@fas.harvard.edu.

[History 1470. European Intellectual History]
Catalog Number: 7131
Peter E. Gordon
Half course (spring term). Hours to be arranged.
An introduction to major landmarks in Continental philosophy and social theory in the modern period, beginning with Nietzsche. Focuses on the various challenges to traditional enlightenment notions of freedom and subjectivity in psychoanalysis, Critical Theory, existentialism, French structuralism, and post-structuralism.
Note: Expected to be given in 2005–06.

[History 1471. The Thought of Martin Heidegger]
Catalog Number: 5691 Enrollment: Limited to 20.
Peter E. Gordon
Half course (spring term). Hours to be arranged.
A lecture/seminar course, addressing some key themes in 20th century phenomenology, focusing chiefly on Heidegger. Consists mostly of a sustained, critical reading of Heidegger's monumental 1927 text, *Being and Time*; but we also discuss some of his later contributions to theories of technology, language, and art.
Note: Expected to be given in 2006–07.
Prerequisite: History 1470b; Social Studies 10; or on course in introductory philosophy.

[History 1472. Epistemic Regimes: Conference Course]
Catalog Number: 6425 Enrollment: Limited to 20.
Peter E. Gordon
Half course (fall term). Hours to be arranged.
A seminar in the philosophy of explanation in history and the social sciences that looks at the idea that what counts as knowledge and truth may depend upon styles of reasoning, or practices of world-making, and that the conditions for something being true may be subject to broadscale, structural transformation over time.
Note: Expected to be given in 2005–06.

History 1473. Emmanuel Levinas: Conference Course
Catalog Number: 6350
Peter E. Gordon
Half course (fall term). W., 7–9:30 pm. EXAM GROUP: 9
Will explore the work of Emmanuel Levinas, the French-Jewish ethical philosopher whose investigations of alterity and transcendence have transformed the history of 20th-century European thought. Readings include all major works by Levinas, comparative texts by Husserl,

Heidegger, Sartre, and Derrida.
Prerequisite: Junior standing and at least one course in European political theory, philosophy, or modern intellectual history.

[*History 1476. The Frankfurt School: Conference Course]
Catalog Number: 6048 Enrollment: Limited to 20.
Peter E. Gordon
Half course (spring term). Hours to be arranged.
Introduces students to the writings of the so-called 'Frankfurt School'-i.e., the Institute for Social Research, founded in Frankfurt in 1923. Will address the 'late' work by Adorno and Horkheimer, *Dialectic of Enlightenment*, and will guide students through this work so as to reflect on the broader questions raised by the enlightenment and its legacy.
Note: Expected to be given in 2005–06.
Prerequisite: History 1470b; Social Studies 10; or one course in introductory philosophy.

[History 1481. French Citizenship Since 1789]
Catalog Number: 5855
Mary D. Lewis
Half course (fall term). Hours to be arranged.
Examines the challenges posed to French society by the principles of citizenship that emerged from the French Revolution. Considers how abstract, "universal" ideas have been difficult to implement evenly across French society, and explores what historical circumstances have prevented particular groups from enjoying the rights associated with these principles since 1789. Focuses on gender, race and colonial status, religion, nationalism, and class.
Note: Expected to be given in 2005–06.

[History 1482. Capitalism and Culture in Modern Europe]
Catalog Number: 4137
Mary D. Lewis
Half course (fall term). Hours to be arranged.
Looks at how European communities have confronted economic and social change since the development of market capitalism. Explores the place of work, the working class, labor politics, social welfare and social conflict in everyday life from the Industrial Revolution to the Post-Industrial Age.
Note: Expected to be given in 2006–07.

[History 1483. French Colonial Encounters: 1870's to Present: Conference Course]
Catalog Number: 0461
Mary D. Lewis
Half course (spring term). Hours to be arranged.
Explores and compares three colonies in the French Empire: French West Africa, Algeria, and Indochina, considering how colonial rule was extended, how individuals responded, and what reverberations there were between colony and metropole.
Note: Expected to be given in 2005–06.
Prerequisite: An introduction to French history recommended.

[History 1484. Europe Since World War II]
Catalog Number: 4588
Mary D. Lewis
Half course (spring term). Hours to be arranged.
Considers the political, economic , social and cultural development of Europe since the end of the Second World War. Examines post-war reconstruction; decolonization and the Cold War; the development of social democracy, new social movements, and the welfare state; the birth and expansion of the European Union; the emergence and importance of "immigrant politics" and new extreme-right movements; the events of 1989 and their significance.
Note: Expected to be given in 2005–06.

***History 1491. Religion and Popular Culture in 19th-Century Europe: Conference Course**
Catalog Number: 6681 Enrollment: Limited to 15.
David Blackbourn
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Explores the relationship between social and political change and popular religious practice from the French Revolution to World War I. Considers methodological problems in the study of religion and popular culture; religious revivals and popular politics; pilgrimages and prophetic movements; the relationships between class, gender, and religious culture; the feminization of religion, and the origins and resistance to the secularization of state and society. Readings include primary documents and secondary texts.
Note: Offered jointly with the Divinity School as 2265.

History 1512. 20th-Century Ukraine
Catalog Number: 6723
Roman Szporluk
Half course (spring term). M., W., at 1. EXAM GROUP: 6
An introduction to main themes in Ukrainian history: Ukrainians in Russia and Austria-Hungary before 1914; the First World War and the Ukrainian Question; Ukrainians in Poland, Czechoslovakia, and Romania; between 1919-1939; Ukraine in the Soviet Union to 1938; World War II and the post-war Stalinist period; de-Stalinization and the use of opposition; Gorbachev and the breakup of the USSR; independent Ukraine since 1991.

History 1515. States and Nations: 1905-1991: Conference Course
Catalog Number: 7550 Enrollment: Limited to 15.
Roman Szporluk
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
An introduction to theoretical literature concerning nationalism and communism, as well as to historical treatments of the states of Eastern Europe and Eurasia, with special attention to Russia, Ukraine and Belarus, as well as to the experience of Yugoslavia and Poland, and nationalism and the breakup of the Soviet Union.

History 1516. Nation Formation in East Europe, 1795-1921: Poland, Russia, Ukraine
Catalog Number: 5843
Roman Szporluk
Half course (fall term). M., W., at 1. EXAM GROUP: 6

An examination of the making and remaking of nations in East Europe, focusing on the three interrelated cases of Poland, Russia, and Ukraine. This survey of intellectual and political history extends from the partitions of Poland by Russia, Austria, and Prussia to socialist and nationalist revolutions of 1917-1920 and the territorial and political settlement of 1919-1921.

History 1524. Russian History, 1462–1905
Catalog Number: 5400
Georg Michels (University of California, Riverside)
Half course (spring term). M., W., (F.), at 12. EXAM GROUP: 5
Surveys Russian history from Ivan the Great (1462-1505) to the social and political revolutions of the early twentieth century, emphasizing long-term trends that have distinguished Russian history from the history of Western Europe since the late Middle Ages.

History 1531. History of the Soviet Union, 1917–1991
Catalog Number: 4501
Terry D. Martin
Half course (spring term). M., W., at 11. EXAM GROUP: 4
Examines the history of the Soviet Union from the Russian Revolution to Gorbachev's failed reforms. Focus on the period 1928-53 when industrialization, nationalization and political terror created a distinct Soviet society and culture. Readings include novels, short stories, memoirs, Soviet propaganda, high policy deliberations, letters, journalism, songs, jokes, etc.

[History 1537. Stalinism and Nazism: Conference Course]
Catalog Number: 0631
Terry D. Martin
Half course (spring term). Hours to be arranged.
Compares and contrasts the two great modern European dictatorships. Topics include the role of the leader, propaganda and public opinioin, the totalitarian Party, state surveillance, state terror, the role of ordinary citizens in abetting or resisting state oppression, total war, nationality and colonialism, everyday life, petitioning and survival strategies, consumption and rationing.
Note: Expected to be given in 2005–06.

Cross-listed Courses

French 263. French Society in Film and History, 1895-1950

Primarily for Graduates

History 2310. Problems in Late Medieval and Early Modern Europe 1250-1750: Seminar
Catalog Number: 9057
Steven Ozment
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Directed reading and writing in European politics, society, and culture. For field exam candidates, senior thesis writers, and graduate students writing dissertations.
Note: Open to advanced undergraduates with permission of instructor.

[History 2312. The German Family, 1250–1750: Seminar]
Catalog Number: 8806
Steven Ozment
Half course (spring term). Hours to be arranged.
An introduction to research in German family history, including German script, during the late medieval and early modern periods. Both group and individual instruction.
Note: Expected to be given in 2006–07. Higly recommended for upper level undergraduates and graduate students seeking to improve their reading knowledge of German and/or prepare for research in German archives.
Prerequisite: Requires a basic reading knowledge of modern German.

[History 2320. Cultural History of Early Modern France]
Catalog Number: 9380
Ann M. Blair
Half course (spring term). Hours to be arranged.
Will examine different kinds of primary sources and methods of research and analysis in cultural and intellectual history of the early modern period. Emphasis will be on France 1500-1700.
Note: Expected to be given in 2005–06.
Prerequisite: Reading knowledge of French and an initial idea for the seminar paper. Students with the requisite background may write on a topic in another national context.

History 2332. Early Modern England: Seminar
Catalog Number: 7105 Enrollment: Limited to 10.
Mark A. Kishlansky
Half course (fall term). Hours to be arranged.
Students will conduct primary research on topics of significance in the history of England, ca. 1563–1714.

[History 2342r. The French Revolution: Seminar]
Catalog Number: 1914
Patrice Higonnet
Half course (fall term). Hours to be arranged.
The history of Paris during the French Revolution.
Note: Expected to be given in 2006–07.

History 2410. Ideas in Europe in the 18th Century: Seminar
Catalog Number: 1077
Emma Rothschild (King's College, Cambridge)
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
A graduate seminar which examines a number of 18th century writings (by Hume, Smith, Herder, Wollstonecraft, and Condorcet) and ideas (enlightenment, religion, empire), and explores different ways of writing about the history of ideas.

[History 2472. Republics and Republicanism]
Catalog Number: 6622
James Hankins and Harvey C. Mansfield

Half course (spring term). Hours to be arranged.
Ancient and modern republics studied with a view to republican virtue, civic humanism, constitutions, and democracy. Readings include Aristotle, Machiavelli, Montesquieu, Rousseau, Tocqueville.
Note: Expected to be given in 2005–06. Open to qualified undergraduates.

History 2473. Cultural and Intellectual History of Renaissance Italy: Proseminar
Catalog Number: 0140
James Hankins
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Topics include civic humanism and republicanism; Renaissance historiography and its modern context; the revival of ancient philosophical systems and the challenge to Aristotelianism and scholasticism; humanist educational theory and practice. Readings in contemporary sources.
Note: May not ordinarily be credited as one of the research seminars required in the first-yearprogram.
Prerequisite: A reading knowledge of Latin, French, Italian, and German.

History 2475. Problems and Sources in Modern German History: Seminar
Catalog Number: 8355 Enrollment: Limited to 12.
David Blackbourn
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
A thematic course dealing with major topics in German history from the middle of the 19th century to the Third Reich. A recurrent question is the relationship of “modern” and “anti-modern” in this period.
Note: Reading knowledge of German not required.

***History 2511. Socialism and Nationalism: Seminar**
Catalog Number: 6556
Roman Szporluk
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
The role of ethnicity and nationalism in Soviet history. Russian nationalism and the breakup of the USSR. Nation-building in the post-Soviet period.

History 2512. Rebels Against the Tsar: Seminar
Catalog Number: 4754
Georg Michels (University of California, Riverside)
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
This seminar explores Russian history (1600-1870) from the perspective of the revolts that pitted peasants, Cossacks, and national minorities against the tsarist regime. Students will examine the historical evidence and evaluate Soviet interpretations.

History 2531. The Soviet Union: Seminar
Catalog Number: 7969
Terry D. Martin
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17

Introduction to archival and primary sources, as well as major historiographical debates. Primary focus on major research paper.

[History 2533. Identity in History and Politics: Seminar]
Catalog Number: 9108
Terry D. Martin
Half course (spring term). Hours to be arranged.
Analyzes how the concept of identity is currently being used in the social sciences, particularly history and political science. Examines classic works on racial, ethnic, national, regional, transnational, class, status, gender, and religious identity.
Note: Expected to be given in 2005–06.

Cross-listed Courses

[Historical Study A-27. Reason and Faith in the West]
Historical Study A-76. Germany 1871–1990: From Unification to Reunification
[Historical Study B-35. The French Revolution: Causes, Processes, and Consequences]
Historical Study B-54. World War and Society in the 20th Century: World War II
[Historical Study B-57. The Second British Empire]

History of the United States

For Undergraduates and Graduates

History 1602. The Frontier in Early America
Catalog Number: 8547
Joyce E. Chaplin
Half course (fall term). Tu., Th., at 11; Th., at 1. EXAM GROUP: 13
Examines the significance of the frontier in early American history, 1500-1800. Focus on the topics of war, trade, and cultural exchange among the native, British, French, Spanish, and African inhabitants of North America. Major themes include captivity, identity, and religious-cultural conversion.

[History 1608. Reading Early America: Words, Print, and Artifacts: Conference Course]
Catalog Number: 7209
Jill M. Lepore
Half course (spring term). Hours to be arranged.
An inquiry into the literary, cultural, and political worlds of colonial, revolutionary, and antebellum Americans through close readings of printed primary documents, including almanacs, maps, poems, novels, broadsides, newspapers, and ephemera. Students explore and conduct research in the “history of the book,” an interdisciplinary field at the intersection of history and literature. Emphasis is on the role of print in shaping political culture in the emerging American nation.
Note: Expected to be given in 2005–06.

[History 1610. Confronting Objects/Interpreting Culture: Interdisciplinary Perspectives on North America: Conference Course]
Catalog Number: 2479
Laurel Thatcher Ulrich and Ivan Gaskell
Half course (spring term). Hours to be arranged.
Using case studies drawn from Harvard collections, students will explore a range of methods used in interpreting art and artifacts from colonial North America (including Spanish America) and the early US. Emphasis on the interplay between particular objects and larger historical themes, such as colonialism, patriotism, or the beginnings of mechanization. Students will be introduced to a range of scholarly tools, including laboratory analysis of materials, quantitative studies of household inventories, and iconography.
Note: Expected to be given in 2005–06.

[History 1611. American Revolutions in the Atlantic World]
Catalog Number: 9586
Vincent Brown
Half course (spring term). Hours to be arranged.
Contemplates the Age of Revolution in the Atlantic (ca. 1760-1825) as a single sequence of radical challenges to established authority, resulting in fundamental transformations of governance throughout the Americas. Will focus on British North America, French St. Domingue, and Spanish South America, and will discuss the influence of events in Europe and the reverberations that the American revolutions had in the Old World.
Note: Expected to be given in 2006–07.

History 1612. African Diaspora in the Americas
Catalog Number: 9564
Vincent Brown
Half course (fall term). M., W., (F.), at 11. EXAM GROUP: 4
How can we best understand the diverse cultural practices of black people in the Americas, from where did those practices derive, and how are they related to each other? We explore a history of attempts to answer those questions, and examine ways that interpretations of the "African diaspora" have been conceived by scholars to better appreciate the complex histories of African-American cultural practices.

[History 1615. The Nine Lives of Benjamin Franklin: Conference Course]
Catalog Number: 6296
Joyce E. Chaplin
Half course (fall term). Hours to be arranged.
Examines some of the multiple lives that Franklin led during the eighteenth century. Students examine in depth one of these lives or identify and explore yet another, to better comprehend Franklin and the worlds in which he lived: colonial America, British empire, independent US, books, science, popular culture, politics, war, personal improvement, and many others.
Note: Expected to be given in 2005–06.

[History 1632. Gilded Age America: Economy, Society and Politics: Conference Course]
Catalog Number: 4733 Enrollment: Limited to 12.

Sven Beckert
Half course (fall term). Hours to be arranged.
Will analyze both the dynamics of economic, social and political change during the Gilded Age and how Americans tried to come to terms with a world so different from the one they had inherited.
Note: Expected to be given in 2006–07.

***History 1635. Race and Race Relations Since *Plessy:* Conference Course**
Catalog Number: 4172 Enrollment: Limited to 15.
Stephan Thernstrom
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
An examination of the changing position of blacks in American society since disenfranchisement and the creation of the Jim Crow system at the turn of the century. The nature of segregation; the civil rights movement; the crisis of the sixties; the Moynihan and Kerner reports; economic and social trends since the 1960s.

History 1638. United States Social History, from 1920 to the Present
Catalog Number: 5967
Stephan Thernstrom
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
An analysis of major social changes from the 1920s to the present. Topics include population patterns, industrial growth, urban development, the class structure, ethnic and racial relations, gender roles, and education.

[History 1640. The United States since World War II]
Catalog Number: 6155
Lizabeth Cohen
Half course (fall term). Hours to be arranged.
The history of American politics, society and culture from 1945 to the present. Topics include the Cold War and anticommunism, suburbanization and mass consumption, the evolution of American liberalism, the civil rights movement, the war in Vietnam, second-wave feminism, the New Right, and America's place in the post-Cold War world.
Note: Expected to be given in 2006–07.

[History 1642a. US Women's History to 1900]
Catalog Number: 0487

Half course (fall term). Hours to be arranged.
An examination of women's experiences from the colonial period to 1900. Focuses on real women at work, at home, and in politics. Explores the use of gender and representations of women and sexuality in public life.
Note: Expected to be given in 2005–06.

[History 1642b. Gender, Sexuality, and Women in the 20th-Century US: Conference Course]
Catalog Number: 3607 Enrollment: Limited to 15.

Ruth Feldstein
Half course (spring term). Hours to be arranged.
An examination of masculinity, femininity and sexuality as historically specific concepts in 20th century US history, with attention to how ideas about gender and sexuality were related as women forged their own identities *and* as others sought to define them. Particular attention is paid to race in relation to gender and sexuality, and to changing beliefs about sexuality and gender in relation to political movements and ideologies.
Note: Expected to be given in 2005–06.

***History 1643. Topics in the Study of the Civil War and Reconstruction**
Catalog Number: 5156 Enrollment: Limited to 15.
Elisabeth L. Laskin
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
This course will explore the American experience of Civil War and Reconstruction with attention to cultural, social, political, and military questions. Readings will include both primary and secondary texts. Students will be expected to participate actively in class discussions and to produce a substantial research paper.

***History 1645. History of American Immigration: Conference Course**
Catalog Number: 7280 Enrollment: Limited to 15.
Stephan Thernstrom
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Analysis of the immigration waves that have shaped the American population from colonial times to the present. The causes of international migration; shifting American attitudes toward immigrants; US immigration policy; the economic and social adjustment of newcomers; the Melting Pot vs. cultural pluralism.

[History 1650a. Foreign Relations of the US I]
Catalog Number: 3435
Ernest R. May and Erez Manela
Half course (fall term). Hours to be arranged.
American foreign relations from the colonial period through World War I. Topics include the transition from colonial to imperial status; the changing role of the US in international relations; interaction between domestic politics and foreign policy; political, economic, and cultural relationships between Americans and other peoples.
Note: Expected to be given in 2005–06.

History 1650b. Foreign Relations of the US II
Catalog Number: 4745
Frank Ninkovich (St. John's University)
Half course (fall term). Tu., Th., at 11. EXAM GROUP: 13
American foreign relations since World War I. Topics include the world role of the supposedly isolated US in the interwar years, World War II, postwar "hegemony," the Cold War, and political, economic, and cultural interaction between Americans and other peoples.

[History 1651. History of American Capitalism]
Catalog Number: 0227
Sven Beckert
Half course (fall term). Hours to be arranged.
Examines the development of the American economy from its beginnings to the New Deal. Focuses on the nature of economic change during the past 400 years and the reasons for and effects of capitalist growth. Topics include Native-American economies, the industrial revolution, slavery, the rise of new business structures, labor relations, and technological change.
Note: Expected to be given in 2005–06.

[History 1659. US Cultural History, Turn of the Century to Present]
Catalog Number: 8905
Ruth Feldstein
Half course (fall term). Hours to be arranged.
We consider questions of who owns, defines and consumes "culture" in 20th-century US history. Topics include the consumption of film, literature, television, and music.
Note: Expected to be given in 2005–06.

***History 1661. Social Thought in Modern America**
Catalog Number: 8440 Enrollment: Limited to 75.
James T. Kloppenberg
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An inquiry into American ideas since 1890, examining developments in political and social theory, philosophy, and literature in the context of socioeconomic change. Topics include the breakdown of Victorian idealism and laissez-faire; the emergence of social science and progressivism; conflicts over gender, race, and ethnicity; interwar cultural ferment and political reform; post-World War II theories of consensus and 1960s radicalism; and the consequences for democracy of our contemporary culture of irony.

History 1664. African American Intellectual History: Conference Course
Catalog Number: 0234
Evelyn Brooks Higginbotham
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Explores key ideas put forward by black and white thinkers on the African American experience. Focuses on themes of racial ideology that relate to abolitionism, black nationalism, pan-Africanism, the New Negro arts movement of the 1920s, and struggles for racial equality in the 1930s and 1960s. We examine the relationship between ideas and social context, the role of the individual, and the spectrum of black thinking from radical to conservative traditions.

History 1666. The World of William James: Conference Course
Catalog Number: 9674 Enrollment: Limited to 15.
James T. Kloppenberg
Half course (spring term). Hours to be arranged.
Examines James's life and writings in relation to American and European thinkers such as his contemporaries Wilhelm Dilthey and Friedrich Nietzsche, his brother Henry James, his sister Alice James, and his students W.E.B. DuBois, Walter Lippmann, and Gertrude Stein.

[History 1670. The New Deal: The United States During the Roosevelt Years: Conference Course]
Catalog Number: 4878 Enrollment: Limited to 15.
Lisa M. McGirr
Half course (fall term). Hours to be arranged.
An exploration of the trajectory of New Deal reform and the broader social, economic, political, and cultural changes in the US in this period. Topics will include the First and Second New Deal, the rise of liberalism, the Roosevelt administration, the social movements of the Left and the Right during the 1930s, the coming of war, and the waning of the reform impulse.
Note: Expected to be given in 2005–06.

[History 1672. The United States in the 1960s]
Catalog Number: 5900
Lisa M. McGirr
Half course (fall term). Hours to be arranged.
An introduction to the main developments in American society, culture, and politics during the premiere liberal decade of the 20th century. Topics include the New Frontier, the Great Society, the Vietnam war, the Civil Rights movement, the student movement, the counter-culture, and the rise of populist conservatism.
Note: Expected to be given in 2006–07.

[History 1679. Making America Modern: The US during the 1920s: Conference Course]
Catalog Number: 9496
Lisa M. McGirr
Half course (spring term). Hours to be arranged.
Looking at the US in the period from the Great War to the Depression, closely explores the central developments of the decade—in society, culture, and politics—to determine its contribution to the making of "modern America."
Note: Expected to be given in 2006–07.

History 1687. Building Boston in the 19th and 20th Centuries: Conference Course
Catalog Number: 1209
Lizabeth Cohen
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Analysis of the major developments in the built environment of Boston over the last two centuries, including commercial districts, residential neighborhoods, transportation infrastructure, and public buildings and space, culminating with an examination of the "Big Dig" and Harvard's expansion into Allston, both considered in historical context. We pay particular attention to the interaction of architects and builders, economic and political interests, and ordinary residents in the construction of the city over time.

History 1688. US Constitutional History
Catalog Number: 1776
Robert D. Johnson (Brooklyn College)
Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 3
American constitutional history from the colonial era to the present. Topics include colonial

debates about representation and republicanism; the drafting and ratification of the Constitution; debates over slavery; the judiciary and American economic growth; imperialism; the Constitution and reform politics; national security and civil liberties; civil rights; the Warren Court and rights-related liberalism; Vietnam and congressional powers; the Supreme Court and late 20th century politics.

History 1689. Inter-American Relations: Conference Course
Catalog Number: 5629
Robert D. Johnson (Brooklyn College)
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
The international history of the Western Hemisphere from the colonial era to the present. Topics include colonial cultural and economic interactions; the international effects of the US and Haitian revolutions; slavery and imperialism; strategic rivalries in the Caribbean Basin; Wilsonianism and the peace progressives; non-interventionism and World War II; the Cold War; human rights, democracy, and economic integration.

[History 1690. The US and Imperialism: Conference Course]
Catalog Number: 7201 Enrollment: Limited to 15.
Erez Manela
Half course (fall term). Hours to be arranged.
Explores American ideas and practices of imperialism, and anti-imperialism, in the 20th century, and their impacts on societies abroad. Topics include the US as colonial power; imperialism and anti-imperialism in American visions of international order; interactions with European imperialism; and attitudes and policies on decolonization and "nation-building" during the Cold War.
Note: Expected to be given in 2005–06.

History 1691. Republic Become Empire? Imperialism in US History: Conference Course
Catalog Number: 9948
Jonathan M. Hansen (Boston University)
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
An examination of the history of US imperialism. Readings will combine theoretical and empirical texts to interrogate the popular belief that imperialism is anomalous to the ideological origins and subsequent history of the American republic. Primary and secondary source readings will span American history from colonial times to the present, with a focus particularly on the last century. The seminar will culminate with students writing, and present, an original research paper.

Cross-listed Courses

African and African American Studies 118. African-American History from the Slave Trade to 1900
African and African American Studies 191. The Civil Rights Movement: Seminar
[*Economics 1357. Historical Perspectives on American Economic Ascendancy]
[Historical Study A-35. Democracy in America and Europe]
Historical Study B-40. Pursuits of Happiness: Ordinary Lives in Revolutionary America

Historical Study B-61. The Warren Court and the Pursuit of Justice, 1953–1969
[Religion 1468 (formerly Religion 1504). Religion in America: From the Coming of the Europeans to the 1870s]
[Religion 1483. The Catholic Sixties]

Primarily for Graduates

History 2600. Readings in Colonial and Revolutionary America: Proseminar
Catalog Number: 9176
Joyce E. Chaplin
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
An introduction to scholarly literature on colonial and revolutionary America. Required for History Department graduate students specializing in US history. Open to those from other fields of programs.

[History 2601. The US in the 20th Century: Seminar]
Catalog Number: 1270 Enrollment: Limited to 10.
Lizabeth Cohen
Half course (fall term). Hours to be arranged.
Research on topics in 20th-century US history.
Note: Expected to be given in 2006–07.

[History 2602. Readings in the History of the United States in the 19th Century: Proseminar]
Catalog Number: 2383 Enrollment: Limited to 12.
Sven Beckert
Half course (fall term). Hours to be arranged.
The second in the sequence of three proseminars required of all graduate students in American history and open to graduate students in other history fields and other departments as space permits.
Note: Expected to be given in 2005–06.

History 2606. Early American Social History: Seminar
Catalog Number: 6049
Laurel Thatcher Ulrich
Half course (spring term). M., 12–2. EXAM GROUP: 5, 6
Research culminating in the production of a scholarly essay. Some prior knowledge of the period assumed.

History 2607. Readings in the United States in the 20th Century: Proseminar
Catalog Number: 2931
Lizabeth Cohen
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
The third proseminar required of all graduate students in American history. Readings in classics and recent monographs, with attention to politics, social life, and culture.

[History 2610. Race in Early America: Status, Identity and Power: Seminar]
Catalog Number: 9276
Joyce E. Chaplin
Half course (fall term). Hours to be arranged.
A research seminar in American history in which each student will complete an article-length essay based on original research.
Note: Expected to be given in 2005–06.

[History 2615. Early American Research Seminar]
Catalog Number: 8222
Jill M. Lepore
Half course (fall term). Hours to be arranged.
A hands-on research seminar, as much a meditation on the methods of historical research as an inquiry in the worlds of early Americans, where students conduct individual and collaborative research in American history before 1830.
Note: Expected to be given in 2006–07.

History 2630. Intellectual History: Seminar
Catalog Number: 2382
James T. Kloppenberg
Half course (fall term). W., 12–2. EXAM GROUP: 5, 6
Topic to be announced.

***History 2640hf. Workshop in 20th Century US History**
Catalog Number: 0565
Lizabeth Cohen
Half course (throughout the year). Hours to be arranged.

[History 2650hf. The Political Economy of North America]
Catalog Number: 3719
Sven Beckert and Alexander Keyssar (Kennedy School)
Half course (throughout the year). Hours to be arranged.
A year-long research and reading course taught in conjunction with the Charles Warren Center workshop on the same topic.
Note: Expected to be given in 2006–07.

[History 2661. Graduate Readings in 20th-Century African-American History]
Catalog Number: 9004
Evelyn Brooks Higginbotham
Half course (spring term). Hours to be arranged.
Covers key literature on themes and developments shaping the national experience of African Americans from Redemption to the emerging multi-racial Republic.
Note: Expected to be given in 2006–07.

[*History 2662. Readings in American Thought]
Catalog Number: 8845 Enrollment: Limited to 20.

James T. Kloppenberg
Half course (fall term). Hours to be arranged.
An examination of classic and contemporary histories of American thought.
Note: Expected to be given in 2005–06.

[History 2664. Race and African-American Intellectual History: Seminar]
Catalog Number: 6804
Evelyn Brooks Higginbotham
Half course (spring term). Hours to be arranged.
A research seminar in African-American intellectual history.
Note: Expected to be given in 2006–07.

***History 2671. American Social History: Seminar**
Catalog Number: 0969
Stephan Thernstrom
Half course (fall term). Hours to be arranged.
Topic to be announced.

History 2675. Seminar in Social/Gender History: Seminar
Catalog Number: 4584
Nancy F. Cott
Half course (fall term). Tu., 12–2. EXAM GROUP: 14, 15
Research seminar for graduate students familiar with US history and ready to undertake historical research focused around US historiography.
Note: Students working in the non-US and/or comparative/international history are welcome to apply.

History 2680. Culture and the History of US Foreign Relations: Seminar
Catalog Number: 8932
Frank Ninkovich (St. John's University)
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
An exploration of cultural themes and their usefulness in explaining the history of US foreign relations. Emphasis on producing a major research paper.

History 2681. International Relations of the US: Seminar
Catalog Number: 8886
Ernest R. May
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Research seminar focused on aspects of the Cold War, including its background in the period, 1917-1945.

History 2682hf. The Culture and Politics of the Built Environment in the US: Seminar
Catalog Number: 1473
Lizabeth Cohen
Half course (throughout the year). M., 4–6. EXAM GROUP: 9
Year-long research seminar in conjunction with the Charles Warren Center workshop of scholars

working in the field. Research projects examine the architecture and landscape in the US from the eighteenth through the twentieth centuries.
Note: Offered jointly with the Graduate School of Design as 4470.

Cross-listed Courses

African and African American Studies 191. The Civil Rights Movement: Seminar
***American Civilization 200 (formerly *American Civilization 370). Major Works in the History of American Civilization**
[*American Civilization 201 (formerly *American Civilization 371). Themes in the History of American Civilization]
[Economics 2330. The Development of the American Economy]
***Economics 2339. The Economic History Workshop**

History of Latin America

For Undergraduates and Graduates

[History 1745. Major Problems of Colombian History, 1400-2005: Conference Course]
Catalog Number: 0100
John Womack, Jr.
Half course (spring term). Hours to be arranged.
Focus on Latin America's most diversely divided country, from the first native establishments to the current civil wars. Topics include historical geography, empire, class and cultural conflicts, progress and control, imperialism, god(s), the devil(s), guns, drugs, cash, and revolution.
Note: Expected to be given in 2005–06.

History 1746. Contestation, Rebellion, and Revolution in Brazil and Spanish South America (1770-1808): Conference Course
Catalog Number: 8945
Kenneth R. Maxwell
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
A comparative examination of Brazil and Spanish South America in the two decades before independence. Will examine the diverse forms of contestation in South America between 1770 and 1808, focusing on pre-independence conspiracies in Brazil, and on the rebellions in the Andes and revolts in Venezuela.

History 1747. Globalization or Imperialism: Perspectives from Latin American History: Conference Course
Catalog Number: 2403
Fernando Coronil (University of Michigan)
Half course (fall term). Tu., 4–6. EXAM GROUP: 18
This course will develop perspectives that illuminate the mutually constitutive relations between metropolitan and subaltern populations, in the past and in the present, by building on the Latin American historical experience and on the critique of theories of imperialism and globalization.

History 1748. States in Latin America: Venezuela in Comparative Perspective: Conference Course
Catalog Number: 2830
Fernando Coronil (University of Michigan)
Half course (spring term). Tu., 4–6. EXAM GROUP: 18
Through historical analysis and theoretical critique, will explore transformations of the state in Latin America, using the intensive study of the coup d'etat against Venezuela's president Hugo Chavez on April 11, 2002, as a means to analyze changes in state forms and transformations in Latin America.

History 1749. Turning Points in Brazilian History: From Cabral to Lula
Catalog Number: 6818
Kenneth R. Maxwell
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
An examination of critical moments in the formation of Brazilian society. Each episode will be examined both in terms of its Atlantic or global dimension as well as within its domestic national context. Beginning with the early contact between Portuguese settlers and the indigenous population, the series will conclude with a discussion of Brazil led first by the sociologist Fernando Henrique Cardoso and then by the union organizer Lula.

History 1750. Brazil Between Revolutions, 1776-1789: Conference Course
Catalog Number: 5510
Kenneth R. Maxwell
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Will focus on the period between the American declaration of independence to the French revolution, and the impact of events in North America on proto-nationalist movements in Brazil, particularly on the Minas Conspiracy of 1778-1779. Will assume prior knowledge of Latin American, European and US history of this period, or a combination of at least two of these, as well as language skills in Portuguese, Spanish and French, or a combination of two of these.

[History 1756. The Cold War in Latin America: Conference Course]
Catalog Number: 9875 Enrollment: Limited to 15.
John H. Coatsworth
Half course (spring term). Hours to be arranged.
Examines the international history of Latin America during the Cold War from 1948 to 1990, with a focus on Latin America's relations with the US and an examination of episodes of intervention and confrontation in the Caribbean basin as well as the forging of alliances and organizations that embodied and projected US power in the entire region.
Note: Expected to be given in 2005–06.

[History 1758. Latin America from Independence to 1914]
Catalog Number: 5574
John H. Coatsworth
Half course (fall term). Hours to be arranged.
A survey of the formation of nation states and national economies in Latin America, from the collapse of the colonial empires of Spain and Portugal to World War I. Will analyze the causes

and effect of independence, the fragmentation of the Spanish colonies into independent states, the economic decline after independence, the slave revolts and peasant rebellions of the early 19th century, and the formation and fracturing of national governments.
Note: Expected to be given in 2005–06.

History 1759. The History of Latin America, 1914-2004
Catalog Number: 7328
John H. Coatsworth
Half course (spring term). M., W., (F.), at 12. EXAM GROUP: 5
A survey of Latin American societies and politics, from World War I to the present, with emphasis on the conjunction of global and internal changes to explain economic developments and struggles for power, justice, progress, and security.

History 1762. Intellectuals, Society and the State in 20th-Century Argentina: Conference Course
Catalog Number: 8329
Mariano B. Plotkin
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Explores the changing nature of the relationship between intellectuals and the state, looking at the development of the modern Argentine society. Cases of Brazil and Mexico will be included for comparative purposes. Reading knowledge of Spanish required.

Cross-listed Courses

Foreign Cultures 46. Caribbean Societies: Socioeconomic Change and Cultural Adaptations

Primarily for Graduates

[*History 2781. Modern Mexican History: Seminar]
Catalog Number: 5731 Enrollment: Limited to 12.
John Womack, Jr.
Half course (fall term). Hours to be arranged.
Topics for 2005-2006: Industrial development; industrial labor markets and industrial work; industrial divisions of labor and strategic positions; their consequences in modern Mexican society and politics.
Note: Expected to be given in 2005–06.

***History 2782. The Economic History of Latin America: Seminar**
Catalog Number: 4261 Enrollment: Limited to 15.
John H. Coatsworth and James Robinson
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Examines the evolution of the Latin American economies from the colonial era to the 20th century.
Note: Open to undergraduates with permission of instructor. Spanish or Portuguese helpful but

not required.
Prerequisite: Rudimentary economics, and some Latin American history.

History of Asia, Africa, and Australasia

For Undergraduates and Graduates

[History 1820. Premodern Vietnam]
Catalog Number: 4581
Hue-Tam Ho Tai
Half course (fall term). Hours to be arranged.
Vietnamese history from antiquity to the founding of the Nguyen dynasty in 1802 with emphasis on the period following independence from China in the 10th century. Topics include the Sinicization of Vietnam and the sources of Vietnamese national identity; tensions between aristocratic and bureaucratic rule; territorial expansion and national division; first contacts with the West; the changing status of women.
Note: Expected to be given in 2005–06.

[History 1821. Modern Vietnam]
Catalog Number: 8192
Hue-Tam Ho Tai
Half course (spring term). Hours to be arranged.
Survey of Vietnamese history from 1802 to the present. Covers the period of unified rule under the Nguyen dynasty, French colonial conquest, the struggle for independence, the Vietnam War, and the recent unification under Communism. Major topics include the relationship between the state, the village, and the individual; the transformation of Vietnamese society, culture, and politics under French rule; the rise of nationalism and Communism; the causes and consequences of the Vietnam War.
Note: Expected to be given in 2005–06.

History 1826. 20th Century China
Catalog Number: 7445
Henrietta Harrison (University of Leeds)
Half course (fall term). Tu., Th., at 12. EXAM GROUP: 14
An introduction to 20th century China, covering the 1911 revolution to Deng Xiaoping's reforms in the 1980s. Will explore the themes of state building, nationalism, social change, the development of political parties, and will focus on the political, social and cultural changes that led up to and resulted from the revolution of 1949.

History 1827. Nationalism and Ethnicity in China
Catalog Number: 8688
Henrietta Harrison (University of Leeds)
Half course (spring term). Tu., Th., at 12. EXAM GROUP: 14
Will examine how changes in social and political conditions have altered Chinese identity since the eighteenth century. Topics include traditional models of identity, the creation of ethnic

minorities, ideas of race and nationhood, the interaction between nationalism and communism, and the changing nature of Chinese nationalism in the 1980s and 90s.

History 1828. Christianity and Chinese Society: Conference Course
Catalog Number: 2587
Henrietta Harrison (University of Leeds)
Half course (fall term). W., 4–6. EXAM GROUP: 9
Examines the history of Catholic and Protestant Christianity in China from the 16th century to the present. The focus is on non-elite Chinese believers and the ways in which Christianity affected their lives.

History 1834. The Chinese Overseas: Conference Course
Catalog Number: 2606
Philip A. Kuhn
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
In modern times, Chinese migrants have settled in more than 100 countries worldwide and have contributed significantly to the integration of the world economy. Their struggles to find a future in their adopted lands is a major theme in modern history. Explores aspects of Chinese emigration, including "globalization" and migration; colonial and post-colonial societies in Southeast Asia; the Americas, Europe, and Australasia; Chinese economic enterprise; and the changing role of China itself.
Note: An oral report and final paper are required.

[History 1843. Imperial Japan and the US: Conference Course]
Catalog Number: 3802
Andrew Gordon
Half course (spring term). Hours to be arranged.
The emergence of Japan as an imperial power in the early 20th century, with particular attention to efforts to build cultural and economic, as well as political relations to the US, and to the creation of the Japan Society of Boston 100 years ago (1904). Draws on English language archival materials at Harvard and the Boston area for student research projects.
Note: Expected to be given in 2005–06.

History 1851. 20th-Century Japan
Catalog Number: 8696
Timothy George (University of Rhode Island)
Half course (fall term). Tu., Th., at 11. EXAM GROUP: 13
Japan's emergence as a world power and the Japanese experience of modernity. Politics, social movements, and culture of the imperial era; the experience of World War II and postwar occupation; the "economic miracle" and postwar political economy; social and cultural transformation. From the 1980s boom to the 1990s bust; the early end to the Japanese century?

[History 1854. Gender and Japanese History: Conference Course]
Catalog Number: 5348 Enrollment: Limited to 15.
Daniel V. Botsman
Half course (spring term). Hours to be arranged.

Focuses on the experiences of women, and issues of gender and sexuality to explore important aspects of Japanese social history in the modern era. Specific topics will include the usefulness of individual life stories for understanding history; the value of anthropology and ethnography as complements to historical research; the history of sexuality; the place of prostitution in Japanese society and the rise of the 'Geisha'; and the issue of Japan's wartime "comfort women."
Note: Expected to be given in 2006–07.
Prerequisite: At least one course on either Japanese History or Gender History.

History 1855. Restoration and Revolution in the Mid-19th Century Japan: Conference Course
Catalog Number: 2039
Timothy George (University of Rhode Island)
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Explores the Meiji Restoration as a revolutionary transition from the late traditional society of the 1850s to the modernizing Meiji society of the 1880s. Major topics include the late Tokugawa background and domestic crises, the nature of the foreign threat, the political upheaval that led to the overthrow of the Tokugawa state, the creation of the imperial state, the Popular Rights movement and the public sphere, economic change, and popular life and culture.
Note: Graduates read some works in Japanese.

History 1856. Environmental History of East Asia: Conference Course
Catalog Number: 2489
Timothy George (University of Rhode Island)
Half course (spring term). F., 1–3. EXAM GROUP: 6, 7
Investigation of selected topics in the environmental history of China, Japan, and Korea, with greatest emphasis on the modern period. Major topics include approaches to environmental history, religious, and philosophical views of the environment, forestry, water control, wars and the environment, economic development and the environment, marginalized groups and the environment, and relationships between environmentalism and democracy. Preparation and presentation of a research paper.

History 1874. The Middle East During the First Wave of Modern Globalization, 1870-1920: Conference Course
Catalog Number: 2291
E. Roger Owen
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
Examines the place of the Middle East during the first wave of modern globalization. Explores the sources of world market integration, the impact of trade, the role of foreign lending and the new flows of capital, commerce and international migration. Analyzes the impact of formal and informal empire in the Middle East, the role of government, the development of transport, the changing role of port cities and provincial capitals, emigration, and the impact of World War I.

History 1875. The History of Shi'ism: Drama, Ritual and Memory
Catalog Number: 7519
Kathryn Babayan (University of Michigan)
Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12

An introduction to Shi'ism, an often ignored division within Islam. Will explore early Shi'i cultures as alternative interpretation of Muhammad's vision, as voices that expressed resistance through the use of an apocalyptic language of trust and justice. The course focuses on the significance of myth, memory and ritual in the writing of history and the making of Shi'i identities.

History 1877a. History of the Near East, 600-1055
Catalog Number: 1770
Roy Mottahedeh
Half course (fall term). Tu., Th., at 1 with section to be arranged. EXAM GROUP: 15
A survey of the history of the Near East and North Africa from the rise of Islam in the 7th century to the Turkish ascendance in the mid-11th century. Includes Muhammad and his community, Arab conquests, Umayyads and Abbasids, sectarian movements, minority communities, government and religious institutions, relations with Byzantium and the Latin West.

History 1877b. History of the Near East, 1055-1517: Conference Course
Catalog Number: 3026
Roy Mottahedeh
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Surveys history of the Near East from the coming of the steppe peoples to the Ottoman conquest of Egypt. Includes Seljuks, Crusades, Mongols, and the fall of the Abbasid caliphate, Mamluks, the development of Mediterranean and Indian Ocean trade, and the Timurids and their successors.
Prerequisite: History 1877a helpful, but not required.

[History 1878a. Ottoman State and Society I (1300-1550)]
Catalog Number: 5471
Cemal Kafadar
Half course (fall term). Hours to be arranged.
Surveys the emergence of the Ottoman state from a frontier principality into a world empire in its sociopolitical and cultural contexts. Topics include pre-Ottoman Anatolia; frontier society; methods of conquest; centralization of power; classical institutions of the land regime and of the central administration; urbanization; religion and literature. Relations with Byzantium, other Islamic states, and Europe are examined.
Note: Expected to be given in 2005–06.

[History 1878b. Ottoman State and Society II (1550-1920)]
Catalog Number: 6470
Cemal Kafadar
Half course (fall term). Hours to be arranged.
Surveys the transformations of the classical Ottoman order in the Middle East and southeastern Europe until the demise of the state. Topics include decentralization; social disturbances; the impact of the new world economy and new trade routes; reforms; changing relations with Europe; nationalist movements; the 'Eastern Question.' Ethnic structure, rural society, urban popular culture, guilds, and family life are also examined. The importance of this era for

understanding today's Middle East is stressed.
Note: Expected to be given in 2005–06.

[History 1885. The Making of Modern Egypt, 1840-2000]
Catalog Number: 2499
E. Roger Owen
Half course (spring term). Hours to be arranged.
A history of Egypt's socio-economic and political development, making use of the rich historical literature, and posing questions about the conventional narrative treatment of such major issues as the colonial impact, the rise of the nationalist movement, the supposed failure of the liberal experiment and the uses and abuses of revolution.
Note: Expected to be given in 2005–06.

[History 1889. Transmission of Traditional Islamic Learning in the Middle East from the Beginning of Islam to the Present]
Catalog Number: 2155 Enrollment: Limited to 12.
Roy Mottahedeh
Half course (fall term). Hours to be arranged.
A study of the transmission of Islamic learning in the Middle East, principally in the institutions of learning called *madrasahs*, but also in private circles, from the 7th century to the present.
Note: Expected to be given in 2005–06.
Prerequisite: A course in the history of the Islamic Middle East, premodern or modern.

History 1890b. The Economics of the Middle East
Catalog Number: 1249
E. Roger Owen
Half course (fall term). Tu., Th., at 10 and a weekly section to be arranged. EXAM GROUP: 12
A critical overview of the processes of economic growth and transformation in the Middle East from World War I to the present. Countries to be studied include Egypt, Syria, Lebanon, Jordan, Iraq, the Arab states of the Arabian Peninsula, Israel/Palestine, Iran and Turkey.

History 1895. The Indian Ocean in Comparative Perspective: Conference Course
Catalog Number: 8123
Sugata Bose
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Explores the history of the Indian Ocean inter-regional arena in the comparative context of histories of the Atlantic, Mediterranean and the Pacific worlds from the 1490s to the 1990s. The changing meanings of sovereignty, religiously informed universalisms and the links forged by intermediary capital and migrant labor in the age of global empire.

[History 1897. Nation, Reason and Religion in South Asia]
Catalog Number: 1447
Sugata Bose
Half course (spring term). Hours to be arranged.
Examines the connections between nation, reason and religion in South Asian political thought and practice. Precolonial patriotisms, rational and religious reforms, colonial modernity and anti-

colonial nationalisms, visions of nationhood and forms of state power, and post-colonial nationalisms for and against the state.
Note: Expected to be given in 2006–07.

[History 1904. The History of Sub-Saharan Africa to 1860]
Catalog Number: 5936
Emmanuel K. Akyeampong and Caroline M. Elkins
Half course (fall term). Hours to be arranged.
Survey of sub-Saharan Africa to 1860, with attention to the range of methodologies used in writing early African history, including oral history, archaeology, and anthropology. Will address themes of the impact of climate change on migration and settlement, trade and commerce, state formation, slavery, and the impact of Islam and Christianity on the continent. Will provide a methodological and historiographical framework in which more specific historical processes and events may be placed and understood.
Note: Expected to be given in 2006–07.

History 1906. West Africa from the Earliest Times to 1800
Catalog Number: 1425
Emmanuel K. Akyeampong
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
Explores important themes in West African history: ecology and environmental changes; the introduction of agriculture and the emergence of sedentary societies; the trans-Saharan trade; the introduction and spread of Islam; migrations, and the formation of states; African slavery; the trans-Atlantic trade; and the spread of informal European influence. Also examines the sources and methods used in the reconstruction of West African history in the period under study.

[History 1911. A History of Southern Africa]
Catalog Number: 6238
Caroline M. Elkins
Half course (fall term). Hours to be arranged.
Introduction to the history of southern Africa from the settlement of the Bantu peoples to the present. Topics include early state formation, the rise of Shaka, and the Mfecane; impact of Dutch and British settlement; labor relations before and after the discovery of gold and diamonds; growth of ethnic and national consciousness; evolution of the apartheid state and African responses to racial segregation and oppression; Zimbabwean revolution; and liberation of Namibia from South African rule.
Note: Expected to be given in 2005–06.

History 1912. Health, Disease, and Ecology in African History: Conference Course
Catalog Number: 5905 Enrollment: Limited to 14.
Emmanuel K. Akyeampong
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Examines the history of disease and health in sub-Saharan Africa from the 19th century to recent times, exploring African and western concepts of health, disease and healing. Illustration through discussion of case studies of individual diseases, including malaria/sickle cell trait,

trypanosomiasis, tuberculosis, sexually transmitted diseases, alcoholism, AIDS, and onchocerciasis, and the public health policies affecting them.

[History 1922. Protest, Rebellion and Power in East African History: Conference Course]
Catalog Number: 8459
Caroline M. Elkins
Half course (fall term). Hours to be arranged.
Examines African responses to the imposition of colonial rule and to the impact of the post-colonial period in the countries of Kenya, Uganda, Tanzania, and Rwanda. Themes include initial African resistance to colonial rule, organized protests and violent rebellion against colonial institutions, and post-colonial struggles for power in the region. Case studies include popular rebellion in Zanzibar, the Mau Mau Emergency, the regime of Idi Amin, and the Rwandan genocide.
Note: Expected to be given in 2005–06.

Cross-listed Courses

[Arabic 144. Sources for the Study of Islamic History]
[Chinese History 111. Introduction to Chinese History: Pre-Imperial and Imperial China, ca. 1700 BC-AD 755]
[Foreign Cultures 60. Individual, Community, and Nation in Vietnam]
Historical Study A-13. China: Traditions and Transformations
Historical Study A-14. Japan: Tradition and Transformation
Historical Study A-16. The Making of Modern South Asia
Historical Study B-52. Slavery and Slave Trade in Africa and the Americas
[Historical Study B-67. Japan's Modern Revolution]
Historical Study B-68. America and Vietnam: 1945-1975
[Japanese History 111a. Ancient and Medieval Japan: Conference Course]
Japanese History 111b. The Shogun's Realm, 1600-1868
Korean History 111. Traditional Korea
Korean History 118. History of the Chosôn Dynasty: Conference Course
Literature and Arts C-40. The Chinese Literati
Literature and Arts C-42. Constructing the Samurai
[Persian 150r. Readings in Persian Historians, Geographers and Biographers]

Primarily for Graduates

History 2822. Research Methods for 20th Century Chinese History: Seminar
Catalog Number: 0617
Henrietta Harrison (University of Leeds)
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
Introduction to materials for modern Chinese history, including memoirs, diaries, sociological reports, gazetteers, government documents, and inscriptions. Includes a discussion of translation, unpunctuated or handwritten texts, and interviewing for oral history.
Prerequisite: Reading knowledge of Chinese.

[History 2847. 20th-Century China: Seminar]
Catalog Number: 0279
William C. Kirby
Half course (fall term). Hours to be arranged.
For graduate students pursuing original research in Chinese history of the 20th century. Introduction to major research aids and published documentary collections.
Note: Expected to be given in 2005–06.
Prerequisite: Reading knowledge of Chinese.

History 2848a. Introduction to Archival Research in Chinese History: Seminar
Catalog Number: 1863
Philip A. Kuhn
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Training in the reading and analysis of the major types of Chinese archival documents from the Qing period and after. Original materials are used, with the aim of preparing students to do doctoral research in China.
Note: Open to qualified undergraduates with permission of instructor.
Prerequisite: Chinese 106b or equivalent training.

History 2848b. Introduction to Archival Research in Chinese History: Seminar
Catalog Number: 3522
Philip A. Kuhn
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Research papers prepared on the basis of published collections of archival documents on Qing and modern history.
Prerequisite: History 2848a or equivalent.

***History 2851. Japanese History: Seminar**
Catalog Number: 5146 Enrollment: Limited to 15.
Harold Bolitho and Andrew Gordon
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Prerequisite: Reading knowledge of Japanese.

[History 2854. Issues in Tokugawa and Meiji History: Seminar]
Catalog Number: 0305 Enrollment: Limited to 15.
Daniel V. Botsman
Half course (fall term). Hours to be arranged.
Explores new perspectives on a number of key historiographical issues in the study of Tokugawa and Meiji Japan. Engages both topics of current interest among historians in Japan and theoretical literature from outside the field of Japanese history.
Note: Expected to be given in 2005–06.

History 2875. On Loyalty, Friendship and Love in Early Modern Iran: Seminar
Catalog Number: 4524
Kathryn Babayan (University of Michigan)
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17

This seminar will focus on close readings of Persian texts from a variety of discursive domains produced in the Safavi period (1501-1722) to historicize practices of friendship and the bonds of loyalty and love that configure the "friend" and the "beloved."

[History 2884. Topics in Ottoman Social and Cultural History: Seminar]
Catalog Number: 3762
Cemal Kafadar
Half course (spring term). Hours to be arranged.
Topic to be announced.
Note: Expected to be given in 2005–06.
Prerequisite: Reading knowledge of Turkish.

History 2886r. Topics in Islamic History: Seminar
Catalog Number: 3470
Roy Mottahedeh
Half course (fall term; repeated spring term). W., 3–5. EXAM GROUP: 8, 9
Topic to be announced.

[History 2887a. Debates in the Economic and Social History of the Middle East: Seminar]
Catalog Number: 1352
E. Roger Owen
Half course (fall term). Hours to be arranged.
Major debates concerning analysis of modern economic and social transformation of the Middle East including issues of class and community, popular movements, landed property, the impact colonialism and state/society relations.
Note: Expected to be given in 2005–06.

History 2887b. Debates in the Political and Ideological History of the Middle East: Seminar
Catalog Number: 4102
E. Roger Owen
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Major questions and debates in modern Arab political and ideological writings including Orientalism, Arab and local nationalism, religious revival, power and authority, and the difficulties of establishing democratic institutions.

[History 2892. Colonial and Post-Colonial Histories of South Asia: Seminar]
Catalog Number: 8502
Sugata Bose
Half course (spring term). Hours to be arranged.
Analyzes trends and debates in historical research and writing on colonial and post-colonial South Asia.
Note: Expected to be given in 2006–07.

History 2905. Gender and Sexuality: Comparative Historical Studies of Islamic Middle East, North Africa and South Asia
Catalog Number: 8070

Afsaneh Najmabadi
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Uses feminist and queer theoretical reading strategies to learn about notions of gender and sexuality, such as construction of femininity and masculinity, sexuality and desire, order and chaos, in Islamicate cultures of Middle East, North Africa, and South Asia.

[History 2908. Sources, Methodology, and Themes in African History: Seminar]
Catalog Number: 5861 Enrollment: Limited to 12.
Emmanuel K. Akyeampong
Half course (spring term). Hours to be arranged.
Seminar to equip graduate students with the necessary tools for archival research and fieldwork, as well as to introduce them to recent approaches in the historiography.
Note: Expected to be given in 2006–07.

History 2909. Themes in Modern Sub-Saharan African History: Proseminar
Catalog Number: 5840
Caroline M. Elkins
Half course (fall term). W., 4–6. EXAM GROUP: 9
An in-depth study of the major themes in sub-Saharan African history from the mid-19th century to the present, including the scholarship and debates on the changing relationship between Africa and the West.
Note: Open to undergraduates with permission of instructor.

Cross-listed Courses

Chinese History 211. Research on Chinese History and Civilization: Tools and Methods
[Chinese History 226. Introduction to Sources for Local History]
[Chinese History 227r. Topics in Middle-Period Sociocultural History: Seminar]
Chinese History 235r (formerly Chinese History 235). Topics in Warring States History: Seminar
[Chinese History 251. Confucian Ethics: Conference Course]
Korean History 230r. Readings in Premodern Korean History
[*Korean History 255r. Modern Korean History: Seminar]

Historiography and Methodology

For Undergraduates and Graduates

History 1942. The Historiography of Reformation Europe, 1450-1650: Conference Course
Catalog Number: 5887
Steven Ozment
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
An introduction to Reformation scholarship. Both classic and recent studies are read and discussed, and new fields of research explored. Attention given to a variety of national traditions and to the major historiographical controversies.

[History 1983. Reasoning From History: Conference Course]
Catalog Number: 7888
Ernest R. May and Alexander Keyssar (Kennedy School)
Half course (fall term). Hours to be arranged.
Uses of history in policy analysis and decision-making. Primarily discussion of case studies.
Note: Expected to be given in 2005–06. Offered jointly with the Kennedy School as API-701.

Primarily for Graduates

History 2902. Studies in Tudor and Stuart History
Catalog Number: 1428
Mark A. Kishlansky
Half course (fall term). Hours to be arranged.
A graduate colloquium designed for students preparing preliminary examinations in early modern history or interested in English historiography of the early modern period. Historiographical papers and reviews.
Note: Open to undergraduates with permission of instructor.

***History 2904. Readings in Japanese History: Proseminar**
Catalog Number: 4041
Andrew Gordon
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
A graduate colloquium for students preparing for general examinations in modern Japanese history or interest in English-language historiography of modern Japan.

[History 2910. Feminist Theory and Historiography: Proseminar]
Catalog Number: 8131 Enrollment: Limited to 15.
Afsaneh Najmabadi
Half course (fall term). Hours to be arranged.
An introduction to feminist contributions to "doing history" otherwise. Will review major feminist theoretical propositions and proceed to re-stage the theoretical debates within feminist historiography.
Note: Expected to be given in 2006–07.

Cross-listed Courses

Economics 2333. Historical Perspectives on Current Economic Issues
Sociology 225. Historical Sociology: Studying Continuity and Change: Seminar

Graduate Courses of Reading and Research

***History 3910. Writing History: Approaches and Practices**
Catalog Number: 1358
Sugata Bose 3960 and David Blackbourn 3203
Half course (fall term). M., 2–4.

Required of and limited to first-year doctoral students in History and joint degree programs in HEAL and HMES.

Global and Comparative History

For Undergraduates and Graduates

[History 1951. 19th-Century Capitalism: Great Britain, the US, Germany, and Japan: Conference Course]
Catalog Number: 9007 Enrollment: Limited to 15.
Sven Beckert
Half course (spring term). Hours to be arranged.
An in-depth exploration of the development of capitalism in four of the main economic powers of our times: Great Britain, the US, Germany, and Japan.
Note: Expected to be given in 2005–06.

[History 1957. International Society: Conference Course]
Catalog Number: 3056 Enrollment: Limited to 15.
Erez Manela
Half course (spring term). Hours to be arranged.
An introduction to the development of ideas and institutions of international society in the 20th century, covering the Wilsonian moment, the League of Nations, internationalist ideologies and movements, the United Nations system, human rights, decolonization and development, and non-governmental organizations.
Note: Expected to be given in 2005–06.

[History 1958. Islam and Ethnicity: Conference Course]
Catalog Number: 4023
Terry D. Martin
Half course (fall term). Hours to be arranged.
Examines the relationship between Islamic religious identity and ethnic identity in the Russian, Ottoman, and Indian empires and their successor states. Inquires into what extent Islam can substitute for, reinforce, or undermine ethnic identity based on theoretical and historical works.
Note: Expected to be given in 2005–06.

History 1959. Representing Women in History
Catalog Number: 0237
Laurel Thatcher Ulrich
Half course (spring term). M., W., at 11. EXAM GROUP: 4
A cross-cultural and wide-ranging exploration of the relationship between events and representations. Topics include the use of stories about women warriors and religious visionaries to mobilize men and women in many periods and settings; the invention of new icons to solve the problem of female citizenship; and the many efforts by scholars, writers, and activists to rediscover the lives of anonymous women.

[History 1960. Punishment and the Modern World: Conference Course]
Catalog Number: 2856
Daniel V. Botsman
Half course (spring term). Hours to be arranged.
Examines the way in which ideas about punishment, as well as actual penal practices, have played a critical role in the rise of modern states and societies. Attempts to develop a global perspective by reading historical studies about a broad range of societies. Beginning with the ideas and reforms of Enlightenment Europe, considers the rise of the prison, the transformation of corporal punishment, transportation, and the practice of punitive exile.
Note: Expected to be given in 2005–06.

[History 1963. Cold War Crises: Conference Course]
Catalog Number: 6643 Enrollment: Limited to 12.
Ernest R. May
Half course (spring term). Hours to be arranged.
We focus on three crises of the Cold War: Berlin, 1948-49; Suez, 1956; and Berlin/Caribbean missiles, 1961-62. Discussion compares not only the crises but types of historical sources and problems involved in analyzing collective memory.
Note: Expected to be given in 2005–06.

History 1964. Classic and Contemporary Issues in International History: Conference Course
Catalog Number: 7774
Akira Iriye and Charles S. Maier
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
An introduction to major themes and scholarly debates in international history through the reading and discussion of the important works in the field.

Primarily for Graduates

History 2906. International History: Seminar
Catalog Number: 0453
Akira Iriye
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Research seminar in the history of modern international relations.

History 2911. Theories of International Relations: Seminar
Catalog Number: 6430
David R. Armitage
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
An historical introduction to theories of war and peace, sovereignty, diplomacy, colonialism, international law, and international relations since the fifteenth century. Readings include primary and secondary sources.

Cross-listed Courses

[*American Civilization 200 (formerly *American Civilization 370). Major Works in the History of American Civilization]

Graduate Courses of Reading and Research

***History 3000. Direction of Doctoral Dissertations**
Catalog Number: 4630
Emmanuel K. Akyeampong 3421, David R. Armitage 5023 (fall term only), Kathryn Babayan (University of Michigan) 5209, Bernard Bailyn 1841, Sven Beckert 2415 (on leave 2004-05), Thomas N. Bisson 1451 (on leave fall term), David Blackbourn 3203, Ann M. Blair 2467 (on leave 2004-05), Peter K. Bol 8014, Harold Bolitho 1176, Sugata Bose 3960, Daniel V. Botsman 1249 (on leave 2004-05), Vincent Brown 4638 (fall term only), Joyce E. Chaplin 1058, John H. Coatsworth 3248, Lizabeth Cohen 3627, Nancy F. Cott 4261, Albert M. Craig 1847, Drew Gilpin Faust 3857, Ruth Feldstein 1755 (on leave 2004-05), Niall Ferguson 4938 (on leave fall term), Donald Fleming 1831, Caroline M. Elkins 3961 (on leave spring term), Timothy George (University of Rhode Island) 3621 (fall term only), Andrew Gordon 1891, Peter E. Gordon 3907, James Hankins 1239, Henrietta Harrison (University of Leeds) 5161, Evelyn Brooks Higginbotham 3517, Patrice Higonnet 2730 (on leave fall term), Stanley Hoffmann 1757, Morton J. Horwitz (Law School) 6272, Akira Iriye 1968 (on leave spring term), Robert D. Johnson (Brooklyn College) 3508 (spring term only) (fall term only), Christopher P. Jones 3204, Cemal Kafadar 2459 (on leave 2004-05), Edward L. Keenan 1825, Alexander Keyssar (Kennedy School) 4323, William C. Kirby 3128, Mark A. Kishlansky 2895, James T. Kloppenberg 3157, Philip A. Kuhn 8051, Angeliki E. Laiou 7282, Jill M. Lepore 4830, Mary D. Lewis 4369 (on leave 2004-05), Charles S. Maier 7227, Erez Manela 4762 (on leave 2004-05), Terry D. Martin 2966, Ernest R. May 1817 (on leave fall term), Michael McCormick 2849, Thomas K. McCraw (Business School) 7371, Lisa M. McGirr 2543 (on leave 2004-05), Georg Michels (University of California, Riverside) 5203, Roy Mottahedeh 1454, John E. Murdoch 1877 (on leave fall term), Afsaneh Najmabadi 4052, Frank Ninkovich (St. John's University) 2967 (fall term only), Susan E. O'Donovan 3962, E. Roger Owen 1028, Steven Ozment 6197, Richard Pipes 1827, Michael James Puett 1227, Eric W. Robinson 2724 (on leave fall term), Emma Rothschild (King's College, Cambridge) 5001, Judith Surkis 4184, Roman Szporluk 3033, Hue-Tam Ho Tai 6079 (on leave fall term), Nathaniel Taylor 1753, Stephan Thernstrom 4141, T. Robert Travers 4129, Wei-Ming Tu 7233 (on leave spring term), Laurel Thatcher Ulrich 1886, and John Womack, Jr. 1863 (on leave 2004-05)

***History 3010. Reading and Research**
Catalog Number: 3424
Emmanuel K. Akyeampong 3421, David R. Armitage 5023 (fall term only), Kathryn Babayan (University of Michigan) 5209, Sven Beckert 2415 (on leave 2004-05), Thomas N. Bisson 1451 (on leave fall term), David Blackbourn 3203, Ann M. Blair 2467 (on leave 2004-05), Peter K. Bol 8014, Harold Bolitho 1176, Sugata Bose 3960, Daniel V. Botsman 1249 (on leave 2004-05), Vincent Brown 4638 (fall term only), Joyce E. Chaplin 1058, John H. Coatsworth 3248, Lizabeth Cohen 3627, Kathleen M. Coleman 2289, Nancy F. Cott 4261, Albert M. Craig 1847, Charles Donahue, Jr. (Law School) 2650, Mark C. Elliott 3329, William L. Fash 1512, Drew Gilpin Faust 3857, Ruth Feldstein 1755 (on leave 2004-05), Niall Ferguson 4938 (on leave fall term), Franco Fido 2446, Donald Fleming 1831, Caroline M. Elkins 3961 (on leave spring term), Ivan

Gaskell 3174, Timothy George (University of Rhode Island) 3621 (fall term only), Andrew Gordon 1891, Peter E. Gordon 3907, David D. Hall (Divinity School) 2510 (on leave 2004-2005), James Hankins 1239, Jay M. Harris 2266, Henrietta Harrison (University of Leeds) 5161, Evelyn Brooks Higginbotham 3517, Patrice Higonnet 2730 (on leave fall term), Stanley Hoffmann 1757, Morton J. Horwitz (Law School) 6272, Akira Iriye 1968 (on leave spring term), Robert D. Johnson (Brooklyn College) 3508 (spring term only) (fall term only), Christopher P. Jones 3204, Cemal Kafadar 2459 (on leave 2004-05), Edward L. Keenan 1825, Alexander Keyssar (Kennedy School) 4323, William C. Kirby 3128, Mark A. Kishlansky 2895, James T. Kloppenberg 3157, Philip A. Kuhn 8051, Angeliki E. Laiou 7282, Jill M. Lepore 4830, Mary D. Lewis 4369 (on leave 2004-05), Charles S. Maier 7227, Erez Manela 4762 (on leave 2004-05), Terry D. Martin 2966, Ernest R. May 1817 (on leave fall term), Michael McCormick 2849, Thomas K. McCraw (Business School) 7371, Lisa M. McGirr 2543 (on leave 2004-05), Georg Michels (University of California, Riverside) 5203, Roy Mottahedeh 1454, John E. Murdoch 1877 (on leave fall term), Afsaneh Najmabadi 4052, Frank Ninkovich (St. John's University) 2967 (fall term only), Susan E. O'Donovan 3962, E. Roger Owen 1028, Steven Ozment 6197, Orlando Patterson 1091 (on leave spring term), Michael James Puett 1227, Eric W. Robinson 2724 (on leave fall term), Emma Rothschild (King's College, Cambridge) 5001, Bernard Septimus 7160, Judith Surkis 4184, Roman Szporluk 3033, Hue-Tam Ho Tai 6079 (on leave fall term), Nathaniel Taylor 1753, Stephan Thernstrom 4141, T. Robert Travers 4129, Wei-Ming Tu 7233 (on leave spring term), Laurel Thatcher Ulrich 1886, John Womack, Jr. 1863 (on leave 2004-05), and Jan Ziolkowski 7275 (spring term only)
Half course (fall term; repeated spring term). Fall: F., 1–3; Tu., 3–5; Spring: F., 1–3; Th., 2–4.
Instructors listed above under History 3010 supervise individual work in preparation for the General Examination for the PhD degree.
Note: Limited to candidates for the PhD who are in residence, who have been for a year in residence, and who are in good standing in the Graduate School. May ordinarily be taken only in preparation for a field (or fields) to be examined on the General Examination. May not be counted toward the AM degree except by permission of the Department.

History and Literature

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Members of the Steering Committee on Degrees in History and Literature

Homi K. Bhabha, Anne F. Rothenberg Professor of English and American Literature and Language *(Chair) (on leave 2004-05)*
Steven Biel, Senior Lecturer on History and Literature *(Director of Studies)*
Ann M. Blair, Professor of History *(on leave 2004-05)*
Sugata Bose, Gardiner Professor of Oceanic History and Affairs

Julie A. Buckler, Professor of Slavic Languages and Literatures
Lawrence Buell, Powell M. Cabot Professor of American Literature *(on leave 2004-05)*
Lizabeth Cohen, Howard Mumford Jones Professor of American Studies
Nancy F. Cott, Jonathan Trumbull Professor of American History
Daniel G. Donoghue, John P. Marquand Professor of English
James Engell, Gurney Professor of English Literature and Professor of Comparative Literature
Ruth Feldstein, Associate Professor of History and of History and Literature *(on leave 2004-05)*
Lynn Mary Festa, Assistant Professor of English and American Literature and Language
Stephen J. Greenblatt, Cogan University Professor
Virginie Greene, John L. Loeb Associate Professor of the Humanities
Robert J. Kiely, Harvard College Professor and the Donald P. and Katherine B. Loker Professor of English *(on leave spring term)*
James T. Kloppenberg, Harvard College Professor and David Woods Kemper ‘41 Professor of American History
Barbara K. Lewalski, William R. Kenan, Jr. Professor of History and Literature and of English Literature *(on leave 2004-05)*
Christie McDonald, Smith Professor of French Language and Literature
Leah Price, Professor of English and American Literature and Language
Charles E. Rosenberg, Ernest E. Monrad Professor of the Social Sciences
Doris Sommer, Ira Jewell Williams, Jr. Professor of Romance Languages and Literatures
John Stauffer, Professor of English and American Literature and Language
Judith Surkis, Assistant Professor of History and of History and Literature

Affiliated Members of the Committee on Degrees in History and Literature

David D. Hall, Bartlett Professor of New England Church History *(Divinity School) (on leave 2004-2005)*
Helen Vendler, Arthur Kingsley Porter University Professor

Other Faculty Offering Instruction in the History and Literature Program

Kriss R. Basil, Lecturer on History and Literature
Daniel Bautista, Lecturer on History and Literature
Julia Bekman Chadaga, Lecturer on History and Literature
Brian Scott Bockelman, Lecturer on History and Literature
Lisa T. Brooks, Lecturer on History and Literature and on English and American Literature and Language
Rory A. W. Browne, Lecturer on History and Literature
Kimberly Chabot Davis, Lecturer on History and Literature
Rebecca Schoff Erwin, Lecturer on History and Literature
Karen P. Flood, Lecturer on History and Literature
Rena Fonseca, Lecturer on History and Literature
Paul Aaron Garfinkel, Lecturer on History and Literature
Jane F. Gerhard, Lecturer on History and Literature
Sara Kurian Hallisey, Lecturer on History and Literature
Lori B. Harrison-Kahan, Lecturer on History and Literature

Charles W. M. Henebry, Preceptor in Expository Writing and Lecturer on History and Literature
Andrew J. Huebner, Lecturer on History and Literature
Laura K. Johnson, Lecturer on History and Literature
Matthew B. Kadane, Lecturer on History and Literature
Stephen H. Kargere, Lecturer on History and Literature
Amy Marie Kittelstrom, Lecturer on History and Literature
Julia Lisella, Lecturer on History and Literature
Viviane A. Mahieux, Lecturer on History and Literature
James N. Mancall, Lecturer on History and Literature
Michele C. Martinez, Lecturer on History and Literature and on English and American Literature and Language
Maureen N. McLane, Lecturer on History and Literature
Ann-Marie Mikkelsen, Lecturer on History and Literature
Jennifer S. Milligan, Lecturer on History and Literature
Andrew R. Muldoon, Lecturer on History and Literature
John T. O'Keefe, Lecturer on History and Literature
David W. Pansing, Lecturer on History and Literature
Gloria Pastorino, Lecturer on History and Literature
Josiane Peltier, Lecturer on History and Literature
Debra N. Prager, Lecturer on History and Literature
Steven Shoemaker, Preceptor in Expository Writing and Lecturer on History and Literature
Zahr Said Stauffer, Lecturer on History and Literature
Woden S. Teachout, Lecturer on History and Literature
James E. von der Heydt, Lecturer on History and Literature, Allston Burr Senior Tutor in Winthrop House
James Wilkinson, Lecturer on History and Literature

Primarily for Undergraduates

***History and Literature 91r. Supervised Reading and Research**
Catalog Number: 0334
Steven Biel and members of the Committee
Half course (fall term; repeated spring term). Hours to be arranged.
The study of selected topics in history and literature.
Note: Permission of the Director of Studies required. In addition to individually supervised reading and research, History and Literature offers small group courses on selected topics. These courses are open to nonconcentrators with the permission of the instructor. They are posted in the History and Literature office and online on the Committee's web site.

***History and Literature 97. Tutorial — Sophomore Year**
Catalog Number: 4177
Steven Biel and members of the Committee
Full course. Hours to be arranged.
Note: Ordinarily taken by sophomores as a full course. Nonconcentrators wishing to take a half or full year of the sophomore tutorial may do so with the permission of the Director of Studies. To take one term only, a divide with credit petition must be filed.

***History and Literature 98r. Tutorial — Junior Year**
Catalog Number: 2766
Steven Biel and members of the Committee
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Ordinarily taken as two half courses by juniors. Required of all concentrators.

***History and Literature 99. Tutorial — Senior Year**
Catalog Number: 5362
Steven Biel and members of the Committee
Full course. Hours to be arranged.
Note: Ordinarily taken by seniors as a full course. Required of all concentrators.

A list of the courses in other departments that count for History and Literature is available in our office at the Barker Center and at www.fas.harvard.edu/~histlit.

History of American Civilization

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Higher Degrees in the History of American Civilization

James T. Kloppenberg, Harvard College Professor and David Woods Kemper ‘41 Professor of American History *(Chair)*
Sven Beckert, Professor of History *(on leave 2004-05)*
Lawrence Buell, Powell M. Cabot Professor of American Literature *(on leave 2004-05)*
Joyce E. Chaplin, Professor of History
Lizabeth Cohen, Howard Mumford Jones Professor of American Studies
Nancy F. Cott, Jonathan Trumbull Professor of American History
Margaret Lee Crawford, Professor of Urban Design and Planning Theory *(Design School)*
Henry Louis Gates, Jr., W.E.B. Du Bois Professor of the Humanities
David D. Hall, Bartlett Professor of New England Church History *(Divinity School) (on leave 2004-2005)*
Evelyn Brooks Higginbotham, Victor S. Thomas Professor of History and of African and African American Studies
Jennifer L. Hochschild, Henry LaBarre Jayne Professor of Government and Professor of African and African American Studies
Morton J. Horwitz, Charles Warren Professor of American Legal History *(Law School)*
Alexander Keyssar, Matthew W. Stirling, Jr. Professor of History and Social Policy *(Kennedy School)*

Jill M. Lepore, Professor of History
Louis Menand, Anne T. and Robert M. Bass Professor of English and American Literature and Language
Ingrid Monson, Quincy Jones Professor of African-American Music, Supported by the Time Warner Endowment *(on leave 2004-05)*
Elisa New, Professor of English and American Literature and Language
Carol J. Oja, William Powell Mason Professor of Music *(on leave 2004-05)*
Robert A. Orsi, Charles Warren Professor of History of Religion in America *(Divinity School)*
Julie A. Reuben, Professor of Education *(School of Education)*
Jennifer L. Roberts, Assistant Professor of History of Art and Architecture
Charles E. Rosenberg, Ernest E. Monrad Professor of the Social Sciences
Gwendolyn DuBois Shaw, Assistant Professor of History of Art and Architecture and of African and African American Studies
Werner Sollors, Henry B. and Anne M. Cabot Professor of English Literature and Professor of African and African American Studies
Doris Sommer, Ira Jewell Williams, Jr. Professor of Romance Languages and Literatures
John Stauffer, Professor of English and American Literature and Language
Laurel Thatcher Ulrich, Harvard College Professor and the James Duncan Phillips Professor of Early American History

Other Faculty Offering Instruction in the History of American Civilization

Allan M. Brandt, Professor of the History of Science *(FAS)* and Amalie Moses Kass Professor of the History of Medicine *(Medical School)*
Davíd L. Carrasco, Neil L. Rudenstine Professor for the Study of Latin America in the Faculty of Divinity and the Faculty of Arts and Sciences
Bradley S. Epps, Professor of Romance Languages and Literatures and of Studies of Women, Gender, and Sexuality
Philip J. Fisher, Felice Crowl Reid Professor of English and American Literature
William W. Fisher, Hale and Dorr Professor of Intellectual Property Law *(Law School)*
Donald Fleming, Jonathan Trumbull Research Professor of American History
Akira Iriye, Charles Warren Professor of American History *(on leave spring term)*
Barbara E. Johnson, Fredric Wertham Professor of Law and Psychiatry in Society *(on leave 2004-05)*
Thomas K. McCraw, Isidor Straus Professor of Business History *(Business School)*
Marc Shell, Irving Babbitt Professor of Comparative Literature and Professor of English
John R. Stilgoe, Robert and Lois Orchard Professor in the History of Landscape Development
Stephan Thernstrom, Winthrop Professor of History
Helen Vendler, Arthur Kingsley Porter University Professor
Ruth R. Wisse, Harvard College Professor, Martin Peretz Professor of Yiddish Literature, and Professor of Comparative Literature

This program is interdisciplinary. Students are also referred to course offerings at the Design School, Kennedy School, and Law School. For further information about the variety of course offerings in specific departments, consult the office of the Committee, Barker Center 225, 12 Quincy Street.

Primarily for Graduates

***American Civilization 200 (formerly *American Civilization 370). Major Works in the History of American Civilization**
Catalog Number: 3662
Jill M. Lepore
Half course (fall term). M., 12–2. EXAM GROUP: 5, 6
A survey of the field, with an emphasis on the range of interdisciplinary methods in the humanities, history, and social sciences.
Note: Required of first and second-year graduate students in American Civilization and open to others by permission of the instructor.

[*American Civilization 201 (formerly *American Civilization 371). Themes in the History of American Civilization]
Catalog Number: 6797
Members of the Committee
Half course (fall term). Hours to be arranged.
Interdisciplinary study of one or several topics.
Note: Expected to be given in 2005–06. Required of first and second-year graduate students in American Civilization and open to others by permission of the instructor.

Graduate Courses

***American Civilization 398. Reading and Research**
Catalog Number: 1710
Helen Vendler 7226, Sven Beckert 2415 (on leave 2004-05), Allan M. Brandt 3031, Lawrence Buell 2655 (on leave 2004-05), Joyce E. Chaplin 1058, Lizabeth Cohen 3627, Nancy F. Cott 4261, Margaret Lee Crawford (Design School) 3934, Bradley S. Epps 2880, Philip J. Fisher 1470, William W. Fisher (Law School) 4257, Donald Fleming 1831, Henry Louis Gates, Jr. 2899, David D. Hall (Divinity School) 2510 (on leave 2004-2005), Evelyn Brooks Higginbotham 3517, Morton J. Horwitz (Law School) 6272, Akira Iriye 1968 (on leave spring term), Barbara E. Johnson 7626 (on leave 2004-05), James T. Kloppenberg 3157, Thomas K. McCraw (Business School) 7371, Louis Menand 4752, Ingrid Monson 1591 (on leave 2004-05), Carol J. Oja 4599 (on leave 2004-05), Julie A. Reuben (School of Education) 4428, Jennifer L. Roberts 4407, Gwendolyn DuBois Shaw 3799, Werner Sollors 7424, John Stauffer 1006, Stephan Thernstrom 4141, and Laurel Thatcher Ulrich 1886

***American Civilization 399. Direction of Doctoral Dissertation**
Catalog Number: 8803
Ruth R. Wisse 3177, Sven Beckert 2415 (on leave 2004-05), Allan M. Brandt 3031, Lawrence Buell 2655 (on leave 2004-05), Davíd L. Carrasco 4213, Lizabeth Cohen 3627, Nancy F. Cott 4261, Philip J. Fisher 1470, William W. Fisher (Law School) 4257, Donald Fleming 1831, Henry Louis Gates, Jr. 2899, David D. Hall (Divinity School) 2510 (on leave 2004-2005), Evelyn Brooks Higginbotham 3517, Morton J. Horwitz (Law School) 6272, Akira Iriye 1968 (on leave spring term), James T. Kloppenberg 3157, Thomas K. McCraw (Business School) 7371, Carol J. Oja 4599 (on leave 2004-05), Robert A. Orsi (Divinity School) 4242, Julie A. Reuben

(School of Education) 4428, Jennifer L. Roberts 4407, Marc Shell 3176, Werner Sollors 7424, John Stauffer 1006, John R. Stilgoe 8032, Stephan Thernstrom 4141, and Laurel Thatcher Ulrich 1886

Cross-listed Courses

[*Comparative Literature 172 (formerly *Comparative Literature 269). Paralysis]
[Comparative Literature 174. American Babel]
English 17x. 19th-Century American Novel
***English 90s. Ethnic-American Autobiography**
***English 199t. Animals That Talk**
***English 274z. Douglass and Melville: Graduate Seminar**
***English 277xr. Multilingual Literatures of the United States: Graduate Seminar**
[Government 2392. American Political Ideologies]
[History 71a. America: Colonial Times to the Civil War]
[History 1632. Gilded Age America: Economy, Society and Politics: Conference Course]
History 1664. African American Intellectual History: Conference Course
History 1666. The World of William James: Conference Course
[History 1951. 19th-Century Capitalism: Great Britain, the US, Germany, and Japan: Conference Course]
History 2600. Readings in Colonial and Revolutionary America: Proseminar
[History 2601. The US in the 20th Century: Seminar]
[History 2602. Readings in the History of the United States in the 19th Century: Proseminar]
History 2606. Early American Social History: Seminar
History 2607. Readings in the United States in the 20th Century: Proseminar
[History 2610. Race in Early America: Status, Identity and Power: Seminar]
History 2630. Intellectual History: Seminar
***History 2640hf. Workshop in 20th Century US History**
[History 2650hf. The Political Economy of North America]
[*History 2662. Readings in American Thought]
[History 2664. Race and African-American Intellectual History: Seminar]
History 2675. Seminar in Social/Gender History: Seminar
History 2682hf. The Culture and Politics of the Built Environment in the US: Seminar
History of Art and Architecture 17y. American Encounters: Art, Contact, and Conflict, 1565-1865
[History of Art and Architecture 19x. Introduction to African American Art History]
History of Art and Architecture 175w. Pop Art
[History of Art and Architecture 176w. Modern Architecture, Ornament and Objects]
Music 218r. 20th-Century Music: Seminar
[Religion 1439 (formerly Religion 1514). The History of Christianity: An Introduction to Interpretive Issues]
Religion 1465. Liberalism and Orthodoxy, 1600–1870
[Religion 1468 (formerly Religion 1504). Religion in America: From the Coming of the Europeans to the 1870s]
[Religion 1515. Religion and Culture in 19th-Century America and Europe: Seminar]

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Faculty of Arts and Sciences
Office of the Registrar

[Religion 1526. Religion in America from c. 1865 to the 1970s]
[Religion 2464. Radical Religion in England and America, 1550–1750: Seminar]
Social Analysis 66. Race, Ethnicity, and Politics in the United States
Spanish 243 (formerly Spanish 143). Foundational Fiction and Other Cultural Agents

History of Art and Architecture

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of History of Art and Architecture

Yve-Alain Bois, Joseph Pulitzer, Jr. Professor of Modern Art *(Chair)*
Suzanne P. Blier, Allen Whitehill Clowes Professor of Fine Arts and Professor of African and African American Studies
Joseph Connors, Visiting Professor of History of Art and Architecture *(Director, Harvard Center for the Study of Italian Renaissance, Villa I Tatti) (spring term only)*
Thomas B. F. Cummins, Dumbarton Oaks Professor of the History of Pre-Columbian and Colonial Art
Frank Fehrenbach, Visiting Professor of History of Art and Architecture *(University of Basel) (fall term only)*
Jeffrey F. Hamburger, Professor of History of Art and Architecture
Alice G. Jarrard, Associate Professor of History of Art and Architecture *(on leave spring term)*
Ioli Kalavrezou, Dumbarton Oaks Professor of Byzantine Art
Robin E. Kelsey, Assistant Professor of History of Art and Architecture
Ewa Lajer-Burcharth, Harvard College Professor and Professor of History of Art and Architecture *(Director of Graduate Studies)*
Thomas Leisten, Visiting Associate Professor of History of Art and Architecture *(Princeton University) (fall term only)*
Neil Levine, Emmet Blakeney Gleason Professor of History of Art and Architecture
Yukio Lippit, Assistant Professor of History of Art and Architecture *(on leave 2004-05)*
David G. Mitten, James Loeb Professor of Classical Art and Archaeology
Gülru Necipoglu-Kafadar, Aga Khan Professor of Islamic Art, Associate of Currier House *(on leave 2004-05)*
Alina A. Payne, Professor of History of Art and Architecture *(on leave 2004-05)*
Jennifer L. Roberts, Assistant Professor of History of Art and Architecture
Betsey A. Robinson, Assistant Professor of the Classics and of History of Art and Architecture
David J. Roxburgh, Professor of History of Art and Architecture *(Director of Undergraduate Studies)*
Gwendolyn DuBois Shaw, Assistant Professor of History of Art and Architecture and of African and African American Studies

Victor Stoichita, Zobel de Ayala Visiting Professor of History of Art and Architecture *(University of Fribourg) (fall term only)*
Rabun Taylor, Associate Professor of History of Art and Architecture *(on leave 2004-05)*
Hugo van der Velden, Professor of History of Art and Architecture *(on leave spring term)*
Eugene Wang, Gardner Cowles Associate Professor of the History of Art and Architecture
Irene J. Winter, William Dorr Boardman Professor of Fine Arts
Henri Zerner, Professor of History of Art and Architecture

Museum Associates Offering Instruction in the Department

Marjorie B. Cohn, Senior Lecturer on History of Art and Architecture *(Carl A. Weyerhauser Curator of Prints in the Harvard University Art Museums)*
Harry A. Cooper, Senior Lecturer on History of Art and Architecture *(Curator of Modern Art, Harvard University Art Museums)*
Deborah Martin Kao, Senior Lecturer on History of Art and Architecture *(Richard L. Menschel Curator of Photography, Harvard University Art Museums)*
Henry W. Lie, Lecturer on History of Art and Architecture *(Senior Conservator of Objects and Sculpture, Straus Center for Conservation, Harvard University Art Museums)*
Carol C. Mancusi-Ungaro, Senior Lecturer on History of Art and Architecture *(Director of the Center for the Technical Study of Modern Art in the Harvard University Art Museums)*
Robert D. Mowry, Senior Lecturer on History of Art and Architecture *(Curator of Chinese Art and Head of Asian Art, Harvard University Art Museums)*
Peter Nisbet, Senior Lecturer on History of Art and Architecture *(Daimler-Benz Curator of the Busch-Reisinger Museum)*
William W. Robinson, Senior Lecturer on History of Art and Architecture *(Ian Woodner Curator of Drawings in The Fogg Art Museum)*
Stephan S. Wolohojian, Lecturer on History of Art and Architecture *(Curator of Paintings, Sculpture, and Decorative Arts, Harvard University Art Museums)*

Other Faculty Offering Instruction in the History of Art and Architecture

Gloria Ferrari Pinney, Research Professor of Classical Archaeology and Art

Courses in the History of Art and Architecture undergraduate curriculum are structured as a three-tier system, consisting of a sequence of introductory courses, upper-level courses and departmental tutorials. Passage through the sequence from entry level to more advanced classes is encouraged—particularly for prospective concentrators.

HAA 10 and HAA 11 are general, conceptual introductions to History of Later Western Art, and History of World Architecture, respectively, each of which would serve as a point of entry into the courses and concentration of History of Art and Architecture. History of Art and Architecture 12-89 constitute field-specific introductions to the major subfields of art history and their associated methodologies. These introductory courses are intended both for students in the concentration and for non-concentrators with an interest in a particular subject within History of Art and Architecture. History of Art and Architecture 100-199, upper-level courses, tend to focus upon a particular problem or set of materials within a subfield.

Primarily for Undergraduates

History of Art and Architecture 1a. Survey of World Art
Catalog Number: 7547 Enrollment: Limited to 280.
Yve-Alain Bois and members of the Department
Half course (fall term). M., W., (F.), at 12. EXAM GROUP: 5
Survey of world art, both Western and non-Western, from Prehistoric cave paintings to the development of the handscroll format in medieval China and Japan and the birth of perspectival space in the Italian Renaissance. Chronological, and underlining cross-cultural exchanges, the course will focus on recurrent themes and topics as they unfold throughout the ages, such as monumentality, naturalism versus abstraction, narrative, and iconoclasm.
Note: Students are encouraged to enroll in both halves of this survey, preferably in sequential order.

History of Art and Architecture 1b. Survey of World Art
Catalog Number: 6862
Thomas B. F. Cummins and members of the Department
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
Survey of world art, both Western and non-Western, from 1492, which marked both the discovery of the New World and the end of Moorish Spain, to our present day and the pressure of globalization upon contemporary artists. Chronological, and underlining cross-cultural exchanges, the course will focus on recurrent themes and topics as they unfold throughout the ages, such as the subjectivity of the artist, or the role of the beholder.
Note: Students are encouraged to complete HAA 1a prior to enrolling in HAA 1b.

[History of Art and Architecture 10. The Western Tradition: Art Since the Renaissance]
Catalog Number: 4988
Henri Zerner
Half course (spring term). Hours to be arranged.
Concentrating on painting but with reference to other media, we examine art between the beginning of Modern Times around 1400 until the present. It is team taught and organized around specific topics each occupying one week. It is organized chronologically but does not attempt to be a comprehensive survey, but rather to highlight important issues, debates, innovations, specific works or artists.
Note: Expected to be given in 2005–06.

[History of Art and Architecture 11. Landmarks of World Architecture]
Catalog Number: 3675
Members of the Department
Half course (fall term). Hours to be arranged.
Examines great monuments in world architecture and the unique aesthetic, cultural, and historical issues that frame them. Faculty members each lecture on a building or complex in their area of expertise. These include the Pantheon, Taj Mahal, Paris Opera, Hôtel de Soubise, Saint Peter's, and Farnsworth House, as well as complexes at the Alhambra, the Forbidden City, Cuzco, Dhaka, Versailles. Sections focus on key questions in the analysis and interpretation of

architecture.
Note: Expected to be given in 2005–06.

History of Art and Architecture 12y. Introduction to Islamic Art: Visual and Portable Arts in Context
Catalog Number: 3235
David J. Roxburgh
Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 3
Introduces key examples of the arts of the book, calligraphy, and portable arts (e.g. ceramics, metalwork, textiles, ivory) made between 650 and 1650 in the Islamic world, from the rise of Islam through to the pre-modern "Gunpowder Empires." Objects are examined in light of their cultural, political, socio-economic, and aesthetic contexts. Themes include production and patronage; systems of object content and use; intermedial correspondences; and cross-cultural relationships of content and form. The selected materials are studied through a range of methodologies.

History of Art and Architecture 13h. Foundations of Early Civilization: An Introduction to the Art of Ancient Mesopotamia
Catalog Number: 7382
Irene J. Winter
Half course (fall term). Tu., Th., at 11. EXAM GROUP: 13
Survey of the art and archaeology of ancient Mesopotamia from Uruk through the Neo-Assyrian periods, charting the relationship between the arts and society from the earliest city-states to the beginnings of empire. Includes a survey of archaeological data as well as those art-historical approaches available for analysis of ancient monuments.

[History of Art and Architecture 13k. Introduction to Roman Art and Architecture]
Catalog Number: 1426
Rabun Taylor
Half course (fall term). Hours to be arranged.
At its height, the Roman Empire extended from Scotland to Syria, and from the North Sea to the Sahara. We examine the art and architecture produced in lands under Roman rule during a one thousand year period, from Rome's beginnings as an Etruscan-influenced city in the 7th century BCE to the Christianizing of Rome in the 4th century CE.
Note: Expected to be given in 2005–06.

History of Art and Architecture 17y. American Encounters: Art, Contact, and Conflict, 1565-1865
Catalog Number: 8937
Jennifer L. Roberts
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
An introduction to early American art with a focus on transatlantic, cross-cultural perspectives. We begin with the global struggle for control of the North American continent, tracing the collision of multiple Native American traditions with the visual and material cultures of British, French, and Spanish colonialism. We then focus more closely on the US proper, examining the active role of the visual arts in the formation of American politics, religion, and society.

[History of Art and Architecture 18k. Introduction to Japanese Art]
Catalog Number: 7525
Yukio Lippit
Half course (spring term). Hours to be arranged.
A survey of the most visually and conceptually significant examples of art and architecture produced in the Japanese archipelago from the prehistoric era through the modern period. Broader historical questions addressed through careful readings of individual objects and buildings. Special emphasis placed on the characteristics of materials, genres, and formats most frequently employed in the Japanese context, as well as the relationship of Japanese artistic traditions to larger interregional trends.
Note: Expected to be given in 2005–06.

History of Art and Architecture 19m. African Architecture and City Planning - An Introduction
Catalog Number: 8933
Suzanne P. Blier
Half course (fall term). M., W., at 10. EXAM GROUP: 3
In this lecture course salient issues concerning African architecture and planning will be addressed - historic, colonial, and contemporary forms among these. Alongside issues of materials, structure, setting, and landscape, a range of related socio-cultural issues will be taken up, among them the relationship between the built environment and local contexts of religion, social structure, and politics. Both urban and rural architectural forms will be examined.

[History of Art and Architecture 19x. Introduction to African American Art History]
Catalog Number: 2396
Gwendolyn DuBois Shaw
Half course (spring term). Hours to be arranged.
Examines three hundred years of artistic production by peoples of African descent living in the US, from the beginning of the slave trade through the early Civil Rights movement of the 20th century. Primary focus is on the so-called fine arts of painting and sculpture. We also consider architecture, the material culture of slavery and daily life, vernacular art, dominant culture, and representations of Blacks.
Note: Expected to be given in 2005–06.

[History of Art and Architecture 19y (formerly History of Art and Architecture 19). Introduction to the Art of Africa]
Catalog Number: 8872
Suzanne P. Blier
Half course (fall term). Hours to be arranged.
Examines key issues in African art. Designed both to be an introduction to the rich and diverse arts of Africa and to serve as a forum for the critical evaluation of related theoretical issues. Each class explores the art of a given civilization, discussing concomitant traditions in religion, philosophy, politics, and history, while also focusing on larger thematic concerns: gender, representation of other, aesthetics, artistic creation, psychology, performance art, and the like.
Note: Expected to be given in 2005–06.

[History of Art and Architecture 19z. The Importance of Art in the Conquest of the Americas]
Catalog Number: 2455
Thomas B. F. Cummins
Half course (spring term). Hours to be arranged.
Looks at the various roles that painting and sculpture played in the conquest. Stressing Mexico and Peru, we deal with issues such as idolatry, beauty, commensurability, miracles, legal testimony, and heresy, as studied through works that were either produced in the New World by natives or Spaniards, or works brought there from Spain.
Note: Expected to be given in 2005–06.

History of Art and Architecture 62. Painting and Sculpting in Italy, 1575-1700
Catalog Number: 2322
Alice G. Jarrard
Half course (fall term). M., W., at 10. EXAM GROUP: 3
Examines notions of invention, genre, patronage, function and audience in seventeenth-century Italian art. The settings for these historical investigations will include churches, palaces, and villas, in the cities of Venice, Bologna, Rome, and Naples. Artists range from Algardi and Bernini to the Carracci, Rubens, Caravaggio, Poussin, Velazquez, and Claude Lorrain.

[History of Art and Architecture 70. Introduction to Modern Art and Visual Culture, 1700–1990s]
Catalog Number: 4593
Ewa Lajer-Burcharth
Half course (fall term). Hours to be arranged.
What is modernity, and what is the place of visual representation within modern culture? What conceptions of individuality, originality, and desire are at work in the idea of “the artist” in the modern period? Traversing different styles - rococo, Neo-classicism, Impressionism, Abstraction - we discuss a range of modern media, from painting, sculpture, prints, and photography to video, installation, and performance art.
Note: Expected to be given in 2005–06.

***History of Art and Architecture 91r. Directed Study in History of Art and Architecture**
Catalog Number: 1028
David J. Roxburgh and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Limited to juniors and seniors. Students wishing to enroll must petition the Head Tutor for approval, stating the proposed project, and must have the permission of the proposed instructor.

***History of Art and Architecture 97r. Sophomore Tutorial**
Catalog Number: 0935
David J. Roxburgh and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Required of concentrators.

***History of Art and Architecture 98ar. Advanced Tutorial**
Catalog Number: 1328
David J. Roxburgh and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Required of concentrators.

***History of Art and Architecture 98br. Advanced Tutorial**
Catalog Number: 3507
David J. Roxburgh and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Required of concentrators.

***History of Art and Architecture 99. Tutorial - Senior Year**
Catalog Number: 3118
David J. Roxburgh and members of the Department
Full course. Hours to be arranged.
Note: Intended for honors candidates in History of Art and Architecture. Permission of the Head Tutor required.

For Undergraduates and Graduates

History of Art and Architecture 101. The Materials of Art
Catalog Number: 5741 Enrollment: Limited to 12.
Henry W. Lie and members of the Department
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
An introduction to the materials and techniques that have been used to produce art objects (paintings, sculpture, works on paper). An emphasis on the physical choices and constraints offered to the artist through the centuries. Problems of description, dating, authenticity, aging, and preservation are considered.
Prerequisite: History of Art and Architecture concentration or two previous art history courses.

[History of Art and Architecture 106x. Prints From Then Till Now]
Catalog Number: 2475 Enrollment: Limited to 10.
Marjorie B. Cohn
Half course (spring term). Hours to be arranged.
Western printmaking, focusing on origins, functions, and fortunes of woodcut, engraving, etching, lithography, and other fine-art techniques. Work by artists, such as Rembrandt, Goya, and Picasso, is analyzed, but emphasis is on aspects of prints inherent in the medium, such as their role in fostering graphic conventions, print production as collaborative enterprise, and the implications of multiples. Students are encouraged to work on prints from time periods and geographical regions of particular interest.
Note: Expected to be given in 2005–06.

[History of Art and Architecture 124z. Architecture and Dynastic Legitimacy: The Early Modern Islamic Empires (1450-1650)]
Catalog Number: 4604 Enrollment: Limited to 12.

Gülru Necipoglu-Kafadar
Half course (fall term). Hours to be arranged.
In the 16th century, three great regional empires partitioned the central zone of Islam from the Balkans to Bengal. The Mediterranean-based Ottomans, the Safavids in Iran, and the Mughals in India formed separate cultural domains with distinctive architectural and decorative idioms originating from a shared Timurid heritage. The building types each empire emphasized are studied as an index of differing imperial ideologies and theories of dynastic legitimacy.
Note: Expected to be given in 2005–06.

History of Art and Architecture 128g. Islamic Epigraphy and Calligraphy: Spiritual Geometries and Bodily Instruments
Catalog Number: 4118 Enrollment: Limited to 12.
David J. Roxburgh
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
Examines the uses of writing on different art forms including architecture from the Islamic lands with an emphasis on the period between ca. 600 and 1500. The course will introduce key methodologies in the study of writing and the full range of scripts, orthographic conventions, and textual content. Aesthetic, cultural, and sociopolitical questions will be treated and critical issues such as the text as image debate. No knowledge of Arabic or Persian is required.

[History of Art and Architecture 130. Topography and Monuments of Ancient Rome]
Catalog Number: 4494
Rabun Taylor
Half course (fall term). Hours to be arranged.
A general survey of the architecture and urban development of Rome from its beginning until late antiquity. By studying the city's monumental center, students gain an understanding of Rome's immense cultural legacy in general, and in specific a familiarity with the spatial and topographical vocabulary inherited by the modern urban West. Additionally, by examining the remains of ancient Rome's infrastructure, they confront the city as an organic and historical entity.
Note: Expected to be given in 2005–06.

History of Art and Architecture 133. Greek Architecture and Urbanism
Catalog Number: 2412
Betsey A. Robinson
Half course (fall term). M., W., at 11. EXAM GROUP: 4
An examination of Greek architecture and site organization from the Early Iron Age through the Hellenistic Period. We study civic, sacred, and domestic architecture, the emergence of the polis, colonial foundations, and the evolution of urban planning, from sites in modern Greece and Turkey to southern Italy, northern Africa, and the Levant.

History of Art and Architecture 137. Cross-Cultural Aesthetics: Proseminar
Catalog Number: 0302 Enrollment: Limited to 10.
Irene J. Winter
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
An inquiry into aesthetic theory as it was developed in Western Europe in the 18th and 19th

centuries, and how that approach may be used to examine the art of non-European traditions. After a set of common readings and discussion, students will be asked to select a particular tradition for research, and examine the utility of such concepts as "beauty" cross-culturally. Class presentation and paper.

[History of Art and Architecture 143m. The Art of the Court of Constantinople]
Catalog Number: 4412
Ioli Kalavrezou
Half course (spring term). Hours to be arranged.
Concentrates on art and architecture created for the court of Constantinople from the 9th to the 12th century. Focuses on objects and monuments, exploring their role in political, religious, and personal events.
Note: Expected to be given in 2005–06.

History of Art and Architecture 144x. Topics in Early Christian Art
Catalog Number: 8919 Enrollment: Limited to 12.
Ioli Kalavrezou
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
The seminar will study selected themes relating to the creation and development of Christian imagery during the first six centuries.

[History of Art and Architecture 146x. The Art of Devotion]
Catalog Number: 4493 Enrollment: Limited to 12.
Jeffrey F. Hamburger
Half course (fall term). Hours to be arranged.
The proliferation of novel forms of devotional art and practice during the late Middle Ages, from Passion piety to mysticism, encompassing icons, panel painting, reliquaries, prayer books, devotional dolls, as well as the debates these innovative images engendered over differences between monastic and lay, male and female, and "low" and "high" piety up to and including the Reformation.
Note: Expected to be given in 2005–06.

History of Art and Architecture 147p. Popular Cults and the Formation of Pilgrimage Sites
Catalog Number: 3928
Ioli Kalavrezou
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Focuses on the phenomenon of relic worship and the popular veneration of holy sites and holy men in the early Christian period. A number of sites that for differing reasons became important cult centers around the Mediterranean world are studied.

[History of Art and Architecture 151z. Renaissance Architecture and the Rise of Classicism]
Catalog Number: 6427
Alina A. Payne
Half course (fall term). Hours to be arranged.
Charts the rise and dissemination of classicism in Renaissance Europe. Lectures focus on the

development of the style, its origin in the fascination with and appropriation of antiquity, its response to shifts in political and social life, and its mechanisms of transmission (travel, book, and print culture) as well as on phenomena of exchange (with the East), colonial export, and resistance (based on vernacular, political, religious, and other cultural differences) to this pan-European trend.
Note: Expected to be given in 2005–06.

History of Art and Architecture 152v. Leonardo da Vinci: Art, Technology, and Science
Catalog Number: 0599
Frank Fehrenbach (University of Basel)
Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12
This lecture surveys the complete work of Leonardo, exploring his intellectual biography in the cultural context of the Italian Renaissance, and emphasizing connections and tensions between art, technology, and science.

History of Art and Architecture 154m. The Cult of Images
Catalog Number: 7824 Enrollment: Limited to 15.
Thomas B. F. Cummins, Ioli Kalavrezou, and Hugo van der Velden
Half course (fall term). Th., 2–5. EXAM GROUP: 16, 17, 18
Seminar studies the cult of miraculous images of the Virgin in Byzantium, Europe, and the New World and will focus on well-known images like those of the Hodegetria, of Chartres, and of Guadalupe, as well as black Madonna's and more regionally important cult images. Topics will include localization and legends of origin, relations to previous cults, idolatry, tension between religious doctrine and devotional practice, transmission of cults, and changing attitudes towards the cult of images.

[History of Art and Architecture 155. Problems in Northern Renaissance Art]
Catalog Number: 8827
Hugo van der Velden
Half course (spring term). Hours to be arranged.
Focusing on key monuments, this course is devoted to the visual arts of North-Western Europe, particularly the Low Countries, France and Germany, during the period 1350-1550. The main topics of the course are: the problem of paradigm and historical periodization, style, patronage, iconography, the use and function of art, self-representation, perspective and the depiction of pictorial space, contemporary awareness of a Northern artistic tradition, art theory, specialization, and the rise of genre.
Note: Expected to be given in 2005–06.

History of Art and Architecture 159. Image and Text in 16th Century France
Catalog Number: 5699 Enrollment: Limited to 15.
Henri Zerner and Tom Conley
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Will examine the relation between visual and textual expression during the Renaissance in France, with emphasis on emblem books, and their impact on other genres.

History of Art and Architecture 161v. The Face of Baroque Rome
Catalog Number: 4944 Enrollment: Limited to 12.
Joseph Connors
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
The urban fabric of Rome from the last years of Michelangelo to the late seventeenth century, with particular attention to the architecture of Francesco Borromini and Gianlorenzo Bernini and to the development of St. Peter's and the Vatican complex.

History of Art and Architecture 165x. Sets and Settings of Baroque Theater
Catalog Number: 2054 Enrollment: Limited to 12.
Alice G. Jarrard
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
Explores the sets and the architectural settings for spectacle in 17th and 18th-century Europe. Taking reconstructions of the Vitruvian theater as the starting point for an examination of dynastic, public, and ecclesiastical theater in Italy, England, France, and Spain, The course analyses the spatial and visual dimensions of settings for dramatic and operatic performance. What is the nature of "theatrical" architecture? Issues of spectatorship, perspective, and technology will be emphasized.

History of Art and Architecture 170s. Frank Lloyd Wright and the Modern City and Suburb
Catalog Number: 9224
Neil Levine
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
This course examines the relatively unstudied area of Wright's designs for the modern metropolis within the framework of twentieth-century urban design as a whole. Subjects will range from the creation of the modern suburb, to the problem for designing for the automobile, to new concepts for revitalizing the downtown. Issues of theory, context (both physical and cultural), politics, criticism, and historical relevance will all be addressed.

History of Art and Architecture 170y. Post-war American Art: the Work of Art in the Age of Infinite Technical Diversity.
Catalog Number: 9383 Enrollment: Limited to 12.
Yve-Alain Bois and Carol C. Mancusi-Ungaro
Half course (spring term). F., 1–4. EXAM GROUP: 6, 7
This course examines the variety of techniques used by post-war American artists—not only the how, but the why: Why did Jasper Johns have recourse to the age-old medium of encaustic, or why did Twombly put dust in his paint? Studying objects in both the Fogg and the Whitney collections, the class will explore the way in which the materiality of the work of art is an essential aspect of its historical significance.
Note: Several day trips to be scheduled to the Whitney's conservation lab.

History of Art and Architecture 174s. Body Image in French Visual Culture: 18th and 19th Century
Catalog Number: 9158
Ewa Lajer-Burcharth

Half course (fall term). Tu., Th., at 11. EXAM GROUP: 13
Functions and meanings of the body as privileged visual signifier in French visual arts (painting, sculpture, printed imagery, photography). Body image seen as both instrument of different discourses of modernity and a site of resistance to them. Among the issues addressed: the king's body, republican corporeality; the problem of the nude, bodily spectacles; race; otherness; androgyny; monstrosity; pornography; representations of hysteria; images of desire; fetishism; body and/in space; body and the self.

History of Art and Architecture 175w. Pop Art
Catalog Number: 2172 Enrollment: Limited to 12.
Jennifer L. Roberts
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
An investigation of key themes surrounding the emergence of Pop in the 1950s and 1960s, focusing on developments in the US but also considering international examples. Interprets the movement in terms of the formal challenges it posed to prevailing standards of painting, sculpture, and photography, as well as its multifaceted philosophical engagements with the broader postwar spectacle of information, consumption, and advertising.

[History of Art and Architecture 176w. Modern Architecture, Ornament and Objects]
Catalog Number: 5877 Enrollment: Limited to 12.
Alina A. Payne
Half course (spring term). Hours to be arranged.
Examines the consequence for modern architecture of two complementary debates in the period 1850-1920s, associated with the objects of daily use and ornament respectively. Discussion focuses on the growing interest in the arts and crafts, the body, materials, and fabrication; and on the intersection between the discourse of architecture and other disciplines (museology, monument preservation, psychology, anthropology, ethnology, natural science, archaeology, and art history).
Note: Expected to be given in 2005–06.

History of Art and Architecture 178w. Contemporary Photography as History
Catalog Number: 4341 Enrollment: Limited to 12.
Robin E. Kelsey
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
Many contemporary photographic practices entail a keen historical consciousness. In considering recent photography as history, this proseminar will consider, inter alia, the troubled status of the photograph as a journalistic or archival document, the resurgence of theatricality and portraiture, the response to digitalization, the emphasis on scale, and the revival of earlier photographic technologies. Practices of special focus will include those of Jeff Wall, Rineke Dijkstra, Sally Mann, Abelardo Morell, Thomas Ruff, and Hiroshi Sugimoto.

[History of Art and Architecture 179y. Connoisseurship in/and Art History]
Catalog Number: 8165 Enrollment: Limited to 12.
Henri Zerner
Half course (spring term). Hours to be arranged.
Explores the theoretical and methodological basis of connoisseurship and its place in art history.

It moves between the critical reading of texts and the examination of how specific practical examples affect historiography.
Note: Expected to be given in 2005–06.

History of Art and Architecture 185m. Sketch Conceptualism and Its Discontent in Chinese Art
Catalog Number: 9977 Enrollment: Limited to 12.
Eugene Wang
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
"Sketch conceptualism" is a traditional practice in Chinese art. It is premised upon the conviction that the use of abbreviated forms and cursory sketches is analogous to writing, which has the potential to capture lofty concepts better than verisimilitude. The ideal has both inspired distinctive works and justified travesties. It has also caused discontent among some artists. The course examines both sides to assess the success and failure of the repeated quests for conceptualism.

[History of Art and Architecture 191x. Manuscripts in Colonial Peru and Mexico]
Catalog Number: 6631 Enrollment: Limited to 12.
Thomas B. F. Cummins
Half course (fall term). Hours to be arranged.
We study the few remaining Mesoamerican Pre-Columbian as well as the much more numerous 16th and 17th-century colonial pictorial manuscripts. We also study the only three pictorial manuscripts of the Andes. Emphasis is on the production, form and iconography of the different manuscripts. The physical and formal properties also are examined in relation to use of manuscripts in the Americas, both before and after the Spanish conquest.
Note: Expected to be given in 2005–06.

[History of Art and Architecture 193. Painting Traditions in Africa]
Catalog Number: 1131 Enrollment: Limited to 12.
Suzanne P. Blier
Half course (fall term). Hours to be arranged.
This pro-seminar examines painting traditions from pre-historic to contemporary works. Critical issues of artistic identity, content, and style discussed.
Note: Expected to be given in 2005–06.

History of Art and Architecture 196. Contemporary Art in Africa
Catalog Number: 8120 Enrollment: Limited to 12.
Suzanne P. Blier
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
Major art movements in 20th-century Africa as well as critical issues which have framed related discussions will be treated. Painting, sculpture, photography, graphic arts, architecture, and performance traditions will be explored with an eye toward both their unique African contexts and the relationship of these traditions to contemporary art movements in a more global perspective.

Primarily for Graduates

History of Art and Architecture 201. The Study of Architectural History: Critical Issues and Methodologies
Catalog Number: 5302 Enrollment: Limited to 12.
Neil Levine and K. Michael Hays (Design School)
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
This course focuses on issues of method and ideology in the history, criticism, and theory of architecture through close readings of selected cases involving multiple and contradictory interpretations of a building, architect, or design approach. For all students interested in the practice of architectural history.
Note: Open to qualified undergraduates.

[History of Art and Architecture 206. Science and the Practice of Art History]
Catalog Number: 6180 Enrollment: Limited to 12.
Henry W. Lie and staff
Half course (spring term). Hours to be arranged.
To equip the historian with critical and informed approaches to the range, uses, ambiguities, instruments, and computer applications of scientific, diagnostic investigation of art and architecture, potentially in all media and periods. In short: to better know what we are looking at. In collaboration with specialists in the Straus Center.
Note: Expected to be given in 2005–06.

History of Art and Architecture 228v. Early Islamic Architecture and Archaeology
Catalog Number: 8299 Enrollment: Limited to 12.
David J. Roxburgh and Thomas Leisten
Half course (fall term). F., 1–3. EXAM GROUP: 6, 7
Focuses on the architectural monuments and sites of early Islam through to ca. 1000-including the regions of Syria, Iraq, Egypt, and Iran-with an emphasis on the history, techniques, and methods of archaeology.

[History of Art and Architecture 232. Assyrian Reliefs and the Visual Program of Assyrian Palace Design]
Catalog Number: 5269 Enrollment: Limited to 12.
Irene J. Winter
Half course (spring term). Hours to be arranged.
Inquiry into the sculptural programs of Neo-Assyrian palaces, 9th through 7th c. BCE. Special attention will be given to historical context and to royal texts as a way to probe the meaning and visual impact of the reliefs.
Note: Expected to be given in 2005–06.

[History of Art and Architecture 240r. Byzantine Art]
Catalog Number: 4109 Enrollment: Limited to 12.
Ioli Kalavrezou
Half course (spring term). Hours to be arranged.
Topic to be announced.
Note: Expected to be given in 2005–06.

History of Art and Architecture 242. Issues of Interpretation in Medieval Art
Catalog Number: 7561 Enrollment: Limited to 12.
Jeffrey F. Hamburger
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
A wide-ranging introduction to current critical approaches to the study of medieval art, mixing historiography, methodology with a workshop in which students will help set the agenda for the course.

[History of Art and Architecture 245. Jan and Hubert van Eyck: The Rise of Painting in the Late Medieval West]
Catalog Number: 5639 Enrollment: Limited to 12.
Hugo van der Velden
Half course (fall term). Hours to be arranged.
Focuses on meaning and interpretation, with special attention to the Ghent altar piece. Themes include function, ritual, context, court art, competition, and the appreciation of painting in comparison to other media.
Note: Expected to be given in 2005–06.

History of Art and Architecture 249. Visual Culture of Female Monasticism
Catalog Number: 2925 Enrollment: Limited to 12.
Jeffrey F. Hamburger
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Works of art made by and for female communities from the Carolingian period to the Reformation, as well as ways of seeing and interacting with images distinctive to female monasticism.
Note: European excursion, with funding, over Spring recess.

History of Art and Architecture 252y. Pieter Bruegel
Catalog Number: 0275 Enrollment: Limited to 12.
Hugo van der Velden
Half course (fall term). M., 3–6. EXAM GROUP: 8, 9
Seminar will focus on interpretation, and address topics like Bosch and Bruegel; puns, proverbs, popular culture; canvas painting, book illumination; Karel van Mander and 16th c. art theory; late medieval iconography; humanist wit, burlesque humor.

History of Art and Architecture 253v. Portrait Busts of the Italian Renaissance
Catalog Number: 3173 Enrollment: Limited to 12.
Frank Fehrenbach (University of Basel)
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
This seminar explores three major discourses: similitude, animation, and media. What does the most common laudatory "enlivened" signify? In particular, we will discuss the paragon between sculpted and painted portraiture.

[History of Art and Architecture 255. Giorgio Vasari: Art, History and Criticism in the Renaissance]
Catalog Number: 5608 Enrollment: Limited to 12.

Alina A. Payne
Half course (spring term). Hours to be arranged.
Examines Giorgio Vasari's oeuvre as critic, historian, artist and architect as it illuminates conceptions of style, progress, aesthetic quality, artistic personality and exchanges between the arts in Renaissance Italy.
Note: Expected to be given in 2005–06.

History of Art and Architecture 261v. Titian, Rubens, Velazquez: Eroticism
Catalog Number: 8817 Enrollment: Limited to 12.
Thomas B. F. Cummins and Victor Stoichita
Half course (fall term). W., F., 3–5. EXAM GROUP: 8, 9
An analysis of Titian's and Rubens' reception in Spain and their influence on Velazquez. Problems include, construction of the body, representation of flesh or skin in connection with color theory and brushstroke practice.

History of Art and Architecture 270r. Topics in 19th-Century Art
Catalog Number: 7958 Enrollment: Limited to 12.
Henri Zerner
Half course (fall term). F., 1–3. EXAM GROUP: 6, 7
This year, the seminar will examine the relations between England and France during the Romantic era.

History of Art and Architecture 270w. Artists and Architects: Collaborations, Overlaps, Confrontations
Catalog Number: 3299 Enrollment: Limited to 12.
Neil Levine
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
Examines the multifaceted relationships between architecture and art from 1960s to the present. Works and writings by Judd, Gehry, Venturi, Oldenburg, Stella, Meier, Newman, Vito Acconci, Herzog & de Meuron, and NOX will be studied.
Note: Open to qualified undergraduates.

History of Art and Architecture 271w. Art and Revolution
Catalog Number: 0822 Enrollment: Limited to 12.
Ewa Lajer-Burcharth
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Focusing on the French Revolution, addresses the broader problem of art-making in the context of political and social upheaval. Issues of political engagement; aesthetic contingency; revolutionary subjectivity; artistic identity; new institutions.

[History of Art and Architecture 273. The Modern Death of the Artist]
Catalog Number: 8689 Enrollment: Limited to 12.
Yve-Alain Bois
Half course (fall term). Hours to be arranged.
From the birth of abstraction to the multifarious art production of the 60s, artists have conjured a set of tropes in order to manifest their paradoxical desire for impersonality. What tropes? How?

Why?
Note: Expected to be given in 2005–06.

History of Art and Architecture 273y. Chance, Automatism, and Indexicality
Catalog Number: 9286 Enrollment: Limited to 12.
Yve-Alain Bois
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
From Dada and Surrealism to Fluxus and beyond, many artists have involved these three related strategies in their work, and were frustrated by the difficulties they faced. Critical examination of this troubled history.

History of Art and Architecture 275w. The Thing
Catalog Number: 8955 Enrollment: Limited to 12.
Jennifer L. Roberts
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
An investigation of "objecthood" and its role in art history, examining theoretical frameworks for interpreting everything from teapots to minimal objects. Interrogates the forms of exchange–economic, libidinal, aesthetic–that these objects invite (or refuse).

History of Art and Architecture 278x. Photography, Chance, and the Unconscious
Catalog Number: 4081 Enrollment: Limited to 12.
Robin E. Kelsey
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Celebrated authors on photography, including Benjamin and Barthes, have proposed that the medium possesses a special relationship with both chance and the unconscious. This seminar will ponder and discuss specific possibilities in this regard.

[History of Art and Architecture 278y. Modern Art and Subjectivity, 18th Century to the Present]
Catalog Number: 2544 Enrollment: Limited to 12.
Ewa Lajer-Burcharth
Half course (spring term). Hours to be arranged.
Explores relation between art and self in its modern configurations. How art contributes to the formation of subjectivity? The place of the image within cultural discourse, and the work of art as representation of the artist.
Note: Expected to be given in 2005–06.

History of Art and Architecture 282y. The Visual Culture of Relics in East Asia
Catalog Number: 2349 Enrollment: Limited to 12.
Eugene Wang
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
The course examines medieval monastic sites with relic enshrinements in China, Japan, and Korea; seeks to unpack conceptions of body and numinous space invested in the formal disposition of relics, reliquaries, and the related artifacts.

History of Art and Architecture 290r. Problems in Latin American Art
Catalog Number: 7097 Enrollment: Limited to 10.
Thomas B. F. Cummins
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
Methods and theory of the study of Latin American Art.

History of Art and Architecture 293. Ideologies of Race in 19th Century American Art
Catalog Number: 8792 Enrollment: Limited to 12.
Gwendolyn DuBois Shaw
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
This course interrogates the ideological construction of race (tropes of blackness, whiteness, Native and Asian identities) from 1800-1920, in various forms of representation from painting and sculpture to popular press illustration and early film.

[History of Art and Architecture 294. Cuzco, 1650-1700]
Catalog Number: 0538
Thomas B. F. Cummins
Half course (spring term). Hours to be arranged.
Cuzco, the center of the Inca Empire, became a major colonial Peruvian city, but in 1650 an earthquake destroyed most of its buildings. We will examine aspects of the city's rebuilding between 1650 and 1700.
Note: Expected to be given in 2005–06.

Cross-listed Courses

African and African American Studies 173. African Art and Colonialism: King Leopold's Congo
African and African American Studies 186. The Art of the Harlem Renaissance
Classical Archaeology 150. Greek Sculpture
Classical Archaeology 151. Ancient Landscapes
[Classical Archaeology 154. Cities of the Roman East]
[Classical Archaeology 160. Vase-painting and Iconography]
[Classical Archaeology 180. Coinage, Politics, and Economy in the Greek World]
Classical Archaeology 242. Greek Funerary Art
[Classical Archaeology 256. Greeks and Persians]
[Literature and Arts B-16. The Meanings of Abstraction in 20th-Century Art]
Literature and Arts B-21. The Images of Alexander the Great
Literature and Arts B-24. Constructing Reality: Photography as Fact and Fiction
Literature and Arts B-28. The Arts of Pre-Columbian America: Media and Themes
Literature and Arts B-31. The Portrait
[Literature and Arts B-35. The Age of Sultan Suleyman the Magnificent: Art, Architecture, and Ceremonial at the Ottoman Court]
Literature and Arts B-43. The Gothic Cathedral
[Literature and Arts B-46. Art in the Wake of the Mongol Conquests: Genghis Khan and His Successors]
Literature and Arts B-48. Chinese Imaginary Space

[Medieval Studies 210. Medieval Manuscripts and Liturgical Arts]
Religion 2348ab. Archaeology and the World of the New Testament: Seminar
[Studies of Women, Gender, and Sexuality 1405. Sex and the City: Gender, Architecture, and Space: Seminar]
Visual and Environmental Studies 108ab. Alternative Constructions: Introduction to the History and Theory of Architecture
Visual and Environmental Studies 108cd (formerly Visual and Environmental Studies 108). Architectural History: Romanticism through Modernism
Visual and Environmental Studies 108ef. Contemporary Architecture Since 1945
Visual and Environmental Studies 164. History of Landscape Architecture: Antiquity to 1800
Visual and Environmental Studies 168 (formerly Visual and Environmental Studies 171). Theories and Practices of Contemporary Landscape Architecture: 1950 to the Present
Visual and Environmental Studies 180 (formerly *Visual and Environmental Studies 154ar). The Moving Image: Film, Modernity, and Visual Representation
Visual and Environmental Studies 181 (formerly *Visual and Environmental Studies 154br). Frames of Mind: Approaches to Film Theory
***Visual and Environmental Studies 182 (formerly *Visual and Environmental Studies 155ar). Film Architectures: Seminar**
[*Visual and Environmental Studies 183 (formerly *Visual and Environmental Studies 155br). A Cultural Study of Film: Mapping and Fashioning Space: Seminar]
***Visual and Environmental Studies 185x. Texture Analysis: Film, Fashion, and Material Culture: Seminar**
Visual and Environmental Studies 193. History of Video Art

Graduate Courses of Reading and Research

***History of Art and Architecture 300. Reading and Research**
Catalog Number: 5716
Suzanne P. Blier 3472, Yve-Alain Bois 2922, Marjorie B. Cohn 4468, Harry A. Cooper 1728, Thomas B. F. Cummins 3568, Jeffrey F. Hamburger 3800, Alice G. Jarrard 2400 (on leave spring term), Ioli Kalavrezou 2242, Deborah Martin Kao 3345, Robin E. Kelsey 4132, Ewa Lajer-Burcharth 3373, Neil Levine 4178, Henry W. Lie 2575, Yukio Lippit 4713 (on leave 2004-05), Carol C. Mancusi-Ungaro 4406, David G. Mitten 1290, Robert D. Mowry 1958, Gülru Necipoglu-Kafadar 1688 (on leave 2004-05), Peter Nisbet 1738, Alina A. Payne 4605 (on leave 2004-05), Gloria Ferrari Pinney 1384, Jennifer L. Roberts 4407, Betsey A. Robinson 4361, William W. Robinson 2239, David J. Roxburgh 2138, Gwendolyn DuBois Shaw 3799, Rabun Taylor 4253 (on leave 2004-05), Hugo van der Velden 4767 (on leave spring term), Eugene Wang 3600, Irene J. Winter 1955, Stephan S. Wolohojian 2756, and Henri Zerner 3792
Individual work in preparation for the General Examination for the PhD degree or, by arrangement, on special topics not included in the announced course offerings.

***History of Art and Architecture 301. Museum Apprenticeship**
Catalog Number: 1912
Marjorie B. Cohn 4468, Ioli Kalavrezou 2242, and Henri Zerner 3792
Members of the Fogg Museum Staff

***History of Art and Architecture 309. Thesis Colloquium and/or Thesis Defense**
Catalog Number: 6568
Ewa Lajer-Burcharth 3373 and members of the Department
Note: May not be counted toward course requirements for the PhD degree, but is required before the degree may be granted.

***History of Art and Architecture 310. Methods and Theory of Art History**
Catalog Number: 7879 Enrollment: Limited to 14. Limited to incoming graduate students.
Ewa Lajer-Burcharth 3373
Half course (fall term). W., 1–3.

***History of Art and Architecture 399. Direction of Doctoral Dissertations**
Catalog Number: 6575
Suzanne P. Blier 3472, Yve-Alain Bois 2922, Thomas B. F. Cummins 3568, Jeffrey F. Hamburger 3800, Alice G. Jarrard 2400 (on leave spring term), Ioli Kalavrezou 2242, Robin E. Kelsey 4132, Ewa Lajer-Burcharth 3373, Neil Levine 4178, Yukio Lippit 4713 (on leave 2004-05), David G. Mitten 1290, Gülru Necipoglu-Kafadar 1688 (on leave 2004-05), Alina A. Payne 4605 (on leave 2004-05), Gloria Ferrari Pinney 1384, Jennifer L. Roberts 4407, Betsey A. Robinson 4361, David J. Roxburgh 2138, Gwendolyn DuBois Shaw 3799, Rabun Taylor 4253 (on leave 2004-05), Hugo van der Velden 4767 (on leave spring term), Eugene Wang 3600, Irene J. Winter 1955, and Henri Zerner 3792
Note: May not be counted toward course requirements for the PhD degree.

History of Science

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of the History of Science

Allan M. Brandt, Professor of the History of Science *(FAS)* and Amalie Moses Kass Professor of the History of Medicine *(Medical School) (Chair)*
Bridie Andrews, Associate Professor of the History of Science *(on leave fall term)*
Mario Biagioli, Professor of the History of Science *(Director of Graduate Studies)*
Peter Buck, Senior Lecturer on the History of Science *(Director of Undergraduate Studies)*
Jimena Canales, Assistant Professor of the History of Science
Marwa S. Elshakry, Assistant Professor of the History of Science
Lawrence J. Friedman, Visiting Professor of the History of Science
Peter L. Galison, Harvard College Professor and the Mallinckrodt Professor of the History of Science and of Physics
Evelynn M. Hammonds, Professor of the History of Science and of African and African

American Studies
Anne Harrington, Harvard College Professor and Professor of the History of Science *(on leave 2004-05)*
Sarah Jansen, Assistant Professor of the History of Science
Stephanie H. Kenen, Lecturer on the History of Science
Everett I. Mendelsohn, Professor of the History of Science *(on leave spring term)*
James R. Moore, Visiting Professor of the History of Science *(Open University, England)*
John E. Murdoch, Professor of the History of Science *(on leave fall term)*
Katharine Park, Samuel Zemurray, Jr. and Doris Zemurray Stone Radcliffe Professor of the History of Science and of Studies of Women, Gender, and Sexuality
Charles E. Rosenberg, Ernest E. Monrad Professor of the Social Sciences
Steven Shapin, Franklin L. Ford Professor of the History of Science *(on leave spring term)*
David Ian Spanagel, Lecturer on the History of Science

Other Faculty Offering Instruction in the Department of the History of Science

William W. Fisher, Hale and Dorr Professor of Intellectual Property Law *(Law School)*
Owen Gingerich, Research Professor of Astronomy and of the History of Science
Erwin N. Hiebert, Professor of the History of Science, Emeritus
Gerald Holton, Mallinckrodt Research Professor of Physics and Research Professor of the History of Science
Sheila S. Jasanoff, Pforzheimer Professor of Science and Technology Studies *(Kennedy School)*
Martha L. Minow, William Henry Bloomberg Professor of Law *(Law School)*
Robb Moss, Rudolf Arnheim Lecturer on Filmmaking
Antoine Picon, Professor of the History of Architecture and Technology *(Design School)*
Barbara Gutmann Rosenkrantz, Professor of the History of Science, Emeritus
A. I. Sabra, Professor of the History of Arabic Science, Emeritus

The Department of the History of Science oversees the undergraduate concentration in History and Science and provides the degree of AM and PhD to properly qualified graduate students. The Department also offers instruction in the history of science to students in other fields.

Distribution Fields (DF) for History of Science graduate students are designated after the course description.

History of Science 90. Junior Seminars

These half courses are limited to 10-12 participants, with preference given to History of Science concentrators in their junior years, since they are ordinarily required to take one of these. Undergraduate non-concentrators may enroll in junior seminars and tutorials on a space available basis. Each of these seminars focuses on enhancing reading and writing skills by delving deeply into a well-defined subject area of the faculty member's interest.
***History of Science 90m. Medicine and Deviance**
Catalog Number: 2795
Charles E. Rosenberg
Half course (spring term). M., 4–6. EXAM GROUP: 9

Sociologists and historians have described what they call the medicalization of deviance: explaining certain behaviors as the consequences of disease rather than culpable choice. I refer to a variety of behaviors ranging from homosexuality to substance abuse, from chronic fatigue syndrome to premenstrual syndrome. This course will focus on the interrelated legal, medical, policy, and professional history of such problematic "diseases" during the past century and a half.

***History of Science 90n. Science, Technology and Medicine in the Middle East, 1798 Through World War II**
Catalog Number: 7492
Marwa S. Elshakry
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Examines role of science in transformation of modern Middle East. Will explore military, bureaucratic and educational reform efforts of Ottoman and post Ottoman states, emergence of quarantine and public health and spread of the printing press and rail in an era of growing European rivalry and imperialism. Considers social and religious impact of these developments, role of civil servants, missionaries and colonial officials, and transformation of categories of knowledge and learning. Ranges widely across region.

***History of Science 90s. The Scientific Revolution**
Catalog Number: 4946
Mario Biagioli
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
Examines 16th- and 17th-century transformations in astronomy (in works of Copernicus, Kepler, Galileo, Newton), medicine (Vesalius, Harvey), cosmography (Mercator, Ortelius, Varenius), and natural philosophy (Bacon, Descartes, Newton), as well as in scientific practices (observation, experiment, mathematization) and modes of organization and communication (academies, journals, graphical representations). Placing these developments in their cultural contexts (religious, political, commercial) affords a critical perspective on received historiographical assumptions regarding Scientific Revolution as dramatic episode in origin of modern science.

***History of Science 90t. Technology in America**
Catalog Number: 1617
Peter Buck
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
Examines American society, politics, and culture as shaping and shaped by the technologies of war, work, transportation, and health. Emphasis on the 19th and 20th centuries.

Primarily for Undergraduates

***History of Science 91r. Supervised Reading and Research**
Catalog Number: 1238
David Ian Spanagel and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.

Programs of directed reading and research to be conducted by a person approved by the Department.

***History of Science 97a. Tutorial — Sophomore Year**
Catalog Number: 4719
Steven Shapin and Peter Buck
Half course (fall term). M., at 4, and a weekly section to be arranged. EXAM GROUP: 9
The first term of sophomore tutorial introduces students to major events and works in the history of science. Organized into small tutorial sections to supplement faculty lectures to the entire class.
Note: Required for undergraduate concentration in History and Science.

***History of Science 97b. Tutorial — Sophomore Year**
Catalog Number: 5235
Peter L. Galison and Jimena Canales
Half course (spring term). M., at 4 and a weekly section to be arranged. EXAM GROUP: 9
The second term of sophomore tutorial focuses on how research, reading, and writing are done in the history of science, with attention to exemplary secondary works and to relevant archival materials. The focus this year will be on five areas: science in the Enlightenment, Darwin, Pasteur, modern physics, and public health issues around the history of tobacco.
Note: Required for undergraduate concentration in History and Science.

***History of Science 98r. Tutorial — Junior Year**
Catalog Number: 1120
David Ian Spanagel and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
This half of the junior year is a research-oriented tutorial taken in small groups. Focuses on enhancing research and writing skills through the completion a directed research paper on subject matter of the student's interest.
Note: Ordinarily taken by juniors during the term when a History of Science 90 is not taken.

***History of Science 99. Tutorial — Senior Year**
Catalog Number: 6619
David Ian Spanagel and members of the Department
Full course. Hours to be arranged.
Faculty-led seminar and intensive work with an individual advisor, directed towards production of the senior honors thesis.
Note: Ordinarily taken by seniors as a full course. May be taken as a half course only if special permission is obtained. Students are expected to complete a thesis or submit a research paper or other approved project in order to receive course credit.

For Undergraduates and Graduates

[History of Science 103. Chinese Medical History: Seminar]
Catalog Number: 1056 Enrollment: Limited to 16.
Bridie Andrews

Half course (spring term). Hours to be arranged.
We challenge the concept of a static and traditional "Chinese medicine" by reading translations of texts from different periods and different medical genres (e.g. classical theory, women's medicine, case study literature, material medica), in the light of recent historical scholarship. We also review the history of Chinese medicine in the 20th century, and in particular, its adoption in the West. (DF: M2)
Note: Expected to be given in 2005–06.

[History of Science 106. History of Ancient Science]
Catalog Number: 3958
John E. Murdoch
Half course (fall term). Hours to be arranged.
An examination of selected key aspects and issues in the development of ancient science together with an investigation of the treatment of these issues from various historiographic points of view. Emphasis upon the kinds of problems historians of ancient, especially Greek, thought have deemed most relevant for treatment and the types of approaches made to these problems. (DF:E1)
Note: Expected to be given in 2005–06.

History of Science 107. History of Medieval Science
Catalog Number: 5071
John E. Murdoch
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
A study of the scope and nature of scientific thought in the Latin Middle Ages, with emphasis upon the relation of that thought to other aspects of medieval culture, in particular, religion, philosophy, and the universities. (DF:E2)

[History of Science 112. Medicine and Society in Medieval and Renaissance Europe]
Catalog Number: 8576
Katharine Park
Half course (spring term). Hours to be arranged.
A survey of medical theory, organization and practice in the context of other forms of contemporary healing, notably religious and magical. Topics include changing conceptions of health and illness, the evolution of medical explanation, the gendering of healing and the body, the professionalization of medicine, the rise of hospitals and related institutions, and responses to "new" diseases such as syphilis and plague. (DF: E2,E3)
Note: Expected to be given in 2005–06.

[History of Science 113. Imaging Techniques in Early Modern Science: Conference Course]
Catalog Number: 2253 Enrollment: Limited to 15.
Mario Biagioli
Half course (spring term). Hours to be arranged.
In recent years, historians and sociologists have examined the role of visual representations and imaging techniques in modern science. Course examines emergence of these practices during the Scientific Revolution. By observing the development of instruments such as the telescope and the microscope and at printed representation of visual evidence in astronomy, anatomy, and

natural history, we analyze scientific and cultural dimensions of debates about the epistemological status of visual evidence and of its mechanical reproductions.
Note: Expected to be given in 2005–06.

[History of Science 120. History and Philosophy of Modern Physics]
Catalog Number: 5116
Peter L. Galison
Half course (spring term). Hours to be arranged.
Philosophical questions raised by historical developments in 20th-century physics, and conversely, historical-scientific questions raised by philosophical inquiry. Late 19th-century reductionist world views leading to special and general relativity. Einstein's response. Issues in quantum theory and quantum mechanics surrounding causality, determinism, realism, and probabilism. Nuclear fission, and the atomic and thermonuclear weapons. Growth of large-scale experimental high-energy physics. What is meant by "unified" field theories in contemporary physics? Readings: scientific, historical, and philosophical texts. (DF:M3)
Note: Expected to be given in 2005–06. Can not be taken for credit by students who have already taken Physics 120.

[*History of Science 121. History and Philosophy of Experimentation]
Catalog Number: 5851 Enrollment: Limited to 25.
Peter L. Galison
Half course (fall term). Hours to be arranged.
Combines historical, sociological and philosophical approaches to examining the role of experimentation in the production of scientific knowledge, with an emphasis on examples from the life sciences. Topics will include: historical development of structures of experimentation, the relationship between experiment and theory, representations of experimental results, social aspects of group experimentation, and the pedagogical use of experiments. (DF:M3)
Note: Expected to be given in 2005–06.

History of Science 123. The "Classical" Universe
Catalog Number: 6517
Jimena Canales
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Challenges the concept of the "classical" physical sciences by drawing on current research from science and technology studies and the philosophy of science. Topics include astronomy, cosmology, metrology, physics. Particular emphasis is placed on the role of visualization and imaging techniques, standards of evidence, industrialization, labor, standardization, imperialism, evolutionary theory, and gender. Debates about determinism, free-will, and the nature of time and space are covered. Focus is on the long nineteenth-century. (DF:M1, M3)

History of Science 130. History of Modern Biology
Catalog Number: 0179
Everett I. Mendelsohn and Sarah Jansen
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
The history of biology 1750 to the present—natural history, experimental biology, molecular biology. Topics include function of cells and organisms; species and classification; evolution and

the unification of the life sciences; populations, heredity, genetics and eugenics; relationships: field and laboratory, biology, chemistry and physics, machines and molecules, biology and society; the challenges of cloning, genetic engineering and biotechnology. (DF:M2)

History of Science 133. Nature, Science, and America
Catalog Number: 3455
David Ian Spanagel
Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 13
Explores interactions among geography, natural history, historical ecology, cultural practices, economic and political choices, and scientific knowledge in the US. Particular attention will be paid to forests, prairies, and waterways as sites of inquiry and anthropogenic change; and to preservation and exploitation as competing American social responses to "natural" places. Integrates environmental history and earth science history materials with examples drawn from the visual arts, literature, and governmental policy. (DF:M2, M3)

[History of Science 135. Races and Populations]
Catalog Number: 8079
Sarah Jansen
Half course (spring term). Hours to be arranged.
An exploration of the history of the notions of race and population in natural history and in the natural and human sciences from the late 18th century to the Human Genome Project. We compare how both ways of knowing constituted groups of people, animals, or plants, the modes of control inherent in both notions, and the relationships between them. (DF:M1, M2)
Note: Expected to be given in 2005–06.

[History of Science 137. History of Mapping]
Catalog Number: 3364 Enrollment: Limited to 20.
David Ian Spanagel
Half course (spring term). Hours to be arranged.
Examines the history of maps and the practices of mapmaking, as they relate to knowledge and conjectures about "place" in the sciences. Since maps serve as critical tools for the extension and consolidation of political power over remote territories, the processes by which imagined regions attain coherence and meaning are a key research site for historians interested in the politics of scientific knowledge. Materials consulted range widely across time and space.
Note: Expected to be given in 2005–06.

[History of Science 138. Conservation, Ecology, and Environment: Conference Course]
Catalog Number: 2390
Everett I. Mendelsohn
Half course (fall term). Hours to be arranged.
An examination of the science and politics of conservation, ecology, and environment, and their cultural location, using some comparative materials from Europe, Russia, and Africa. Particular attention to public organizations, government policy, and scientific knowledge and practice. (DF:M2)
Note: Expected to be given in 2005–06.

History of Science 139. Nature, God, and Humanity
Catalog Number: 1564
James R. Moore (Open University, England)
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
"Science and religion" is an intellectual growth-industry in the post-Cold War world. This course opens up the prehistory of the subject, focusing on developments in 19th- and 20th-century Britain and North America. By analyzing select primary sources, we can assess how far controversies about nature, God, and humanity may be seen as a unified cultural debate. (DF:M2)

[*History of Science 140. Sickness and Healing in America]
Catalog Number: 4471
Charles E. Rosenberg
Half course (fall term). Hours to be arranged.
Focuses on disease as well as efforts to understand, prevent, and heal it. We discuss the changing incidence of morbidity and mortality as well as the social and ecological factors that relate to these vital realities of sickness and death. Therapeutic practice and efficacy provides another theme: how were the sick treated? Where were they treated? By whom? (DF:M2)
Note: Expected to be given in 2005–06.

[History of Science 141. On Drugs: The History of the International Trade in Drugs and *Materia Medica:* Conference Course]
Catalog Number: 0252
Bridie Andrews and Peter Buck
Half course (fall term). Hours to be arranged.
An examination of the effects of the drug trade on international relations from early modern times to the present. Possible topics include: cloves and the rise of European imperialism; sugar and slavery; opium and the British Empire; and cocaine and the American imperium today. (DF:M1,M2).
Note: Expected to be given in 2005–06.

[History of Science 149. Medical Technologies in Historical Perspective: Conference Course]
Catalog Number: 2028
Evelynn M. Hammonds
Half course (fall term). Hours to be arranged.
The course examines the ways in which various medical technologies, shaped and were shaped by, physician and nurse practices and goals as well as ideas about patient care in American medicine from the 19th-century to the present. We will look at how the meanings attached to medical technologies grew out of specific historical, social, political and medical contexts. Medical technologies examined include: imaging machines; clinical, diagnostic and genetic tests; reproductive technologies; and artificial organs. (DF:M2)
Note: Expected to be given in 2005–06.

History of Science 150. Science and National Socialism
Catalog Number: 4168

Sarah Jansen
Half course (spring term). W., 4–6. EXAM GROUP: 9
What was the relationship between science and Nazi politics in Germany before, during, and after 1933-1945? Using texts and films, we will investigate those sciences and scientists who were actively involved in the holocaust, as well as those that contributed in less visible ways. We will examine a specific historical event and its implications, the relationship between the sciences and the state in democracies and totalitarian regimes, and conceptualizations of individual responsibility of scientists. (DF:M2)

History of Science 151. Science and Empire: Conference Course
Catalog Number: 3516
Marwa S. Elshakry
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
This course will examine ways in which science, technology and medicine both aided the expansion of Europe overseas and were utilized in the administration of empires from 18th to 20th centuries. It will explore how European empires in Asia, Africa and the Americas deployed a range of scientific concepts and practices from tropical medicine and racial anthropology to urban planning and fingerprinting, and ask what the colonized as well as the colonizers made of these. (DF:M1)

History of Science 152. Filming Science
Catalog Number: 1658
Peter L. Galison and Robb Moss
Half course (spring term). Tu., 1–4, Th., 2–4. EXAM GROUP: 15, 16, 17
Examination of the theory and practice of capturing scientific practice on film. Topics will include fictional, documentary, informational, and instructional films and raise problems emerging from film theory, visual anthropology and science studies. Each student will make and edit short film(s) about laboratory, field, or theoretical scientific work (DF:M1,M2)

[History of Science 155. Science, Race, and Society in the US: Conference Course]
Catalog Number: 9785
Evelynn M. Hammonds
Half course (spring term). Hours to be arranged.
An examination of the ways in which scientific, medical, and anthropological practices and theories have shaped conceptions of race in the US from the beginning of the 19th century to the present. Topics include: the debate over human origins; the growth of racial determinism; physicians and racial difference; evolution and race; race after Darwin; race and the anthropologists; race and eugenics; the 'new' science of race; the search for a biology of race; and race and genetics.
Note: Expected to be given in 2005–06. Open to graduate students with permission of the instructor

[History of Science 156. Historical Perspectives on Gender, Science, and the Body]
Catalog Number: 3537 Enrollment: Limited to 15.
Deborah F. Weinstein
Half course (fall term). Hours to be arranged.

Uses gender as an analytic category to examine how American and European science naturalized differences in the human body and gendered the natural world during the seventeenth through twentieth centuries. We consider historical changes in production of scientific knowledge about sex, gender, race, and sexuality, as well as participation of women and men in scientific work. We also discuss varied methods that historians have used to write about gender and science. (DF:M2)
Note: Expected to be given in 2005–06.

History of Science 159. Probability in Science and Society
Catalog Number: 0807
Sarah Jansen
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Explores the history of probability, one of the key concepts of modern science, from the Enlightenment to the present. Topics include reconceptualizations of the individual and the social as well as changing notions of truth and objectivity associated with the rise of probability thinking and practices. Examples from astronomy, anthropometry, eugenics, demography, taxonomy, criminology, ecology, genetics, epidemiology, modern physics, environmental and medical risk assessment, actuarial theory, and the detection of scientific frauds. (DF:M2)

History of Science 160 (formerly History of Science 264). Intellectual Property in Science
Catalog Number: 8570
Mario Biagioli
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
We examine different forms of credit for scientific and technological innovation, comparing publication credit in science and use of patents to protect technoscientific work. Readings range from history of technoscience to legal and literary studies. (DF:M1)

[History of Science 171. Narrative and Neurology]
Catalog Number: 3222 Enrollment: Limited to 20.
Anne Harrington
Half course (spring term). Hours to be arranged.
What does it “feel” like to live inside a brain that has been damaged? What role has knowledge of such experience played, or failed to play, in the development of brain science over the past two hundred years? We probe these questions by juxtaposing narratives “about” brain damage with the science “of ” brain damage. Readings range from the case histories that launched neurology in the mid-19th century to the essays of Oliver Sacks. (DF:M2)
Note: Expected to be given in 2005–06.

[History of Science 175. Madness and Medicine: Themes in the History of Psychiatry]
Catalog Number: 6245
Anne Harrington
Half course (spring term). Hours to be arranged.
An attempt to integrate the history of medical thought on the nature of madness and the madman with recent historiography on the social history of psychiatry and its institutions. Topics include the birth of the asylum, the challenge of “moral therapy,” madness and the brain, madness from the patient’s point of view, the “discovery of the unconscious,” schizophrenia, and the

antipsychiatry movement. (DF:M2)
Note: Expected to be given in 2005–06. This course, when taken for a letter grade, meets the Core area requirement for Historical Study A.

[History of Science 176. Evolution and the Mind: Conference Course]
Catalog Number: 6736 Enrollment: Limited to 15. Preference given to juniors and seniors.
Anne Harrington
Half course (spring term). Hours to be arranged.
Explores the historical attempt to reconcile our understanding of the human mind—and our fundamental experience of our humanness—with evolutionary understandings of human origins since Darwin. Organized topically around classic and exemplary debates on the nature and purpose of consciousness, free will, morality, aggression, religion and more. Readings include Darwin, Wallace, Huxley, Spencer, James, Freud, Lorenz, Chardin, and Wilson. Particular attention to social and ethicalcontext and perceived implications of these debates. (DF:M2)
Note: Expected to be given in 2005–06.

[History of Science 177. Stories Under the Skin: The Mind-Body Connection in Modern Medicine]
Catalog Number: 4338
Anne Harrington
Half course (fall term). Hours to be arranged.
An analysis of the making of modern mind-body medicine as a system of interacting (and partly conflicting) narratives. Why do we believe that certain illnesses have roots in childhood traumas? That the stress of modern life can kill? That positive attitude can heal? That the "East" possesses secrets of mind-body balance that the West has lost? Analytic emphasis on the relationship between scientific research, clinical practice, popular culture, and experiences of illness and recovery. (DF:M2)
Note: Expected to be given in 2005–06.

History of Science 179. History of American Psychiatry
Catalog Number: 8936
Lawrence J. Friedman
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Patterns of professional contacts between psychiatrists (plus other professionals) and the temperamentally "different" from the New England Puritanism to the Age of Prozac. Emphasis on issues involving ethnicity, class, and gender plus the competing claims of biological and interpersonal psychiatry. Evaluation of contrasting interpretations of mental health professionals–benevolent caregivers, malevolent controllers of the "lower" orders, etc. (DF:M1, M2)
Note: Three essay examinations and a term paper required.

[History of Science 180. Science, Medicine, and Imperialism]
Catalog Number: 3578
Bridie Andrews
Half course (fall term). Hours to be arranged.
Scientific and technological innovations facilitated the expansion of Europe into every continent,

and created a world-wide flow of goods, capital and human labor. We examine the implications for imperialism of navigational technology; the rise of the printing press; tropical medicine and disease; economic botany; trains and steamships, information flow and telegraphy; imperial womanhood; and anthropology and racial thinking. Emphasis on 19th-century imperialism. (DF: M1,M2)
Note: Expected to be given in 2005–06.

History of Science 182. Science, Modernity, and Discontent
Catalog Number: 4322
Jimena Canales
Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 3
Examines modern technologies and studies their relation to science and culture. Beginning with an analysis of theories of modernity vis a vis postmodernity, we cover the impact of technologies ranging from the steam engine to the cinematographic camera. Particular emphasis is placed on the effects of these technologies on changing modes of subjectivity and their effects on literature, art, history, psychology, medicine, and the physical sciences. (DF:M1, M3)

[*History of Science 183. Social and Political Implications of Technology: Conference Course]
Catalog Number: 8588 Enrollment: Limited to 15.
Peter Buck
Half course (spring term). Hours to be arranged.
Historical studies of how technology shapes society and politics. Interactions between social engineering and the management of technological change; specific technologies vs. expectations about technology in general as limiting the possibilities for social and political change. Examples drawn from war, transportation, communication, and production. (DF:M1)
Note: Expected to be given in 2005–06.

Cross-listed Courses

[Historical Study A-27. Reason and Faith in the West]
Historical Study A-34. Medicine and Society in America
[Historical Study B-24. Utopia in the Age of the Scientific Revolution]
Science A-41. The Einstein Revolution
Studies of Women, Gender, and Sexuality 1201 (formerly Women's Studies 110a). Bodies and Boundaries: Conference Course

Primarily for Graduates

***History of Science 200. Methods of Research in the History of Science: Seminar**
Catalog Number: 5277
Everett I. Mendelsohn
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Introduction to tools and resources libraries, archives and collections useful for the History of Science. Analysis of past and current practices in research and writing and critical commentary on the variety of styles used by historians of science.

***History of Science 206r. Ancient Science: Seminar**
Catalog Number: 2410
John E. Murdoch
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Topic for 2004-05: Pythagoreanism and its effect on Plato's philosophy of mathematics and that of the early Academy and its criticism by Aristotle. (DF:E1)

[*History of Science 207r. Medieval Science: Seminar]
Catalog Number: 8468
John E. Murdoch
Half course (spring term). Hours to be arranged.
Topic to be announced. (DF:E2)
Note: Expected to be given in 2005–06. Reading knowledge of Latin is not required.

History of Science 215. Science and Culture in Late Medieval and Early Modern Europe: Seminar
Catalog Number: 4568
Katharine Park
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
Topic for 2004-05: Art and Nature, c. 1490-1700. Explores the ways in which early modern Europeans used texts, images, and objects to understand and represent the natural world. Units include learned and artisanal epistemologies, scientific illustration, and cultures of experiment and collecting. (DF:E2)
Note: Reading knowledge of a European language is highly desirable.

***History of Science 222r. Research in the History and Philosophy of Physical Sciences**
Catalog Number: 4178
Peter L. Galison
Half course (fall term). Th., 4–6. EXAM GROUP: 18
Students advance their chosen research with the aim of producing a publishable paper. Open to students working in 19th- to 21st-century sciences and technologies, or boundary work within science, art, and architecture. Co-taught with Sam Schweber. (DF:M3)

***History of Science 223. Einstein: Physics, Philosophy, and Culture**
Catalog Number: 8875
Peter L. Galison
Half course (spring term). Hours to be arranged. First meeting Wednesday, February 2, at 9.

[History of Science 240. The Body in Health and Disease: Seminar]
Catalog Number: 6821
Charles E. Rosenberg
Half course (fall term). Hours to be arranged.
"Sickness" and "health," notions of inappropriate and appropriate behavior, are determined by conceptions of the body and its proper management. Discussion will focus first upon secondary studies and subsequently upon students' research. (DF:M2)
Note: Expected to be given in 2005–06.

History of Science 242. Caring and Curing
Catalog Number: 6304
Charles E. Rosenberg
Half course (fall term). M., 4–6. EXAM GROUP: 9
A research seminar organized around perceptions and practices relating to the body and its management in health and disease. The first portion of the class will focus on discussions of representative texts, underlining historiographical and substantive issues in the history of medicine, while the second will focus on student progress reports and drafts. (DF:M2)

[*History of Science 244. Research in the History of Medical Ethics: Seminar]
Catalog Number: 6301
Allan M. Brandt
Half course (spring term). Hours to be arranged.
Course provides a framework for the historical examination of debates concerning medical ethics, and seeks to identify social, cultural, political, and economic forces that have shaped value conflicts in clinical medicine and health policy. Students are expected to write a research paper utilizing primary and archival source materials. (DF:M2)
Note: Expected to be given in 2005–06.

[History of Science 250. Sociologies of Science]
Catalog Number: 6211
Everett I. Mendelsohn
Half course (spring term). Hours to be arranged.
(DF:M1)
Note: Expected to be given in 2005–06.

[History of Science 252. The Politics of Knowledge]
Catalog Number: 4797
Everett I. Mendelsohn
Half course (spring term). Hours to be arranged.
Examines the political economy of modern science at level of theory, practice and institution. Case studies from eugenics, the atomic bomb, recombinant DNA and cloning; the restructuring of research in government, university, and the private sector; the sources and roles of ethical and social guidelines. (DF:M1)
Note: Expected to be given in 2005–06.

[History of Science 255. Sociology of Scientific Knowledge]
Catalog Number: 8911
Steven Shapin
Half course (spring term). Hours to be arranged.
A survey of major themes and achievements in the sociological study of scientific knowledge and practice, giving particular attention to the historical and cultural contexts in which this work developed and its usefulness in writing the history of science. (DF:M1)
Note: Expected to be given in 2005–06.

History of Science 256. Darwin, Sex, and Race
Catalog Number: 1010
James R. Moore (Open University, England)
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
What was "man's place" in Darwin's work? Why was the subject barely broached in the *Origin of Species* (1859)? What finally drove him to go public with his "bestializing" views? Close readings of *The Descent of Man*, and *Selection in Relation to Sex* (1871), its contemporary sources and recent historical literature equip us to debate interpretations of Darwin's most explosive research. (DF:M2)

[History of Science 258. What is a Disease? History and Ethnography]
Catalog Number: 0817
Charles E. Rosenberg
Half course (spring term). Hours to be arranged.
Graduate seminar concerned with anthropological, historical, and other critical social science accounts of medical classification and disease diagnosis. Contrasts global medical science with indigenous ethnomedical systems and popular lay interpretations based on cultural, religious, and moral categories. (DF:M2)
Note: Expected to be given in 2005–06.

History of Science 259. Theories of Race and/in Science: Seminar
Catalog Number: 9690
Evelynn M. Hammonds
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Examines theoretical basis of concepts of race developed by and in modern biology, medicine, epidemiology, anthropology. Compares these scientific theories to historical, sociological, legal, literary, and philosophical analyses of race from 18th century to present. (DF:M1, M2)
Note: A significant research paper is required.

History of Science 263. Science and/as Literature: Seminar
Catalog Number: 2704
Mario Biagioli
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Considers relationships between science and literature: literary structure of scientific arguments; history of scientific genres; science fiction and representations of science in popular literature; and the relationship between literary plots and scientific arguments. (DF:M1)

History of Science 270. Historical Perspectives on Culture and Personality
Catalog Number: 7714
Lawrence J. Friedman
Half course (spring term). M., 4–6. EXAM GROUP: 9
Study of major theorists who have articulated connections between individual personality and collective culture from Freud to Carol Gilligan. Emphasis on intellectual collectivities like the Chicago School of Sociology and the Culture & Personality Movement. (DF:M1)
Note: Broad, interpretive, and synthetic semester paper as well as a two short position papers required.

[History of Science 273. Freud and the American Academy]
Catalog Number: 5828 Enrollment: Limited to 15.
Anne Harrington
Half course (fall term). Hours to be arranged.
Freud himself and Freud as used, adapted, and denounced in the academy. Freud himself on hysteria, dreams, the unconscious, sex, religion, and aggression. Appropriations and polemics within psychiatry, philosophy, literary criticism, psychohistory, feminism, brain science. (DF:M2)
Note: Expected to be given in 2005–06. Intended to function as a graduate seminar, but advanced undergraduates with appropriate background in psychology or history of science (e.g., HS 175) will be considered.

[History of Science 275. "The Minded Body": Theoretical and Empirical Explorations]
Catalog Number: 8536
Anne Harrington
Half course (fall term). Hours to be arranged.
Can historical work be done "under the skin"? A case-study approach to the question, with theoretical readings drawn from "body history," anthropology, phenomenology and medicine. A significant independent research project will be expected. (DF: M2)
Note: Expected to be given in 2005–06.

[*History of Science 278. In Search of Mind: Seminar]
Catalog Number: 0304
Anne Harrington
Half course (spring term). Hours to be arranged.
Four "expeditions" through "territories" of the mind of interest to many and conquered by none : language, emotion, meaning-making, and memory. The goal: to imagine alternative ways to tell the history of the mind sciences. (DF:M2).
Note: Expected to be given in 2005–06.

History of Science 281. Flat Science: Picturing Knowledge through Print, Photography and Cinematography
Catalog Number: 2387
Mario Biagioli and Jimena Canales
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
We examine imaging techniques from the Scientific Revolution to the twentieth century. It focuses on interactions between art history (Benjamin, Krauss), philosophy (Bergson, Foucault, Deleuze), and science studies. By observing the development of mechanical, photographic and cinematographic representation of visual evidence in astronomy, physiology, and criminology, we analyze the epistemological status of pictures. (DF:M3)

[History of Science 282. The West and The Rest: Comparative Issues in the History of Non-Western Science]
Catalog Number: 6473
Bridie Andrews
Half course (spring term). Hours to be arranged.

Topic to be announced.
Note: Expected to be given in 2005–06.

[*History of Science 283. Technoprivacy]
Catalog Number: 7383 Enrollment: Limited to 24.
Peter L. Galison and Martha L. Minow (Law School)
Half course (spring term). Hours to be arranged.
Issues raised when technology and science (especially information systems, genetic archiving) permit new forms of surveillance and control of information. Implications for privacy, national security, forensics, public health, safety. Examination of legal, ethical, moral arguments. (DF:M1)
Note: Expected to be given in 2005–06. Open to undergraduates, graduate students, and law students with permission of instructors. Offered jointly with the Law School as 99070-31.

[*History of Science 290r. Selected Topics in History and Philosophy of Biology]
Catalog Number: 8108
Everett I. Mendelsohn
Half course (spring term). Hours to be arranged.
Challenges of writing the history of biology of the present—genomes, genetic engineering, eugenics, cloning. (DF:M2)
Note: Expected to be given in 2005–06.
Prerequisite: Ordinarily one half course at the advanced level in history or philosophy of biology.

***History of Science 295r. Critical History: Space, Place, and Architecture**
Catalog Number: 8360 Enrollment: Limited to 15.
Peter L. Galison and Antoine Picon (Design School)
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
Graduate seminar on theoretical presuppositions of historical writing. This year will focus on theoretical understanding of the architecture of science including laboratories, museums, virtual spaces. Readings: Heidegger, Foucault as well as contemporary writers from science and architectural studies.(DF:M3)

History of Science 297r. Topics in the History of Medieval Latin Science
Catalog Number: 5050
John E. Murdoch
Half course (spring term). Hours to be arranged. First meeting Thursday, February 3, at 4.
Topic to be announced.
Prerequisite: Reading knowledge of Latin.

***History of Science 298r. The Establishment of Medieval Latin Scientific and Philosophical Texts: Seminar**
Catalog Number: 4893
John E. Murdoch
Half course (spring term). Hours to be arranged. First meeting Thursday, February 3, at 4:30.
Problems and methods involved in preparing critical editions of texts from manuscript materials:

principles of establishing the "accepted text," manuscript tradition, and appropriate *apparatus criticus* when several manuscripts are employed, plus resolution of palaeographic problems. (DF:E2)
Prerequisite: Knowledge of Latin, but no previous experience with palaeography required.

Cross-listed Courses

[Anthropology 2858 (formerly Anthropology 258). What is a Disease? History and Ethnography]

Graduate Courses of Reading and Research

For Science Technology and Public Policy Seminar S482, see the Kennedy School of Government catalog.
***History of Science 300. Direction of Doctoral Dissertations**
Catalog Number: 3388
Mario Biagioli 1756, Allan M. Brandt 3031, Jimena Canales 5070, Marwa S. Elshakry 4884, Peter L. Galison 3239, Owen Gingerich 1159 (spring term only), Evelynn M. Hammonds 4545 (fall term only), Anne Harrington 1895 (on leave 2004-05), Sarah Jansen 4107, Everett I. Mendelsohn 2700 (on leave spring term), John E. Murdoch 1877 (on leave fall term), Katharine Park 2974, Charles E. Rosenberg 3784, and Steven Shapin 3984 (on leave spring term) (fall term only)
Note: Under special circumstances arrangements may be made for other instruction in guidance for doctoral theses.

***History of Science 301. Reading and Research**
Catalog Number: 5641
Bridie Andrews 1409 (on leave fall term), Mario Biagioli 1756, Allan M. Brandt 3031, Peter Buck 1894, Jimena Canales 5070, Marwa S. Elshakry 4884, William W. Fisher (Law School) 4257, Peter L. Galison 3239, Owen Gingerich 1159, Evelynn M. Hammonds 4545, Anne Harrington 1895 (on leave 2004-05), Erwin N. Hiebert 1187, Gerald Holton 1883, Sarah Jansen 4107, Sheila S. Jasanoff (Kennedy School) 2248, Everett I. Mendelsohn 2700 (on leave spring term), John E. Murdoch 1877 (on leave fall term), Katharine Park 2974, Antoine Picon (Design School) 4295, Charles E. Rosenberg 3784, Barbara Gutmann Rosenkrantz 3651, A. I. Sabra 2702, and Steven Shapin 3984 (on leave spring term)
Individual work in preparation for the General Examination for the PhD degree.

***History of Science 302. Guided Research**
Catalog Number: 5282
Bridie Andrews 1409 (on leave fall term), Mario Biagioli 1756, Allan M. Brandt 3031, Peter Buck 1894, Jimena Canales 5070, Marwa S. Elshakry 4884, Peter L. Galison 3239, Owen Gingerich 1159, Evelynn M. Hammonds 4545, Anne Harrington 1895 (on leave 2004-05), Erwin N. Hiebert 1187, Gerald Holton 1883, Sarah Jansen 4107, Sheila S. Jasanoff (Kennedy School) 2248, Everett I. Mendelsohn 2700 (on leave spring term), James R. Moore (Open University, England) 5162, John E. Murdoch 1877 (on leave fall term), Katharine Park 2974, Antoine Picon (Design School) 4295, Charles E. Rosenberg 3784, Barbara Gutmann Rosenkrantz 3651, A. I.

Sabra 2702, and Steven Shapin 3984 (on leave spring term)
Through regular meetings with faculty advisor, each student will focus on research and writing with the purpose of developing a publishable research paper.

Inner Asian and Altaic Studies

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Higher Degrees in Inner Asian and Altaic Studies

Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies *(Chair)*
Mark C. Elliott, Mark Schwartz Professor of Chinese and Inner Asian History
Robert M. Gimello, Visiting Professor of East Asian Studies and Religious Studies *(University of Arizona)*
Janet Gyatso, Hershey Professor of Buddhist Studies *(Divinity School)*
Cemal Kafadar, Vehbi Koc Professor of Turkish Studies, Associate of Currier House *(on leave 2004-05)*
C. C. Lamberg-Karlovsky, Stephen Phillips Professor of Archaeology and Ethnology
David J. Roxburgh, Professor of History of Art and Architecture
P. Oktor Skjaervo, Aga Khan Professor of Iranian *(on leave fall term)*
Wheeler M. Thackston, Jr., Professor of the Practice of Persian and other Near Eastern Languages
Wei-Ming Tu, Harvard-Yenching Professor of Chinese History and Philosophy and of Confucian Studies *(on leave spring term)*
Michael Witzel, Wales Professor of Sanskrit *(on leave 2004-05)*
Nur Yalman, Professor of Social Anthropology and of Middle Eastern Studies

The Committee supervises the work of graduate students whose interest in Inner Asia is not confined to languages alone, or history alone, but encompasses linguistics, history, religion, art history, and general cultural study. Courses relating to Inner Asian Studies are given by members of the Committee and other faculty in the departments of Anthropology, East Asian Languages and Civilizations, History, History of Art and Architecture, Linguistics, Near Eastern Languages and Civilizations, and Sanskrit and Indian Studies, and by the Committee on the Study of Religion. Interested students should consult these sections of the catalog. The Committee has offices at 9 Kirkland Place, Cambridge, MA, 02138; 617-495-3777.

Harvard University
Faculty of Arts and Sciences
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Latin American and Iberian Studies

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Latin American and Iberian Studies

John H. Coatsworth, Monroe Gutman Professor of Latin American Affairs *(Chair)*
Thomas N. Bisson, Henry Charles Lea Professor of Medieval History *(on leave fall term)*
Luis E. Cárcamo-Huechante, Assistant Professor of Romance Languages and Literatures
Davíd L. Carrasco, Neil L. Rudenstine Professor for the Study of Latin America in the Faculty of Divinity and the Faculty of Arts and Sciences
Joaquim-Francisco Coelho, Nancy Clark Smith Professor of the Language and Literature of Portugal and Professor of Comparative Literature
Kathleen M. Coll, Lecturer on Studies of Women, Gender, and Sexuality
Thomas B. F. Cummins, Dumbarton Oaks Professor of the History of Pre-Columbian and Colonial Art
Jorge I. Domínguez, Clarence Dillon Professor of International Affairs
Bradley S. Epps, Professor of Romance Languages and Literatures and of Studies of Women, Gender, and Sexuality
Brian D. Farrell, Professor of Biology
William L. Fash, Bowditch Professor of Central American and Mexican Archaeology and Ethnology
Luis Fernández-Cifuentes, Robert S. and Ilse Friend Professor of Romance Languages and Literatures
Jeffry Frieden, Stanfield Professor of International Peace
Mary Malcolm Gaylord, Sosland Family Professor of Romance Languages and Literatures *(on leave spring term)*
James Hanken, Professor of Biology and Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology
N. Michele Holbrook, Charles Bullard Professor of Forestry
Steven R. Levitsky, John L. Loeb Associate Professor of the Social Sciences *(on leave spring term)*
J. Lorand Matory, Professor of Anthropology and of African and African American Studies
José Antonio Mazzotti, Gardner Cowles Associate Professor of Romance Languages and Literatures
Donald H. Pfister, Asa Gray Professor of Systematic Botany
Doris Sommer, Ira Jewell Williams, Jr. Professor of Romance Languages and Literatures
Diana Sorensen, Professor of Romance Languages and Literatures and of Comparative Literature *(on leave spring term)*
Gary Urton, Dumbarton Oaks Professor of Pre-Columbian Studies
John Womack, Jr., Robert Woods Bliss Professor of Latin American History and Economics *(on leave 2004-05)*

The Standing Committee on Latin American and Iberian Studies is appointed to coordinate the Center's research and curricular programs that operate solely within the Faculty of Arts and Sciences, including Harvard College and the Graduate School of Arts and Sciences. The

Committee presently includes members representing seven academic disciplines appointed by the Dean of the Faculty of Arts and Sciences. Harvard/Radcliffe students have developed undergraduate programs focused on Latin America in Anthropology, Biology, Economics, Environmental Science and Public Policy, Government, History, History and Literature, Romance Languages and Literatures, Social Studies, and the Special Concentrations program. Although the Committee itself does not offer an undergraduate concentration or an advanced degree, it awards a Certificate in Latin American Studies to Harvard College students who have completed an approved course of study as part of their work toward the AB degree in many concentrations. The Committee also awards a Certificate in Latin American Studies to graduate students who meet its requirements just prior to their receipt of the doctoral degree.

The David Rockefeller Center for Latin American Studies, founded in 1994, coordinates research, teaching, and public programs on Latin America and related fields such as the Caribbean, the Iberian peninsula, and the Latin American Diaspora in the US throughout the University. It works to strengthen ties between Harvard and the countries of the region and to promote public understanding of the cultures, histories, and societies of this diverse region. The Center's governing bodies and committees include faculty from many faculties, departments, and the professional schools; the Center's annual directory of faculty and professional staff lists over 300 faculty members, librarians, curators, administrators, and visiting fellows and scholars with substantial Latin American or related interests.

The David Rockefeller Center is a Title VI National Resource Center, so designated by the US Department of Education in 2000. The Center sponsors lectures, seminars, conferences, exhibitions, and other academic and cultural events; supports faculty research; advises students; funds summer research travel grants to graduate, professional, and undergraduate students; manages the competition for Title VI Foreign Language and Area Studies Fellowships and other fellowships for graduate and professional students; hosts visiting scholars and fellows; provides outreach services to teachers, journalists, and other groups; and administers the Robert F. Kennedy Visiting Professorship of Latin American Studies.

The Center publishes a monthly calendar from September to May; an annual *Guide to Courses* that lists over 100 courses on Latin America and related topics at Harvard; the *Directory of Faculty and Professional Staff*; a magazine, *ReVista*, appearing three times a year; and working paper and book series.

Linguistics

Faculty of the Department of Linguistics

Jay Jasanoff, Diebold Professor of Indo-European Linguistics and Philology *(Chair)*
Cedric Boeckx, Assistant Professor of Linguistics
Michael S. Flier, Oleksandr Potebnja Professor of Ukrainian Philology
Heidi Harley, Visiting Assistant Professor of Linguistics *(University of Arizona) (spring term only)*
C.-T. James Huang, Professor of Linguistics
Pauline Jacobson, Visiting Professor of Linguistics *(Brown University) (fall term only)*
Javier Martín-González, Lecturer on Linguistics *(Head Tutor)*
Andrew Nevins, Instructor in Linguistics
Jeremy Rau, Assistant Professor of Classics and Linguistics
Adam Szczegielniak, Lecturer on Linguistics

Other Faculty Offering Instruction in the Department of Linguistics

Alfonso Caramazza, Daniel and Amy Starch Professor of Psychology
Wesley M. Jacobsen, Professor of the Practice of the Japanese Language
Steven Pinker, Johnstone Family Professor of Psychology
P. Oktor Skjaervo, Aga Khan Professor of Iranian *(on leave fall term)*

See also other course listings under the following departments of languages and literatures: Celtic, the Classics, East Asian, English, Germanic, Near Eastern, Romance, Sanskrit and Indian Studies, and Slavic; Social Analysis 34 (Core); and the linguistic offerings at MIT.

Primarily for Undergraduates

[Linguistics 80. Dialects of English]
Catalog Number: 4695

Half course (spring term). Hours to be arranged.
Survey and analysis of the varieties of English currently spoken in the world. Forms of English to be discussed include: American dialects (Boston, New York, Southern, “Valley Girl,” etc.), British dialects (BBC, Liverpool, Scottish, etc.), Indian, Australian, Singaporean, and other colonial dialects, Yiddish English, English-based pidgins and creoles, men’s vs. women’s speech. Most of the dialects will be illustrated in the classroom by native speakers.
Note: Expected to be given in 2005–06.

[Linguistics 81. Language and Gender]
Catalog Number: 6808

Half course (fall term). Hours to be arranged.
Surveys the impact of biological sex and gender identification on speech and language use. Speech topics include sex differences in vocal tract size, pitch range, vowel timbre; and the use of phonetic variation to project a desired image. Language use topics include apologies, bragging, compliments, intonation, conceptual metaphor, and structuring social and professional interactions with language. Students will collect and analyze their own data.
Note: Expected to be given in 2005–06.

Linguistics 88. Language and Cognition
Catalog Number: 5126
Cedric Boeckx
Half course (fall term). M., W., F., at 11; F., at 2. EXAM GROUP: 4
What does language tell us about the human brain? We will approach this question from various psycholinguistic and neurolinguistic perspectives: speech perception and perceptual illusions; language disorders; blind sight and split brain effects; brain imaging; neural networks and computer modeling of language. We will also touch on the problems of speech recognition and speech synthesis, focusing on the light that these topics shed on the nature of linguistic knowledge.

***Linguistics 91r. Supervised Reading and Research**
Catalog Number: 1100
Javier Martín-González and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Independent study with a faculty member. For students who wish to pursue a particular linguistic topic not covered in other course offerings.
Note: Students should consult the Head Tutor about having the course count towards the concentration.

***Linguistics 97r. Group Tutorial — Sophomore Year**
Catalog Number: 1791
Javier Martín-González and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Intensive study in a selected linguistic area such as phonology, syntax, historical linguistics, phonetics, morphology, semantics, psycholinguistics, acquisition, sociolinguistics, creole studies, or computational linguistics. Meets as two six-week small-group tutorials, in both the fall and spring terms.
Note: Required of concentrators.

***Linguistics 98a. Group Tutorial — Junior Year**
Catalog Number: 4222
Javier Martín-González and members of the Department
Half course (fall term; repeated spring term). Fall: M. through W., 3–5; Spring: Hours to be arranged.
Meets as two six-week small-group tutorials, both held in the fall term, each covering one of the areas of linguistics listed under Linguistics 97r.
Note: Required of concentrators.

***Linguistics 98b. Tutorial — Junior Year**
Catalog Number: 7273
Javier Martín-González and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Individual tutorial with a faculty member.
Note: Required of concentrators.

***Linguistics 99. Tutorial — Senior Year**
Catalog Number: 3082
Javier Martín-González and members of the Department
Full course. Hours to be arranged.
Individual tutorial with a faculty member for research and writing of the Linguistics honors thesis. Graded Satisfactory or Unsatisfactory. An honors student who expects not to complete the thesis should consult with the Head Tutor about completing other substantial work to receive credit for the course.
Note: Required of honors concentrators.

For Undergraduates and Graduates

Linguistics 110. Introduction to Linguistics
Catalog Number: 1498
Andrew Nevins
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
An introduction to contemporary linguistic theory and methods of linguistic analysis: phonetic transcription, phonological, morphological, and syntactic analysis, and methods in comparative and historical linguistics. Some psycholinguistic aspects of language will also be examined. The discussion will draw on data from a wide variety of languages.

Linguistics 112a. Introduction to Syntactic Theory
Catalog Number: 7318
Javier Martín-González
Half course (fall term). M., W., F., at 12. EXAM GROUP: 5
An introduction to syntactic theory, analysis and argumentation in the model of generative grammar. Discusses analyses and hypotheses of grammatical structure forming the foundation of current syntactic theory. Emphasis on constituent structure analysis, motivation for transformations, constraints on rule application and conditions on representations. Survey of syntactic phenomena, including argument structure, movement, and anaphora.

Linguistics 112b. Intermediate Syntax
Catalog Number: 4730
Cedric Boeckx
Half course (spring term). Tu., Th., at 11 and F., at 9. EXAM GROUP: 2, 13
Continuation of 112a. Fundamental principles and parameters of Government and Binding Theory.
Prerequisite: Linguistics 112a.

[Linguistics 113. Acoustic and Articulatory Phonetics]
Catalog Number: 3048

Half course (fall term). Hours to be arranged.
Survey of phonetic phenomena that occur in the world's languages. Introduces basic principles in articulatory phonetics, acoustic phonetics, and aerodynamic mechanisms of speech. Emphasis will be placed on learning the principal techniques of experimental phonetics in the phonetics

lab.
Note: Expected to be given in 2005–06.

Linguistics 114. Introduction to Morphology
Catalog Number: 1289
Andrew Nevins
Half course (fall term). Tu., Th., at 12; M., at 4; F., at 1. EXAM GROUP: 14
An introduction to the analysis of word structure. Topics include the place of word formation in relation to phonological and syntactic phenomena, the nature of the lexicon, current theories of morphology, including Distributed Morphology. Consideration of morphological issues in psycholinguistics. Emphasis on the analysis of morphological phenomena in a wide range of typologically diverse languages.

Linguistics 115. Introduction to Phonetics and Phonology
Catalog Number: 2791
Andrew Nevins
Half course (spring term). M., W., at 12 with section F., at 12 or 1. EXAM GROUP: 5
Analysis of phonetic and phonological phenomena from a wide variety of languages. Topics include distinctive feature theory, underlying and surface representations, the abstractness of phonological representations, rules and their ordering, language acquisition and change. Training in phonetic transcription, spectrogram ("voiceprint") reading, and hypothesis-testing in phonological analysis.

[Linguistics 116. Semantics]
Catalog Number: 6115

Half course (spring term). Hours to be arranged.
An introductory course on semantic interpretation in natural language. What does it mean to "know the meaning" of an utterance? This course provides the formal tools to characterize truth-conditional meanings of sentences. Topics covered include the relation between form and meaning, ambiguity, reference, the role of context dependency, quantifier scope, and variable-binding.
Note: Expected to be given in 2005–06.

Linguistics 117r. Linguistic Field Methods
Catalog Number: 8401
Heidi Harley (University of Arizona)
Half course (spring term). M., 3–6. EXAM GROUP: 8, 9
Instruction in the elicitation of phonological, morphological, and syntactic information from a native speaker of an unfamiliar language, toward developing a grammatical sketch of the language. Emphasis on methodology and problems of elicitation and grammatical description in the field. Participants work directly with the native speaker, both individually and as a group, with the assistance of the instructor.

[Linguistics 118. Introduction to Discourse Analysis]
Catalog Number: 8709

Half course (fall term). Hours to be arranged.
An examination of various principles that govern communication between the speaker/writer and the hearer/reader. Topics include presupposition, point of view, discourse and sentence themes, discourse deletion, and reference and honorification. Data from English and Japanese.
Note: Expected to be given in 2005–06. No knowledge of Japanese required.

[Linguistics 120. Introduction to Historical Linguistics]
Catalog Number: 8486
Jeremy Rau
Half course (fall term). Hours to be arranged.
Methods and goals of linguistic reconstruction. Topics include the regularity of sound change, types of linguistic change, the relationship between linguistic reconstruction and synchronic analysis, language contact and borrowing, and mechanisms of linguistic change, including recent theories.
Note: Expected to be given in 2005–06.

Linguistics 122. Introduction to Indo-European
Catalog Number: 1336
Jay Jasanoff
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
An introduction to the historical study of the Indo-European languages, using the comparative method to arrive at a picture of the parent language of the family, Proto-Indo-European.

Linguistics 130. Psycholinguistics
Catalog Number: 8966
Adam Szczegielniak
Half course (spring term). Tu., Th., at 12. EXAM GROUP: 14
A survey of current research psycholinguistics for students in linguistics and related fields. Provides an overview of models of language comprehension and production from word to sentence level. Aims to expose students to models and methods used in the study of language acquisition, processing, disorders and brain imaging.

[Linguistics 142. Bilingual Grammar]
Catalog Number: 9670

Half course (spring term). Hours to be arranged.
Analysis of the phenomenon of bilingualism from the perspective of linguistics as a cognitive science.
Note: Expected to be given in 2005–06.
Prerequisite: An introductory course in linguistics (e.g. Social Analysis 34 or Ling 110) is desirable, but not required.

[Linguistics 145. Logical Form (formerly Syntax and Interpretation)]
Catalog Number: 5755
C.-T. James Huang

Half course (spring term). Hours to be arranged.
How does the meaning of a sentence derive from the combination of the meanings of the words it contains? It is generally assumed that word meanings by themselves are not sufficient to account for sentence meanings, and that syntax plays an important role. We explore the hypothesis that there is an abstract level of syntax called Logical Form which, in combination with word meanings, determines a substantial part of the meanings of sentences.
Note: Expected to be given in 2005–06.

Linguistics 149. Categorical Grammar and Related Theories
Catalog Number: 0670
Pauline Jacobson (Brown University)
Half course (fall term). Tu., Th., at 1. EXAM GROUP: 15
The course will examine linguistic phenomena that are relevant for semantics, as well as syntax within the framework of Categorial Grammar and related theories. We will explore the behavior of pronouns, passives, as well as wh-question formation, and coordination. It will be shown that, by adopting independently required principles of semantics and the lexicon, these diverse processes can be accounted for within the framework of Categorial Grammar in a way that simplifies the overall organization of the language faculty, especially syntax.

[Linguistics 158r. From Indo-European to Old Irish]
Catalog Number: 3801

Half course (spring term). Hours to be arranged.
Essentials of Celtic historical and comparative grammar.
Note: Expected to be given in 2005–06.
Prerequisite: Some acquaintance with either Indo-European or Old Irish.

[Linguistics 168. Introduction to Germanic Linguistics]
Catalog Number: 7925
Jay Jasanoff
Half course (spring term). Hours to be arranged.
An introduction to the comparative and historical linguistics of the Germanic family, with emphasis on Gothic and the early medieval languages.
Note: Expected to be given in 2005–06.

Linguistics 171. Structure of Chinese
Catalog Number: 4346
C.-T. James Huang
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
Introduction to the syntactic structure of Mandarin Chinese: the basic structure of clauses and nominal constituents; words, compounds, and phrases; word order and variations; selected special topics (passives, resultatives, ba-construction, topic and relativized structures, questions, anaphora, pro drop); syntactic structure and semantic interpretation.
Prerequisite: Linguistics 112a in previous or current term or permission of instructor.

[Linguistics 173. Linguistic Issues in the Teaching of Japanese]
Catalog Number: 4208
Wesley M. Jacobsen
Half course (spring term). Hours to be arranged.
An examination of selected phenomena in Japanese phonology, morphology, and syntax with special attention to difficulties encountered in the acquisition of Japanese by adult native English speakers.
Note: Expected to be given in 2005–06.
Prerequisite: Japanese 101b or its equivalent. Familiarity with basic linguistics concepts desirable.

Linguistics 174. Tense and Aspect in Japanese
Catalog Number: 1856
Wesley M. Jacobsen
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Examination of phenomena of tense and aspect in Japanese, with special attention to verbal semantics and the interaction of temporal categories with modality and transitivity.
Prerequisite: Knowledge of Japanese equivalent to Japanese 101b, or familiarity with the linguistic structure of a non-Indo-European language, or permission of instructor.

[Linguistics 176. History of the Japanese Language]
Catalog Number: 4861
Wesley M. Jacobsen
Half course (spring term). Hours to be arranged.
An examination of evidence from the comparative method, internal reconstruction, and written documents for reconstructing prehistoric stages of the Japanese language and an overview of major developments in Japanese phonology and grammar from the Nara period through the present day.
Note: Expected to be given in 2006–07.
Prerequisite: Knowledge of Japanese equivalent to Japanese 101b, or familiarity with historical linguistics, or permission of the instructor.

Cross-listed Courses

[English 101. The History and Structure of the English Language]
[Greek 134. The Language of Homer]
Latin 134. Archaic Latin
[Semitic Philology 140. Introduction to the Comparative Study of Semitic Languages]
Slavic 125. Modern Russian in Historical Perspective
Slavic 126a. Structure of Modern Russian: Phonology and Morphology
Yiddish 105. Yiddish Language and Linguistic Theory

Primarily for Graduates

Linguistics 202. Advanced Syntax
Catalog Number: 8175

Cedric Boeckx
Half course (spring term). Tu., 9–11. EXAM GROUP: 11, 12
The third course in the syntax sequence, focusing on major issues in current syntactic theory. Topics include head movement, case and agreement, anaphora, constraints on movement and derivations.
Prerequisite: Linguistics 112b or permission of instructor.

Linguistics 204r. Topics in Syntax
Catalog Number: 6446
C.-T. James Huang
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Examination of current issues of syntactic theory representing instructor's and/or students' research interest.

Linguistics 205r. The Syntax-Semantics Interface
Catalog Number: 0776
C.-T. James Huang
Half course (fall term). F., 1–3. EXAM GROUP: 6, 7
An exploration of issues related to the architecture of the grammar, with emphasis on the structures that are interpreted at the semantic interface, and how they are derived.

Linguistics 206r. Syntactic Structure and Argument Structure
Catalog Number: 9020
Heidi Harley (University of Arizona)
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
What is the relationship between a predicate's semantic content and its syntactic realization? What is the relationship between a predicate's event structure and its argument structure? Does a predicate's semantics determine the syntactic frames it occurs in, or might it be the other way around?

Linguistics 207. Topics in Semantics
Catalog Number: 8812
Pauline Jacobson (Brown University)
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
The topic this year will be the hypothesis of Direct and Variable-Free Semantics. Special attention will be paid to topics concerning the binding of pronouns and other expressions; the analysis of ellipsis; and the interaction of ellipsis, binding, and focus under a direct compositional view.

[Linguistics 215. Phonological Theory]
Catalog Number: 5612

Half course (fall term). Hours to be arranged.
Surveys the phonological structures, both the representations and their manipulation, that have evolved over the last half century. Motivates the transitions from linear to non-linear or autosegmental representations and from derivational to non-derivational models, leading to

current theory.
Note: Expected to be given in 2005–06.

Linguistics 219r. Advanced Phonology
Catalog Number: 2154
Andrew Nevins
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
An examination of why phonological phenomena exist at all, and the nature of phonological computation. Primary exemplification from harmony, reduplication, and meter. Design conditions imposed by economy, perception, articulation, the learning path, and the lexicon.
Prerequisite: Linguistics 114 or permission of the instructor.

[Linguistics 220ar. Advanced Indo-European]
Catalog Number: 3428
Jay Jasanoff
Half course (fall term). Hours to be arranged.
Topics in Indo-European comparative grammar. Conducted as a seminar.
Note: Expected to be given in 2005–06.

Linguistics 221r. Workshop in Indo-European
Catalog Number: 1008
Jeremy Rau
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
The topic for the year will be arranged in consultation with interested students. Conducted as a seminar.

Linguistics 224. Historical and Comparative Linguistics
Catalog Number: 2967
Jay Jasanoff
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
An introduction to diachronic linguistics at the graduate level. Theory of language change: sound change and analogy, syntactic and semantic change, change in progress. The comparative method: proving genetic relationship, reconstruction, subgrouping.

Linguistics 225a. Introduction to Hittite
Catalog Number: 8206
Jeremy Rau
Half course (fall term). Tu., Th., at 2. EXAM GROUP: 16
Grammar and reading of texts in cuneiform and in transliteration; essentials of the comparative grammar of the Indo-European languages of Anatolia.
Note: No previous knowledge of cuneiform presumed.

[Linguistics 226r. Advanced Hittite]
Catalog Number: 0858

Half course (fall term). Hours to be arranged.

Grammar and text readings in Cuneiform and Hieroglyphic Luvian.
Note: Expected to be given in 2005–06. Provisions will be made for any student who wishes to begin Hittite this term.

Linguistics 241r. Practicum in Syntax and Phonology
Catalog Number: 4260
C.-T. James Huang and members of the Department
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
Presentation of reports on current research or assigned topics.
Note: Required of both second- and third-year graduate students concentrating in syntax or phonology.

[Linguistics 242r. Practicum in Historical Linguistics]
Catalog Number: 5569
Jay Jasanoff
Half course (spring term). Hours to be arranged.
Presentation of reports on current research or assigned topics.
Note: Expected to be given in 2005–06. Required of both second- and third-year graduate students concentrating in historical linguistics.

Linguistics 247. Topics in Germanic Linguistics
Catalog Number: 3693
Jay Jasanoff
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Investigation of selected topics in Germanic historical linguistics.

Linguistics 250. Old Church Slavonic
Catalog Number: 8449
Michael S. Flier
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
History of the first Slavic literary language, its role in Slavic civilization; phonology, morphology, syntax, and vocabulary of Old Church Slavonic; reading from canonical texts.

Linguistics 252. Comparative Slavic Linguistics
Catalog Number: 3571
Michael S. Flier
Half course (spring term). Tu., Th., 11–12:30. EXAM GROUP: 13, 14
Introduction to the historical phonology and morphology of the Slavic languages with special attention to relative chronology and linguistic geography.
Prerequisite: Linguistics 250.

[Linguistics 291r. Functional Approach to Syntax]
Catalog Number: 5046

Half course (spring term). Hours to be arranged.
Discourse-oriented analysis of syntax based on the functional sentence perspective (theme and

rheme) and on the "point of view" perspective (the speaker's attitude toward participants in an event). Examines pronominalization, reflexivization, and various deletion and movement processes.
Note: Expected to be given in 2005–06.

Cross-listed Courses

Arabic 240r. Classical Arabic Philology
[Celtic 200. Introduction to Old Irish]
[Celtic 201. Continuing Old Irish]
Celtic 225a. Introduction to Middle Welsh
Celtic 225b. Continuing Middle Welsh
Computer Science 287r. Natural Language Processing
[Computer Science 288. Computational Models of Discourse]
Semitic Philology 200r. Comparative Semitic Grammar: Seminar
[Slavic 201. Introduction to East Slavic Languages]
Slavic 296r. Slavic Linguistics: Seminar

Graduate Courses of Reading and Research

***Linguistics 300. Direction of Doctoral Dissertations**
Catalog Number: 6729
Cedric Boeckx 4716, Alfonso Caramazza 1871, Michael S. Flier 2878, Heidi Harley (University of Arizona) 4885 (spring term only), C.-T. James Huang 4066, Wesley M. Jacobsen 3443, Pauline Jacobson (Brown University) 5037 (fall term only), Jay Jasanoff 1661, Javier Martín-González 4565, Andrew Nevins 5145, Steven Pinker 4733, Jeremy Rau 4657, P. Oktor Skjaervo 2869 (on leave fall term), and Adam Szczegielniak 5195

***Linguistics 301. Reading or Special Topics Course**
Catalog Number: 0861
Members of the Department and others listed under Linguistics 300.

Literature

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Degrees in Literature

Marc Shell, Irving Babbitt Professor of Comparative Literature and Professor of English *(Chair)*
Daniel Albright, Ernest Bernbaum Professor of Literature, Associate in Mather House

Svetlana Boym, Curt Hugo Reisinger Professor of Slavic Languages and Literatures and Professor of Comparative Literature
Julie A. Buckler, Professor of Slavic Languages and Literatures
Luis E. Cárcamo-Huechante, Assistant Professor of Romance Languages and Literatures
Eileen Cheng-yin Chow, Assistant Professor of Chinese Literary and Cultural Studies
Tom Conley, Professor of Romance Languages and Literatures
Leland P. de la Durantaye, Assistant Professor of English and American Literature and Language
James Engell, Gurney Professor of English Literature and Professor of Comparative Literature
Marjorie Garber, William R. Kenan, Jr. Professor of English and American Literature and Language and of Visual and Environmental Studies
Luis M. Girón Negrón, John L. Loeb Associate Professor of the Humanities
John T. Hamilton, Assistant Professor of Comparative Literature and of Germanic Languages and Literatures
Christopher D. Johnson, Assistant Professor of Comparative Literature and of Literature
Despina Kakoudaki, Assistant Professor of Visual and Environmental Studies and of Comparative Literature
Avi Matalon, Assistant Professor of Near Eastern Languages and Civilizations
Christie McDonald, Smith Professor of French Language and Literature
Sandra Naddaff, Senior Lecturer on Literature *(Director of Studies)*
Gregory Nagy, Francis Jones Professor of Classical Greek Literature and Professor of Comparative Literature
Stephen Owen, James Bryant Conant University Professor
John M. Picker, Assistant Professor of English and American Literature and Language
Eric Rentschler, Arthur Kingsley Porter Professor of Germanic Languages and Literatures *(on leave 2004-05)*
Judith Ryan, Robert K. and Dale J. Weary Professor of German and Comparative Literature
Sharmila Sen, Assistant Professor of English and American Literature and Language *(on leave spring term)*
Werner Sollors, Henry B. and Anne M. Cabot Professor of English Literature and Professor of African and African American Studies
Susan R. Suleiman, C. Douglas Dillon Professor of the Civilization of France and Professor of Comparative Literature
William Mills Todd III, Harvard College Professor, Harry Tuchman Levin Professor of Literature, and Professor of Comparative Literature
Justin Weir, John L. Loeb Associate Professor of the Humanities

Other Faculty Offering Instruction in the Literature Concentration

Verena A. Conley, Visiting Professor of Literature and of Romance Languages and Literatures
Evelyne Ender, Lecturer on Literature
Herschel J. Farbman, Lecturer on Literature
Rita B. Goldberg, Lecturer on Literature
Eyal Peretz, Lecturer on Literature
Keja Lys Valens, Lecturer on Literature

Primarily for Undergraduates

***Literature 91r. Supervised Reading and Research**
Catalog Number: 1074
Sandra Naddaff and members of the Committee and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.
A graded, supervised course of reading and research to be conducted by a person approved by the Committee.
Note: Permission of Director of Studies required.

***Literature 97a. Tutorial — Sophomore Year**
Catalog Number: 2776
Sandra Naddaff and members of the Committee and Tutorial Board
Half course (fall term). Hours to be arranged.
Note: Successful completion of one term of Literature 97a is required of all concentrators in their sophomore year.

***Literature 97b. Tutorial — Sophomore Year**
Catalog Number: 4595
Sandra Naddaff and members of the Committee and Tutorial Board
Half course (spring term). Hours to be arranged.
Note: Successful completion of one term of Literature 97b is required of all concentrators in their sophomore year.

***Literature 98a. Tutorial — Junior Year**
Catalog Number: 3119
Sandra Naddaff and members of the Committee and Tutorial Board
Half course (fall term). Hours to be arranged.
Note: Successful completion of one term of Literature 98a is required of all concentrators in their junior year.

***Literature 98b. Tutorial — Junior Year**
Catalog Number: 1528
Sandra Naddaff and members of the Committee and Tutorial Board
Half course (spring term). Hours to be arranged.
Note: Successful completion of one term of Literature 98b is required of all concentrators in their junior year.

***Literature 99a. Tutorial — Senior Year**
Catalog Number: 4857
Sandra Naddaff and members of the Committee and Tutorial Board
Half course (fall term). Hours to be arranged.
Note: Successful completion of one term of Literature 99a is required of all concentrators in their senior year.

***Literature 99b. Tutorial — Senior Year**
Catalog Number: 1290
Sandra Naddaff and members of the Committee and Tutorial Board

Half course (spring term). Hours to be arranged.
Note: Successful completion of one term of Literature 99b is required of all concentrators in their senior year.

For Undergraduates and Graduates

[*Literature 100. Narrative Forms]
Catalog Number: 5556 Enrollment: Limited to 15.
Sandra Naddaff
Half course (fall term). Hours to be arranged.
An examination and analysis of narrative techniques and strategies in a variety of texts ranging from simple to complex narrative forms. Texts from different narrative contexts and cultures will be considered and will include the *1001 Nights, The Odyssey, Madame Bovary, The Sound and The Fury,* and *Season of Migration to the North,* as well as important works of narrative theory.
Note: Expected to be given in 2005–06.

***Literature 108. Theories of Gender and Sexuality**
Catalog Number: 9933 Enrollment: Limited to 20.
Verena A. Conley
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
With a focus on classical texts in the history and theory of sexuality, we will analyze the politics of sexuality across time and space, discuss key texts in the field, and engage in the contemporary debates on issues concerning gender identities. We will look at these debates both in local and global spheres. Texts include Freud, Foucault, Butler, Elizabeth Grosz, Eve Sedgwick, Adrienne Rich, Jean Genet, Leo Bersani, Trinh-Minh Ha, Gillian Rose, and others.

***Literature 109. On Translation**
Catalog Number: 0594 Enrollment: Limited to 20.
Sandra Naddaff
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
Examines theories of translation from various periods (Dryden, Schopenhauer, Schleiermacher, Benjamin, de Man, among others). Also looks closely at specific translated texts (e.g., various English translations of *The Thousand and One Nights*), and considers such topics as the notion of "unequal languages," the problem of cultural translation, the genre of the bi-cultural memoir, and the possibility of untranslatability. Final project involves an original translation and commentary.
Note: Preference given to Literature concentrators.
Prerequisite: Reading knowledge of one foreign language.

[Literature 110. Furor Poeticus: Madness, Inspiration, Genius]
Catalog Number: 7758
John T. Hamilton
Half course (fall term). Hours to be arranged.
The course begins with the classical conception of mania as a divine source of prophecy, ecstasy, poetic creation, and erotic desire; then traces its manifestations and elaboration in select literary, theoretical and critical works of the Western tradition. Readings from: Sophocles, Plato, Seneca, Ficino, Shaftesbury, Diderot, Goethe, Büchner, Hölderlin, Nerval, Lautréamont, Freud, Breton,

Artaud, Foucault, Kristeva, and C. Wolf.
Note: Expected to be given in 2005–06.

[Literature 112. Egypt in the European Imaginary]
Catalog Number: 1742
John T. Hamilton
Half course (fall term). Hours to be arranged.
On the invention of Egypt as a polysemous site of origin, otherness, femininity, and esoteric knowledge. Topics: mystery cults; racial/cultural difference; hieroglyphic theories and hermeticism; national identity and imperialism; etc, in Herodotus, Plato, Roman poetry, Plutarch, Josephus, Warburton, Mozart, Schiller, Hegel, Nerval, Poe, Freud, and H.D.
Note: Expected to be given in 2005–06.

***Literature 116. Literature and Science**
Catalog Number: 6289 Enrollment: Limited to 20.
Christopher D. Johnson
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Explores how literature in various historical periods has represented and imagined the concepts, concerns, and language of science. Explores questions like: How does the function of the imagination differ in these two discourses? In what ways do literary texts informed by science serve didactic or heuristic ends? How does literature explore the cultural consequences of science? Readings include Lucretius, Chaucer, Donne, de Bergerac, Poe, Goethe, Balzac, Woolf, Musil, Calvino, Gibson. Readings will be paired with related scientific texts and critical essays.

***Literature 118. Film, Philosophy and Psychoanalysis**
Catalog Number: 0962 Enrollment: Limited to 20.
Eyal Peretz
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
The 20th century saw an unprecedented critical investigation of vision, and nowhere more so than in the art of film. This course introduces students to key theoretical texts from Heidegger to Lacan and Foucault, posing vision as a problem, and approaches film itself as a philosophical investigation of vision. We study filmmakers from Eisenstein to Kubrick, with special emphasis on two directors-—Hitchcock and De Palma—as rigorously pursuing cinema's theoretical potential.

Literature 120. Backgrounds of Literary Theory
Catalog Number: 2001
Stephen Owen
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Close reading of selected texts in the European theoretical tradition, with particular attention to the formation of issues and assumptions that informed developments in literary theory in the 20th century. Readings include works by Plato, Aristotle, "Longinus," Sidney, Kant, Schiller, F. Schlegel, Hegel, and Nietzsche.

[*Literature 122. Literature and Music]
Catalog Number: 2360 Enrollment: Limited to 20.

Sandra Naddaff
Half course (spring term). Hours to be arranged.
Explores the intersection of literary texts and genres with musical forms and themes in a number of different contexts. Topics include such issues as the adaptation of text into music; the thematization of music in narrative; the Broadway musical; and music and poetry. Works include various versions of the Orpheus myth, *The Kreuzer Sonata*, *Ulysses*, *West Side Story*, *Jazz*, *An Equal Music*, as well as various theoretical texts on aesthetics and representation.
Note: Expected to be given in 2005–06. Preference given to Literature concentrators.

***Literature 124. Space and Place in Postmodern Culture**
Catalog Number: 8228 Enrollment: Limited to 20.
Verena A. Conley
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Focuses on the renewed awareness of space in contemporary literature, film and theory. Examines the reinvention of space and the loss of place in an era of teletechnologies and globalism. Studies space and place through fiction (Augé, Perec, and others), film (Akerman, Godard, Wenders) and theory (Baudrillard, de Certeau, Deleuze, Lefebvre, Lyotard, and Virilio).

[*Literature 128. Performing Texts]
Catalog Number: 3404 Enrollment: Limited to 20.
Julie A. Buckler
Half course (fall term). Hours to be arranged.
What is the relationship between dramatic text and performed work? How do plays give rise to their audiences? Investigates dramatic texts and theatrical contexts of Pushkin, Shakespeare, Gogol, Chekhov, Ibsen, Wilde, Gorky, Blok, Mayakovsky, Shaw, Kharms, Beckett, Sartre, O'Neill, Williams, Miller, and others. Topics include contemporary updates of canonical works, cross-cultural appropriations (among them Western versus Russian productions of Chekhov), theories of drama and culture, and parallel stagings in drama, opera, and film.
Note: Expected to be given in 2005–06.

[*Literature 130. Reconfiguring the City]
Catalog Number: 1034 Enrollment: Limited to 20.
Verena A. Conley
Half course (spring term). Hours to be arranged.
Examines ways of reading and writing the city; the impact of technologies, teletechnologies and the rise of consumerism on the concept of the city and its inhabitants; transformations of the modern, postmodern and postcolonial city. Analyzes changing concepts of citizens, subjects and flâneurs; relations between cosmopolis and the global city. Studies literature (Balzac, Baudelaire, Perec, Pynchon, Calvino, Cixous, and others), film (Stanley Kwan, Eric Khoo, Patrick Keiller), and theory (Baudrillard, Benjamin, Debord, Jameson, Lefebvre, Koolhaas, and others).
Note: Expected to be given in 2005–06.

[*Literature 136. Writers and Their Medium]
Catalog Number: 5842 Enrollment: Limited to 20.
Verena A. Conley
Half course (spring term). Hours to be arranged.

Focuses on the relation between writers and the act of writing; on aesthetics and ethics, performance and representation, on the relation of writing to philosophy and psychoanalysis. Texts include Blanchot, Cixous, James, Joyce, Kafka, Kleist, Lispector, Rilke, Tsvetayeva, and others.
Note: Expected to be given in 2005–06.

[*Literature 138 (formerly Slavic 143). Russian Formalism]
Catalog Number: 0724 Enrollment: Limited to 20.
Justin Weir
Half course (spring term). Hours to be arranged.
We consider major works of the Russian Formalists in English translation. Central texts by Viktor Shklovsky, Boris Eikhenbaum, Yury Tynyanov, and Roman Jakobson are analyzed alongside stories by Gogol, Dostoevsky, Pasternak, and Eisenstein's film, "October." The last third of the course is devoted to Bakhtin's theory of the novel, Czech structuralism, and recent Formalist-influenced movements in Western literary criticism.
Note: Expected to be given in 2005–06. All readings in English.

[*Literature 140. Colonial and Post-Colonial Spaces: France and North Africa]
Catalog Number: 9366 Enrollment: Limited to 20.
Verena A. Conley
Half course (spring term). Hours to be arranged.
Focuses on transformations of colonial and postcolonial spaces in North Africa that include Morocco, Tunisia, and, especially, Algeria. Special attention will be given to notions of language, subjectivity, citizenship, nation, community, territory, and identity. We will also examine the emergence of new cultural spaces in connection with urban immigration in France and Europe. Studies literature (Begag, Boudjedra, Charef, Kateb Yacine, Khatibi, Memmi), film (Allouache, Djebar, Julien, Kassovitz), and theory (de Certeau, Fanon, Derrida, Said).
Note: Expected to be given in 2005–06.

Cross-listed Courses

[Chinese Literature 132. Chinatowns]
[Chinese Literature 150. Diaspora and Transnationalism]
Chinese Literature 228. Asian Modernities: An Introduction to Critical and Cultural Theories
[Comparative Literature 111. From Type to Self in the Middle Ages]
[Comparative Literature 112. Religion and Literature in the Middle Ages]
[Comparative Literature 135. Literature and the Visual Arts: Iconophilia and Iconoclasm]
Comparative Literature 158. Turning the Century: Culture, Technology, and Representation, 1870-1910
Comparative Literature 161. The Modernist Movements, 1909-1939
Comparative Literature 165. The Holocaust and Problems of Representation
[Comparative Literature 167. Contemporary Fiction: The Novel After Theory]
[*Comparative Literature 172 (formerly *Comparative Literature 269). Paralysis]
[Comparative Literature 174. American Babel]
***Comparative Literature 207. Theory and Methods in Comparative Oral Traditions:**

Seminar
*Comparative Literature 210. Comparative Themes in the Literatures of Medieval Spain: Seminar
[*Comparative Literature 211. Mysticism and Literature: Seminar]
[*Comparative Literature 227. Fictions of Kin and Kind in the Renaissance: Seminar]
Comparative Literature 246. Baroque and Neo-Baroque Literature
*Comparative Literature 261. Memory and Modernity: Seminar
[Comparative Literature 275. Theory of Narrative: Conference Course]
*Comparative Literature 283. Language War: Seminar
[*Comparative Literature 287r. Selected Topics in Poetics and Rhetoric: Seminar]
English 167p. Postcolonial Narratives
*English 199t. Animals That Talk
[French 132a. 20th-Century French Fiction I: The Realist Mode]
[French 132b. 20th-Century French Fiction II: The Experimental Mode]
French 137. 20th Century French Theater
[French 167. Parisian Cityscapes]
French 170. The City
[French 184. Cinema and the *auteur*]
French 263. French Society in Film and History, 1895-1950
[French 271. Legacies of Poststructuralism: An Introduction]
French 273. Globalization and French Culture
[French 279. Spatial Textures of Critical Theory]
German 142 (formerly German 242). Germany and the Greeks: Philhellenism from Winckelmann to Heidegger
[German 151. Franz Kafka: Modernity and Its Discontents]
[German 180 (formerly Comparative Literature 215). Melopoeia: On German Music and Letters]
[Latin American Studies 110. Dictatorship/Postdictatorship: Memory, Media and Market Culture]
[Slavic 142. Authorship and the Post-Revolutionary Russian Novel]
Slavic 192 (formerly Slavic 179). Literature as Institutions: Conference Course
[Studies of Women, Gender, and Sexuality 1404 (formerly Women's Studies 166). Women, Technology, and the Body]
Visual and Environmental Studies 171h. Histories of Cinema I: Moving Pictures from the 1890s to the 1930s
Visual and Environmental Studies 177 (formerly Comparative Literature 183). Film and the Human Body

Mathematics

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Mathematics

Joseph D. Harris, Higgins Professor of Mathematics *(Chair)*
Paul G. Bamberg, Senior Lecturer on Mathematics
John D. Boller, Preceptor in Mathematics
Derek Bruff, Preceptor in Mathematics
Francesco Calegari, Benjamin Peirce Assistant Professor of Mathematics
Albert Chau, Benjamin Peirce Assistant Professor of Mathematics
Tom Coates, Benjamin Peirce Assistant Professor of Mathematics
Samit Dasgupta, Benjamin Peirce Assistant Professor of Mathematics
Alberto De Sole, Benjamin Peirce Assistant Professor of Mathematics *(on leave 2004-2005)*
Elizabeth Denne, Benjamin Peirce Assistant Professor of Mathematics
Eaman Eftekhary, Benjamin Peirce Assistant Professor of Mathematics
Noam D. Elkies, Professor of Mathematics
Andrew Engelward, Preceptor in Mathematics
Daniel L. Goroff, Professor of the Practice of Mathematics *(on leave fall term)*
Robin Gottlieb, Senior Preceptor in Mathematics
Benedict H. Gross, George Vasmer Leverett Professor of Mathematics and Dean of Harvard College
David Helm, Benjamin Peirce Assistant Professor of Mathematics
Michael J. Hopkins, Visiting Professor of Mathematics *(Massachusetts Institute of Technology)*
Arthur M. Jaffe, Landon T. Clay Professor of Mathematics and Theoretical Science *(on leave spring term)*
David S. Jerison, Visiting Professor of Mathematics *(Massachusetts Institute of Technology) (spring term only)*
Thomas W. Judson, Preceptor in Mathematics
Oliver Knill, Preceptor in Mathematics
Joachim Krieger, Benjamin Peirce Assistant Professor of Mathematics
Peter B. Kronheimer, William Casper Graustein Professor of Mathematics *(on leave fall term)*
Joseph M. Landsberg, Visiting Associate Professor of Mathematics *(Georgia Institute of Technology) (fall term only)*
Matthew P. Leingang, Preceptor in Mathematics
Laura F. Matusevich, Benjamin Peirce Assistant Professor of Mathematics *(on leave 2004-05)*
Barry C. Mazur, Gerhard Gade University Professor *(on leave fall term)*
Curtis T. McMullen, Maria Moors Cabot Professor of the Natural Sciences *(on leave fall term)*
Andreea C. Nicoara, Benjamin Peirce Assistant Professor of Mathematics
Martin A. Nowak, Professor of Mathematics and of Biology, Director of the Program for Evolutionary Dynamics
Mihnea Popa, Benjamin Peirce Assistant Professor of Mathematics
Weiyang Qiu, Benjamin Peirce Assistant Professor of Mathematics
Gerald E. Sacks, Professor of Mathematical Logic
Wilfried Schmid, Dwight Parker Robinson Professor of Mathematics
Yum Tong Siu, William Elwood Byerly Professor of Mathematics
William A. Stein, Benjamin Peirce Assistant Professor of Mathematics

Shlomo Z. Sternberg, George Putnam Professor of Pure and Applied Mathematics
Clifford Taubes, William Petschek Professor of Mathematics *(Director of Undergraduate Studies)*
Richard L. Taylor, Herchel Smith Professor of Mathematics *(Director of Graduate Studies)*
Dylan P. Thurston, Benjamin Peirce Assistant Professor of Mathematics
Angela G. Vierling-Claassen, Preceptor in Mathematics
Benjamin Weinkove, Benjamin Peirce Assistant Professor of Mathematics
Shing-Tung Yau, William Casper Graustein Professor of Mathematics
Ilia Zharkov, Benjamin Peirce Assistant Professor of Mathematics *(on leave fall term)*

Other Faculty Offering Instruction in the Department of Mathematics

Peter Koellner, Assistant Professor of Philosophy

The Mathematics Department would like to welcome students into that course for which they are best qualified. Incoming students should take advantage of Harvard's Mathematics Placement Test and of the science advising available in the Science Center the week before classes begin. Members of the Mathematics Department will be available during this period to consult with students. Generally, students with a strong precalculus background and some calculus experience will begin their mathematics education here with a deeper study of calculus and related topics in courses such as Mathematics 1a, 1b, 19, 20, and 21a, b. The Harvard Mathematics Placement Test results recommend the appropriate starting level course, either Mathematics Xa, 1a, 1b, or 21. Recommendation for Mathematics 21 is sufficient qualification for Mathematics 19, 20, 21a, 23a, and 25a.

In any event, what follows briefly describes these courses: Mathematics 1a introduces the basic ideas and techniques of calculus while Mathematics 1b covers integration techniques, differential equations, sequences and series. Mathematics 21a covers multi-variable calculus while Mathematics 21b covers basic linear algebra with applications to differential equations. Students who do not place into (or beyond) Mathematics 1a can take Mathematics Xa, Xb, a two-term sequence which integrates calculus and precalculus material and prepares students to enter Mathematics 1b.

There are a number of options available for students whose placement is to Mathematics 21. For example, Mathematics 19 can be taken either before or after Mathematics 21 (or Mathematics 20). Mathematics 19 covers modeling and differential equation topics for students interested in biological and other life science applications. Mathematics 20 covers selected topics from Mathematics 21a and 21b for students particularly interested in economic and social science applications.

Mathematics 23 is a theoretical version of Mathematics 21 which treats multivariable calculus and linear algebra in a rigorous, proof oriented way. Mathematics 25 and 55 are theory courses that should be elected only by those students who have a particular interest in, and commitment to, mathematics. They assume a solid understanding of one-variable calculus and a willingness to think rigorously and abstractly about mathematics, and to work extremely hard. Both courses study multivariable calculus and linear algebra plus many very deep related topics. Mathematics

25 differs from Mathematics 23 in that the work load in Mathematics 25 is significantly more than in Mathematics 23, but then Mathematics 25 covers more material. Mathematics 55 differs from Mathematics 25 in that the former assumes a very strong proof oriented mathematics background.

The suitability of Mathematics 55 and higher numbered courses is not addressed by the placement examinations. Students who have had substantial preparation beyond the level of the Advanced Placement Examinations are urged to consult the Department Head Tutor in Mathematics concerning their initial Harvard mathematics courses. Students should take this matter very seriously. The Mathematics Department has also prepared a pamphlet with a detailed description of all its 100-level courses and their relationship to each other. This pamphlet gives sample lists of courses suitable for students with various interests. It is available at the Mathematics Department Office. Many 100-level courses assume some familiarity with proofs. Courses that fulfill this prerequisite include Mathematics 23, 25, 55, 101, 112, 121, and 141. Of these, note that Mathematics 101 may be taken concurrently with Mathematics 1, 19, 20, or 21.

The Mathematics Department does not grant formal degree credit without *prior* approval for taking a course that is listed as a prerequisite of one you have already taken. Our policy is that a student who takes and passes any calculus course is not normally permitted to then take a more elementary course for credit. A student who has passed Mathematics 21a, for example, will normally not be allowed to take Mathematics 1a, or 1b for credit. The Mathematics Department is prepared to make exceptions for sufficient academic reasons; in each case, however, a student must obtain written permission from the Mathematics Head Tutor in advance.

In the case of students accepting admission as sophomores, this policy is administered as follows: students counting one half course of advanced standing credit in mathematics are deemed to have passed Mathematics 1a, and students counting a full course of advanced standing credit in mathematics are deemed to have passed Mathematics 1a and 1b.

Primarily for Undergraduates

Mathematics Xa. Introduction to Functions and Calculus I
Catalog Number: 1981 Enrollment: Normally limited to 15 students per section.
Thomas W. Judson, Angela G. Vierling-Claassen, Benjamin Weinkove and members of the Department
Half course (fall term). Section meeting times: Section I: M., W., F., at 10; Section II: M., W., F., at 11; Section III: M. W. F., at 12 (with sufficient enrollment). EXAM GROUP: 1
The study of functions and their rates of change. Fundamental ideas of calculus are introduced early and used to provide a framework for the study of mathematical modeling involving algebraic, exponential, and logarithmic functions. Thorough understanding of differential calculus promoted by year long reinforcement. Applications to biology and economics emphasized according to the interests of our students.
Note: Required first meeting: Monday, September 20, 8:30 am, Science Center D. The sequence Xa, Xb gives solid preparation for Mathematics 1b. This course, when taken for a letter grade together with Mathematics Xb, meets the Core area requirement for Quantitative Reasoning.

Mathematics Xb. Introduction to Functions and Calculus II
Catalog Number: 3857 Enrollment: Normally limited to 15 students per section.
Angela Vierling, Benjamin Weinkove, Thomas W. Judson, and members of the Department.
Half course (spring term). Section I: M., W., F., at 10; Section II: M. W., F., at 11; Section III: M., W., F., at 12 (with sufficient enrollment); and a twice weekly lab session to be arranged.
EXAM GROUP: 1
Continued investigation of functions and differential calculus through modeling; an introduction to integration with applications; an introduction to differential equations. Solid preparation for Mathematics 1b.
Note: This course, when taken for a letter grade together with Mathematics Xa, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: Mathematics Xa.

Mathematics 1a. Introduction to Calculus
Catalog Number: 8434 Enrollment: Normally limited to 30 students per section.
Matthew P. Leingang and Derek Bruff (fall term), Matthew P. Leingang (spring term)
Half course (fall term; repeated spring term). Fall: Section I, M., W., F., at 9 (with sufficient enrollment); Section II, M., W., F., at 10; Section III, M., W., F., at 11; Section IV, M., W., F., at 12; Section V, Tu., Th., 10–11:30; Section Vl, Tu., Th., 11:30–1. Spring: Section I, M., W., F., at 10; Section II, Tu.Th. 10-11:30 (with sufficient enrollment) and a weekly problem section to be arranged. EXAM GROUP: 1
The development of calculus by Newton and Leibniz ranks among the greatest achievements of the past millennium. This course will help you see why by introducing: how differential calculus treats rates of change; how integral calculus treats accumulation; and how the fundamental theorem of calculus links the two. These ideas will be applied to optimization, graphing, mechanisms, and problems from many other disciplines.
Note: Required first meeting in fall: Tuesday, September 21, 8:30 am, Science Center D. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: A solid background in precalculus.

Mathematics 1b. Calculus, Series, and Differential Equations
Catalog Number: 1804 Enrollment: Normally limited to 30 students per section.
Robin Gottlieb, Albert Chau, and Weiyang Qiu (fall term), Robin Gottlieb, Matthew P. Leingang, and Andreea C. Nicoara (spring term)
Half course (fall term; repeated spring term). Section I, M., W., F., at 9 (with sufficient enrollment); Section II, M., W., F., at 10; Section III, M., W., F., at 11; Section IV, M., W., F., at 12 (with sufficient enrollment); Section V: Tu., Th., 10–11:30; Section Vl, Tu., Th., 11:30–1, and a weekly problem section to be arranged. Required exams: Hours to be arranged. EXAM GROUP: 1
Speaking the language of modern mathematics requires fluency with the topics of this course: infinite series, integration, and differential equations. Model practical situations using integrals and differential equations. Learn how to represent interesting functions using series and find qualitative, numerical, and analytic ways of studying differential equations. Develop both conceptual understanding and the ability to apply it.
Note: Required first meeting in fall: Monday, September 20, 8:30 am, Science Center C.

Required first meeting in spring: Wednesday, February 2, 8:30 am, Science Center D. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: Mathematics 1a, or Xa and Xb, or equivalent.

Mathematics 19. Mathematical Modeling
Catalog Number: 1256
Thomas W. Judson
Half course (fall term). M., W., F., at 1, and a weekly problem section to be arranged. EXAM GROUP: 6
Considers the construction and analysis of mathematical models that arise in the environmental sciences, biology, the ecological sciences, and in earth and atmospheric sciences. Introduces mathematics that include multivariable calculus, differential equations in one or more variables, vectors, matrices, and linear and non-linear dynamical systems. Taught via examples from current literature (both good and bad).
Note: Can be taken with or without Mathematics 21a,b. Students with interests in the social sciences and economics might consider Mathematics 20. This course can be taken before or after Mathematics 20. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.

Mathematics 20. Introduction to Linear Algebra and Multivariable Calculus
Catalog Number: 0906
Matthew P. Leingang (fall term) and Derek Bruff (spring term)
Half course (fall term; repeated spring term). Fall: M., W., F., at 9, Spring: M., W., F., at 9, and a weekly problem section to be arranged. EXAM GROUP: 2
Introduction to linear algebra, including vectors, matrices, and applications. Calculus of functions of several variables, including partial derivatives, constrained and unconstrained optimization, and applications. Covers the topics from Mathematics 21a,b which are most important in applications to economics, the social sciences, and some other fields.
Note: Should not ordinarily be taken in addition to Mathematics 21a,b. Examples drawn primarily from economics and the social sciences though Mathematics 20 may be useful to students in certain natural sciences. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: Mathematics 1b or equivalent, or an A or A- in Mathematics 1a, or a 5 on the AB or a 3 or higher on the BC Advanced Placement Examinations in Mathematics.

Mathematics 21a. Multivariable Calculus
Catalog Number: 6760 Enrollment: Normally limited to 30 students per section.
Andrew Engelward, Elizabeth Denne, and Eaman Eftekhary (fall term), Andrew Engelward, Eaman Eftekhary, and Joachim Krieger (spring term)
Half course (fall term; repeated spring term). Fall: Section I, M., W., F., at 9 (with sufficient enrollment); Section II, M., W., F., at 10; Section III, M., W., F., at 11; Section IV, M., W., F., at 12; Section V, Tu., Th., 10–11:30; Section VI, Tu., Th., 11:30–1; and a weekly problem section to be arranged. Required exams: Hours to be arranged. EXAM GROUP: 1
To see how calculus applies in practical situations described by more than one variable, we study: Vectors, lines, planes, parameterization of curves and surfaces, partial derivatives,

directional derivatives, and the gradient, optimization and critical point analysis, including constrained optimization and the Method of Lagrange Multipliers, integration over curves, surfaces, and solid regions using Cartesian, polar, cylindrical, and spherical coordinates, divergence and curl of vector fields, and the Green's, Stokes', and Divergence Theorems.
Note: Required first meeting in fall: Tuesday, September 21, 8:30 am, Science Center C. Required first meeting in the spring: Wednesday, February 2, 8:30 am, Science Center C. May not be taken for credit by students who have passed Applied Mathematics 21a. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning. Activities using computers to calculate and visualize applications of these ideas will not require previous programming experience. Special sections for students interested in physics or biochemistry and social sciences are offered each term. The biochemistry/social sciences sections treat topics in probability and statistics in lieu of Green's, Stokes' and the Divergence Theorems.
Prerequisite: Mathematics 1b or equivalent.

Mathematics 21b. Linear Algebra and Differential Equations
Catalog Number: 1771 Enrollment: Normally limited to 30 students per section.
Oliver Knill (fall term), Clifford Taubes, Elizabeth Denne, and Ilia Zharkov (spring term)
Half course (fall term; repeated spring term). Fall: Section I: M., W., F., at 10; Section II: M., W., F., at 11; Spring: Section I: M., W., F., at 10; Section II: M., W., F., at 11; Section III: M., W., F., at 12 (with sufficient enrollment); Section IV: Tu., Th., 10–11:30; Section V: Tu., Th., 11:30–1 and a weekly problem section to be arranged. EXAM GROUP: 1
Matrices provide the algebraic structure for solving myriad problems across the sciences. We study matrices and related topics such as vectors, Euclidean spaces, linear transformations, determinants, eigenvalues, and eigenvectors. Of applications given, a regular section considers dynamical systems and both ordinary and partial differential equations. Accompanying an introduction to statistical techniques, applications from biology and other data-rich sciences are presented in a biology and statistics section.
Note: Required first meeting in fall: Monday, September 20, 8:30 am, Science Center A. Required first meeting in spring: Wednesday, February 2, 8:30 am, Science Center A. May not be taken for credit by students who have passed Applied Mathematics 21b. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: Mathematics lb or equivalent. Mathematics 21a is commonly taken before Mathematics 21b, but is not a prerequisite, although familiarity with partial derivatives is useful.

Mathematics 23a. Theoretical Linear Algebra and Multivariable Calculus I
Catalog Number: 2486
John D. Boller
Half course (fall term). M., W., F., at 11, and an hour conference section to be arranged. EXAM GROUP: 4
A rigorous treatment of linear algebra and the calculus of functions of n real variables. Topics include: Construction of number systems, fields; vector spaces and linear transformations, eigenvalues and eigenvectors, multilinear forms, and determinants; elementary topology of Euclidean space, inner products, and norms; differentiation and integration of functions of several real variables, the classical theorems of vector analysis.
Note: Mathematics 23a, b are honors courses, specifically designed for students with strong

mathematics backgrounds who are seriously interested in continuing in the theoretical sciences. See the description in the introductory paragraphs in the Mathematics section of the catalog. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: Mathematics 1b or a grade of 4 or 5 on the Calculus BC Advanced Placement Examination. Mathematics 23 goes well beyond the concepts strictly necessary for Physics 15, which are more closely correlated with Mathematics 21.

Mathematics 23b. Theoretical Linear Algebra and Multivariable Calculus II
Catalog Number: 8571
John D. Boller
Half course (spring term). M., W., F., at 11, and a one-hour conference section to be arranged.
EXAM GROUP: 4
Continuation of the subject matter of Mathematics 23a.
Note: This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: Mathematics 23a.

Mathematics 25a. Honors Multivariable Calculus and Linear Algebra
Catalog Number: 1525
Tom Coates
Half course (fall term). M., W., F., at 10. EXAM GROUP: 3
A rigorous treatment of linear algebra, point-set and metric topology, and the calculus of functions in n variables. Emphasis placed on careful reasoning, and on learning to understand and construct proofs.
Note: Only for students with a strong interest and background in mathematics. May not be taken for credit after Mathematics 23. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: A 5 on the Advanced Placement BC-Calculus Examination, or the equivalent as determined by the instructor.

Mathematics 25b. Honors Multivariable Calculus and Linear Algebra
Catalog Number: 1590
Tom Coates
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
A continuation of Mathematics 25a. More advanced topics, such as Fourier analysis, differential forms, and differential geometry, will be introduced as time permits.
Note: This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: Mathematics 25a or permission of instructor.

***Mathematics 55a. Honors Advanced Calculus and Linear Algebra**
Catalog Number: 4068
Wilfried Schmid
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A rigorous treatment of metric and general topology, linear and multi-linear algebra, differential

and integral calculus.
Note: Mathematics 55a is an intense course for students having significant experience with abstract mathematics. Instructor's permission required. Every effort will be made to accommodate students uncertain of whether the course is appropriate for them; in particular, Mathematics 55a and 25a will be closely coordinated for the first three weeks of instruction. Students can switch between the two courses during the first three weeks without penalty. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.

Mathematics 55b. Honors Advanced Calculus and Linear Algebra
Catalog Number: 3312
Wilfried Schmid
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Continuation of Mathematics 55a. Calculus of functions in n variables. Additional topics may include normed linear spaces, differential equations, and Fourier analysis.
Note: This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: Mathematics 55a or permission of instructor.

***Mathematics 60r. Reading Course for Senior Honors Candidates**
Catalog Number: 8500
Clifford Taubes
Half course (fall term; repeated spring term). Hours to be arranged.
Advanced reading in topics not covered in courses.
Note: Limited to candidates for honors in Mathematics who obtain the permission of both the faculty member under whom they want to work and the Director of Undergraduate Studies. May not count for concentration in Mathematics without special permission from the Director of Undergraduate Studies. Graded Sat/Unsat only.

***Mathematics 91r. Supervised Reading and Research**
Catalog Number: 2165
Clifford Taubes
Half course (fall term; repeated spring term). Hours to be arranged.
Programs of directed study supervised by a person approved by the Department.
Note: May not ordinarily count for concentration in Mathematics.

***Mathematics 99r. Tutorial**
Catalog Number: 6024
Clifford Taubes and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Topics for 2004-2005: (1) Additive Number Theory (fall), prerequisite: algebra (Math 122), some real analysis as in Math 112 or Math 23, 25, or 55) would be useful as well. (2) Algebraic Surfaces and Complex Manifolds of Higher Dimension (fall), prerequisites: complex analysis (Math 113) and knowledge of manifolds (such as Math 134 or Math 135). (3) Sheaves in Logic and Geometry (spring), prerequisites: topology (Math 131) and knowledge of manifolds (such as in Math 134 or Math 135). (4) Complex Multiplication (spring), prerequisites: complex analysis

(Math 113) and algebraic number theory (such as in Math 123).
Note: May be repeated for course credit with permission from the Director of Undergraduate Studies. Only one tutorial may count for concentration credit. Students must register their interest in taking a tutorial with the Assistant Director of Undergraduate Studies by the second day of the term in which the tutorial is offered.

For Undergraduates and Graduates

See also Applied Mathematics and Statistics.

Mathematics 101. Sets, Groups and Topology
Catalog Number: 8066
Andrew Engelward
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
An introduction to rigorous mathematics, axioms, and proofs, via topics such as set theory, symmetry groups, and low-dimensional topology.
Note: Acquaintance with algebra, geometry and/or calculus is desirable. Students who have already taken Mathematics 25a,b or 55a,b should not take this course for credit.
Prerequisite: An interest in mathematical reasoning.

Mathematics 106. Ordinary Differential Equations
Catalog Number: 3377
Thomas W. Judson
Half course (spring term). M., W., F., at 1. EXAM GROUP: 6
Analytic, numerical, and qualitative analysis of ordinary differential equations. Linear equations, linear and non-linear systems. Applications to mechanics, biology, physics, and the social sciences. Existence and uniqueness of solutions and visual analysis using computer graphics. Topics selected from Laplace transforms, power series solutions, chaos, and numerical solutions.
Prerequisite: Mathematics 19, 20 or 21a.

Mathematics 112. Real Analysis
Catalog Number: 1123
Weiyang Qiu
Half course (spring term). M., W., F., at 1. EXAM GROUP: 6
An introduction to mathematical analysis and the theory behind calculus. An emphasis on learning to understand and construct proofs. Covers limits and continuity in metric spaces, uniform convergence and spaces of functions, the Riemann integral, sets of measure zero and conditions for integrability.
Prerequisite: Mathematics 21a,b or 23a,b, and either an ability to write proofs or concurrent enrollment in Mathematics 101. Should not ordinarily be taken in addition to Mathematics 25a,b or 55a,b.

Mathematics 113. Complex Analysis
Catalog Number: 0405
Mihnea Popa
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
Analytic functions of one complex variable: power series expansions, contour integrals,

Cauchy's theorem, Laurent series and the residue theorem. Some applications to real analysis, including the evaluation of indefinite integrals. An introduction to some special functions.
Prerequisite: Mathematics 23a,b, 25a,b, or 101. Students with an A grade in Mathematics 21a,b may also consider taking this course, but must understand proofs.

Mathematics 115. Methods of Analysis and Applications
Catalog Number: 1871
Joachim Krieger
Half course (fall term). M., W., F., at 1. EXAM GROUP: 6
Some complex function theory; Fourier analysis; Hilbert spaces and operators; Laplace's equations; Bessel and Legendre functions; symmetries; and Sturm-Liouville theory.
Note: Mathematics 115 is especially for students interested in physics.
Prerequisite: Mathematics 21a,b, 23a,b, or 25a,b, and permission of instructor.

Mathematics 116. Convexity and Optimization with Applications
Catalog Number: 5253
Daniel L. Goroff
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Introduction to real and functional analysis through topics such as convex programming, duality theory, linear and non-linear programming, calculus of variations, and the maximum principle of optimal control theory.
Prerequisite: At least one course beyond Mathematics 21

Mathematics 118r. Dynamical Systems
Catalog Number: 6402
Oliver Knill
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
A mathematical introduction to nonlinear dynamical system theory and its applications. Topics include concepts on the iteration of maps and the integration of flows, bifurcation theory, the role of equilibrium points, invariant manifolds, and attractors. Applications include examples from celestial mechanics, geometry or statistical mechanics or number theory. Computer demonstrations in class are used to visualize and understand the concepts and will encourage experimentation.
Prerequisite: Multi-variable calculus as well as linear algebra.

[Mathematics 119. Partial Differential Equations and Applications]
Catalog Number: 7326

Half course (spring term). Hours to be arranged.
Partial differential equations with constant coefficients, hyperbolic elliptic, and parabolic equations, Fourier analysis, Green's function.
Note: Expected to be given in 2005–06.
Prerequisite: Familiarity with functions of a complex variable.

Mathematics 121. Linear Algebra and Applications
Catalog Number: 7009

Mihnea Popa
Half course (fall term). M., W., F., at 12. EXAM GROUP: 5
Real and complex vector spaces, dual spaces, linear transformations and Jordan normal forms. Inner product spaces. Applications to differential equations, classical mechanics, and optimization theory. Emphasizes learning to understand and write proofs.
Prerequisite: Mathematics 21a,b or equivalent. Should not ordinarily be taken in addition to Mathematics 23a,b, 25a,b, or 55a,b.

Mathematics 122. Abstract Algebra I: Theory of Groups and Vector Spaces
Catalog Number: 7855
Benedict H. Gross
Half course (fall term). M., W., F., at 10. EXAM GROUP: 3
Algebra is the language of modern mathematics. Provides an introduction to this language, through the study of groups and group actions, vector spaces and their linear transformations, and some general theory of rings and fields.
Prerequisite: Mathematics 21b, or the equivalent training in matrices and linear algebra.

Mathematics 123. Abstract Algebra II: Theory of Rings and Fields
Catalog Number: 5613
Benedict H. Gross
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
Bilinear forms and group representations. Field extensions and the basic theorems of Galois theory. Structure theorems for modules.
Prerequisite: Mathematics 122.

Mathematics 124. Number Theory
Catalog Number: 2398
Samit Dasgupta
Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Factorization and the primes; congruences; quadratic residues and reciprocity; continued fractions and approximations; Pell's equation; selected Diophantine equations; theory of integral quadratic forms.
Prerequisite: Mathematics 122 (which may be taken concurrently) or equivalent.

[Mathematics 126. Representation Theory and Applications]
Catalog Number: 0369

Half course (fall term). Hours to be arranged.
Representation theory of finite groups including character theory, induced representations, Frobenius reciprocity, and interesting applications.
Note: Expected to be given in 2005–06.

Mathematics 128. Lie Algebras
Catalog Number: 6519
Shing-Tung Yau
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4

Definition of Lie algebras, examples, Poincare-Birkhoff-Witt theorem, Levy decomposition. Semi-simple algebras, their classification and finite-dimensional representations, Verma modules, and Weyl character formula.

Mathematics 129. Topics in Number Theory
Catalog Number: 2345
William A. Stein
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Algebraic number theory: number fields, unique factorization of ideals, finiteness of class group, structure of unit group, Frobenius elements, local fields, ramification, weak approximation, adeles, and an integrated discussion of how to compute.
Prerequisite: Mathematics 122 and 123.

Mathematics 131. Topology
Catalog Number: 2381
Andreea C. Nicoara
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Basic notions of point set topology such as continuity, compactness, metrizability. Algebraic topology including fundamental groups, covering spaces, and higher homotopy groups.
Prerequisite: Some acquaintance with metric space topology (Mathematics 25a,b, 55a,b, 101, or 112) and with groups (Mathematics 101 or 122).

Mathematics 134. Calculus on Manifolds
Catalog Number: 7150
Elizabeth Denne
Half course (fall term). M., W., F., at 12. EXAM GROUP: 5
Generalization of multivariable calculus to the setting of manifolds in real n-space, as used in the study of global analysis and geometry. Differentiable mappings of linear spaces, the inverse and implicit function theorems, differential forms, integration on manifolds, the general version of Stokes's theorem, integral geometry, applications.
Prerequisite: Mathematics 21a,b and familiarity with proofs as in Mathematics 101, 112, 121, or the equivalent.

Mathematics 135. Differential Topology
Catalog Number: 2107
Eaman Eftekhary
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Smooth manifolds, intersection theory, vector fields, Hopf degree theorem, Euler characteristic, De Rham theory.
Prerequisite: Mathematics 23a,b, 25a,b, 55a,b, or 134.

Mathematics 136. Differential Geometry
Catalog Number: 1949
Weiyang Qiu
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Curves and surfaces in 3-space, Gaussian curvature and its intrinsic meaning, Gauss-Bonnet

theorem, surfaces of constant curvature.
Prerequisite: Mathematics 21a,b and familiarity with proofs as in Mathematics 101, 112, 121, or equivalent.

Mathematics 137. Algebraic Geometry
Catalog Number: 0556
David Helm
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
Affine and projective spaces, plane curves, Bezout's theorem, singularities and genus of a plane curve, Riemann-Roch theorem.
Prerequisite: Mathematics 122, 123.

Mathematics 138. Classical Geometry
Catalog Number: 0162
Paul G. Bamberg
Half course (spring term). M., W., 4–5:30. EXAM GROUP: 9
An exploration of the many different flavors of plane geometry. The course begins with finite geometry, then surveys the nine possible Cayley-Klein plane geometries, focusing on Euclidean geometry, the Galilean geometry of uniform motion, spherical and elliptic geometry, and geometries related to relativistic physics such as Minkowskian geometry and hyperbolic geometry. An important tool in the study of these geometries is a study of their symmetry groups.
Prerequisite: Mathematics 21a and 21b (may be taken concurrently), or Mathematics 23a, 25a, or 55a.

[Mathematics 141. Introduction to Mathematical Logic]
Catalog Number: 0600
Gerald E. Sacks
Half course (fall term). Hours to be arranged.
An introduction to mathematical logic with applications to computer science and algebra. Formal languages. Completeness and compactness of first order logic. Definability and interpolation. Decidability. Unsolvable problems. Computable functions and Turing machines. Recursively enumerable sets. Transfinite induction.
Note: Expected to be given in 2005–06.
Prerequisite: Any mathematics course at the level of Mathematics 21a,b or higher, or permission of instructor.

[Mathematics 143. Set Theory]
Catalog Number: 6005
Gerald E. Sacks
Half course (spring term). Hours to be arranged.
Axioms of set theory. Gödel's constructible universe. Consistency of the axiom of choice and of the generalized continuum hypothesis. Cohen's forcing method. Independence of the AC and GCH.
Note: Expected to be given in 2005–06.
Prerequisite: Any mathematics course at the level of 21a or higher, or permission of instructor.

Mathematics 144. Model Theory and Algebra
Catalog Number: 0690
Gerald E. Sacks
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An introduction to model theory with applications to fields and groups. First order languages, structures, and definable sets. Compactness, completeness, and back-and-forth constructions. Quantifier elimination for algebraically closed, differentially closed, and real closed fields. Omitting types, prime extensions, existence and uniqueness of the differential closure, saturation, and homogeneity. Forking, independence, and rank.
Prerequisite: Mathematics 123 or the equivalent is suggested as a prerequisite, but not required.

Mathematics 152 (formerly Mathematics 102). Methods of Discrete Mathematics
Catalog Number: 8389
Paul G. Bamberg
Half course (fall term). Tu., Th., 1–2:30 or Tu., Th., 2:30–4. EXAM GROUP: 15, 16
An introduction to finite groups, finite fields, finite geometry, discrete probability, and graph theory. A unifying theme of the course is the symmetry group of the regular icosahedron, whose elements can be realized as permutations, as linear transformations of vector spaces over finite fields, as collineations of a finite plane, or as vertices of a graph. Taught in a seminar format, and students will gain experience in presenting proofs at the blackboard.
Note: Students who have taken Mathematics 25ab or 55ab should not take this course for credit.
Prerequisite: Mathematics 21b or equivalent.

Mathematics 153. Mathematical Biology-Evolutionary Dynamics
Catalog Number: 3004 Enrollment: Limited to 30. Limited to seniors and graduate students.
Martin A. Nowak
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Introduces basic concepts of mathematical biology and evolutionary dynamics: evolution of genomes, quasi-species, finite and infinite population dynamics, chaos, game dynamics, evolution of cooperation and language, spatial models, evolutionary graph theory, infection dynamics, somatic evolution of cancer.
Prerequisite: Mathematics 21a and b, Biological Sciences 50 and 53 or equivalent.

Mathematics 191. Mathematical Probability
Catalog Number: 4306
Paul G. Bamberg
Half course (fall term). Tu., Th., 4–5:30. EXAM GROUP: 18
An introduction to probability theory. Discrete and continuous random variables; distribution and density functions for one and two random variables; conditional probability. Generating functions, weak and strong laws of large numbers, and the central limit theorem. Geometrical probability. Elements of random processes: the Poisson process, random walks, and Markov chains.
Prerequisite: Any mathematics course at the level of Mathematics 19, or 21a, b or higher, or knowledge of multivariable calculus as demonstrated on the online placement test.

[Mathematics 192r. Algebraic Combinatorics]
Catalog Number: 6612

Half course (fall term). Hours to be arranged.
This course will enable students to be able to conduct original research in low-dimensional combinatorics. Methods taught include recurrence relations (linear and non-linear), transfer matrices, and generating functions; topics include frieze patterns, number walls and tilings.There is an emphasis on discovery and the use of computers.
Note: Expected to be given in 2005–06. No prior knowledge of combinatorics is assumed, but familiarity with linear algebra will be helpful.

Cross-listed Courses

Applied Mathematics 105a. Complex and Fourier Analysis
Applied Mathematics 105b. Ordinary and Partial Differential Equations
Applied Mathematics 107. Graph Theory and Combinatorics
***Freshman Seminar 21u. Calculating Pi**
***Freshman Seminar 23j. Chess and Mathematics**
***Freshman Seminar 24g. Fermat's Last Theorem**
Philosophy 143y. Logic and the Foundations of Mathematics

Primarily for Graduates

Mathematics 206. Lie Groups and Lie Algebras
Catalog Number: 8330
Wilfried Schmid
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Review of the basic results on Lie groups and Lie algebras, structure of compact Lie groups, finite dimensional representations, Borel-Weil-Bott theorem.

Mathematics 212a. Functions of a Real Variable
Catalog Number: 5446
Shlomo Z. Sternberg
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
A review of measure and integration. Hilbert and Banach spaces, L^ p spaces, and the Riesz representation theorem.
Prerequisite: Experience with courses involving rigorous proofs: e.g. Mathematics 25a, b, 121, 122.

Mathematics 212b. Functions of a Real Variable
Catalog Number: 7294
Shlomo Z. Sternberg
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Continuation of Mathematics 212a. Banach and Hilbert spaces. Self adjoint, normal operators and their functional calculus. Spectral theory. Integral and compact operators. Wavelets and

other applications.
Prerequisite: Mathematics 212a.

Mathematics 213a. Functions of One Complex Variable
Catalog Number: 1621
Yum Tong Siu
Half course (fall term). M., W., F., at 12. EXAM GROUP: 5
Fundamentals of complex analysis, and further topics such as elliptic functions, theta functions, Riemann surfaces, uniformization theorem, the theorem of Riemann-Roch, and Abel's theorem.
Prerequisite: Basic complex analysis or ability to learn quickly.

Mathematics 213b. Further Topics in Classical Complex Analysis
Catalog Number: 2641
Yum Tong Siu
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
Introduction to several complex variables, pseudoconvexity, domains of holomorphy, the d bar problem, sheaves and cohomology, Kaehler manifolds, Hodge decomposition, Kodaira's vanishing and embedding theorems, abelian varieties, theta functions of several variables.
Prerequisite: Mathematics 213a and previous or concurrent enrollment in 212a and b preferred.

Mathematics 215. Transcendental Methods in Algebraic Geometry
Catalog Number: 2363
Yum Tong Siu
Half course (fall term). M., W., F., at 2. EXAM GROUP: 7
Applications of L2 d-bar estimates and multiplier ideal sheaf techniques to problems in algebraic geometry such as the effective Nullstellensatz, the Fujita conjecture on the effective global generation, and very ampleness of line bundles, the effective Matsusaka big theorem, the invariance of plurigenera.

Mathematics 230ar. Differential Geometry
Catalog Number: 0372
Benjamin Weinkove
Half course (fall term). M., W., F., at 1. EXAM GROUP: 6
Riemannian manifolds, geodesics, and curvature. Kähler geometry. A discussion of the heat equation and the Kahler-Ricci flow.
Prerequisite: Math 131 and familiarity with smooth manifolds.

Mathematics 230br. Differential Geometry
Catalog Number: 0504
Peter B. Kronheimer
Half course (spring term). M., W., F., at 1. EXAM GROUP: 6
A continuation of Mathematics 230ar. Topics in Riemannian geometry, Kähler geometry, Hodge theory, and Yang-Mills theory.
Prerequisite: Differential Topology.

Mathematics 232. Harnack Inequalities in Analysis and Geometry
Catalog Number: 0620
David S. Jerison (Massachusetts Institute of Technology)
Half course (spring term). M., W., F., at 2. EXAM GROUP: 7
Moser's version of the Harnack inequality of De Giorgi and Nash, leading to regularity of minimal surfaces. Inequalities of Li-Yau, Hamilton, and Perelman leading to a proof of the Poincaré hypothesis, insofar as it has been checked.

Mathematics 234. Evolutionary Dynamics
Catalog Number: 8136
Martin A. Nowak
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Advanced topics of evolutionary dynamics. Seminars and research projects.
Prerequisite: Experience with mathematical biology at the level of Mathematics 153.

Mathematics 237. Analysis, Geometry, and Algebraic Geometry Related to Calabi-Yau Manifolds
Catalog Number: 8335
Shing-Tung Yau
Half course (spring term). M., W., F., at 1. EXAM GROUP: 6
A study of the material on how to solve the equations to construct Ricciflat metrics and the basic properties of such manifolds that have interest for string theory and other topics.

Mathematics 242. Set Theory: Large Cardinals from Determinacy
Catalog Number: 9033
Peter Koellner
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
A course on the strength of the axiom of determinacy. First we prove a classic result of Woodin: 'ZF + AD' is consistent, then 'ZFC + there are (omega)-many Woodin cardinals' is consistent. Second goal: to discuss recent work of Woodin in this area, in particular, the HOD-analysis, a key ingredient in his results on CH.

Mathematics 250. Higher Algebra
Catalog Number: 9334
Noam D. Elkies
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
An introduction to Galois theory, Brauer groups (which describe the structure of central simple algebras over a given field) and linear representations of finite groups, and some applications of these structures in various mathematical disciplines.
Prerequisite: Mathematics 123 or equivalent.

Mathematics 251a. Algebraic Number Theory
Catalog Number: 1703
Richard L. Taylor
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
A graduate introduction to algebraic number theory. Topics: local fields, Galois cohomology,

local class field theory, and local duality.
Prerequisite: Mathematics 123 or 250 and permission of instructor.

Mathematics 251b. Algebraic Number Theory
Catalog Number: 7441
Richard L. Taylor
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Continuation of Mathematics 251a. Topics: global fields, adeles, class field theory, and duality. Other topics may include: Tate's thesis, cyclotomic fields, or Euler systems.
Prerequisite: Mathematics 251a or permission of instructor.

Mathematics 255x. The Eisenstein Ideal
Catalog Number: 7016
Francesco Calegari
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
The course is built around Mazur's paper, "Modular curves and the Eisenstein ideal." Topics: finite group schemes, and Mazur's classification of torsion subgroups of elliptic curves over Q.

Mathematics 257. The Arithmetic of Abelian Varieties: Classical and Computational Results
Catalog Number: 4304
William A. Stein
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Quick review of abelian varieties, statement of the conjecture over global fields, Tate's theorem about isogeny invariance, Milne's theorem about restriction of scalars, Cassels-Tate pairing on Sha and squareness properties, computations with the conjecture.

Mathematics 258. Explicit Constructions of Rational Points on Eliptical Curves
Catalog Number: 4297
Samit Dasgupta
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
A discussion of Hegner points, the Shimura Reciprocity Law, the Gross-Zagier Formula, and Kolyvagin's Theorem. Additional topics may include mock Heegner points, complez multiplication points on Shimura curves, and Darmon's construction of Stark-Heegner points.

Mathematics 260a. Introduction to Algebraic Geometry
Catalog Number: 7004
Joseph D. Harris
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Classical theory of projective varieties, covering concepts like dimension, degree, smoothness and singularity, tangent spaces and tangent cones, parameter spaces and moduliar spaces. Emphasis will be on examples and problems.
Prerequisite: Mathematics 250.

Mathematics 260b. Introduction to Algebraic Geometry
Catalog Number: 2745

Joseph D. Harris
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Continuation of 260a: Introduction to the theory of coherent sheaves, schemes, and sheaf cohomology, with examples and applications.

Mathematics 263y. Projective Geometry and Representation Theory
Catalog Number: 2593
Joseph Landsberg (Georgia Institute of Technology)
Half course (fall term). M., W., F., at 1. EXAM GROUP: 6
Classical questions about the geometry of subvarieties of projective space, a study of the geometry of rational homogeneous varieties, and the conjectures of Deligne and Vogel regarding categorical generalizations of Lie algebras. Emphasis on how these perspectives can be useful to work on open questions in related areas.
Prerequisite: Mathematics 260a or the equivalent.

Mathematics 268y. Asymptotic Methods in Higher Dimensional Geometry
Catalog Number: 3896
Mihnea Popa
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
Recent developments in higher dimensional algebraic geometry based on Mori theory, asymptotic multiplier ideals, volumes of divisors, and other asymptotic invariants; a study of cones of divisors and curves on projective varieties.

Mathematics 272a. Introduction to Algebraic Topology
Catalog Number: 1666
Dylan P. Thurston
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Covering spaces and fibrations. Simplicial and CW complexes. Homology and cohomology, universal coefficients and Künneth formulas. Hurewicz theorem. Manifolds and Poincaré duality.
Prerequisite: Mathematics 131 or permission of instructor.

Mathematics 272b. Introduction to Algebraic Topology
Catalog Number: 6502
Michael J. Hopkins (Massachusetts Institute of Technology)
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
Spectral sequences and techniques of computation. Vector bundles and characteristic classes. Bott periodicity. K-theory, cobordism and stable cohomotopy as examples of cohomology theories.
Prerequisite: Mathematics 272a.

Mathematics 274r. Topics in Geometric Topology
Catalog Number: 0163
Dylan P. Thurston
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Geometry, topology and algebra in dimensions 2 and 3, including the Geometrization Conjecture

(every 3-manifold can be split canonically into geometric pieces) and the loop and sphere theorems.

Mathematics 275y. Teichmüller Theory
Catalog Number: 8541
Curtis T. McMullen
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Topics in the complex analytic theory of the moduli space of Riemann surfaces, and its relations to topology, hyperbolic geometry, and dynamics.

Mathematics 276. Motivic Homotopy Theory
Catalog Number: 2739
Michael J. Hopkins (Massachusetts Institute of Technology)
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Study of the Morel-Voevodsky homotopy theory of smooth varieties. Topics: Morel's relationship between motivic homotopygroups and the Grothendieck-Witt ring, and the work of Dugger-Isaksen on "sums of squares" formulae.

Mathematics 281. The Symplectic Category and the WKB Approximation
Catalog Number: 4904
Shlomo Z. Sternberg
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Applications of symplectic geometry to high frequency solutions of partial differential equations using the language of category theory.
Prerequisite: Some familiarity with differential geometry and with partial differential equations.

Graduate Courses of Reading and Research

***Mathematics 301. Theory and Practice of Teaching in the Mathematical Sciences**
Catalog Number: 4344
Daniel L. Goroff 7683 (on leave fall term)

***Mathematics 307. Topics in Differential Geometry and Partial Differential Equations**
Catalog Number: 5133
Benjamin Weinkove 4942

***Mathematics 308. Topics in Number Theory and Modular Forms**
Catalog Number: 0464
Benedict H. Gross 1112

***Mathematics 309. Topics in Dynamical Systems Theory**
Catalog Number: 0552
Daniel L. Goroff 7683 (on leave fall term)

***Mathematics 310. Topics in Number Theory**
Catalog Number: 3874
Samit Dasgupta 5030

***Mathematics 314. Topics in Differential Geometry and Mathematical Physics**
Catalog Number: 2743
Shlomo Z. Sternberg 1965

***Mathematics 318. Topics in Number Theory**
Catalog Number: 7393
Barry C. Mazur 1975 (on leave fall term)

***Mathematics 321. Topics in Mathematical Physics**
Catalog Number: 2297
Arthur M. Jaffe 2095 (on leave spring term)

***Mathematics 323. Topics in Algebraic Geometry**
Catalog Number: 4659
Mihnea Popa 4015

***Mathematics 326. Topics in Arithmetic Geometry of Modular Curves and Shimura Curves**
Catalog Number: 2696
David Helm 4630

***Mathematics 327. Topics in Several Complex Variables**
Catalog Number: 0409
Yum Tong Siu 7550

***Mathematics 328. Topics in Lie Algebra**
Catalog Number: 7003
Alberto De Sole 4627 (on leave 2004-2005)

***Mathematics 329. Topics in Knot Theory**
Catalog Number: 2194
Elizabeth Denne 5031

***Mathematics 333. Topics in Complex Analysis, Dynamics and Geometry**
Catalog Number: 9401
Curtis T. McMullen 3588 (on leave fall term)

***Mathematics 335. Topics in Differential Geometry and Analysis**
Catalog Number: 5498
Clifford Taubes 1243

***Mathematics 344. Topics in Number Theory**
Catalog Number: 2526
Francesco Calegari 4435

***Mathematics 345. Topics in Geometry and Topology**
Catalog Number: 4108
Peter B. Kronheimer 1759 (on leave fall term)

***Mathematics 347. Topics in Floer Homology and Low Dimensional Topology**
Catalog Number: 7227
Eaman Eftekhary 5045

***Mathematics 350. Topics in Mathematical Logic**
Catalog Number: 5151
Gerald E. Sacks 3862

***Mathematics 351. Topics in Algebraic Number Theory**
Catalog Number: 3492
Richard L. Taylor 1453

***Mathematics 354. Topics in Number Theory**
Catalog Number: 1217
William A. Stein 4016

***Mathematics 356. Topics in Harmonic Analysis**
Catalog Number: 6534
Wilfried Schmid 5097

***Mathematics 365. Topics in Differential Geometry**
Catalog Number: 4647
Shing-Tung Yau 1734

***Mathematics 367. Topics in Geometry and Partial Differential Equations**
Catalog Number: 9037
Albert Chau 4017

***Mathematics 376. Topics in Analysis of Partial Differential Equations**
Catalog Number: 1023
Joachim Krieger 4632

***Mathematics 378. Topics in Computational and Combinatorial Algebraic Geometry**
Catalog Number: 4436
Laura F. Matusevich 4357 (on leave 2004-05)

***Mathematics 382. Topics in Algebraic Geometry**
Catalog Number: 2037
Joseph D. Harris 2055

***Mathematics 383. Topics in Algebraic Geometry**
Catalog Number: 7736
Ilia Zharkov 4631 (on leave fall term)

***Mathematics 386. Topics in Several Complex Variables and CR Geometry**
Catalog Number: 3746
Andreea C. Nicoara 4374

***Mathematics 388. Topics in Mathematics and Biology**
Catalog Number: 4687
Martin A. Nowak 4568

***Mathematics 389. Topics in Number Theory**
Catalog Number: 6851
Noam D. Elkies 2604

***Mathematics 391. Topics in Differential Geometry and Partial Differential Equations**
Catalog Number: 2974
Weiyang Qiu 4359

***Mathematics 392. Topics in Geometry**
Catalog Number: 8778
Tom Coates 4633

Medical Sciences

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Higher Degrees in Medical Sciences

Thomas M. Roberts, Professor of Pathology *(Medical School) (Chair) (Dean of the Division of Medical Sciences)*
Nancy Andrews, Leland Fikes Professor of Pediatrics, Dean for Basic Studies and Graduate Studies *(Medical School)*
Joan S. Brugge, Professor of Cell Biology *(Medical School)*
Raymond L. Erikson, American Cancer Society Professor of Cellular and Developmental

Biology
Thomas O. Fox, Associate Professor of Neuroscience *(Medical School) (ex officio)*
Edward E. Harlow, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Stephen C. Harrison, Higgins Professor of Biochemistry *(Medical School)*
Peter M. Howley, George Fabyan Professor of Comparative Pathology *(Medical School)*
Robert E. Kingston, Professor of Genetics *(Medical School)*
David M. Knipe, Higgins Professor of Microbiology and Molecular Genetics *(Medical School)*
Philip Leder, John Emory Andrus Professor of Genetics *(Medical School)*
Hidde Ploegh, Mallinckrodt Professor of Immunopathology and Professor of Pathology *(Medical School) (on leave 2004-05)*
Christopher A. Walsh, Bullard Professor of Neurology *(Medical School)*
Christopher T. Walsh, Hamilton Kuhn Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Gary I. Yellen, Professor of Neurobiology *(Medical School)*

Other Faculty Offering Instruction in the Division of Medical Sciences

Kami Ahmad, Assistant Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Chester Alper, Professor of Pediatrics *(Medical School)*
Frederick W. Alt, Charles A. Janeway Professor of Genetics *(Medical School)*
David M. Altshuler, Assistant Professor of Genetics *(Medical School)*
Paul J. Anderson, Professor of Medicine *(Medical School)*
Jonathan P. Arm, Assistant Professor of Medicine *(Medical School)*
Scott A. Armstrong, Assistant Professor of Pediatrics *(Medical School)*
Spyros Artavanis-Tsakonas, Kurt J. Isselbacher/Peter D.Schwartz Professor of Oncology *(Medical School)*
John A. Assad, Associate Professor of Neurobiology *(Medical School)*
Hugh Auchincloss, Professor of Surgery *(Medical School)*
Dennis A. Ausiello, Jackson Professor of Clinical Medicine *(Medical School)*
K. Frank Austen, Astranzeneca Professor of Respiratory and Inflammatory Disease *(Medical School)*
Frederick Ausubel, Professor of Genetics *(Medical School)*
Hamid Band, Associate Professor of Medicine *(Medical School)*
Bruce P. Bean, Professor of Neurobiology *(Medical School)*
Jonathan R. Beckwith, American Cancer Society Professor of Microbiology and Molecular Genetics *(Medical School)*
Alan H. Beggs, Associate Professor of Pediatrics *(Medical School)*
Samuel M. Behar, Assistant Professor of Medicine *(Medical School)*
David R. Beier, Associate Professor of Medicine *(Medical School)*
Welcome W. Bender, Harold T. White Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Francine M. Benes, Professor of Psychiatry *(Medical School)*
Gilles A. Benichou, Assistant Professor of Opthalmology *(Medical School)*
Thomas L. Benjamin, Professor of Pathology *(Medical School)*

Christophe O. Benoist, Professor of Medicine *(Medical School)*
Larry I. Benowitz, Associate Professor of Neurosurgery *(Medical School)*
Jack Bergman, Associate Professor of Psychobiology *(Medical School)*
Andre Bernards, Associate Professor of Medicine *(Medical School)*
Stephen C. Blacklow, Associate Professor of Pathology *(Medical School)*
T. Keith Blackwell, Associate Professor of Pathology *(Medical School)*
John Blenis, Professor of Cell Biology *(Medical School)*
Richard S. Blumberg, Associate Professor of Medicine *(Medical School)*
Vadim Bolshakov, Associate Professor of Psychiatry *(Medical School)*
Azad Bonni, Assistant Professor of Pathology *(Medical School)*
Richard T. Born, Associate Professor of Neurobiology *(Medical School)*
Xandra O. Breakefield, Professor of Neurology *(Medical School)*
Michael B. Brenner, Theodore Berier Bayles Professor of Medicine *(Medical School)*
Dennis Brown, Professor of Medicine *(Medical School)*
Emery N. Brown, Associate Professor of Anaesthesia *(Medical School)*
Joan S. Brugge, Professor of Cell Biology *(Medical School)*
Martha L. Bulyk, Assistant Professor of Medicine and Health Science Technology and Assistant Professor of Pathology *(Medical School)*
Stephen Buratowski, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Rami Burstein, Associate Professor of Neurobiology and Anaesthesia *(Medical School)*
Stephen Calderwood, Professor of Medicine *(Medical School)*
James J. Campbell, Assistant Professor of Pathology *(Medical School)*
Lewis C. Cantley, Professor of Medicine and Professor of Systems Biology *(Medical School)*
Alan B. Cantor, Assistant Professor of Pediatrics *(Medical School)*
Harvey Cantor, Professor of Pathology *(Medical School)*
William A. Carlezon, Associate Professor of Psychiatry *(Medical School)*
Charles B. Carpenter, Professor of Medicine *(Medical School)*
Michael C. Carroll, Professor of Pediatrics *(Medical School)*
Constance L. Cepko, Professor of Genetics *(Medical School)*
Chinfei Chen, Assistant Professor of Neurology *(Medical School)*
Dong Feng Chen, Assistant Professor of Opthalmology *(Medical School)*
Lynda Chin, Assistant Professor of Dermatology *(Medical School)*
James J. Chou, Assistant Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
George M. Church, Professor of Genetics *(Medical School)*
Karen M. Cichowski, Assistant Professor of Medicine *(Medical School)*
David E. Clapham, Arlo R. Castaneda Professor of Cardiovascular Research *(Medical School)*
Jon Clardy, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Donald M. Coen, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Jonathan B. Cohen, Professor of Neurobiology *(Medical School)*
Monica P. Colaiacovo, Assistant Professor of Genetics *(Medical School)*
Tucker Collins, S. Burt Wolbach Professor of Pathology *(Medical School)*
David P. Corey, Professor of Neurobiology *(Medical School)*
Gabriel Corfas, Associate Professor of Neurology *(Medical School)*

Douglas Allen Cotanche, Associate Professor of Otology and Laryngology *(Medical School)*
Clyde S. Crumpacker II, Professor of Medicine *(Medical School)*
James M. Cunningham, Associate Professor of Medicine *(Medical School)*
Charles A. Czeisler, Professor of Medicine *(Medical School)*
Patricia A. D'Amore, Professor of Opthalmology and Pathology *(Medical School)*
Alan D. D'Andrea, Alvan T. and Viola D. Fuller American Cancer Society Professor of Radiation Oncology *(Medical School)*
George Quentin Daley, Associate Professor of Pediatrics *(Medical School)*
James A. DeCaprio, Associate Professor of Medicine *(Medical School)*
Ronald A. DePinho, Professor of Medicine *(Medical School)*
Ronald C. Desrosiers, Professor of Microbiology and Molecular Genetics *(Medical School)*
William F. Dietrich, Associate Professor of Genetics *(Medical School)*
Martin E. Dorf, Professor of Pathology *(Medical School)*
Philip R. Dormitzer, Assistant Professor of Pediatrics *(Medical School)*
Simon L. Dove, Assistant Professor of Pediatrics *(Medical School)*
John E. Dowling, Gordon and Llura Gund Professorship of Neurosciences
Glenn Dranoff, Associate Professor of Medicine *(Medical School)*
Catherine Dulac, Professor of Molecular and Cellular Biology *(on leave spring term)*
Susan M. Dymecki, Assistant Professor of Genetics *(Medical School)*
Nicholas J. Dyson, Professor of Medicine *(Medical School)*
Michael J. Eck, Associate Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Elaine A. Elion, Associate Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Stephen Elledge, Professor of Genetics *(Medical School)*
Thomas E. Ellenberger, Hsien Wu and Daisy Yen Wu Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Joel K. Elmquist, Associate Professor of Neurology *(Medical School)*
Alan N. Engelman, Associate Professor of Pathology *(Medical School)*
Florian Engert, Assistant Professor of Molecular and Cellular Biology
Elizabeth C. Engle, Assistant Professor of Neurology *(Medical School)*
Myron E. Essex, Mary Woodard Lasker Professor of Health Sciences *(Public Health)*
R. Alan Ezekowitz, Charles Wilder Professor of Pediatrics *(Medical School)*
Michael R. Farzan, Assistant Professor of Medicine *(Medical School)*
Mel B. Feany, Assistant Professor of Pathology *(Medical School)*
Daniel D. Federman, Carl W. Walter Professor of Medicine and Medical Education *(Medical School)*
Joyce D. Fingeroth, Associate Professor of Medicine *(Medical School)*
Daniel Finley, Professor of Cell Biology *(Medical School)*
David E. Fisher, Associate Professor of Pediatrics *(Medical School)*
John G. Flanagan, Professor of Cell Biology *(Medical School)*
Mark Daniel Fleming, Assistant Professor of Pathology *(Medical School)*
Dan G. Fraenkel, Professor of Microbiology and Molecular Genetics *(Medical School)*
David A. Frank, Assistant Professor of Medicine *(Medical School)*
Michael R. Freeman, Associate Professor of Surgery *(Medical School)*
Barbara C. Furie, Professor of Medicine *(Medical School)*

Bruce Furie, Professor of Medicine *(Medical School)*
Dana Gabuzda, Associate Professor of Neurology *(Medical School)*
Guillermo Garcia-Cardena, Cross-listed: Other Faculty *(Medical School)*
Raif S. Geha, Prince Turki Bin Abdul Aziz Al-Saud Professor of Pediatrics *(Medical School)*
Lee Gehrke, Professor of Health Sciences and Technology and MMG *(Medical School)*
Katia Georgopoulos, Associate Professor of Dermatology *(Medical School)*
Grace Gill, Associate Professor of Pathology *(Medical School)*
D. Gary Gilliland, Professor of Medicine *(Medical School)*
Michael A. Gimbrone, Elsie T. Friendman Professor of Pathology *(Medical School)*
Laurie H. Glimcher, Professor of Medicine *(Medical School)* and Irene Heinz Given Professor of Immunology *(Public Health)*
David E. Golan, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Alfred L. Goldberg, Professor of Cell Biology *(Medical School)*
Marcia Goldberg, Associate Professor of Medicine (Microbiology and Molecular Genetics) *(Medical School)*
Anne E. Goldfeld, Associate Professor of Medicine *(Medical School)*
Daniel A. Goodenough, Takeda Professor of Cell Biology *(Medical School)*
Lisa V. Goodrich, Assistant Professor of Neurobiology *(Medical School)*
Heinrich G.J. Gottlinger, Associate Professor of Pathology *(Medical School)*
Michael E. Greenberg, Professor of Neurobiology and Neurology *(Medical School)*
Michael Grusby, Associate Professor of Molecular Immunology (*Public Health)* and Associate Professor of Medicine *(Public Health)*
James Gusella, Bullard Professor of Neurogenetics *(Medical School)*
Emanuela Gussoni, Assistant Professor of Pediatrics *(Medical School)*
Steven P. Gygi, Assistant Professor of Cell Biology *(Medical School)*
Daniel A. Haber, Professor of Medicine *(Medical School)*
Nir Hacohen, Assistant Professor of Medicine *(Medical School)*
David Hafler, Jack, Sadie, and David Breakstone Professor of Neurology (NSCI) *(Medical School)*
William C. Hahn, Assistant Professor of Medicine *(Medical School)*
Donald A. Harn, Professor of Tropical Public Health *(Public Health)*
Jay Wade Harper, Bert and Natalie Vallee Professor of Molecular Pathology *(Medical School)*
Anne C. Hart, Assistant Professor of Pathology *(Medical School)*
Elizabeth D. Hay, Louise Foote Pfeiffer Professor of Embryology *(Medical School)*
Xi He, Assistant Professor of Neurology *(Medical School)*
Zhigang He, Associate Professor of Neurology *(Medical School)*
Stefan Heller, Assistant Professor of Otology and Laryngology *(Medical School)*
Martin E. Hemler, Professor of Pathology *(Medical School)*
Darren E. Higgins, Assistant Professor of Microbiology and Molecular Genetics *(Medical School)*
Martin S. Hirsch, Professor of Medicine *(Medical School)* and Professor in the Department of Cancer Biology *(Public Health) (Medical School)*
Joel N. Hirschhorn, Assistant Professor of Genetics (Pediatrics) *(Medical School)*
I-Cheng Ho, Assistant Professor of Medicine *(Medical School)*
Ann Hochschild, Professor of Microbiology and Molecular Genetics *(Medical School)*

James M. Hogle, Edward S. Harkness Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Bruce H. Horwitz, Assistant Professor of Pediatrics *(Medical School)*
David E. Housman, Member of the Faculty of the Harvard-MIT Division of Health Sciences and Technology *(Medical School)*
Victor Wee Hsu, Assistant Professor of Medicine *(Medical School)*
Bradley T. Hyman, Professor of Neurology *(Medical School)*
John J. Iacomini, Assistant Professor of Surgery *(Medical School)*
Donald E. Ingber, Professor of Pathology *(Medical School)*
Ole S. Isacson, Professor of Neurology *(Medical School)*
Rakesh K. Jain, A. Werk Cook Professor of Radiation Oncology *(Medical School)*
Frances E. Jensen, Associate Professor of Neurology *(Medical School)*
Robert P. Johnson, Associate Professor of Medicine *(Medical School)*
J. Keith Joung, Assistant Professor of Pathology *(Medical School)*
Jae Ung Jung, Professor of Microbiology and Molecular Genetics *(Medical School)*
C. Ronald Kahn, Mary K. Iacocca Professor of Medicine *(Medical School)*
Raghu Kalluri, Associate Professor of Medicine *(Medical School)*
Joshua M. Kaplan, Professor of Genetics *(Medical School)*
Dennis L. Kasper, William Ellery Channing Professor of Medicine *(Medical School)*
Howard R. Katz, Associate Professor of Medicine *(Medical School)*
Kenneth M. Kaye, Assistant Professor of Medicine *(Medical School)*
Andrius Kazlauskas, Associate Professor of Opthalmology *(Medical School)*
Mark T. Keating, Professor of Cell Biology and Pediatrics *(Medical School)*
Vicki R. Kelley, Associate Professor of Medicine *(Medical School)*
Roya Khosravi-Far, Assistant Professor of Pathology *(Medical School)*
Elliott D. Kieff, Harriet Ryan Albee Professor of Medicine and Professor of Microbiology and Molecular Genetics *(Medical School)*
Kwang-Soo Kim, Associate Professor of Psychiatry *(Medical School)*
Jean-Pierre Kinet, Professor of Pathology *(Medical School)*
Randy King, Assistant Professor of Cell Biology *(Medical School)*
Tomas Kirchhausen, Professor of Cell Biology *(Medical School)*
Marc W. Kirschner, Carl W. Walter Professor of Systems Biology *(Medical School)*
Michael Klagsbrun, Professor of Surgery *(Medical School)*
Nancy Kleckner, Herchel Smith Professor of Molecular Biology
David M. Knipe, Higgins Professor of Microbiology and Molecular Genetics *(Medical School)*
Isaac S. Kohane, Associate Professor of Pediatrics and Health Science and Technology *(Medical School)*
Roberto G. Kolter, Professor of Microbiology and Molecular Genetics *(Medical School)*
Christine L. Konradi, Associate Professor of Psychiatry *(Medical School)*
Stanley J. Korsmeyer, Sidney Farber Professor of Pathology *(Medical School)*
Barry E. Kosofsky, Associate Professor of Neurology *(Medical School)*
Stella Kourembanas, Associate Professor of Pediatrics *(Medical School)*
Edward A. Kravitz, George Packer Berry Professor of Neurobiology *(Medical School)*
Jordan A. Kreidberg, Associate Professor of Pediatrics *(Medical School)*
Raju Kucherlapati, Paul C. Cabot Professor of Genetics *(Medical School)*
Vijay K. Kuchroo, Associate Professor of Neurology *(Medical School)*

Rohit N. Kulkarni, Assistant Professor of Medicine *(Medical School)*
Samuel M. Kunes, Professor of Molecular and Cellular Biology
Louis M. Kunkel, Professor of Genetics and Professor of Pediatrics *(Medical School)*
Daniel R. Kuritzkes, Associate Professor of Medicine *(Medical School)*
Mitzi I. Kuroda, Professor of Genetics *(Medical School)*
David J. Kwiatkowski, Associate Professor of Medicine *(Medical School)*
Lois A. Lampson, Associate Professor of Surgery *(Medical School)*
Peter T. Lansbury, Associate Professor of Neurology *(Medical School)*
Andrew B. Lassar, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Philippe Leboulch, Associate Professor of Medicine *(Medical School)*
Jeannie T. Lee, Associate Professor of Genetics *(Medical School)*
Tun-Hou Lee, Professor of Virology *(Public Health)*
Wayne I. Lencer, Associate Professor of Pediatrics *(Medical School)*
Cammie Lesser, Assistant Professor of Medicine *(Medical School)*
Norman Letvin, Professor of Medicine *(Medical School)*
Michael Levin, Assistant Professor of Oral and Developmental Biology *(Dental School)*
Rong Li, Associate Professor of Cell Biology *(Medical School)*
Andrew H. Lichtman, Associate Professor of Pathology *(Medical School)*
Judy Lieberman, Associate Professor of Pediatrics *(Medical School)*
David Morse Livingston, Emil Frei Professor of Medicine *(Medical School)*
Margaret S. Livingstone, Professor of Neurobiology *(Medical School)*
Eng H. Lo, Associate Professor of Radiology *(Medical School)*
Mary R. Loeken, Assistant Professor of Medicine *(Medical School)*
A. Thomas Look, Professor of Pediatrics *(Medical School)*
Stephen Lory, Professor of Microbiology and Molecular Genetics *(Medical School)*
Kun Ping Lu, Associate Professor of Medicine *(Medical School)*
Francis W. Luscinskas, Associate Professor of Pathology *(Medical School)*
Andrew D. Luster, Associate Professor of Medicine *(Medical School)*
Qiufu Ma, Assistant Professor of Neurobiology *(Medical School)*
Richard L. Maas, Associate Professor of Medicine *(Medical School)*
Marcy E. MacDonald, Associate Professor of Neurology *(Medical School)*
Jeffrey D. Macklis, Associate Professor of Neurology *(Medical School)*
Joseph A. Majzoub, Professor of Medicine *(Medical School)*
Clint L. Makino, Associate Professor of Opthalmology *(Medical School)*
Jarema Malicki, Assistant Professor of Ophthalmology (Genetics) *(Medical School)*
Eleftheria Maratos-Flier, Associate Professor of Medicine *(Medical School)*
Richard H. Masland, Charles Anthony Pappas Professor of Neuroscience *(Medical School)*
Diane J. Mathis, Professor of Medicine *(Medical School)*
Tanya Mayadas, Associate Professor of Pathology *(Medical School)*
Andrea I. McClatchey, Assistant Professor of Pathology *(Medical School)*
Frank D. McKeon, Professor of Cell Biology *(Medical School)*
Markus Meister, Jeff C. Tarr Professor of Molecular and Cellular Biology *(on leave 2004-05)*
John J. Mekalanos, Adele Lehman Professor of Microbiology and Molecular Genetics *(Medical School)*
Arthur M. Mercurio, Associate Professor of Medicine *(Medical School)*

Matthew L. Meyerson, Assistant Professor of Pathology *(Medical School)*
Thomas Michel, Associate Professor of Medicine *(Medical School)*
Alan M. Michelson, Associate Professor of Medicine *(Medical School)*
Timothy J. Mitchison, Hasib Sabbagh Professor of Cell Biology *(Medical School)*
Danesh Moazed, Associate Professor of Cell Biology *(Medical School)*
D. Branch Moody, Assistant Professor of Medicine *(Medical School)*
Cynthia C. Morton, Professor of Pathology and William Lambert Richards Professor of Obstetrics, Gynecology, and Reproductive Biology *(Medical School)*
Edmund A. Mroz, Jr., Associate Professor of Physiology *(Medical School)*
Richard C. Mulligan, Mallinckrodt Professor of Genetics *(Medical School)*
Karl Münger, Associate Professor of Pathology *(Medical School)*
Venkatesh N. Murthy, Morris Kahn Associate Professor of Molecular and Cellular Biology
Anders Michael Naar, Assistant Professor of Cell Biology *(Medical School)*
Lee M. Nadler, Professor of Medicine *(Medical School)*
Cathryn R. Nagler-Anderson, Associate Professor of Pediatrics *(Medical School)*
Benjamin Neel, Professor of Medicine *(Medical School)*
Max L. Nibert, Professor of Microbiology and Molecular Genetics *(Medical School)*
Anne Nicholson-Weller, Professor of Medicine *(Medical School)*
Marjorie A. Oettinger, Professor of Genetics *(Medical School)*
Bjørn R. Olsen, Professor of Oral and Developmental Biology and Hersey Professor of Cell Biology *(Dental School, Medical School)*
Stuart H. Orkin, Leland Fikes Professor of Pediatric Medicine *(Medical School)*
Sandra Orsulic, Assistant Professor of Pathology *(Medical School)*
Jeffrey D. Parvin, Associate Professor of Pathology *(Medical School)*
David L. Paul, Professor of Neurobiology *(Medical School)*
David Pellman, Associate Professor of Pediatrics *(Medical School)*
Lizabeth A. Perkins, Associate Professor of Surgery (Genetics) *(Medical School)*
Norbert Perrimon, Professor of Genetics *(Medical School)*
Gerald Pier, Professor of Medicine (Microbiology and Molecular Genetics) *(Medical School)*
Shiv S. Pillai, Associate Professor of Medicine *(Medical School)*
Martin R. Pollak, Assistant Professor of Medicine *(Medical School)*
Kornelia Polyak, Assistant Professor of Medicine *(Medical School)*
Scott L. Pomeroy, Associate Professor of Neurology *(Medical School)*
Samuel D. Rabkin, Associate Professor of Surgery *(Medical School)*
Laurel A. Raftery, Associate Professor of Dermatology *(Medical School)*
Klaus Rajewsky, Professor of Pathology *(Medical School)*
Anjana Rao, Professor of Pathology *(Medical School)*
Tom Rapoport, Professor of Cell Biology *(Medical School)*
Rajiv R. Ratan, Associate Professor of Neurology *(Medical School)*
Elio Raviola, Bullard Professor of Neurobiology and Professor of Ophthalmology *(Medical School)*
Robin Reed, Professor of Cell Biology *(Medical School)*
Wade G. Regehr, Professor of Neurobiology *(Medical School)*
David Emil Reich, Assistant Professor of Genetics *(Medical School)*
R. Clay Reid, Professor of Neurobiology *(Medical School)*
Ellis L. Reinherz, Professor of Medicine *(Medical School)*

Charles C. Richardson, Edward S. Wood Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Charles M. Roberts, Assistant Professor of Pediatrics *(Medical School)*
Barrett J. Rollins, Associate Professor of Medicine *(Medical School)*
Evan David Rosen, Assistant Professor of Medicine *(Medical School)*
Fred S. Rosen, James L. Gamble Professor of Pediatrics *(Medical School)*
Vicki Rosen, Professor of Oral and Developmental Biology *(Dental School)*
Paul Allen Rosenberg, Associate Professor of Neurology *(Medical School)*
Frederick P. Roth, Assistant Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
David H. Rowitch, Assistant Professor of Pediatrics *(Medical School)*
Eric J. Rubin, Assistant Professor of Medicine *(Medical School)* and Assistant Professor of Immunology and Infectious Diseases *(Public Health)*
Robert H. Rubin, Gordon and Marjorie Osborn Professor of Health Sciences and Technology, Professor of Medicine *(Medical School)*
Joan V. Ruderman, Marion V. Nelson Professor of Cell Biology *(Medical School)*
David Z. Rudner, Assistant Professor of Microbiology *(Medical School)*
Ruth M. Ruprecht, Professor of Medicine *(Medical School)*
Bernardo L. Sabatini, Assistant Professor of Neurobiology *(Medical School)*
David H. Sachs, Paul S. Russell/Warner Lambert Professor of Surgery *(Medical School)*
Clifford B. Saper, James Jackson Putnam Professor of Neurology *(Medical School)*
David T. Scadden, Professor of Medicine *(Medical School)*
Priscilla A. Schaffer, Professor of Medicine *(Medical School)*
Stuart F. Schlossman, Baruj Benacerraf Professor of Medicine *(Medical School)*
Dietmar Schmucker, Assistant Professor of Neurobiology *(Medical School)*
Stuart L. Schreiber, Morris Loeb Professor of Chemistry
Thomas M. Schultheiss, Assistant Professor of Medicine *(Medical School)*
Peter H. Schur, Professor of Medicine *(Medical School)*
Richard M. Schwartzstein, Associate Professor of Medicine *(Medical School)*
Thomas L. Schwarz, Professor of Neurology and Neurobiology *(Medical School)*
Ralph Scully, Assistant Professor of Medicine *(Medical School)*
Brian Seed, Professor of Genetics *(Medical School)*
Rosalind A. Segal, Associate Professor of Neurology *(Medical School)*
Christine E. Seidman, Professor of Medicine and Professor of Genetics *(Medical School)*
Jonathan G. Seidman, Henrietta B. and Frederick H. Bugher Foundation Professor of Genetics *(Medical School)*
Dennis J. Selkoe, Professor of Neurology *(Medical School)*
William R. Sellers, Assistant Professor of Medicine *(Medical School)*
Charles N. Serhan, Professor of Anaesthesia *(Medical School)*
Jeffrey E. Settleman, Associate Professor of Medicine *(Medical School)*
Arlene H. Sharpe, Professor of Pathology *(Medical School)*
Carla J. Shatz, Nathan Marsh Pusey Professor of Neurobiology *(Medical School)*
Jen Sheen, Associate Professor of Genetics *(Medical School)*
Jie Shen, Assistant Professor of Neurology *(Medical School)*
Yang Shi, Associate Professor of Pathology *(Medical School)*
Ramesh Arjun Shivdasani, Associate Professor of Medicine *(Medical School)*

Steven E. Shoelson, Professor of Medicine *(Medical School)*
Piotr Sicinski, Associate Professor of Pathology *(Medical School)*
Pamela A. Silver, Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
David A. Sinclair, Assistant Professor of Pathology *(Medical School)*
Pamela B. Sklar, Assistant Professor of Psychiatry *(Medical School)*
Scott Brian Snapper, Assistant Professor of Medicine *(Medical School)*
Joseph G. Sodroski, Professor of Pathology (*Medical School*) and Professor of Cancer Biology *(Public Health)*
Sergei Y. Sokol, Associate Professor of Medicine *(Medical School)*
Bruce M. Spiegelman, Professor of Cell Biology *(Medical School)*
Timothy A. Springer, Latham Family Professor of Pathology *(Medical School)*
Michael Starnbach, Associate Professor of Microbiology and Molecular Genetics *(Medical School)*
Thilo Stehle, Assistant Professor of Pediatrics *(Medical School)*
Joan E. Stein-Streilein, Associate Professor of Medicine *(Medical School)*
Richard L. Stevens, Associate Professor of Medicine *(Medical School)*
Charles D. Stiles, Professor of Microbiology and Molecular Genetics *(Medical School)*
J. Wayne Streilein, Charles L. Schepens Professor of Ophthalmology *(Medical School)*
Gary R. Strichartz, Professor of Anaesthesia *(Medical School)*
Terry B. Strom, Professor of Medicine *(Medical School)*
Jack L. Strominger, Higgins Professor of Biochemistry *(on leave spring term)*
Kevin Struhl, David Wesley Gaiser Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Mary E. Sunday, Associate Professor of Pathology *(Medical School)*
Shamil R. Sunyaev, Assistant Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Kathleen J. Sweadner, Associate Professor of Cellular and Molecular Physiology in the Department of Surgery *(Medical School)*
Megan Sykes, Professor of Surgery *(Medical School)*
Jack Szostak, Professor of Genetics *(Medical School)*
Clifford J. Tabin, Professor of Genetics *(Medical School)*
Rudolph E. Tanzi, Professor of Neurology *(Medical School)*
David B. Teplow, Associate Professor of Neurology *(Medical School)*
Cox Terhorst, Professor of Medicine *(Medical School)*
Sheila Thomas, Assistant Professor of Medicine *(Medical School)*
Alex Toker, Associate Professor of Pathology *(Medical School)*
Li-Huei Tsai, Professor of Pathology *(Medical School)*
Sander Van Den Heuvel, Assistant Professor of Medicine *(Medical School)*
David L. Van Vactor, Associate Professor of Cell Biology *(Medical School)*
Marc Vidal, Assistant Professor of Genetics *(Medical School)*
Ulrich H. Von Andrian-Werburg, Professor of Pathology *(Medical School)*
Harald Von Boehmer, Professor of Pathology *(Medical School)*
Denisa D. Wagner, Professor of Pathology *(Medical School)*
Gerhard Wagner, Elkan Blout Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*

Bruce D. Walker, Professor of Medicine *(Medical School)*
Suzanne Walker, Professor of Microbiology and Molecular Genetics *(Medical School)*
W. Allan Walker, Conrad Taff Professor of Nutrition and Pediatrics *(Medical School)* and Professor in the Department of Nutrition *(Public Health)*
Christopher A. Walsh, Bullard Professor of Neurology *(Medical School)*
Christopher T. Walsh, Hamilton Kuhn Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Johannes Walter, Assistant Professor of Biological Chemistry and Molecular Pharmacology *(Medical School)*
Thomas Walz, Assistant Professor of Cell Biology *(Medical School)*
Frederick C. Wang, Associate Professor of Medicine *(Medical School)*
Howard L. Weiner, Robert L. Kroc Professor of Neurology *(Medical School)*
Charles J. Weitz, Robert Henry Pfeiffer Professor of Neurobiology *(Medical School)*
Peter F. Weller, Professor of Medicine *(Medical School)*
Michael R. Wessels, Associate Professor of Microbiology *(Medical School)*
Marianne Wessling-Resnick, Professor of Nutrition *(Public Health, Medical School)*
Sean P.J. Whelan, Assistant Professor of Microbiology and Molecular Genetics *(Medical School)*
Kristin White, Associate Professor of Dermatology *(Medical School)*
Morris F. White, Associate Professor of Biochemistry *(Medical School)*
Malcolm Whitman, Associate Professor of Cell Biology *(Medical School)*
Fred Winston, Professor of Genetics *(Medical School)*
Dyann F. Wirth, Professor of Tropical Public Health *(Public Health)*
Michael S. Wolfe, Associate Professor of BCMP *(Medical School)*
Clifford Woolf, Richard J. Kitz Professor of Anaesthesia *(Medical School)*
Chao-Ting Wu, Associate Professor of Genetics *(Medical School)*
Kai Wucherpfennig, Associate Professor of Neurology *(Medical School)*
Priscilla Yang, Assistant Professor of Microbiology and Molecular Genetics *(Medical School)*
Bruce Yankner, Professor of Neurology *(Medical School)*
Anne B. Young, Julieanne Dorn Professor of Neurology *(Medical School)*
Junying Yuan, Professor of Cell Biology *(Medical School)*
Edmund J. Yunis, Professor of Pathology *(Medical School)*
Bruce R. Zetter, Charles Newis Zewcki Professor of Cancer Biology *(Medical School)*
Jing Zhou, Associate Professor of Medicine *(Medical School)*
Leonard I. Zon, Professor of Pediatrics *(Medical School)*

The Division of Medical Sciences makes available to graduate students the facilities of the preclinical departments and research laboratories of the Harvard Medical School and its affiliated hospitals and institutions. The Division offers advanced courses and research in cell biology, biological chemistry and molecular pharmacology, genetics, immunology, microbiology and molecular genetics, neurosciences, pathology, physiology, and virology. Qualified undergraduates may be admitted with the permission of the instructor and the student's department of concentration, as far as the facilities of the special laboratories permit. Inquiries should be addressed to the Division of Medical Sciences, Harvard Medical School, 260 Longwood Avenue, Boston, MA 02115, or telephone (617) 432-0162, email address dms@hms.harvard.edu.

For other courses in biological sciences, see listings of the Program in Biological Sciences in Public Health, Biophysics and Molecular and Cellular Biology.

Biological and Biomedical Sciences (BBS)

BBS is an interdepartmental program within the Division of Medical Sciences at Harvard Medical School. BBS faculty are primarily drawn from five preclinical departments of the Medical School: Biological Chemistry and Molecular Pharmacology (BCMP); Cell Biology; Genetics; Microbiology and Molecular Genetics; and Pathology. In addition, selected faculty located within area hospitals and institutions are members of BBS.

Graduate Courses of Reading and Research

***BBS 333r. Introduction to Research in Biological and Biomedical Sciences**
Catalog Number: 1206
Robert E. Kingston (Medical School) 1153
Note: BBS students register for lab rotations under this course number.

***BBS 380. Reading and Research in Biological and Biomedical Sciences**
Catalog Number: 0349
Robert E. Kingston (Medical School) 1153

Biological Chemistry and Molecular Pharmacology

All courses in Biological Chemistry and Molecular Pharmacology are subject to limitation in enrollment and will not be offered unless there is sufficient demand. For courses in Neuropharmacology, see listings under Neurobiology. For more courses in biochemistry, see other listings in the FAS Biological Sciences section.

Primarily for Graduates

BCMP 200. Molecular Biology
Catalog Number: 5591
Johannes Walter (Medical School), Stephen Buratowski (Medical School), Alan N. Engelman (Medical School), David E. Fisher (Medical School), and Gerhard Wagner (Medical School)
Half course (fall term). M., W., F., 10:30–12.
An advanced treatment of the Central Dogma of molecular biology. The course will consider the molecular basis of genetic information transfer from DNA to RNA to protein, using current examples from eukaryotic and prokaryotic systems. Includes lectures, small discussion groups to study the primary literature, and research seminars by experts in the field.
Note: Offered jointly with the Medical School as BP 723.0.
Prerequisite: Intended primarily for graduate students familiar with basic molecular biology or with strong biology/chemistry background.

BCMP 201. Proteins: Structure, Function and Catalysis
Catalog Number: 5068
Michael J. Eck (Medical School), Stephen C. Blacklow (Medical School), Jon Clardy (Medical School), Thomas E. Ellenberger (Medical School), Frederick P. Roth (Medical School), and Christopher T. Walsh (Medical School)
Half course (spring term). Tu., Th., 9:30–11, W., 4:30–6.
Advanced protein biochemistry with emphasis on the interrelated roles of protein structure, catalytic activity, and macromolecular interactions in biological processes.
Note: Offered jointly with the Medical School as BP 714.0. For more information, see bcmp201.med.harvard.edu
Prerequisite: Knowledge of introductory general biochemistry, elementary physical chemistry, and molecular genetics required.

***BCMP 205. Principles of Pharmacology**
Catalog Number: 1737
David E. Golan (Medical School) and members of the Department
Half course (spring term). M. through F., 8:30–12.
Intensive introduction to pharmacology, emphasizing mechanisms of drug action and principles of drug-receptor interactions, pharmacokinetics, and drug metabolism. Major drug examples drawn from neuropharmacology, cardiovascular pharmacology, and chemotherapeutic agents.
Note: Offered jointly with the Medical School as IN 705.0. Ten hours of lecture, four hours of conference, and four hours of tutorial per week. Permission of both the course director and the Medical School Registrar is required.
Prerequisite: Introductory biochemistry and physiology preferred but not required.

BCMP 207. Molecular Approaches to Drug Action, Discovery, and Design
Catalog Number: 0529 Enrollment: May be limited.
Donald M. Coen (Medical School), David E. Golan (Medical School), James M. Hogle (Medical School), Randy King (Medical School), Steven E. Shoelson (Medical School), Christopher T. Walsh (Medical School), and associates.
Half course (spring term). Tu., Th., 3:30–5:30.
Explores how molecular biology, structural biology, and modern enzymology have revolutionized understanding of drug action and development of new therapies. Analyzes molecular underpinnings of basic pharmacological principles. Examples drawn from molecular pathways such as signal transduction, and gene expression with application to diseases including cancer, diabetes, and AIDS.
Note: Offered jointly with the Medical School as BP 715.0. Primarily for graduate students.

[BCMP 210. Theory and Practice of Techniques in Molecular Biology]
Catalog Number: 1230
Welcome W. Bender (Medical School) and assistants
Half course (spring term). M., W., F., 2–4.
Reviews the principles of common lab techniques, and discusses recent innovations. Topics include separation and detection methods for nucleic acids and proteins, nucleic acid reassociations, and polymerase reactions. Course format includes lecture, lab experiments, and discussions.

Note: Expected to be given in 2005–06. Offered jointly with the Medical School as BP 725.0.
Prerequisite: Prior exposure to molecular techniques and current residence in a lab equipped for molecular work.

***BCMP 213. Behavioral Pharmacology**
Catalog Number: 4782 Enrollment: Limited to 15.
Jack Bergman (Medical School), Carol A. Paronis (Medical School) and associates
Half course (spring term). M., W., 3:30–5.
Introduction to CNS pharmacology and behavior in seminar format. Effects of psychomotor stimulants, antischizophrenics, opioid analgesics, and antianxiety agents on behavior. Emphasis on methodology and pharmacological analysis; attention to tolerance, drug dependence/addiction.
Note: Offered jointly with the Medical School as BP 719.0.

BCMP 228. Macromolecular NMR
Catalog Number: 3969
Gerhard Wagner (Medical School) and James J. Chou (Medical School)
Half course (fall term). M., F., 2–3:30, W., 2–5.
Theory and practice of modern methods of macromolecular structure determination using multi-dimensional NMR.
Note: Given in alternate years. Offered jointly with the Medical School as BP 722.0. Classroom lectures on Mondays and Fridays. Wednesdays are reserved for either classroom lectures or practical training and hands-on problem solving. The latter includes basic aspects of spectrometer operation, computer-based assignment of protein NMR spectra and structure calculation. Wednesday slots are reserved for registered students and are open ended for completing the training tasks.

BCMP 230. Principles and Practice of Drug Development
Catalog Number: 1295
Robert H. Rubin (Medical School)
Half course (fall term). Th., 3–6.
Critical assessment of the major issues and stages of developing a pharmaceutical or biopharmaceutical. Drug discovery, preclinical development, clinical investigation, manufacturing and regulatory issues considered for small and large molecules. Economic considerations of the drug development process. Multidiciplinary perspective from faculty from clinical, life, and management sciences and industry guests.

Graduate Courses of Reading and Research

***BCMP 300. Enzyme Mechanisms**
Catalog Number: 1867
Christopher T. Walsh (Medical School) 2036

***BCMP 301 (formerly *Genetics 327). High Throughput Functional Proteomics**
Catalog Number: 1535
Edward E. Harlow (Medical School) 2863

***BCMP 306. Tumor Suppressor Genes and Prostate Cancer**
Catalog Number: 0524
William R. Sellers (Medical School) 4335

***BCMP 308. Blood Coagulation and Vascular Biology**
Catalog Number: 3950
Bruce Furie (Medical School) 3937

***BCMP 309. Regulation of Membrane Protein and Lipid Dynamics: Molecular Mechanisms and Biological Implications**
Catalog Number: 1558
David E. Golan (Medical School) 1558

***BCMP 310. Molecular and Cellular Mechanisms of Insulin Action**
Catalog Number: 4299
Morris F. White (Medical School) 3158

***BCMP 311. Structure of Viruses, Viral Proteins, Receptors, Transcription Factors**
Catalog Number: 3623
Stephen C. Harrison (Medical School) 3597

***BCMP 313. Genetics and Genomics; Tumor Maintenance; Mouse Models**
Catalog Number: 1632
Lynda Chin (Medical School) 3931

***BCMP 314. Protein NMR Spectroscopy of Membrane Protein**
Catalog Number: 3449
James J. Chou (Medical School) 4950

***BCMP 315. Growth Factor Structure and Biological Activity**
Catalog Number: 6034
Michael Klagsbrun (Medical School) 3167

***BCMP 317. Structural and Cellular Biology of Insulin Signal Transduction, Insulin, Resistance, Diabetes and Obesity**
Catalog Number: 3354
Steven E. Shoelson (Medical School) 3951

***BCMP 319. Histone Variants and Chromosome Biology**
Catalog Number: 1748
Kami Ahmad (Medical School) 4592

***BCMP 320. Cell Biology of Eukaryotes**
Catalog Number: 0265
Pamela A. Silver (Medical School) 1595

***BCMP 321. Structural Studies of Transcription Factors and DNA Repair Proteins**
Catalog Number: 7298
Thomas E. Ellenberger (Medical School) 1643

***BCMP 324. Structure and Replication of DNA**
Catalog Number: 5059
Charles C. Richardson (Medical School) 2479

***BCMP 325. Genomic Instability and Cancer Susceptibility**
Catalog Number: 4110
Alan D. D'Andrea (Medical School) 3532

***BCMP 328. Computational Analysis of Sequence Variation and Divergence**
Catalog Number: 2468
Shamil R. Sunyaev (Medical School) 4671

***BCMP 329. Structure Biology of Cytoplasmic Signal Transduction**
Catalog Number: 5005
Michael J. Eck (Medical School) 1739

***BCMP 330. Alzheimer Amyloid Beta-Protein and Other Amyloidogenic Proteins: Biology, Biophysics, and Role in Neurodegeneration**
Catalog Number: 9409
David B. Teplow (Medical School) 4539

***BCMP 331. Biochemistry and Biology of Neurodegenerative Diseases**
Catalog Number: 9727
Michael S. Wolfe (Medical School) 4543

***BCMP 332. Structural Neurology**
Catalog Number: 0276
Peter T. Lansbury (Medical School) 2115

***BCMP 335. Biochemical and Genetic Analysis of Eukaryotic Gene Expression**
Catalog Number: 8052
Stephen Buratowski (Medical School) 1790

***BCMP 337. Drosophila Molecular Genetics**
Catalog Number: 0782
Welcome W. Bender (Medical School) 7083

***BCMP 338. Eukaryotic Gene Regulation**
Catalog Number: 0549
Kevin Struhl (Medical School) 7415

***BCMP 339. Regulation of the Cellular Uptake of Macromolecular Nutrients**
Catalog Number: 3453
Marianne Wessling-Resnick (Public Health, Medical School) 1315

***BCMP 340. Discovery and Analysis of Small Biologically Active Molecule**
Catalog Number: 8300
Jon Clardy (Medical School) 4667

***BCMP 343. Molecular Genetics of Herpes Viruses**
Catalog Number: 0868
Donald M. Coen (Medical School) 7617

***BCMP 344. Molecular Pharmacology of Excitable Membranes**
Catalog Number: 0200
Gary R. Strichartz (Medical School) 7530

***BCMP 345. Transcription Factors in Hematopoiesis and Leukemogenesis**
Catalog Number: 4792
Alan B. Cantor (Medical School) 5150

***BCMP 347. Structural Analysis of Viruses and Receptors**
Catalog Number: 5105
Thilo Stehle (Medical School) 4990

***BCMP 348. Chromatin and Cancer**
Catalog Number: 6409
Charles M. Roberts (Medical School) 5151

***BCMP 352. Cellular and Molecular Mechanisms in Inflammation**
Catalog Number: 4853
Charles N. Serhan (Medical School) 3163

***BCMP 354. DNA Replication, Searching Mechanisms of DNA-Binding Factors**
Catalog Number: 6823
Antoine Van Oijen 5084

***BCMP 356. Solution Structures of Proteins by NMR Spectroscopy**
Catalog Number: 8093
Gerhard Wagner (Medical School) 2626

***BCMP 359. Molecular Mechanisms of Signal Transduction**
Catalog Number: 8520
Elaine A. Elion (Medical School) 2941

***BCMP 360. Regulating Skeletal Myogenesis**
Catalog Number: 6934
Andrew B. Lassar (Medical School) 2946

***BCMP 361. X-Ray Crystallographic Studies of Viruses and Proteins**
Catalog Number: 4155
James M. Hogle (Medical School) 2943

***BCMP 362. Eukaryotic Survival Decisions**
Catalog Number: 4972
David E. Fisher (Medical School) 1800

***BCMP 363. The Mechanics and Regulation of Mitosis**
Catalog Number: 4981
David Pellman (Medical School) 3702

***BCMP 366. Stem Cells in Disease and Development**
Catalog Number: 9236
George Quentin Daley (Medical School) 4951

***BCMP 370. Advanced Topics in Biological Chemistry and Molecular Pharmacology**
Catalog Number: 0482
James M. Hogle (Medical School) 2943 and Johannes Walter (Medical School) 3846
A series of reading and discussion seminars, each running for a half term (7 weeks). Two seminars, which can be taken in different terms, are required for credit.
Note: Non-DMS students must get permission from the Division of Medical Sciences before registering for this course. Please contact us at 617-432-0162 or visit the DMS Office at T-MEC 435, 260 Longwood Avenue, Boston.

***BCMP 371. Initiation of Eukaryotic DNA Replication: A Biochemical Analysis**
Catalog Number: 3739
Johannes Walter (Medical School) 3846

***BCMP 372. Methods and Applications in Computational Molecular Biology**
Catalog Number: 1638
Frederick P. Roth (Medical School) 3912

***BCMP 373. Blood Coagulation and Vascular Biology**
Catalog Number: 5747
Barbara C. Furie (Medical School) 3936

***BCMP 374. Growth Factors and Signal Transduction**
Catalog Number: 1179
Michael R. Freeman (Medical School) 5169

Cell Biology

Primarily for Graduates

Cell Biology 201. Molecular Biology of the Cell
Catalog Number: 1044
Daniel Finley (Medical School), John Blenis (Medical School), Joan S. Brugge (Medical School), Timothy J. Mitchison (Medical School), Danesh Moazed (Medical School), Benjamin Neel (Medical School), and Tom Rapoport (Medical School)
Half course (spring term). M., W., 10:30–12; and sections F. at 10:30–12.
Topics include the molecular basis of cellular compartmentalization, protein trafficking, cytoskeleton dynamics, mitosis, cell locomotion, cell cycle regulation, signal transduction, cell-cell interaction, and the cellular/biochemical basis of diseases. Also covers various methods, such as protein purification, mass spectrometry, and microscopy.
Note: Offered jointly with the Medical School as CB 713.0.
Prerequisite: Basic knowledge in biochemistry and genetics.

Cell Biology 207. Developmental Biology: Molecular Mechanisms of Vertebrate Development
Catalog Number: 2044 Enrollment: Limited to 25.
Andrew B. Lassar (Medical School), John G. Flanagan (Medical School), Xi He (Medical School), Michael Levin (Dental School), David H. Rowitch (Medical School), Thomas M. Schultheiss (Medical School), Clifford J. Tabin (Medical School), Amy Jo Wagers (Medical School), and Malcolm Whitman (Medical School)
Half course (spring term). Tu., Th., 2–4.
Analyzes the developmental programs that control the establishment of the vertebrate body plan and formation of selected organs with emphasis on experimental strategies for understanding the molecular mechanisms controlling tissue morphogenesis and cell fate determination.
Note: Offered jointly with the Medical School as CB 710.0. First meeting on Thursday, February 3, 2005 at 2 pm. Location: TMEC Bldg., Room 126, HMS (location subject to change).

[Cell Biology 211a. Biology of the Cancer Cell]
Catalog Number: 5771
James A. DeCaprio (Medical School) and Myles A. Brown (Medical School)
Half course (fall term). Hours to be arranged.
Examines the molecular basis of cancer including alterations in signal transduction, cell cycle, apoptosis and DNA repair with a focus on oncogenes, tumor suppressors, and oncogenic viruses. Explores the development of novel target based therapies.
Note: Expected to be given in 2005–06. Given in alternate years. Offered jointly with the Medical School as CB 704.0.
Prerequisite: General knowledge of biochemistry, molecular genetics, and cell biology.

[Cell Biology 211b. Growth Factors and Signal Transduction]
Catalog Number: 4169 Enrollment: Limited to 30.
Charles D. Stiles (Medical School), Alan D. D'Andrea (Medical School), and Thomas M. Roberts (Medical School)
Half course (fall term). Hours to be arranged.
History, chemistry and biology of growth factors, receptors and downstream signaling pathways

are reviewed. Using receptor tyrosine kinases and their ligands as teaching vehicles, the course progresses to cover other signaling agents and pathways including nitric oxide, Notch/Delta, Wnt and Sonic hedgehog.
Note: Expected to be given in 2005–06. Given in alternate years. Offered jointly with the Medical School as CB 705.0.
Prerequisite: BCMP/CB 201 or equivalent.

Cell Biology 214. Developmental Biology and Genetics
Catalog Number: 3458 Enrollment: Limited to 14.
David L. Van Vactor (Medical School), Spyros Artavanis-Tsakonas (Medical School), Jeffrey E. Settleman (Medical School), and Sander Van Den Heuvel (Medical School)
Half course (fall term). M., W., 6–8 pm.
The course will emphasize the application of genetic tools for the analysis of fundamental developmental phenomena. We will provide an introduction to the biological principles and molecular mechanisms governing ontogeny. We cover a continuum of topics from pattern formation, cell growth, and cell fate determination to cell differentiation and morphogenesis. We will explore genetic strategies using Drosophila, C. elegans and mouse. We will examine different experimental approaches, and will evaluate examples from the primary literature.
Note: Offered jointly with the Medical School as CB 720.0. Contact course director at 617-432-2195 with questions.
Prerequisite: General genetics and developmental biology courses recommended.

Graduate Courses of Reading and Research

***Cell Biology 300. Advanced Topics in Cell, Molecular, and Developmental Biology**
Catalog Number: 5825
Robert E. Kingston (Medical School) 1153
A series of reading and discussion seminars, each running for a half term (seven weeks). Topics cover areas of interest in cell, molecular, and developmental biology such as spatial organization of cytoplasm, apoptosis, membrane trafficking, and tumor progression and metastasis. Different topics are covered each term.
Note: Two seminars, which can be taken in different terms, are required for credit. Non-DMS students must get permission from the Division of Medical Sciences before registering for this course. Please contact us at 617-432-0162 or visit the DMS Office at T-MEC 435, 260 Longwood Avenue, Boston.

***Cell Biology 304. Regulation of the Cell Cycle**
Catalog Number: 0414
Joan V. Ruderman (Medical School) 2622

***Cell Biology 305. Developmental Biology**
Catalog Number: 3314
Elizabeth D. Hay (Medical School) 1011

***Cell Biology 307. Cell-Cell Signaling in Neural Development**
Catalog Number: 1911
John G. Flanagan (Medical School) 3149

***Cell Biology 308. Membrane Biology**
Catalog Number: 6173
Dennis A. Ausiello (Medical School) 1288

***Cell Biology 309. RNA Splicing and Nuclear Export of mRNA**
Catalog Number: 2523
Robin Reed (Medical School) 2319

***Cell Biology 311. Cardiovascular Signal Transduction**
Catalog Number: 9196
Thomas Michel (Medical School) 4392

***Cell Biology 312. Molecular Mechanisms of Mammalian Gene Regulation in Normal and Cancerous Cells**
Catalog Number: 8538
Anders Michael Naar (Medical School) 4328

***Cell Biology 314. Molecular Biology of Extracellular Matrix**
Catalog Number: 5077
Bjørn R. Olsen (Dental School, Medical School) 1164

***Cell Biology 315. Biological Information Storage and Exchange**
Catalog Number: 9463
Michael Levin (Dental School) 4560

***Cell Biology 316. Mechanism and Function of Intracellular Protein Turnover**
Catalog Number: 1017
Alfred L. Goldberg (Medical School) 2827

***Cell Biology 317. Mechanisms of Programmed Cell Death**
Catalog Number: 2270
Junying Yuan (Medical School) 2105

***Cell Biology 318. Molecular Biology of Cell Growth Regulation and Transformation**
Catalog Number: 3355
John Blenis (Medical School) 2612

***Cell Biology 319. Cell Polarity and Morphogenesis**
Catalog Number: 2986
Rong Li (Medical School) 2106

***Cell Biology 321. Neuronal Pathfinding and Synaptogenesis**
Catalog Number: 4841
David L. Van Vactor (Medical School) 2089

***Cell Biology 323. Biology of Membranes and Intercellular Junctions**
Catalog Number: 2651
Daniel A. Goodenough (Medical School) 4077

***Cell Biology 326. Signal Transduction During Early Development**
Catalog Number: 1872
Malcolm Whitman (Medical School) 3267

***Cell Biology 328. Receptor-Mediated Endocytosis**
Catalog Number: 0438
Tomas Kirchhausen (Medical School) 1155

***Cell Biology 329. The Ubiquitin-Proteasome Pathway**
Catalog Number: 6826
Daniel Finley (Medical School) 2313

***Cell Biology 332. Mass Spectrometry and Proteomics**
Catalog Number: 1568
Steven P. Gygi (Medical School) 3939

***Cell Biology 333. Electron Crystallographic Structure Determination of Leukotriene**
Catalog Number: 9254
Thomas Walz (Medical School) 3778

***Cell Biology 334. Molecular Analysis of Tyrosine Phosphatases**
Catalog Number: 2447
Benjamin Neel (Medical School) 2486

***Cell Biology 335. Signal Transduction**
Catalog Number: 2542
Lewis C. Cantley (Medical School) 1287

***Cell Biology 336. Signal Transduction in Normal and Transformed Cells**
Catalog Number: 6833
Joan S. Brugge (Medical School) 1486

***Cell Biology 339. Cell Morphogenesis and Regulation**
Catalog Number: 3898
Marc W. Kirschner (Medical School) 1078

***Cell Biology 342. Cytoskeleton in Development and Cancer**
Catalog Number: 4059
Sheila Thomas (Medical School) 3777

***Cell Biology 343. Mechanisms of Mammalian Cell Differentiation and Gene Expression**
Catalog Number: 0202
Bruce M. Spiegelman (Medical School) 7733

***Cell Biology 344. Molecular Mechanism of Signal Transduction**
Catalog Number: 6093
Xi He (Medical School) 2004

***Cell Biology 345. Protein Transport Across the Endoplasmic Reticulum Membrane**
Catalog Number: 6793
Tom Rapoport (Medical School) 1815

***Cell Biology 346. Signal Transduction by Receptor Thyrosine Kinases**
Catalog Number: 1591
Andrius Kazlauskas (Medical School) 2088

***Cell Biology 347. Cellular and Molecular Aspects of Insulin Action**
Catalog Number: 1494
C. Ronald Kahn (Medical School) 2019

***Cell Biology 349. Gene Silencing and Chromosome Structure**
Catalog Number: 8765
Danesh Moazed (Medical School) 4254

***Cell Biology 352. Vertebrate Embryology, Organogenesis, and Cell Differentiation**
Catalog Number: 9231
Thomas M. Schultheiss (Medical School) 2236

***Cell Biology 353. Regulation of Epithelial Morphogenesis by TGF-beta Family Signaling**
Catalog Number: 8239
Laurel A. Raftery (Medical School) 8686

***Cell Biology 354. Regulation of Transport by the ADP-Ribosylation Factor (ARF) Family of Small GTPases**
Catalog Number: 7605
Victor Wee Hsu (Medical School) 2606

***Cell Biology 356. Cell Growth Regulation, Telomere Maintenance and Human Diseases**
Catalog Number: 3718
Kun Ping Lu (Medical School) 2607

***Cell Biology 358. Mechanisms of Tumor Metastasis**
Catalog Number: 0606
Bruce R. Zetter (Medical School) 7737

***Cell Biology 359. Intracellular Signaling Pathways in the Regulation of Cell Growth and Differentiation**
Catalog Number: 0335
David A. Frank (Medical School) 3276

***Cell Biology 360. Regulation and Execution of Apoptosis during Development in Drosophila**
Catalog Number: 6046
Kristin White (Medical School) 3955

***Cell Biology 361. Matrix Biology, Cell-Matrix Interactions in Health and Disease**
Catalog Number: 5561
Raghu Kalluri (Medical School) 4945

***Cell Biology 362. Molecular Basis of Pulmonary Hypertension, Hypoxic Signaling and Lung Vascular Development**
Catalog Number: 4662
Stella Kourembanas (Medical School) 4958

***Cell Biology 363. Cell Polarity in Vertebrate Embryogenesis**
Catalog Number: 9244
Sergei Y. Sokol (Medical School) 3530

***Cell Biology 364. The Structure of the Nucleus and the Dynamics of Nuclear Transport**
Catalog Number: 3582
Frank D. McKeon (Medical School) 1990

***Cell Biology 372. Cytoskeletal Dynamics**
Catalog Number: 5032
Timothy J. Mitchison (Medical School) 3713

***Cell Biology 373. Molecular Genetics of Cell Interaction in Development**
Catalog Number: 8133
Spyros Artavanis-Tsakonas (Medical School) 2609

***Cell Biology 375. Molecular and Cellular Mechanisms of Regeneration. Molecular Genetics of Cardiovascular Diseases**
Catalog Number: 0435
Mark T. Keating (Medical School) 3895

***Cell Biology 376. Chemical Approaches to Cell Division and Cancer**
Catalog Number: 7680
Randy King (Medical School) 3941

***Cell Biology 377. Islet Cell Function, Growth and Development**
Catalog Number: 7966
Rohit N. Kulkarni (Medical School) 5152

***Cell Biology 378. Bacterial Toxin Entry and Immunoglobulin Transport in Mucosal Epithelial Cells**
Catalog Number: 7656
Wayne I. Lencer (Medical School) 5153

***Cell Biology 379. BMP Signaling in Musculoskeletal Tissues**
Catalog Number: 2894
Vicki Rosen (Dental School) 4790

Genetics

Primarily for Graduates

***Genetics 200. Genetics Development and Reproductive Biology**
Catalog Number: 4265 Enrollment: Limited to 4 Division of Medical Sciences students.
Clifford J. Tabin (Medical School), Daniel D. Federman (Medical School), and Philip Leder (Medical School)
Half course (spring term). M. through F., 8:30–12.
Covers classical and molecular human genetics, focusing on inheritance and variation among individuals and populations, particularly applications to human biology and medicine; and reproduction, early development and morphogenesis, emphasizing potential for intervention and regenerative medicine.
Note: To register, call 617-432-1515. Permission of both the course director and the Medical School Registrar is required. Offered jointly with the Medical School as IN 703.0.
Prerequisite: Biochemistry or equivalent.

Genetics 201. Principles of Genetics
Catalog Number: 4225
Fred Winston (Medical School), Anne C. Hart (Medical School), Ann Hochschild (Medical School), and Lizabeth A. Perkins (Medical School)
Half course (fall term). M., W., F., 9–10:30.
An in-depth survey of genetics, beginning with basic principles and extending to modern approaches and special topics. We will draw on examples from various systems, such as Drosophila, C. elegans, Saccharomyces, mouse, human and bacteria.
Note: Intended for first-year graduate students. Offered jointly with the Medical School as GN 701.0.

Genetics 205. Mammalian Genetics
Catalog Number: 9267
David R. Beier (Medical School), David M. Altshuler (Medical School), and Joel N. Hirschhorn (Medical School)
Half course (spring term). W., 10–12.
A literature discussion course on mammalian genetics, including mutation and disease cloning, mutagenesis, comparative genomics, cancer genetics, mammalian development, population genetics, complex trait genetics in humans and rodents, and mouse genome modification techniques and their applications.

Genetics 206. Genetic and Functional Genomic Dissection of Development
Catalog Number: 9852
Marc Vidal (Medical School), Norbert Perrimon (Medical School), and Gary B. Ruvkun (Medical School)
Half course (spring term). Th., 10–12.
Presents a few classic examples of genetic analysis of development, how control genes were defined by their genetic interactions, how pathways are inferred from genetic epistasis, and the transition to molecular networks. Examples from yeast, Drosophila and C. elegans molecular genetics will be used. The use of genome sequences in the more modern forms of this analysis are also presented. Finally, new surrogates for genetics, especially functional genomic techniques such as RNAi, and expression and proteomic analysis using two hybrid and GFP fusion technologies are presented.

[Genetics 216. Advanced Topics in Gene Expression]
Catalog Number: 2244
Robert E. Kingston (Medical School) and Fred Winston (Medical School)
Half course (spring term). Hours to be arranged.
Covers both biochemical and genetic studies in regulatory mechanisms. We discuss a small number of topics in depth, using the primary literature as the main source of information. Each area of research covered is analyzed in terms of the conceptual basis for its study, its advancement and evolution, and the experimental approaches that were used. Topics range from prokaryotic transcription to eukaryotic development.
Note: Expected to be given in 2005–06. Offered jointly with the Medical School as GN 703.0.
Prerequisite: BCMP 200 and Genetics 201.

[Genetics 218. Genotype to Phenotype: Epigenetics and Gene Regulation]
Catalog Number: 2252 Enrollment: Limited to 15.
Chao-Ting Wu (Medical School) and Jeannie T. Lee (Medical School)
Half course (spring term). Hours to be arranged.
Explores lesser known forms of gene regulation, including dosage compensation, imprinting, transvection, RIP, paramutation, methylation, and nuclear compartmentalization, taking examples from prokaryotes, ciliates, fungi, plants, insects, and mammals. Paper discussions, lectures, student presentations.
Note: Expected to be given in 2005–06. Given in alternate years. Offered jointly with the Medical School as GN 724.0.

Prerequisite: Introductory course in genetics and molecular biology, or permission of the instructors.

Genetics 220. Molecular Biology and Genetics in Modern Medicine
Catalog Number: 4660
David E. Housman (Medical School)
Half course (fall term). Tu., 2–5, Th., 2–4.
Our focus is on the scientific, clinical, and ethical aspects of modern human genetics. Basic science lectures covering genetic approaches and molecular underpinnings of inherited diseases are integrated with patient presentations and discussion. An outside project puts each student in direct contact with clinicians, researchers, and patients dealing in a particular disorder.
Note: Offered jointly with the Medical School as HT 160.

Graduate Courses of Reading and Research

***Genetics 300. Advanced Topics in Cell, Molecular, and Developmental Biology**
Catalog Number: 1037
Susan M. Dymecki (Medical School) 1736
A series of reading and discussion seminars, each running for a half term (seven weeks). Topics cover areas of interest in cell, molecular, and developmental biology such as molecular genetics of learning and memory, conservation of embryological mechanisms, molecular organogenesis, and biology of yeasts. Different topics are covered each term.
Note: Two seminars, which can be taken in different terms, are required for credit. Non-DMS students must get permission from the Division of Medical Sciences before registering for this course. Please contact us at 432-0162 or visit the DMS Office at T-MEC 435, 260 Longwood Avenue, Boston.

***Genetics 301. Research in Molecular Genetics and Molecular Oncology**
Catalog Number: 4780
Philip Leder (Medical School) 7527

***Genetics 303. Pathogenesis**
Catalog Number: 1972
Frederick Ausubel (Medical School) 4639

***Genetics 304. Molecular Genetics Basis of Human Disease, Particularly Cardiovascular Pathogenesis**
Catalog Number: 0693
Christine E. Seidman (Medical School) 3013

***Genetics 305. Genetics, Receptors and Ion Channels**
Catalog Number: 9027
Jing Zhou (Medical School) 3779

***Genetics 306. Inherited Human Disorders**
Catalog Number: 7324
Jonathan G. Seidman (Medical School) 7529

***Genetics 308. Molecular Biology of Signal Transduction**
Catalog Number: 5616
Brian Seed (Medical School) 7619

***Genetics 309. Gene Expression in Yeast**
Catalog Number: 3763
Fred Winston (Medical School) 7877

***Genetics 310. Molecular Approaches to Developmental Neurobiology**
Catalog Number: 6324
Constance L. Cepko (Medical School) 1150

***Genetics 311. Molecular Mechanisms of Transcription Regulation in Mammals**
Catalog Number: 7310
Robert E. Kingston (Medical School) 1153

***Genetics 312. Molecular Genetics of Development**
Catalog Number: 8363
Gary B. Ruvkun (Medical School) 1366

***Genetics 313. Genomic Approaches to Human Disease Genetics**
Catalog Number: 6059
David M. Altshuler (Medical School) 4307

***Genetics 314. Structure and Activities of Ribozymes**
Catalog Number: 7244
Jack Szostak (Medical School) 7096

***Genetics 315. Molecular Genetics of Inherited Disorders**
Catalog Number: 3362
James Gusella (Medical School) 1152

***Genetics 316. Transcriptional Regulatory Network Analyses**
Catalog Number: 2247
Martha L. Bulyk (Medical School) 4259

***Genetics 317. Signaling Networks in Development and Disease**
Catalog Number: 2271
Jordan A. Kreidberg (Medical School) 2080

***Genetics 318. Genome Structure**
Catalog Number: 5012
George M. Church (Medical School) 1608

***Genetics 319. Mouse Models of Human Disorders**
Catalog Number: 0860
David R. Beier (Medical School) 3519

***Genetics 321. Genetics of Embryonic Development in Drosophila**
Catalog Number: 6501
Norbert Perrimon (Medical School) 1679

***Genetics 322. Vertebrate Pattern Formation**
Catalog Number: 0436
Clifford J. Tabin (Medical School) 2430

***Genetics 323. Molecular Biology of V(D)J Recombination**
Catalog Number: 6950
Marjorie A. Oettinger (Medical School) 3172

***Genetics 325. Human Genetics, Genomics and Complex Traits**
Catalog Number: 8275
Joel N. Hirschhorn (Medical School) 4321

***Genetics 326. Human, Molecular and Mouse Genetics**
Catalog Number: 2900
David J. Kwiatkowski (Medical School) 3770

***Genetics 328. Lymphocyte Differentiation, Recombination, and Nuclear Oncogenes**
Catalog Number: 2702
Frederick W. Alt (Medical School) 3146

***Genetics 329. Genetic Analysis of Synaptic Transmission**
Catalog Number: 9734
Joshua M. Kaplan (Medical School) 3522

***Genetics 330. Critical Thinking and Research Proposal Writing**
Catalog Number: 0210
Alan M. Michelson (Medical School) 2029 and members of the Division.
Half course (fall term; repeated spring term). Hours to be arranged.
A small group tutorial systematically guiding students in the writing of original, hypothesis-driven research proposals from initial topic selection through completion of a final draft.
Note: Open to all BBS students; others need permission of the instructor.
Prerequisite: Core course in genetics, cell biology, molecular biology, and biochemistry.

***Genetics 332. Combining Genetic and Biochemical Approaches to Dissect Tumor Suppressor Gene Function**
Catalog Number: 2975
Karen M. Cichowski (Medical School) 3932

***Genetics 334. Genomics and the Genetics of Human Disease**
Catalog Number: 5144
Raju Kucherlapati (Medical School) 4324

***Genetics 335. Epigenetics, Homolgy Effects, Gene Structure, and Genomics**
Catalog Number: 4982
Chao-Ting Wu (Medical School) 3535

***Genetics 336. Developmental Biology of Hematopoiesis**
Catalog Number: 7165
Leonard I. Zon (Medical School) 1137

***Genetics 337. Human Molecular Genetics**
Catalog Number: 7194
Stuart H. Orkin (Medical School) 7402

***Genetics 340. A Genetic Approach to Iron Biology**
Catalog Number: 2936
Nancy Andrews (Medical School) 1589

***Genetics 347. Genetics of Host Resistance to Infectious Disease**
Catalog Number: 5635
William F. Dietrich (Medical School) 2067

***Genetics 348. Molecular Genetics of Human Leukemias**
Catalog Number: 5908
D. Gary Gilliland (Medical School) 2068

***Genetics 349. Signal Transduction in Disease and Development**
Catalog Number: 0177
Andre Bernards (Medical School) 1824

***Genetics 350. Molecular Genetic Control of Mammalian Organogenesis**
Catalog Number: 4974
Richard L. Maas (Medical School) 3703

***Genetics 351. Using Drosophila as a Genetic System to Study Signal Transduction Pathways**
Catalog Number: 4998
Lizabeth A. Perkins (Medical School) 1604

***Genetics 354. Computational Methods for Understanding the Biological Basis of Human Disease**
Catalog Number: 9546
Isaac S. Kohane (Medical School) 4531

***Genetics 355. Molecular Genetics of Human Neuromuscular Diseases**
Catalog Number: 9253
Alan H. Beggs (Medical School) 1422

***Genetics 358. Mammalian Embryonic Patterning**
Catalog Number: 8297
Susan M. Dymecki (Medical School) 1736

***Genetics 359. Cancer and Development, Thrombopoiesis, Intestinal Development**
Catalog Number: 9880
Ramesh Arjun Shivdasani (Medical School) 4538

***Genetics 361. Mechanism of X-inactivation in Mammals**
Catalog Number: 9152
Jeannie T. Lee (Medical School) 2129

***Genetics 362. Molecular Biology and Genetics of Cancer**
Catalog Number: 9382
David Morse Livingston (Medical School) 4872

***Genetics 363. Neurogenesis in the Vertebrate Eye**
Catalog Number: 8658
Jarema Malicki (Medical School) 2202

***Genetics 364. Development Application of Mammalian Vectors**
Catalog Number: 7930
Richard C. Mulligan (Medical School) 2274

***Genetics 366. Molecular Genetic Approaches to Human Disease Mechanisms**
Catalog Number: 8153
Marcy E. MacDonald (Medical School) 2635

***Genetics 367. Mechanisms Governing Normal Cell Growth, Cancer and Aging**
Catalog Number: 2500
Ronald A. DePinho (Medical School) 2637

***Genetics 368. Molecular and Genetic Mechanisms Responsible for Muscle Differentiation During Embryonic Development**
Catalog Number: 7490
Alan M. Michelson (Medical School) 2029

***Genetics 369. Molecular Mechanisms of Plant Signal Transduction**
Catalog Number: 3010
Jen Sheen (Medical School) 3892

***Genetics 370. Molecular Basis of Breast Cancer Initiation and Progression**
Catalog Number: 4519
Kornelia Polyak (Medical School) 3898

***Genetics 371. To Generate a Comprehensive Protein-Interaction Map for C. elegans and Develop New Concepts to Integrate this Map with Other Functional Maps such as Expression Profiles and Global Phenotypic Analysis**
Catalog Number: 2190
Marc Vidal (Medical School) 3914

***Genetics 373. Kidney Disease, Genetics, Cytoskeleton**
Catalog Number: 3875
Martin R. Pollak (Medical School) 4329

***Genetics 374. Research On Mechanisms Underlying Meiotic Chromosome Segregation**
Catalog Number: 4419
Monica P. Colaiacovo (Medical School) 4949

***Genetics 375. Genomics of Leukemia**
Catalog Number: 2335
Scott A. Armstrong (Medical School) 4947

***Genetics 376. Cell Cycle Control and Genomic Integrity**
Catalog Number: 3788
Stephen Elledge (Medical School) 4954

***Genetics 377. Molecular Genetics of Chromosome Organization and Gene Expression**
Catalog Number: 0811
Mitzi I. Kuroda (Medical School) 4959

***Genetics 378. Vectorology of Chromosomal Integration and Gene Therapy Models**
Catalog Number: 8555
Philippe Leboulch (Medical School) 4960

***Genetics 379. Applying Population Genetics to Find Disease Genes**
Catalog Number: 1677
David Emil Reich (Medical School) 4965

***Genetics 380. Molecular Approaches to Metabolism and Energy Balance**
Catalog Number: 4688
Evan David Rosen (Medical School) 4966

***Genetics 381. Genetics of Psychiatric Disorders**
Catalog Number: 1377
Pamela B. Sklar (Medical School) 5154

***Genetics 382. Muscle Stem Cell Commitment and Differentiation**
Catalog Number: 2626
Emanuela Gussoni (Medical School) 5155

Immunology

All courses in Immunology are subject to limitation in enrollment and will not be offered unless there is sufficient demand.

Primarily for Graduates

***Immunology 201. Principles of Immunology**
Catalog Number: 8337
Michael C. Carroll (Medical School), Ulrich H. Von Andrian-Werburg (Medical School) and members of the Faculty
Half course (fall term). Tu., Th., 1:30–3:30; Section Tu., Th., 3:30–4:30.
As a comprehensive core course in immunology, the topics include a broad but intensive examination of the cells and molecules of the immune system. Special attention is given to the experimental approaches that led to the general principles of immunology.
Note: Intended for students who have had prior exposure to immunology on the undergraduate level. In the absence of such exposure, students *must* obtain the permission of the Course Director. Offered jointly with the Medical School as IM 702.0.
Prerequisite: A background in genetics and biochemistry strongly recommended.

***Immunology 202. Advanced Principles of Immunology**
Catalog Number: 5674
Michael C. Carroll (Medical School), Ulrich H. Von Andrian-Werburg (Medical School) and members of the faculty.
Half course (spring term). Tu., Th., 1:30–4.
Continuation of Immunology 201 as an intensive core course in fundamentals of the immune system. Emphasis on systems of immunity. Critical reading of primary literature.
Note: Offered jointly with the Medical School as IM 712.0.
Prerequisite: Immunology 201 or its equivalent

Immunology 204. Critical Readings for Immunology
Catalog Number: 9563
Anjana Rao (Medical School) and associates
Half course (spring term). M., 3–6 and Th., 11–2.
Original research articles from fields including biochemistry, genetics, and cell and developmental biology will be critically analyzed in an intensive small group format. Grading will be based on class participation, two exams, and written critiques of papers.

Note: Required for first-year immunology students, open to second-year immunology students. No auditors.

[*Immunology 219. Immunodeficiencies and Infectious Diseases]
Catalog Number: 1873
Cox Terhorst (Medical School), Michael B. Brenner (Medical School), Raif S. Geha (Medical School), Norman Letvin (Medical School), Fred S. Rosen (Medical School), and Michael Starnbach (Medical School)
Half course (spring term). Hours to be arranged.
This course is divided into two parts. The first quarter describes genetically determined human immunodeficiency patients, murine immunodeficiencies caused by homologous recombination or introduction of transgenes, and human and animal acquired immunodeficiencies. Examines impact of defects on lymphoid differentiation and on immune responses. Evaluates use of animal models for study and therapy of human disease states. The second quarter characterizes natural host immune responses that contain infectious agents. Interactions between HIV and cells of the immune system are emphasized. The two parts can be taken together as a half course, or individually as a quarter course under Immunology 300.
Note: Expected to be given in 2005–06. Given in alternate years. Offered jointly with the Medical School as IM 729.0.
Prerequisite: Course in basic immunology.

Graduate Courses of Reading and Research

Primarily designed for work on a thesis problem, carried out under the supervision of the following faculty members whose special research interests are listed.
***Immunology 300. Advanced Topics in Immunology**
Catalog Number: 4739
Hidde Ploegh (Medical School) 3143
Reading and discussion seminars each running for a half term (7 weeks). Two seminars, which can be taken in different terms, are required for credit. Topics include the role of intracellular and transmembrane protein phosphates in signal transduction.
Note: Intended for first- and second-year Immunology graduate students. Non-DMS students must get permission from the Division of Medical Sciences before registering for this course. Call 617-432-0162 or visit the DMS Office at T-MEC 435, 260 Longwood Avenue, Boston.

***Immunology 301. Immunology Seminar**
Catalog Number: 4971
Hidde Ploegh (Medical School) 3143
Gives students exposure to research topics in Immunology. Students prepare for the weekly seminar through readings and occasional discussion with the seminar speakers. These discussions are facilitated by members of the Committee on Immunology.
Note: Intended for first- and second-year Immunology graduate students.

***Immunology 302. Molecular Basis of Humoral Immunologic Inflammation**
Catalog Number: 1355
K. Frank Austen (Medical School) 1571

***Immunology 303. Immunity to Tuberculosis**
Catalog Number: 9490
Samuel M. Behar (Medical School) 4570

***Immunology 306. Immunochemical Aspects of Immune Reactions**
Catalog Number: 1536
Stuart F. Schlossman (Medical School) 3593

***Immunology 307. Immunobiology of Transplantation**
Catalog Number: 1609
Charles B. Carpenter (Medical School) 2016

***Immunology 308. Gene Regulation in the Immune Response**
Catalog Number: 6895
Anjana Rao (Medical School) 1854

***Immunology 309. Molecular Aspects of Lymphocyte Interactions**
Catalog Number: 3778
Cox Terhorst (Medical School) 6280

***Immunology 311. Defects in the Immune Response**
Catalog Number: 2738
Fred S. Rosen (Medical School) 3595

***Immunology 314. Immunobiology of Antigen-Antibody Complexes**
Catalog Number: 8065
Peter H. Schur (Medical School) 4551

***Immunology 315. Immunoregulation**
Catalog Number: 5540
Martin E. Dorf (Medical School) 4541

***Immunology 316. Molecular Basis of Immunologic Recognition and Communication**
Catalog Number: 3192
Harvey Cantor (Medical School) 4460

***Immunology 317. Molecular Biology of Receptor Transduction in the Immune System**
Catalog Number: 0518
Brian Seed (Medical School) 7619

***Immunology 319. Molecular Basis of Cell Adhesion and Migration**
Catalog Number: 0293
Timothy A. Springer (Medical School) 6145

***Immunology 323. Research in Molecular Immunology**
Catalog Number: 3425
Laurie H. Glimcher (Public Health) 1362

***Immunology 324. T-cell Development in Animal Models of Autoimmunity Disease**
Catalog Number: 1905
Christophe O. Benoist (Medical School) 3928

***Immunology 326. Human T-cell Antigen Receptor; Human Lymphocyte Differentiation Antigens**
Catalog Number: 6719
Ellis L. Reinherz (Medical School) 1408

***Immunology 327. Chemical Cell Biology**
Catalog Number: 0824
Stuart L. Schreiber 2166

***Immunology 328r. Introduction to Research**
Catalog Number: 5531
Hidde Ploegh (Medical School) 3143

***Immunology 329. Basic and Clinical Mechanisms of Autoimmunity**
Catalog Number: 0354
Howard L. Weiner (Medical School) 1335

***Immunology 330. Molecular Aspects of Mast Cells—Mediated Immune Responses**
Catalog Number: 7296
Richard L. Stevens (Medical School) 2892

***Immunology 331. Lymphoid Organs**
Catalog Number: 5725
Joan E. Stein-Streilein (Medical School) 4769
Mechanisms used by innate immune cells in trafficking and generating immune peripheral tolerance in the secondary lymphoid organs.

***Immunology 333. Immunopathogenesis of Viral Diseases**
Catalog Number: 2430
Norman Letvin (Medical School) 2317

***Immunology 335. T-Cell Receptor Interactions in Autoimmune Diseases**
Catalog Number: 4027
David Hafler (Medical School) 2616

***Immunology 336. T-Lymphocyte Recognition and Adhesion**
Catalog Number: 7292
Michael B. Brenner (Medical School) 2864

***Immunology 337. Development of Mucosal Immmunologic Factor**
Catalog Number: 1320
W. Allan Walker 1175

***Immunology 338. Signal Transduction in the Immune System**
Catalog Number: 5458
Hamid Band (Medical School) 2867

***Immunology 339. Function and Regulation of Cellular Adhesion Mechanisms**
Catalog Number: 7841
Martin E. Hemler (Medical School) 2868

***Immunology 340. The Human Major Histocompatibility Complex, Immune Function, and Disease**
Catalog Number: 6650
Chester Alper (Medical School) 2951

***Immunology 343. The Regulation of Eicosanoid Generation**
Catalog Number: 8593
Jonathan P. Arm (Medical School) 4946

***Immunology 344. Genetic Analysis of Lymphocyte Development and Nuclear Oncogene Function**
Catalog Number: 6438
Frederick W. Alt (Medical School) 3146

***Immunology 345. Assembly and Function of pre-B Cell-fate and B Lymphocyte Antigen Receptors**
Catalog Number: 0866
Shiv S. Pillai (Medical School) 3393

***Immunology 346. The Role of Complement in the Immune Response**
Catalog Number: 1755
Michael C. Carroll (Medical School) 2050

***Immunology 348. Cell Biology, Biochemistry, and Immunology of Leukocyte-endothelial Adhesion**
Catalog Number: 0901
Francis W. Luscinskas (Medical School) 3772

***Immunology 349. Mechanisms of T Cell and NK Cell Tolerance**
Catalog Number: 1241
Megan Sykes (Medical School) 1131

***Immunology 350. Regulation of Autoimmune T Cell Responses**
Catalog Number: 1916
Vijay K. Kuchroo (Medical School) 2041

***Immunology 354. Topics in Transplantation Biology**
Catalog Number: 1459
David H. Sachs (Medical School) 1075

***Immunology 355. Biochemistry of MHC Class I- and MHC Class II-restricted Antigen Presentation**
Catalog Number: 7338
Hidde Ploegh (Medical School) 3143

***Immunology 356. Cytotoxic T Lymphocytes**
Catalog Number: 8232
Judy Lieberman (Medical School) 1542

***Immunology 357. T Cell-Epithelial Cell Interactions in Mucosal Community**
Catalog Number: 2111
Richard S. Blumberg (Medical School) 2351

***Immunology 360. Focus on the Hematopoietic Stem Cell in the Context of AIDS and Cancer**
Catalog Number: 8952
David T. Scadden (Medical School) 2649

***Immunology 361. Induction and Regulation of Antigen-specific T Cell Responses**
Catalog Number: 7578
Gilles A. Benichou (Medical School) 2652

***Immunology 362. Basic Biology and Pathobiology of the Chemokine Superfamily of Cytokines**
Catalog Number: 3817
Andrew D. Luster (Medical School) 2654

***Immunology 363. Regulation of Mast Cell Activation by Stimulatory and Inhibitory Receptors**
Catalog Number: 6813
Howard R. Katz (Medical School) 2837

***Immunology 364. T-Cell Development in Animal Models of Autoimmunity Disease**
Catalog Number: 0972
Diane J. Mathis (Medical School) 3063

***Immunology 365. Mucosal T Cell Mediated Immunity and Tolerance**
Catalog Number: 4204
Cathryn R. Nagler-Anderson (Medical School) 1022

***Immunology 366. Molecular Regulation of T Cell Cytokine Production and T Cell Interactions with the Blood Vessel Wall**
Catalog Number: 6676
Andrew H. Lichtman (Medical School) 3523

***Immunology 367. Biology and Chemistry of Complement Problems**
Catalog Number: 8080
Anne Nicholson-Weller (Medical School) 1063

***Immunology 368. Cytotoxic Lymphocytes**
Catalog Number: 8986
Paul J. Anderson (Medical School) 1947

***Immunology 369. Mechanisms of Autoimmune Disease**
Catalog Number: 6787
Vicki R. Kelley (Medical School) 2656

***Immunology 371. Cellular and Molecular Mechanisms of Eosinophil and Other Leukocyte Involvement in Allergic Flammation**
Catalog Number: 3716
Peter F. Weller (Medical School) 2657

***Immunology 372. Mechanisms Graft Rejection: Allo and Xeno**
Catalog Number: 3207
Hugh Auchincloss (Medical School) 2661

***Immunology 373. Biology of Histocompatibility Systems in Man and Experimental Animals; Immunology of Aging**
Catalog Number: 6317
Edmund J. Yunis (Medical School) 6036

***Immunology 374. Tumor Necrosis Factor-Alpha Gene Regulation in the Immunopathogenesis of AIDS and TB**
Catalog Number: 4558
Anne E. Goldfeld (Medical School) 1008

***Immunology 375. Biology and Function of Immunoreceptors**
Catalog Number: 0510
Jean-Pierre Kinet (Medical School) 2663

***Immunology 376. Regulation of IgE Reponses; Molecular Basis of Immunodeficienies**
Catalog Number: 3618
Raif S. Geha (Medical School) 1795

***Immunology 377. Regulation of T Helper Cell Differentiation**
Catalog Number: 0458
Michael Grusby (Public Health) 1987

***Immunology 378. Basic Mechanisms of T cell Mediated Autoimmune Diseases**
Catalog Number: 2916
Kai Wucherpfennig (Medical School) 2481

***Immunology 379. Induction of Immunological Tolerance by Gene Therapy**
Catalog Number: 9300
John J. Iacomini (Medical School) 2643

***Immunology 380. Control of Leukocyte Trafficking and the Immune Response By Chemokines and Other Cytokines**
Catalog Number: 4872
Barrett J. Rollins (Medical School) 3775

***Immunology 381. Lymphocyte Development, Signaling, Immunoregulation**
Catalog Number: 0839
Harald Von Boehmer (Medical School) 3302

***Immunology 382. AIDS Immunopathogenesis and Immune Reconstitution**
Catalog Number: 0468
Robert P. Johnson (Medical School) 6125

***Immunology 383. Translational Approaches In Transplantation and Tumor Immunity**
Catalog Number: 4590
Lee M. Nadler (Medical School) 3773

***Immunology 385. Transcriptional Regulation of T Lymphocyte Activation and Differentiation**
Catalog Number: 1243
I-Cheng Ho (Medical School) 2764

***Immunology 386. Immunology of the Eye**
Catalog Number: 9390
J. Wayne Streilein (Medical School) 3953

***Immunology 388. Immunology and Molecular Biology of Schistosoma Mansoni**
Catalog Number: 5640
Donald A. Harn (Public Health) 2051

***Immunology 389. Development of Cancer Vaccines**
Catalog Number: 4106
Glenn Dranoff (Medical School) 1821

***Immunology 391. Transcription Factors in Lymphocyte Commitment and Differentiation**
Catalog Number: 5285
Katia Georgopoulos (Medical School) 2070

***Immunology 392. Dendritic Cells and the Initiation of Immune Reponses; Genetic Analysis using Genome-Wide Mammalian RNAi Libraries**
Catalog Number: 0298
Nir Hacohen (Medical School) 5157

***Immunology 393. The Role of the Transcription Factor NF-kB in Regulating Innate Inflammatory Responses**
Catalog Number: 3287
Bruce H. Horwitz (Medical School) 5158

***Immunology 394. Cellular and Molecular Mechanisms by which CD1 Proteins Present Lipid Antigens to T Cells**
Catalog Number: 0938
D. Branch Moody (Medical School) 5159

***Immunology 396. The Fundamental Nature of and the Means to Produce T Cell Tolerance to Allo- and Auto-Antigens**
Catalog Number: 1812
Terry B. Strom (Medical School) 5160

***Immunology 399. Topics in Immunology**
Catalog Number: 2377
Hidde Ploegh (Medical School) 3143

Medical Sciences

Primarily for Graduates

***Medical Sciences 215. Integrated Human Physiology**
Catalog Number: 6359
Richard M. Schwartzstein (Medical School) and members of the Faculty
Half course (fall term). M. through F., 8:30–12.
Describes the physiological mechanisms underlying the functions and interactions of the major systems of the human body, including the cardiovascular, renal, gastrointestinal, respiratory, endocrine, and reproductive systems. Particular emphasis is placed on the interactions between these systems and the overall integration of physiological functions. The course is geared primarily toward small group exercises including case discussions, problem sets, hospital based demonstrations, and laboratories.

Note: Offered jointly with the Medical School as IN 712.0. Students taking the course for credit are expected to attend all course sessions. Permission of both the course director and the Medical School Registrar is required.

***Medical Sciences 250ab. Human Functional Anatomy**
Catalog Number: 6946 Enrollment: Limited to 48. Minimum 25.
Lee Gehrke (Medical School)
Full course (fall term). Lectures, M., W., F., 1:30–2:30; laboratory, M., W., F., 2:30–6.
Lectures, detailed laboratory dissections, and prosections provide a thorough exploration of the gross structure and function of the human body. Fundamental principles of embryology and bioengineering promote analytical approaches to understanding the body's design.
Note: Open to qualified graduate students with permission of the course director. Students must register with the course director before the first day of class. Offered jointly with the Medical School as HT 010.

[Medical Sciences 265. Human Physiology: Classical and Contemporary Approaches]
Catalog Number: 4308
Edmund A. Mroz, Jr. (Medical School)
Half course (spring term). Hours to be arranged.
Explores function of the human organism, through experimental findings and underlying physiological principles. Covers cellular and molecular bases of cardiovascular, respiratory, renal, gastrointestinal and metabolic function, and integrated regulation by the endocrine and nervous systems.
Note: Expected to be given in 2005–06. Offered jointly with the Medical School as MS 701.0.
Prerequisite: Cell biology or biochemistry.

Graduate Courses of Reading and Research

***Medical Sciences 300. Conduct of Science**
Catalog Number: 1815
Thomas O. Fox (Medical School) 4542

***Medical Sciences 399. Topics in Medical Sciences**
Catalog Number: 3197
Thomas O. Fox (Medical School) 4542
Subject selected by students and faculty member.

Microbiology and Molecular Genetics

All courses in Microbiology and Molecular Genetics are subject to limitation in enrollment and will not be offered unless there is sufficient demand.

Primarily for Graduates

Microbiology 200. Molecular Microbiology and Pathogenesis
Catalog Number: 7773
Stephen Lory (Medical School), Dan G. Fraenkel (Medical School), and Roberto G. Kolter (Medical School)
Half course (spring term). M., W., F., 9–10:30.
Devoted primarily to bacterial structure, physiology, genetics, regulatory mechanisms and pathogenesis. Class time consists of a combination of: 1) lecture, 2) presentations emphasizing methods, results and interpretation of classic and contemporary literature, 3) guest seminars, and 4) small group discussions of papers.
Note: Offered jointly with the Medical School as MG 726.0.

***Microbiology 205. Mechanisms of Microbial Pathogenesis**
Catalog Number: 2480 Enrollment: May be limited.
Clyde S. Crumpacker II (Medical School) and associates
Half course (fall term). Tu., Th., 8:30–1.
The mechanisms of bacterial, mycoplasmal, fungal, and viral pathogenesis are covered. Topics are selected for intrinsic interest and cover the spectrum of pathophysiologic mechanisms of the infectious process. Emphasis on pathogenesis at the molecular level.
Note: Offered jointly with the Medical School as HT 040.

Microbiology 209. Molecular Biology of Bacteria
Catalog Number: 2698 Enrollment: Limited to 12. Minimum of 8.
Roberto G. Kolter (Medical School)
Half course (spring term). Hours to be arranged. One meeting per week.
Provides in-depth coverage of bacterial development and genomics. Students research topics and prepare lectures. Lectures are followed by discussions of key publications. The specific topics covered vary every year depending on student interest.
Note: Given in alternate years. Open to graduate and advanced undergraduate students. Contact the instructor at least two weeks before the start of spring term via email rkolter@hms.harvard.edu. Offered jointly with the Medical School as MG 727.0.

***Microbiology 212. Bacterial Metabolism**
Catalog Number: 0598
Dan G. Fraenkel (Medical School)
Half course (fall term). W., 3–6.
Pathways and energy metabolism. A discussion course based on papers.
Note: Offered jointly with the Medical School as MG 728.0

Microbiology 213. Social Issues in Biology
Catalog Number: 7905
Jonathan R. Beckwith (Medical School) and Roberto G. Kolter (Medical School)
Half course (spring term). Th., 1–4.
Readings and discussion of social and ethical aspects of biology, chosen from the following topics: history and philosophy of science; genetics and race; human behavior genetics; genetic enhancement; genetic testing; stem cell research; science journalism; science and the two cultures; science and the developing world.

Note: Given in alternate years. Offered jointly with the Medical School as MG 722.0.
Prerequisite: Some background in genetics.

Microbiology 230. Analysis of the Biological Literature
Catalog Number: 3791
Andrea I. McClatchey (Medical School), Jeffrey D. Parvin (Medical School) and members of the Faculty
Half course (fall term). Tu., Th., 4:30–7:30 pm.
Critical analysis of original research articles in an intensive small group discussion format. Papers will be analyzed in terms of background, hypothesis, appropriate use of experimental methods, and objective interpretation of results. Covers a wide range of papers in biochemistry, genetics, microbiology, and cell and developmental biology.
Note: Limited to and required of all first-year BBS students.

Graduate Courses of Reading and Research

Primarily designed for work on a thesis problem, carried out under the supervision of the following faculty members, whose special research interests are listed. Courses in parasitology are listed in the catalog of the Harvard School of Public Health (see Pathology).

***Microbiology 300. Advanced Topics in Microbiology and Molecular Genetics**
Catalog Number: 2304
Michael Starnbach (Medical School) 1816
A series of reading and discussion seminars, each running for a half term (7 weeks). Two seminars, which can be taken in different terms, are required for credit.
Note: Non-DMS students must get permission from the Division of Medical Sciences before registering for this course. Please contact us at 617-432-0605 or visit the DMS Office at T-MEC 435, 260 Longwood Avenue, Boston.
Prerequisite: Dependent on seminar.

***Microbiology 304. Molecular Pathogenesis of Streptococcal Infection**
Catalog Number: 9527
Michael R. Wessels (Medical School) 4540

***Microbiology 305. Molecular Determinants of Intracellular Bacterial Pathogenesis**
Catalog Number: 3190
Darren E. Higgins (Medical School) 2963

***Microbiology 307. Growth Factors and Signal Transduction**
Catalog Number: 5726
Charles D. Stiles (Medical School) 4828

***Microbiology 308. Bacterial Pathogenesis and Immune Responses**
Catalog Number: 4217
Dennis L. Kasper (Medical School) 4815

***Microbiology 310. Bacterial Genetics of Tuberculosis and Tularemia**
Catalog Number: 7652
Eric J. Rubin (Medical School) 4084

***Microbiology 311. Bacterial Genetics**
Catalog Number: 7402
Jonathan R. Beckwith (Medical School) 1173

***Microbiology 313. T-Lymphocyte Responses to Bacterial Pathogens**
Catalog Number: 4959
Michael Starnbach (Medical School) 1816

***Microbiology 315. Biochemical Mechanisms Controlling Cell Growth and Differentiation**
Catalog Number: 3273
Michael E. Greenberg (Medical School) 1400

***Microbiology 316. Host Pathogen Interactions**
Catalog Number: 7769
Stephen Lory (Medical School) 4326

***Microbiology 317. Molecular Mechanisms in Pathogenesis**
Catalog Number: 8985
John J. Mekalanos (Medical School) 7315

***Microbiology 318. RNA Structure, RNA-protein Interactions, and Translation-level Gene Regulation in RNA Viruses**
Catalog Number: 1205
Lee Gehrke (Medical School) 8036

***Microbiology 320. Molecular Biology of Herpes Viruses**
Catalog Number: 3967
David M. Knipe (Medical School) 7089

***Microbiology 321. Molecular Biology of Bacterial Interactions**
Catalog Number: 2903
Roberto G. Kolter (Medical School) 7727

***Microbiology 322. Biochemistry of Bacterial Toxins**
Catalog Number: 4970
R. John Collier (Medical School) 7972

***Microbiology 323. Molecular Genetic Analysis of Virulence Factors in Gram-Negative Pathogens and Construction of Recombinant Vaccines**
Catalog Number: 4931
Stephen Calderwood (Medical School) 3520

***Microbiology 324. Bacterial Pathogenesis and Vaccine Development**
Catalog Number: 3472
Gerald Pier (Medical School) 2853

***Microbiology 325. Signal Transduction, Host-Microbial Interactions and Immunology**
Catalog Number: 2839
Scott Brian Snapper (Medical School) 4969

***Microbiology 328. Molecular Biology of Epstein Barr Virus Infection and Transformation of B Lymphocytes**
Catalog Number: 3188
Elliott D. Kieff (Medical School) 1858

***Microbiology 329. The Regulation of Gene Expression in Pathogenic Bacteria**
Catalog Number: 5892
Simon L. Dove (Medical School) 4953

***Microbiology 330. Molecular Mechanisms in Bacterial Differentiation**
Catalog Number: 5102
David Z. Rudner (Medical School) 4968

***Microbiology 331. Modeling Mechanisms of Bacterial Pathogenesis**
Catalog Number: 1929
Cammie Lesser (Medical School) 4962

***Microbiology 332. Gene Regulation of Prokaryotes**
Catalog Number: 0915
Ann Hochschild (Medical School) 2314

***Microbiology 335. Molecular Biology of Parasites**
Catalog Number: 0528
Dyann F. Wirth (Public Health) 2492

***Microbiology 336. Pathogen-host Interactions**
Catalog Number: 3981
Marcia Goldberg (Medical School) 3783

***Microbiology 338. Pattern Recognition in Innate Immunity**
Catalog Number: 4424
R. Alan Ezekowitz (Medical School) 1808

***Microbiology 340. Herpes Virus Transformation and Gene Transfer Vector**
Catalog Number: 8544
Jae Ung Jung (Medical School) 2048

***Microbiology 342. Reovirus Structure, Assembly, and Particle Functions in Entry and RNA Synthesis**
Catalog Number: 4181
Max L. Nibert (Medical School) 3896

***Microbiology 343. Chemical Biology and Enzymology**
Catalog Number: 2963
Suzanne Walker (Medical School) 5087

***Microbiology 344. Chemistry and Biology of Host-Virus Interactions**
Catalog Number: 8853
Priscilla Yang (Medical School) 5156

Neurobiology

Primarily for Graduates

Neurobiology 200. Introduction to Neurobiology
Catalog Number: 6062 Enrollment: Limited to 45.
David P. Corey (Medical School), John A. Assad (Medical School), Matthew P. Frosch (Medical School), and Lisa V. Goodrich (Medical School)
Half course (fall term). M., W., F., 9–12.
Modern neuroscience from molecular biology to perception and cognition. Includes cell biology of neurons and glia; ion channels and electrical signaling; synaptic transmission and integration; chemical systems; brain anatomy and development; sensory systems; motor systems; higher cognitive function.
Note: Offered jointly with the Medical School as HT 130. Follows the Medical School calendar. Nine hours of lecture or lab/conference weekly.

Neurobiology 204. Neurophysiology of Central Circuits
Catalog Number: 5603
R. Clay Reid (Medical School), John A. Assad (Medical School), and Richard T. Born (Medical School)
Half course (spring term). M., W., 10–12.
Introduction to the physiology of circuits in the vertebrate central nervous system. Topics include the auditory, somatosensory, and visual systems, the cerebellum, and the neural control of eye movements. The behavior of these systems are analyzed at three levels: the electrophysiological properties of single neurons, synaptic interactions between neurons *in vitro*, and the behavior of the circuits *in vivo.*
Note: Offered jointly with the Medical School as NB 721.0.
Prerequisite: Neurobiology 220.

Neurobiology 207. Developmental Neurobiology
Catalog Number: 4977 Enrollment: Limited to 20.
Qiufu Ma (Medical School), Dietmar Schmucker (Medical School), and Rosalind A. Segal (Medical School)

Half course (spring term). Tu., Th., 3–5.
Development of the nervous system. Topics include delineation of neural vs. non-neural tissues; axial and segmental patterning; cell lineage; specification of neuronal identity; axonal outgrowth and guidance; synapse formation and regression; hormonal influences on nervous system development.
Note: Offered jointly with the Medical School as NB 720.0.
Prerequisite: Neurobiology 200 or permission of instructor.

[Neurobiology 209. Neurobiology of Disease]
Catalog Number: 5562
Edward A. Kravitz (Medical School), Robert H. Brown (Medical School), and Walter J. Koroshetz (Medical School)
Half course (spring term). Hours to be arranged.
Monday sessions involve patient presentations and "core" lectures describing clinical progression, pathology, and basic science underlying a major disease or disorder. Wednesdays, students present material from original literature sources, and there is general discussion.
Note: Expected to be given in 2005–06. Given in alternate years. Offered jointly with the Medical School as NB 713.0. For advanced undergraduate and graduate students.
Prerequisite: Introductory neurobiology, biochemistry, and genetics/molecular biology recommended.

***Neurobiology 220. Cellular Neurophysiology**
Catalog Number: 2141
Bruce P. Bean (Medical School), Wade G. Regehr (Medical School), and Gary I. Yellen (Medical School)
Half course (fall term). Tu., Th., 9:30–12 and weekly discussion section.
Introduction to the physiology of neurons. Topics include structure and function of ion channels, generation and propagation of action potentials, and physiology of synaptic transmission. Includes problem sets and reading of original papers.
Note: Offered jointly with the Medical School as NB 714.0.
Prerequisite: Introductory neurobiology.

***Neurobiology 221. Molecular Neurobiology**
Catalog Number: 0443
Charles J. Weitz (Medical School), Jonathan B. Cohen (Medical School), Bernardo L. Sabatini (Medical School), and Thomas L. Schwarz (Medical School)
Half course (spring term). Tu., Th., 10–12.
Introduction to the molecular biology and genetics of the nervous system. Emphasis on the importance of ligand-receptor interactions and receptor regulation for the function of the nervous system and on the mechanisms of storage and release of neurotransmitters.
Note: Offered jointly with the Medical School as NB 715.0.
Prerequisite: Introductory neurobiology and molecular biology.

Graduate Courses of Reading and Research

***Neurobiology 300. Advanced Topics in Neurobiology**
Catalog Number: 6206
Larry I. Benowitz (Medical School) 3150 and associates
Topics cover areas at the molecular, cellular, and systems levels in both basic and clinical neuroscience. A series of reading and discussion seminars, each running for a half term (seven weeks).
Note: Two seminars, which can be taken in different terms, are required for credit. Offered jointly with the Medical School as NB 719.0. Non-DMS students must get permission from the Division of Medical Sciences before registering for this course. Please contact us at 617-432-0162 or visit the DMS Office at T-MEC 435, 260 Longwood Avenue, Boston.

***Neurobiology 304. Chemistry of Synapses**
Catalog Number: 5467
Edward A. Kravitz (Medical School) 2063

***Neurobiology 307. Investigation of Central Nervous System Pathways Regulating Autonomic & Neuroendocrine Function**
Catalog Number: 4961
Joel K. Elmquist (Medical School) 3045

***Neurobiology 308. Molecular Mechanisms of Catecholaminergic-specific Gene Regulation**
Catalog Number: 6125
Kwang-Soo Kim (Medical School) 3046

***Neurobiology 309. Quantitative Microscopic Approaches are used to Study Neural Circuitry in Schizophrenia and to Determine how Postnatal Ontogenesis may Contribute to the Onset of this Disorder**
Catalog Number: 3823
Francine M. Benes (Medical School) 1869

***Neurobiology 313. Molecular Neurobiology of the Biological Clock**
Catalog Number: 1758
Charles J. Weitz (Medical School) 1139

***Neurobiology 315. Neurotrophins and Cerebellar Development**
Catalog Number: 0128
Rosalind A. Segal (Medical School) 1564

***Neurobiology 316. Laboratory of Pain Physiology**
Catalog Number: 0222
Rami Burstein (Medical School) 1294

***Neurobiology 317. Auditory System**
Catalog Number: 4979
Lisa V. Goodrich (Medical School) 4771
A combination of genetic, molecular and embryological approaches to investigate how the

auditory system is patterned and wired during development, with a focus on the differentiation of hair cells and ganglion neurons within the inner ear.

***Neurobiology 318. Molecular Genetics of Cerebral Cortical Development**
Catalog Number: 0825
Christopher A. Walsh (Medical School) 1560

***Neurobiology 319. Neurological Control of Cell Growth and Differentiation**
Catalog Number: 2991
Michael E. Greenberg (Medical School) 1400

***Neurobiology 320. Neuroprotection and Neuronal Repair in Neurodegenerative Disease**
Catalog Number: 4825
Ole S. Isacson (Medical School) 2077

***Neurobiology 321. Higher Functions in the CNS**
Catalog Number: 5387
Margaret S. Livingstone (Medical School) 1064

***Neurobiology 322. Cellular and Molecular Mechanisms in Axon Guidance and Regeneration**
Catalog Number: 2873
Zhigang He (Medical School) 3910

***Neurobiology 323. Synaptic Plasticity**
Catalog Number: 3209
Florian Engert 4290
Cellular mechanisms, development of functional networks, and links to behavior.

***Neurobiology 324. Research in Neuropeptide Gene Regulation**
Catalog Number: 4057
Joseph A. Majzoub (Medical School) 1875

***Neurobiology 325. Synaptic Transmissions and Dendritic Processing**
Catalog Number: 2065
Wade G. Regehr (Medical School) 1606

***Neurobiology 326. Age-Dependent Mechanisms of Perinatal Brain Injury**
Catalog Number: 2469
Frances E. Jensen (Medical School) 3940

***Neurobiology 327. Rotations in Neurosciences**
Catalog Number: 5694
Jonathan B. Cohen (Medical School) 1120 (fall term) and Gary I. Yellen (Medical School) 3268 (spring term)

***Neurobiology 328. Mechanisms of Cell Death in Stroke and Trauma**
Catalog Number: 8967
Eng H. Lo (Medical School) 3049

***Neurobiology 329. Molecular and Cell Biology of Alzheimer's Disease**
Catalog Number: 8816
Dennis J. Selkoe (Medical School) 2857

***Neurobiology 330. To Establish Causal Relationships between Gene Expression in the Brain and Motivated Behavior**
Catalog Number: 6269
William A. Carlezon (Medical School) 3929

***Neurobiology 331. Molecular Mechanisms that Control Neuronal Differentiation Nerve Growth and Regeneration in the Mammalian Brain and Retina**
Catalog Number: 9045
Dong Feng Chen (Medical School) 3930

***Neurobiology 332. Ligand-Gated Ion Channels: Structure and Function**
Catalog Number: 1623
Jonathan B. Cohen (Medical School) 1120

***Neurobiology 333. Intercellular Communication**
Catalog Number: 2484
David L. Paul (Medical School) 2318

***Neurobiology 335. Hair Cell Regeneration in the Avian Cochlea; Development of the Cochlear Sensory Epithelium**
Catalog Number: 7218
Douglas Allen Cotanche (Medical School) 3933

***Neurobiology 337. Neurobiology of the Human Circadian Pacemaker**
Catalog Number: 5322
Charles A. Czeisler (Medical School) 7763

***Neurobiology 338. Neural Circuitry of Primate Visual Cortex**
Catalog Number: 5634
Richard T. Born (Medical School) 1787

***Neurobiology 339. Mechanisms of Central Synaptic Transmission**
Catalog Number: 9322
Vadim Bolshakov (Medical School) 4948

***Neurobiology 340. Neuronal Interactions within the Retina; Processing of Visual Information; Development of the Retina**

Catalog Number: 5261
John E. Dowling 3545

***Neurobiology 342. Neurophysiology of Visual Cortex and LGN**
Catalog Number: 2778
R. Clay Reid (Medical School) 2957

***Neurobiology 343. Molecular Physiology of Ion Channels**
Catalog Number: 1887
Gary I. Yellen (Medical School) 3268

***Neurobiology 344. Neuropharmacology and Functional Anatomy of Basal Ganglia**
Catalog Number: 7327
Anne B. Young (Medical School) 2896

***Neurobiology 345. Molecular Basis of Neuron Glia Interactions**
Catalog Number: 4918
Gabriel Corfas (Medical School) 2907

***Neurobiology 346. Visual Processing in Primates**
Catalog Number: 0184
John A. Assad (Medical School) 2985

***Neurobiology 347. Alzheimer's Disease Research**
Catalog Number: 6606
Bradley T. Hyman (Medical School) 2952

***Neurobiology 348. Activity-Dependent Development of the Mammalian Visual System**
Catalog Number: 3224
Carla J. Shatz (Medical School) 3796

***Neurobiology 349. Olfactory and Vomeronasal Systems Molecular and Developmental Neurobiology**
Catalog Number: 1416
Catherine Dulac 2801

***Neurobiology 350. Molecular Genetics of Neuronal Development**
Catalog Number: 2038
Constance L. Cepko (Medical School) 1150

***Neurobiology 351. Neurogenetics of Disease**
Catalog Number: 3008
Louis M. Kunkel (Medical School) 1330

***Neurobiology 353. New Biology Through Physics: Molecular Discoveries with Light**
Catalog Number: 3689
David E. Clapham (Medical School) 2987

***Neurobiology 355. Neuronal Signal Transduction Pathways**
Catalog Number: 6914
Christine L. Konradi (Medical School) 3942

***Neurobiology 356. Ion Channels in Neural Cell Membranes**
Catalog Number: 8368
David P. Corey (Medical School) 1345

***Neurobiology 358. Neurogenetics of Human Disease**
Catalog Number: 7616
Xandra O. Breakefield (Medical School) 1428

***Neurobiology 359. Molecular, Neuroanatomic, Electrophysiologic and Behavioral Analysis of Gestational Cocaine Exposure (in mice)**
Catalog Number: 9208
Barry E. Kosofsky (Medical School) 3943

***Neurobiology 360. Statistical Modeling and Stochastic Dynamical Systems Analysis of Neurophysiologic Systems**
Catalog Number: 8525
Emery N. Brown (Medical School) 1399

***Neurobiology 361. Immunobiology of the Nervous System and its Tumors**
Catalog Number: 7282
Lois A. Lampson (Medical School) 2491

***Neurobiology 363. Neural Development and Plasticity**
Catalog Number: 7089
Larry I. Benowitz (Medical School) 3150

***Neurobiology 364. Chemical Neuroanatomy of Autonomic Systems**
Catalog Number: 1523
Clifford B. Saper (Medical School) 3394

***Neurobiology 366. Functional Organization of the Retina**
Catalog Number: 7391
Richard H. Masland (Medical School) 4923

***Neurobiology 367. Neo-Cortical Development and Cellular Transplantation**
Catalog Number: 4252
Jeffrey D. Macklis (Medical School) 3396

***Neurobiology 368. The Neurobiology of Alzheimer's Disease and Related Neurodegenerative Disorders**
Catalog Number: 5054
Bruce Yankner (Medical School) 1557

***Neurobiology 369. Visual Processing**
Catalog Number: 1828
Markus Meister 3007

***Neurobiology 370. Characterization of Genes in Neurodegeneration**
Catalog Number: 8336
Rudolph E. Tanzi (Medical School) 2683
Identifying and characterization of genes involved in neurodegeneration in Alzheimer's disease and aging and Down's syndrome.

***Neurobiology 372. Neurotransmitter Control of Ion Channels**
Catalog Number: 7104
Bruce P. Bean (Medical School) 1148

***Neurobiology 373. Developmental Studies of the Murine Trigeminal Sensory System**
Catalog Number: 7485
Qiufu Ma (Medical School) 3034

***Neurobiology 374. Investigation of the Molecular Basis of Alzheimer's Disease & Parkinson's Disease Using Genetic Approaches in Mice**
Catalog Number: 9022
Jie Shen (Medical School) 3059

***Neurobiology 375. Mechanisms of Synaptic Transmission & Plasticity**
Catalog Number: 0790
Venkatesh N. Murthy 2424

***Neurobiology 376. Synaptic Transmission, Exocytosis and K+ Channel Function**
Catalog Number: 2911
Thomas L. Schwarz (Medical School) 3923

***Neurobiology 377. Physiological Studies of Phototransduction and Light Adaptation**
Catalog Number: 6897
Clint L. Makino (Medical School) 3946

***Neurobiology 379. Growth Factor Regulation of Neural Development and Oncogenesis**
Catalog Number: 7751
Scott L. Pomeroy (Medical School) 3947

***Neurobiology 380. Functional Wiring of the Rabbit Retina, Control of Postnatal Development**

Catalog Number: 4965
Elio Raviola (Medical School) 3582

***Neurobiology 381. Mechanisms of Action of Neurotransmitters and Neuromodulators, Specifically Glutamate and Norepinephrine**
Catalog Number: 6912
Paul Allen Rosenberg (Medical School) 3949

***Neurobiology 382. The Role of the Hypothalamus and Particularly Melanin Concentrating Hormone in the Regulation of Energy Homeostasis**
Catalog Number: 1457
Eleftheria Maratos-Flier (Medical School) 4327

***Neurobiology 384. Structure, Function, and Biological Roles of Na, K-ATPase isoforms in Excitable Tissue**
Catalog Number: 5762
Kathleen J. Sweadner (Medical School) 2148

***Neurobiology 386. Changes in the Function, Chemistry and Structure of Sensory Neurons that Contribute to Pain**
Catalog Number: 7609
Clifford Woolf (Medical School) 3956

***Neurobiology 387. CNS Development & Tumorigenesis**
Catalog Number: 1406
David H. Rowitch (Medical School) 3950

***Neurobiology 388. Cell Biological Biochemical and Molecular Studies on the Mechanisms by which Pathological Stimuli Induce Apoptosis in Neurons**
Catalog Number: 2030
Rajiv R. Ratan (Medical School) 3948

***Neurobiology 389. Molecular Regulation of Neural Tube Development**
Catalog Number: 3914
Mary R. Loeken (Medical School) 3151

***Neurobiology 390. The Role of Dendritic Protein Translation in the Modification of Synapses**
Catalog Number: 9202
Bernardo L. Sabatini (Medical School) 4300

***Neurobiology 391. Diversity and Function of the Dscam Receptor**
Catalog Number: 7541
Dietmar Schmucker (Medical School) 4332

***Neurobiology 392. Synaptic Plasticity in the CNS using Electrophysiological and Calcium Imaging Techniques, as well as Genetically Altered Mouse Strains**
Catalog Number: 6750
Chinfei Chen (Medical School) 4437

***Neurobiology 393. Molecular Basis of Inherited Congenital Eye Movement Disorders and Implications for the Development of Brainstem Motorneurons**
Catalog Number: 3085
Elizabeth C. Engle (Medical School) 4312

***Neurobiology 394. The Molecular Basis of Mechanosensation and Normal Function of the Ear's Sensory Receptors**
Catalog Number: 7885
Stefan Heller (Medical School) 4319

***Neurobiology 397. Nervous System Construction and Function**
Catalog Number: 0158
Samuel M. Kunes 3486

***Neurobiology 398. CNS and Cancer Gene Therapy**
Catalog Number: 4438
Samuel D. Rabkin (Medical School) 4772
Herpes simplex virus vectors for gene delivery in the CNS and cancer gene therapy.

Pathology

Eligible students interested in parasitology and tropical medicine should consult the courses offered by the Department of Tropical Public Health as listed in the catalog of the Harvard School of Public Health. For specific information regarding prerequisites and advisability, contact the office of the Department of Tropical Public Health, Harvard School of Public Health.

Primarily for Graduates

***Pathology 205. Molecular Biology of the Auditory System**
Catalog Number: 0211
Stefan Heller (Medical School) and Anne Giersch
Half course (fall term). M., W., 5–6:30.
Examines the exciting advances in inner ear genetics and molecular biology. Topics include identifying deafness genes, genes and proteins recently identified as critical for proper inner ear function, development, and regeneration.
Note: Given in alternate years. Offered jointly with the Medical School as HT 730.
Prerequisite: Introductory courses in neurobiology and molecular biology are recommended.

[*Pathology 209. Tumor Pathophysiology and Transport Phenomena]
Catalog Number: 5934

Rakesh K. Jain (Medical School)
Half course (fall term). Hours to be arranged.
Tumor pathophysiology plays a central role in the growth, metastasis, detection, and treatment of solid tumors. Principles of transport phenomena are applied to develop a quantitative understanding of tumor biology and treatment.
Note: Expected to be given in 2005–06. Given in alternate years. Offered jointly with the HST Program as HT-525J and the Medical School as PA 712.0.

Pathology 211. Pathology
Catalog Number: 8615
Li-Huei Tsai (Medical School), Peter M. Howley (Medical School), Karl Münger (Medical School), Hidde Ploegh (Medical School) and associates
Half course (spring term). Tu., Th., 1:30–3:30.
An introductory course that covers fundamental pathogenic mechanisms that underlie human disease disorders and discusses a number of individual diseases, including cancer, neurodegenerative diseases and diseases of immune dysfunction. Faculty who are expert in specific areas of pathophysiology lead individual sessions.

Graduate Courses of Reading and Research

Students are usually not eligible to enroll in one of these courses until they have completed their formal required course work. Research courses are primarily designed for research work on a student's thesis problem, carried out under the direct supervision of one of the following faculty members, whose special research interests are listed.

***Pathology 300. Advanced Topics in Cell, Molecular, and Developmental Biology**
Catalog Number: 2245
Patricia A. D'Amore (Medical School) 1168
A series of reading and discussion seminars, each running for a half term (seven weeks). Topics cover areas of interest in cell, molecular, and developmental biology such as signal integration in the cell, biology of growth factors, and cell adhesion molecules. Different topics are covered each term.
Note: Two seminars, which can be taken in different terms, are required for credit. Non-DMS students must get permission from the Division of Medical Sciences before registering for this course. Please contact us at 617-432-0162 or visit the DMS Office at T-MEC 435, 260 Longwood Avenue, Boston.
Prerequisite: Dependent on seminar.

***Pathology 302. Molecular Mechanisms of Leukocyte Trafficking**
Catalog Number: 2273
Ulrich H. Von Andrian-Werburg (Medical School) 2090

***Pathology 303. Viral Pathogenic and Transformation Mechanisms**
Catalog Number: 1644
Peter M. Howley (Medical School) 1076

***Pathology 304. Viral Carcinogenesis**
Catalog Number: 1283
Thomas L. Benjamin (Medical School) 4115

***Pathology 307. Endo- and Exocytosis of Membrane Proteins in Kidney Epithelial Cells**
Catalog Number: 7151
Dennis Brown (Medical School) 1582

***Pathology 308. Genetic Models of Human Disease**
Catalog Number: 1918
Michael C. Carroll (Medical School) 2050

***Pathology 309. Characterization of Inflammatory Cytokines**
Catalog Number: 1076
Martin E. Dorf (Medical School) 4541

***Pathology 310. Cellular and Molecular Regulation of Vascular Development**
Catalog Number: 2653
Patricia A. D'Amore (Medical School) 1168

***Pathology 311. Transcription Factor Activity and Regulation**
Catalog Number: 5846
Grace Gill (Medical School) 1811

***Pathology 312. Research in Molecular Cytogenetics**
Catalog Number: 7347
Cynthia C. Morton (Medical School) 2194

***Pathology 313. Research in Integrin Signaling, Cytoskeleton, and Control of Angiogenesis**
Catalog Number: 4139
Donald E. Ingber (Medical School) 2832

***Pathology 314. Molecular Biology of Immune Cell Interactions**
Catalog Number: 1156
Timothy A. Springer (Medical School) 6145

***Pathology 316. Control of Gene Expression in Tumorgenesis and Differentiation**
Catalog Number: 3892
Thomas M. Roberts (Medical School) 7729

***Pathology 319. Gene Regulation in the Immune Response**
Catalog Number: 1859
Anjana Rao (Medical School) 1854

***Pathology 321. Intracellular Signaling Mechanisms in Brain Development and Disease**
Catalog Number: 8032
Azad Bonni (Medical School) 2923

***Pathology 323. Viral Oncoproteins as Probes to Study the Regulation of Cell Growth and Differentiation**
Catalog Number: 6286
Karl Münger (Medical School) 1586

***Pathology 324. Regulation of T-cell Mediated Immune Response**
Catalog Number: 1501
Arlene H. Sharpe (Medical School) 1588

***Pathology 325. Transcriptional Control in Differentiation/Development and Tumorigenesis**
Catalog Number: 1509
Yang Shi (Medical School) 3169

***Pathology 326. Regulation of Mammalian Neurogenesis by the cdk5/p35 Kinase**
Catalog Number: 1563
Li-Huei Tsai (Medical School) 1639

***Pathology 327. Genetic Models of Leukemogenesis**
Catalog Number: 5534
A. Thomas Look (Medical School) 3771

***Pathology 329. Tissue-Specific Lymphocyte Homing and Diversity**
Catalog Number: 7366
James J. Campbell (Medical School) 4438

***Pathology 330. Transcriptional Regulations and Cellular Differentiation**
Catalog Number: 5521
T. Keith Blackwell (Medical School) 1826

***Pathology 331. Biochemistry of Bacterial Toxins**
Catalog Number: 2609
Tucker Collins (Medical School) 1828

***Pathology 332. Mechanisms Used by Small DNA Tumor Viruses to Disrupt Controls of Cellular Proliferation**
Catalog Number: 0445
Nicholas J. Dyson (Medical School) 1829

***Pathology 333. Models of Human Neurodegenerative Diseases in the Fruit Fly Drosophila**
Catalog Number: 4845
Mel B. Feany (Medical School) 4439

***Pathology 334. Characterization of Tumor Suppressor Genes Implicated in Wilms Tumor and Breast Cancer**
Catalog Number: 5744
Daniel A. Haber (Medical School) 1832

***Pathology 335. Molecular Approaches to Cell Immortalization and Transformation**
Catalog Number: 2283
William C. Hahn (Medical School) 4317

***Pathology 337. Biochemistry of Cell Adhesion**
Catalog Number: 0555
Arthur M. Mercurio (Medical School) 2621

***Pathology 338. Genetic and Biochemical Analysis of GTPase-mediated Signal Transduction Pathways**
Catalog Number: 2647
Jeffrey E. Settleman (Medical School) 1820

***Pathology 343. Cell Adhesion in Vascular Biology**
Catalog Number: 4822
Denisa D. Wagner (Medical School) 2092

***Pathology 346. Biochemistry of Gene Expression**
Catalog Number: 5912
Jeffrey D. Parvin (Medical School) 2084

***Pathology 347. Genetic, Molecular, and Cellular Analysis of Nervous System Function and Development**
Catalog Number: 7591
Anne C. Hart (Medical School) 1010

Pathology 348. Cell-cycle Regulation and Checkpoint Control During Animal Development, Using *C. elegans
Catalog Number: 7924
Sander Van Den Heuvel (Medical School) 2256

***Pathology 350. Topics in Vascular Biology**
Catalog Number: 0289
Michael A. Gimbrone (Medical School) 1896

***Pathology 351. Cytoskeleton in Cancer Development and Progression**
Catalog Number: 5656
Andrea I. McClatchey (Medical School) 2204

***Pathology 352. Recombination Functions of the BRCA Genes**
Catalog Number: 5001
Ralph Scully (Medical School) 4536

***Pathology 353. Cell Cycle Proteins in Development and Cancer**
Catalog Number: 1475
Piotr Sicinski (Medical School) 2245

***Pathology 354. Biochemistry of Transmembrane Receptors Interactions**
Catalog Number: 9969
Stephen C. Blacklow (Medical School) 1462

***Pathology 356. Biochemical and Genetic Analysis of Chromatin and Transcription**
Catalog Number: 8837
Michael Pazin (Medical School) 2646

***Pathology 357. Regulation of Mammalian Cell Death**
Catalog Number: 2139
Stanley J. Korsmeyer (Medical School) 2839

***Pathology 359. Signal Transduction Pathways Involved in Cellular Proliferation and Apoptosis**
Catalog Number: 2841
Roya Khosravi-Far (Medical School) 2704

***Pathology 360. Biology and Genetics of Human Cancers**
Catalog Number: 0188
Matthew L. Meyerson (Medical School) 2421

***Pathology 361. The Molecular Causes of Aging**
Catalog Number: 6096
David A. Sinclair (Medical School) 2610

***Pathology 362. Gene Targeting, Immunology and Disease**
Catalog Number: 5290
Klaus Rajewsky (Medical School) 4330

***Pathology 363. Developmental Biology, Respiratory Pathobiology, Molecular Mechanisms**
Catalog Number: 5414
Mary E. Sunday (Medical School) 4338

***Pathology 364. Molecular Genetics of Erythroid Iron Metabolism**
Catalog Number: 5354
Mark Daniel Fleming (Medical School) 4955

***Pathology 365. Control of Endothelial Cell Fate and Vascular Development by Fluid Mechanical Forces**
Catalog Number: 4860
Guillermo Garcia-Cardena (Medical School) 4956

***Pathology 366. Phagocyte-endothelial Cell Responses in Inflammation**
Catalog Number: 4122
Tanya Mayadas (Medical School) 4963

***Pathology 367. Developing Mouse Models for Human Cancers**
Catalog Number: 2162
Sandra Orsulic (Medical School) 4964

***Pathology 368. Signaling Pathways in Cancer Cell Biology**
Catalog Number: 1919
Alex Toker (Medical School) 4971

***Pathology 369. Molecular Recognition and Protein Engineering**
Catalog Number: 8852
J. Keith Joung (Medical School) 5149

***Pathology 370. Cell Cycle Control and Ubiquitin-Mediated Proteolysis**
Catalog Number: 1354
J. Wade Harper (Medical School) 4957

Pharmacology

For courses pertaining to Pharmacology see listings under the Department of Biological Chemistry and Molecular Pharmacology.

Virology

Primarily for Graduates

Virology 200. Virology
Catalog Number: 1190
James M. Cunningham (Medical School), Dana Gabuzda (Medical School), and Lee Gehrke (Medical School)
Half course (spring term). Tu and Th., 12:30 (seminar), 2:30–4 (lecture/discussion).
Course focuses on virus-host interactions. Topics include virus structure/replication, pathogenesis, evolution ("emerging viruses"), chronic infection and latency, innate and adaptive immunity, anti-viral drugs/vaccines. Weekly lecture, seminar (including invited outside faculty) and literature-based critical reading and discussion.
Note: Offered jointly with the Medical School as MG 723.0. First meeting on Thursday,

February 3, 2005 at 2:30. Location: TMEC Bldg., Room TBA, HMS.
Prerequisite: For undergraduates, junior standing and permission is required.

Virology 201. Animal Virology: Seminar
Catalog Number: 6025
Joseph G. Sodroski (Public Health), Michael R. Farzan (Medical School), Jae Ung Jung (Medical School), and Frederick C. Wang (Medical School)
Half course (fall term). W., 1:30–4:30.
Students will evaluate and write research proposals in the areas of virus replication, viral pathogenesis and treatment and prevention of viral infections.
Prerequisite: General background in biochemistry and virology.

Virology 202. Critical Readings in Virology
Catalog Number: 6075
Max L. Nibert (Medical School) and Karl Münger (Medical School)
Half course (fall term). W., 3–5.
Introduction to critical reading of the virology literature. Students must perform a laboratory rotation in parallel. Weekly writing and oral presentations of journal articles chosen by the faculty or proposals based on the laboratory rotations.
Note: Limited to first year Virology students

Graduate Courses of Reading and Research

***Virology 300r. Introduction to Research**
Catalog Number: 0530
David M. Knipe (Medical School) 7089

***Virology 301. Herpes Virus Interaction with the Host Cell**
Catalog Number: 7344
David M. Knipe (Medical School) 7089

***Virology 302. Molecular and Biological Aspects of Herpes Simplex Virus (HSV) Gene Expression, DNA Replication and Latency**
Catalog Number: 3147
Priscilla A. Schaffer (Medical School) 4873

***Virology 304. Molecular Biology of Kaposi's Sarcoma-Associated Herpes Virus**
Catalog Number: 8182
Kenneth M. Kaye (Medical School) 3064

***Virology 305. Transcriptional Regulation of Viral and Mammalian Genes**
Catalog Number: 5437
Sean P.J. Whelan (Medical School) 4591

***Virology 306. Structure and Function of Herpes virus DNA Polymerase and the HIV Reverse Transcriptase; Resistance to Antiviral Drugs in Clinical Viral Isolates and**

Mechanisms of Resistance and Pathogenesis
Catalog Number: 6968
Clyde S. Crumpacker II (Medical School) 1092

***Virology 307. Genetics and Biochemistry of Prokaryotic Transposable Elements and Yeast Meiotic Chromosome Metabolism**
Catalog Number: 6097
Nancy Kleckner 4697

***Virology 308. Molecular Genetics of Herpes Virus**
Catalog Number: 3000
Donald M. Coen (Medical School) 7617

***Virology 309. Human Oncogenic Viruses**
Catalog Number: 4011
Jack L. Strominger 1193

***Virology 310. Cellular Transformation by SV40**
Catalog Number: 0221
James A. DeCaprio (Medical School) 1296

***Virology 311. Molecular Biology of Epstein-Barr Infection**
Catalog Number: 0513
Frederick C. Wang (Medical School) 1297

***Virology 312. Molecular Biology of Epstein-Barr Virus Infection and Transformation of B-Lymphocytes**
Catalog Number: 3483
Elliott D. Kieff (Medical School) 1858

***Virology 313. Molecular Basis for Simian Virus Pathogenesis**
Catalog Number: 2528
Ronald C. Desrosiers (Medical School) 1874

***Virology 315. Mechanisms of Transcriptional Repression in Eukaryotic Cells**
Catalog Number: 0462
Yang Shi (Medical School) 3169

***Virology 316. Assembly of Human Immunodeficiency Virus Virions**
Catalog Number: 6353
Heinrich G.J. Gottlinger (Medical School) 1813

***Virology 317. Virology and Immunology of Human Retroviruses**
Catalog Number: 0954
Myron E. Essex (Public Health) 2499

***Virology 319. Functional Analysis of Tumor Suppression Genes**
Catalog Number: 5817
David Morse Livingston (Medical School) 4872

***Virology 320. Pathogenesis of Human Retroviruses**
Catalog Number: 1532
Joseph G. Sodroski (Public Health) 1712

***Virology 321. Retroviral DNA Integration**
Catalog Number: 6857
Alan N. Engelman (Medical School) 2196

***Virology 322. HIV Molecular Biology and Pathogenesis**
Catalog Number: 9023
Dana Gabuzda (Medical School) 1581

***Virology 323. Immunobiology of the Epstein-Barr Virus Receptor; Pathogenesis of EBV and B-cell Tumors**
Catalog Number: 0778
Joyce D. Fingeroth (Medical School) 2707

***Virology 324. Leukemogenic Retroviruses**
Catalog Number: 5263
James M. Cunningham (Medical School) 2346

***Virology 325. Retroviral Pathogenesis; Host-Virus Interactions Including Virus-Induced Perturbation of the Developing Immune System; the Nature of Protective Anti-Retroviral Immune Responses in Primates**
Catalog Number: 8029
Ruth M. Ruprecht (Medical School) 2716

***Virology 326. Pathogenesis and Treatment of Human Retrovirus and Herpesvirus Infection**
Catalog Number: 6440
Martin S. Hirsch (Medical School) 2876

***Virology 328. Humoral Response to Retroviral Infections in Humans; Identification of Coding Sequence of Human Retroviruses and their Gene Products**
Catalog Number: 2513
Tun-Hou Lee (Public Health) 2769

***Virology 329. Cellular Immunology of Persistent Human Virus Infections**
Catalog Number: 5417
Bruce D. Walker (Medical School) 2847

***Virology 330. Critical Readings in Virology**
Catalog Number: 5966
Alan N. Engelman (Medical School) 2196, James A. DeCaprio (Medical School) 1296, Philip W. Hinds (Medical School) 1584, Elliott D. Kieff (Medical School) 1858, and Karl Münger (Medical School) 1586
Half course (fall term). Tu., Th., 5–6:30.
Critical evaluation of virology-related papers reporting a seminal contribution, strong methodological approaches, or in some cases due to errors in methodology or author interpretation. Requirements include written critiques and class participation.
Note: Given in the month of January

***Virology 332. Protein Phosphorylation and Gene Expression in Normal and Transformed Cells**
Catalog Number: 9093
Raymond L. Erikson 7506

***Virology 333. Antiretroviral Drug Resistance, and Drug Resistant Human Immunodeficiency Virus**
Catalog Number: 5526
Daniel R. Kuritzkes (Medical School) 4773

***Virology 334. HIV-1 and Other Viruses**
Catalog Number: 3803
Michael R. Farzan (Medical School) 4775
Entry mechanisms of, and the humoral response to, HIV-1 and other viruses.

***Virology 335. Use of Virologic, Biochemical, and Structural Approaches to Study Rotavirus Cell Entry**
Catalog Number: 0520
Philip R. Dormitzer (Medical School) 4952

Medieval Studies

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Medieval Studies

Michael McCormick, Francis Goelet Professor of Medieval History *(Chair)*
Thomas N. Bisson, Henry Charles Lea Professor of Medieval History *(on leave fall term)*
Charles Donahue, Jr., Professor of Law *(Law School)*

Daniel G. Donoghue, John P. Marquand Professor of English
John Duffy, Dumbarton Oaks Professor of Byzantine Philology and Literature
Michael S. Flier, Oleksandr Potebnja Professor of Ukrainian Philology
Jeffrey F. Hamburger, Professor of History of Art and Architecture
Seamus Heaney, Ralph Waldo Emerson Poet in Residence
Ioli Kalavrezou, Dumbarton Oaks Professor of Byzantine Art
Thomas Forrest Kelly, Harvard College Professor and Morton B. Knafel Professor of Music *(on leave spring term)*
Beverly M. Kienzle, Professor of the Practice of Latin and Romance Languages *(Divinity School)*
Angeliki E. Laiou, Dumbarton Oaks Professor of Byzantine History
John E. Murdoch, Professor of the History of Science *(on leave fall term)*
Tomás Ó Cathasaigh, Henry L. Shattuck Professor of Irish Studies
Katharine Park, Samuel Zemurray, Jr. and Doris Zemurray Stone Radcliffe Professor of the History of Science and of Studies of Women, Gender, and Sexuality
Bernard Septimus, Jacob E. Safra Professor of Jewish History and Sephardic Civilization
Eckehard Simon, Victor S. Thomas Professor of Germanic Languages and Literatures
Christine Smith, Robert C. and Marian K. Weinberg Professor of Architectural History *(Design School)*
Nicholas Watson, Professor of English and American Literature and Language *(on leave 2004-05)*
Jan Ziolkowski, Arthur Kingsley Porter Professor of Medieval Latin

The Standing Committee on Medieval Studies exists in order to promote and coordinate work on medieval subjects broadly construed throughout the University, including Dumbarton Oaks in Washington, D.C. and I Tatti in Florence, as well as the various faculties and departments in Cambridge. Working in cooperation with the student-faculty Medieval Society, it sponsors events and activities of interest to medievalists. Among its most important activities are the frequent meetings of the Medieval Studies Seminar (Monday afternoons), the sporadic Special Seminars in Medieval Studies, and fostering the Medieval Studies Library in Widener. Its electronic mailing list is the most comprehensive guide to late antique, medieval, and Byzantine events at Harvard University and in the Boston area generally. No degree specifically in Medieval Studies is offered either on the undergraduate or on the graduate level, although it is possible to develop within many departmental programs an individual program emphasizing the medieval aspects of the field. A graduate student who wishes to follow an interdisciplinary doctoral program is required to enter and to work for at least a year in one of the regular departmental programs for the PhD. After a year, it is recommended that the student contact the Chairman of the Committee on Medieval Studies for guidance as to the alternatives available in Medieval Studies. With the assistance of the Committee on Medieval Studies, the student may petition the Dean of the Graduate School for permission to work under the guidance of a specially appointed Ad Hoc Committee in a specific area of Medieval Studies. If this petition is approved, the Ad Hoc Committee will supervise the graduate student's program through the completion of the doctorate. Specific questions concerning Medieval Studies on either the undergraduate or the graduate level and requests for the pamphlet on Medieval Studies and the annual list of courses on medieval topics should be addressed to the Chairman of the Committee, Robinson Hall 201. For more information and to receive the Medieval Studies Committee email

on its frequent activities, contact medieval@fas.harvard.edu (and view its website at www.fas.harvard.edu/~medieval).

For Undergraduates and Graduates

[Medieval Studies 101. The Auxiliary Disciplines of Medieval History: Proseminar]
Catalog Number: 3759
Michael McCormick
Half course (fall term). Hours to be arranged.
Familiarizes new scholars in art history, history, literature, and music with the research tools, techniques, and concepts required for advanced study of medieval evidence. "Medieval" ranges from Diocletian to the Renaissance, focusing on the Latin West but not neglecting Byzantium. Topics include an initiation to Latin palaeography, from the 6th to the 17th century, codicology, general heuristics, hagiography, late and medieval Latin philology, late antique studies, numismatics, and diplomatic.
Note: Expected to be given in 2005–06.

[Medieval Studies 102. Intermediate Medieval Latin Palaeography and Manuscript Culture]
Catalog Number: 7124 Enrollment: Limited to 12.
Beverly M. Kienzle (Divinity School)
Half course (spring term). Hours to be arranged.
An introduction to Latin manuscripts and the historical and cultural context of their production and use. This course includes a practical initiation to Latin palaeography, frequent visits to the Houghton Library and opportunities to work with both actual manuscripts and facsimiles of famous manuscripts, practice in transcribing previously unedited texts and discussion of problems in textual criticism. Student presentations on research projects.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 2223/4330. Students work with William P. Stoneman, Librarian of the Houghton Library.
Prerequisite: A 100-level Latin course or the equivalent or instructor's permission.

[Medieval Studies 107. Art and Architecture in Western Europe, 950-1250]
Catalog Number: 9420
Christine Smith (Design School)
Half course (spring term). Hours to be arranged.
An introduction to selected works of architecture, sculpture, and painting from the revival of monumental building around the turn of the millennium to the gothic cathedral. Topics include Ottonian art; the Millennium; monasticism; pilgrimage; the idea of Antiquity; and the forging of new values. Emphasis on close examination of relatively few works in the context of each historical theme or problem, and on the diversity of cultural contexts and artistic manifestations.
Note: Expected to be given in 2005–06.

Medieval Studies 108. Art and Architecture in Italy, 1250-1520
Catalog Number: 2898
Christine Smith (Design School)
Half course (spring term). Hours to be arranged.

An introduction to Italian painting, sculpture, and architecture from ca. 1250 to 1520 emphasizing style and technique. The course is structured in three parts, each focusing on a single artist whose works are of outstanding historical and artistic significance and whose numerous interactions with artists working in other media, and activity in diverse centers of artistic production, indicate the broader range of artistic concerns and achievements of their time.

[Medieval Studies 117. Constitutional and Legal History of Medieval England]
Catalog Number: 5468
Charles Donahue, Jr. (Law School)
Half course (spring term). Hours to be arranged.
A survey of the ideas and events that shaped the structure of English law and governance from the Anglo-Saxon invasions to the Reformation Parliament. Topics include the formation of the kingdom of England, the emergence of institutions of royal governance, the relations between church and state, the development of Parliament, and the various institutional reactions to political conflict and social change.
Note: Expected to be given in 2005–06. Normally alternates with History 1133. Offered concurrently, but with a separate section, at the Law School.

Medieval Studies 119. Constitutional and Legal History of Medieval Continental Europe
Catalog Number: 4410
Charles Donahue, Jr. (Law School)
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
A survey of the main outlines of continental European constitutional and legal history from the fall of the Roman Empire to the "Rise of absolutism" at the beginning of the 17th century. Focuses on the main expressions of European legal culture over this long period of time. In each period an effort is made to relate the types of law produced to the social, political, and religious history of the period.

Medieval Studies 125. The Spirit's Voices: Holy Women in Medieval Christianity
Catalog Number: 3107
Beverly M. Kienzle (Divinity School)
Half course (fall term). W., 1–3 and a discussion group to be arranged. EXAM GROUP: 6, 7
Prophets, preachers, scholars, teachers: the voices of medieval women through their writings, lives, manuscript illuminations, and music. Emphasis on careful analysis of primary texts from 1100 to 1500 and their cultural context. Thematic focus on inspiration from Scripture, the Spirit, and the saints. Attention to historiography and issues of gender, authorship, and authority.
Note: Offered jointly with the Divinity School as 2262.

Primarily for Graduates

[Medieval Studies 210. Medieval Manuscripts and Liturgical Arts]
Catalog Number: 8850 Enrollment: Limited to 12.
Jeffrey F. Hamburger and Thomas Forrest Kelly
Half course (spring term). Hours to be arranged.
An interdisciplinary seminar focused on liturgical manuscripts with examples selected from the collection of the Houghton Library. Codicological, liturgical, art-historical, and musical

perspectives.
Note: Expected to be given in 2006–07. Students work with William P. Stoneman, Librarian of the Houghton Library.

Cross-listed Courses

For courses of additional interest, please look at courses taught by members of the Committee at the Graduate School of Design, Harvard Divinity School, and Harvard Law School.
Arabic 120a. Intermediate Classical Arabic I
Arabic 120b. Intermediate Classical Arabic II
Arabic 146r. History of the Arabic Languages
Arabic 240r. Classical Arabic Philology
[Arabic 245r. Classical Arabic Literature: Seminar]
Arabic 246r. Maghribi Literary and Cultural Texts: Seminar
Arabic 248r. Medieval Arabic Writings on Literary Theory: Seminar
Celtic 106. Folklore of Ireland
[Celtic 107. Early Irish History]
[Celtic 113. Gaelic Women's Poetry]
[Celtic 114. Early Irish Historical Tales]
[Celtic 138r. The Mabinogi]
[Celtic 150. Celtic Paganism]
Celtic 184. The *Táin*
[Celtic 200. Introduction to Old Irish]
[Celtic 201. Continuing Old Irish]
Celtic 204r. Readings in Early Irish Poetry
Celtic 205r. Readings in Early Irish Prose
Celtic 208. Early Irish Society
[Celtic 222. Early Irish Manuscript Tradition]
Celtic 225a. Introduction to Middle Welsh
Celtic 225b. Continuing Middle Welsh
[Celtic 226r. Readings in Middle Welsh]
[Celtic 227. Welsh Bardic Poetry: Seminar]
[Celtic 230r. Sources for Medieval Welsh Culture and Society]
Classics 277. Latin Palaeography
[Comparative Literature 111. From Type to Self in the Middle Ages]
[Comparative Literature 112. Religion and Literature in the Middle Ages]
***Comparative Literature 210. Comparative Themes in the Literatures of Medieval Spain: Seminar**
[*Comparative Literature 211. Mysticism and Literature: Seminar]
***Comparative Literature 280. Literary Theory and Criticism in the Middle Ages: Seminar**
***English 90ei. Images, Idolatry, and Iconoclasm**
[English 101. The History and Structure of the English Language]
English 102a. Anglo-Saxon Language and Culture: Historicizing the Past
English 103f. Anglo-Saxon Language and Culture: Before Love
[English 111. Introduction to Medieval Literature]
English 112. The Invention of Middle English Literature

*English 204a. Elegy, Medieval and Modern: Graduate Seminar
*English 206. Suffering History: Exemplary Lives in Later Medieval Literature: Graduate Seminar
*English 300hf. Old and Middle English: Doctoral Conference
*Folklore and Mythology 97b (formerly *Folklore and Mythology 103). Oral Literature and the History of Folkloristics
French 70a. Introduction to French Literature I: From the Middle Ages to Modernity
French 100. History of the French Language
[French 108. "Amours et armes:" A Study of Medieval Romances]
[French 112. From the Troubadour to the "Grand Rhétoriqueur": Lyric Poetry in Medieval France (12th to 15th Century)]
[French 213. In Search of a Medieval Subject]
*Freshman Seminar 37w. Becoming J.R.R. Tolkien: Life and Medieval Sources
German 101. Introduction to Medieval Literature and Culture
German 200 (formerly Germanic Philology 200). Introduction to Middle High German
German 225 (formerly Germanic Philology 225). History of the German Language
Government 1060. The History of Ancient and Medieval Political Philosophy
Hebrew 160. The Origins and Development of the Classical Jewish Liturgy
Hebrew 165. Maimonides' Book of Knowledge and its Medieval Critics
[Hebrew 168. Late Antique and Medieval Hebrew Poetry]
Hebrew 171. The Problem of Language in Medieval Jewish Thought
[Hebrew 174. Political Thought: Late Antiquity through the Middle Ages]
Hebrew 217. The Medieval Torah Commentary: A Practical Introduction: Seminar
[Historical Study A-27. Reason and Faith in the West]
[Historical Study A-40. The Middle East and Europe since the Crusades: Relations and Perceptions]
[Historical Study B-11. The Crusades]
Historical Study B-13. Charlemagne and the Birth of Medieval Civilization
History 10a. Western Societies, Politics, and Cultures: From Antiquity to 1650
History 20b. Western Intellectual History: The Middle Ages to the Seventeenth Century
History 90a. Major Themes in Medieval History
[History 1101. Medieval Europe]
[History 1111. World of Late Antiquity]
History 1133. Medieval England (ca. 871-1485)
History 1139. Kingdoms, Communities, and Civilizations of Medieval Spain, 456-1516
History 1150. The Jews in Muslim and Christian Spain
History 1158. The Mediterranean in the Late Middle Ages, 1204-1500: Conference Course
[History 1166. Family, Sex, and Marriage in Western Europe, East and West in the Medieval and Early Modern Period: Conference Course]
History 1212. The Imperial System: Byzantine Society and Civilization, 8thc.-1204: Conference Course
[History 1214. History of the Soul: Conference Course]
History 1877a. History of the Near East, 600-1055
History 1877b. History of the Near East, 1055-1517: Conference Course
[History 1878a. Ottoman State and Society I (1300-1550)]
*History 2101. Medieval Societies and Cultures: Proseminar

[*History 2120. Problems in Byzantine History: Proseminar]
History 2122. Early Medieval History: Seminar: Communications in the Early Medieval Mediterranean
History 2126. Medieval Law
History 2271r. Topics in Byzantine History: Seminar
[History 2314. Research Methods in Renaissance History: Seminar]
***History and Literature 97. Tutorial — Sophomore Year**
History of Art and Architecture 128g. Islamic Epigraphy and Calligraphy: Spiritual Geometries and Bodily Instruments
[History of Art and Architecture 143m. The Art of the Court of Constantinople]
History of Art and Architecture 144x. Topics in Early Christian Art
[History of Art and Architecture 146x. The Art of Devotion]
History of Art and Architecture 147p. Popular Cults and the Formation of Pilgrimage Sites
[History of Art and Architecture 155. Problems in Northern Renaissance Art]
[History of Art and Architecture 240r. Byzantine Art]
History of Art and Architecture 242. Issues of Interpretation in Medieval Art
[History of Art and Architecture 245. Jan and Hubert van Eyck: The Rise of Painting in the Late Medieval West]
History of Art and Architecture 249. Visual Culture of Female Monasticism
History of Art and Architecture 282y. The Visual Culture of Relics in East Asia
History of Science 107. History of Medieval Science
[History of Science 112. Medicine and Society in Medieval and Renaissance Europe]
[*History of Science 207r. Medieval Science: Seminar]
History of Science 215. Science and Culture in Late Medieval and Early Modern Europe: Seminar
History of Science 297r. Topics in the History of Medieval Latin Science
***History of Science 298r. The Establishment of Medieval Latin Scientific and Philosophical Texts: Seminar**
[Italian 120b (formerly Italian 120d). Dante's *Purgatorio* and *Paradiso*]
[Italian 123. Semantics of Desire: The Erotic Theme in Dante's Poetry]
Italian 220. Poesia del '200
[Italian 230. Petrarca and the Divided Self]
[Italian 287ar. Italian Literature: Seminar]
Italian 287br. Italian Literature: Seminar
Latin 3m. Latin Prose Selections (Medieval)
[Linguistics 158r. From Indo-European to Old Irish]
[Linguistics 168. Introduction to Germanic Linguistics]
Linguistics 250. Old Church Slavonic
Literature and Arts A-26. Dante's *Divine Comedy* and Its World
Literature and Arts A-68. Poets and Poetry in the Celtic Literary Tradition
[Literature and Arts A-78. The Vikings and the Nordic Heroic Tradition]
[Literature and Arts B-35. The Age of Sultan Suleyman the Magnificent: Art, Architecture, and Ceremonial at the Ottoman Court]
Literature and Arts B-43. The Gothic Cathedral
[Literature and Arts B-46. Art in the Wake of the Mongol Conquests: Genghis Khan and His Successors]

[Literature and Arts C-20. The Hero of Irish Myth and Saga]
Literature and Arts C-22. European Culture in the Middle Ages
[Literature and Arts C-25. The Medieval Stage]
[Literature and Arts C-28. Icon-Ritual-Text: Reading the Culture of Medieval Rus']
Literature and Arts C-43. The Medieval Court
Medieval Greek 115ar. Introduction to Byzantine Greek
[Medieval Greek 120. Readings in the Cappadocian Fathers]
Medieval Greek 125. Byzantine Religious Tales
[Medieval Greek 185. Workshop in Greek Paleography]
Medieval Latin 120. Wisdom and Learning
Medieval Latin 150. Abelard and Heloise
Modern Greek 204. Satire and Parody in the Greek Tradition from Lucian to Skatablattas
[Music 191r. Topics in Medieval and Renaissance Music: Proseminar]
[Music 212r. Chant: Seminar]
Music 214r. Renaissance Music: Seminar
[Religion 1411. Saints, Sanctity, and Society in Ancient and Medieval Christianity]
[Religion 1432. Theology of the Icon]
[Religion 1434. History of Western Christianity, 300-1100]
[Religion 1437. History of Western Christianity: 1100-1500]
Religion 1438. The Friars and Their World, ca. 1100-1325
[Religion 2426. Editing Greek Christian Literature: Seminar]
[Scandinavian 160a. Old Norse Language, Literature, and Culture: The Viking Legacy]
[Scandinavian 160b. Old Norse Language, Literature, and Culture: Mythology]
[Slavic 130 (formerly Slavic 130a). Culture and Society in Medieval and Early Modern Bohemia]
[Slavic 280r. Slavic Culture: Seminar]
Slavic 291. Problems in the History of Early Ukrainian Literature
[Spanish 70a. Hispanic Literature: Spanish Literature from the Origins to 1700]
[Spanish 120. Medieval Spain in the *Poem of the Cid*]
[Spanish 201. The History of the Spanish Language]
[Spanish 204 (formerly Spanish 104). Love and Power in 14th-Century Castille: Juan Ruiz and Juan Manuel]
[Turkish 142a. Introduction to Ottoman Palaeography and Diplomatic Correspondence I]
[Turkish 142b. Introduction to Ottoman Palaeography and Diplomatic Correspondence II]
[Turkish 146a. Old Turkish I]
[Turkish 146b. Old Turkish II]
[Turkish 240a. Readings in Ottoman Sources I]
[Turkish 240b. Readings in Ottoman Sources II]

Middle East Program

Faculty of the Committee on Middle Eastern Studies

Steven C. Caton, Professor of Contemporary Arab Studies *(Chair)*
Leila Ahmed, Victor S. Thomas Professor of Divinity *(Divinity School)*
Ali S. Asani, Professor of the Practice of Indo-Muslim Languages and Cultures
Sugata Bose, Gardiner Professor of Oceanic History and Affairs
Byron J. Good, Professor of Medical Anthropology *(Medical School)*
William A. Graham, Jr., Murray A. Albertson Professor of Middle Eastern Studies and John Lord O'Brian Professor of Divinity
Wolfhart P. Heinrichs, James Richard Jewett Professor of Arabic
Michael Herzfeld, Professor of Anthropology *(on leave spring term)*
Engseng Ho, Associate Professor of Anthropology and of Social Studies, Post-Doctoral Fellow in the Weatherhead Center for International Affairs *(on leave 2004-05)*
Cemal Kafadar, Vehbi Koc Professor of Turkish Studies, Associate of Currier House *(on leave 2004-05)*
Miri Kubovy, Professor of the Practice of Near Eastern Languages and Civilizations
Roy Mottahedeh, Gurney Professor of History
Afsaneh Najmabadi, Professor of History and of Studies of Women, Gender, and Sexuality
Gülru Necipoglu-Kafadar, Aga Khan Professor of Islamic Art, Associate of Currier House *(on leave 2004-05)*
E. Roger Owen, A. J. Meyer Professor of Middle East History
Dani Rodrik, Rafiq Hariri Professor of International Political Economy *(Kennedy School)*
David J. Roxburgh, Professor of History of Art and Architecture
A. Hashim Sarkis, Aga Kahn Professor of Landscape Archetecture and Urbanism in Muslim *(Design School)*
Wheeler M. Thackston, Jr., Professor of the Practice of Persian and other Near Eastern Languages
Frank E. Vogel, Assistant Professor of Law *(Law School)*

The Center for Middle Eastern Studies was established for the purpose of integrating and reinforcing instruction and research in the languages, literatures, history, economics, and cultures of North Africa, the Middle East, and Islamic Central and South Asia, with the emphasis on the modern period. The Committee on Middle Eastern Studies is the degree committee that administers programs offered through the Center. To achieve its goals, the Center cooperates with departments within the Faculty of Arts and Sciences and with other faculties that have Middle Eastern interests, other regional studies centers, and various libraries and museums that hold collections related to Middle Eastern and Islamic studies. The Center's aim is to offer a comprehensive program to provide integrated training for those planning careers in education, government service, or private industry, and to support research on the area.

The following degree programs are offered through the Center: Regional Studies Program—Middle East (AM): The program for this degree requires two years of study, leading to an AM. It seeks to give the student both a broad background and a special competence in selected fields of Middle Eastern studies. Each student's needs and interests, as well as previous experience and

qualifications, are taken into account in planning his or her course of study. This program is comparable to other regional studies programs, such as those for Russia and East Asia.

Joint Programs for the PhD: The Faculty of Arts and Sciences has approved joint programs with other faculty departments for the degree of PhD in Middle Eastern studies and in the fields of anthropology, fine arts, or history. A candidate for a joint PhD degree is usually expected to have completed an AM program in Middle Eastern studies or another relevant field, at Harvard or elsewhere, prior to admission as a doctoral candidate. Concurrent degrees are also offered in Islamic law and Middle Eastern and Islamic studies, which combine degree work in the Harvard Law School and the Faculty of Arts and Sciences. Joint or concurrent degrees with other departments and faculties are also possible on an *ad hoc* basis.

Languages: Competency in one or more of the languages of the Middle East is critical to advanced studies in this field. The master's program requires all students to attain a reading and speaking competence, at least at the intermediate level, in one of the major modern Middle Eastern languages: Arabic, Hebrew, Persian, or Turkish. Students who already have an adequate knowledge of one such language, and native speakers, will be required to study a second language. The PhD programs vary in their language requirements. In most cases, students must attain a thorough knowledge of a modern Middle Eastern language (see above), as well as a reading knowledge of one of the European languages: German, French, Italian, or Russian. In the History and Middle Eastern Studies Program, a written exam will be required in the language of the candidate's primary research, covering both primary and secondary sources in that language. As in the master's program, native speakers of Middle Eastern languages will be required to attain competence in a second Middle Eastern language. (For specific details on language requirements and language proficiency examinations, see the degree supplement *Degree Programs in Middle Eastern Studies.* Please note that the departments involved in the joint PhD programs, as well as the Committee on Middle Eastern Studies, at times revise their language requirement policies. Students are expected to keep in touch with their advisors and relevant language instructors at all times so they may be informed of possible changes to those requirements.)

Courses: Middle Eastern-related courses are offered in the Department of Near Eastern Languages and Civilizations—courses in Akkadian, Ancient Near East, Arabic, Aramaic, Armenian, Armenian Studies, Early Iranian Civilizations, Ethiopic, Hebrew (Classical and Modern), Hebrew Literature and History, Iranian, Islamic Civilizations, Near Eastern Civilizations, Persian, Postbiblical Jewish Studies, Semitic Philology, Sumerian, and Turkish; and the Department of History—courses in Byzantine, Islamic, Judaic, and modern Middle Eastern history. Other appropriate courses are offered in the departments of Anthropology, Classics, Comparative Literature, the Core Curriculum, Fine Arts, Government, Linguistics, Music, Psychology, Sanskrit and Indian Studies, Slavic Languages and Literatures, Sociology, and the Study of Religion. Middle Eastern-related courses are also taught in the graduate schools of Business, Design, Divinity, Law, and Government. For more information about these programs, please refer to the degree supplement, *Degree Programs in Middle Eastern Studies.*

Mind, Brain, and Behavior

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Mind, Brain, and Behavior

John E. Dowling, Gordon and Llura Gund Professorship of Neurosciences *(Co-Chair)*
Richard W. Wrangham, Ruth Moore Professor of Biological Anthropology *(Co-Chair)*
John A. Assad, Associate Professor of Neurobiology *(Medical School)*
Mahzarin R. Banaji, Richard Clarke Cabot Professor of Social Ethics *(FAS)* and Carol K. Pforzheimer Professor *(Radcliffe Institute) (on leave 2004-05)*
Cedric Boeckx, Assistant Professor of Linguistics
Susan E. Carey, Henry A. Morss, Jr. and Elizabeth W. Morss Professor of Psychology *(on leave spring term)*
Verne S. Caviness, Jr., Joseph P. and Rose F. Kennedy Professor of Child Neurology and Mental Retardation *(Medical School)*
Peter T. Ellison, John Cowles Professor of Anthropology and Dean of the Graduate School of Arts and Sciences
Florian Engert, Assistant Professor of Molecular and Cellular Biology
Kurt W. Fischer, Professor of Education *(Education School)*
Albert M. Galaburda, Professor of Neurology *(Medical School)*
Howard E. Gardner, Professor of Education *(Education School) (on leave spring term)*
Barbara J. Grosz, Higgins Professor of Natural Sciences
David A. Haig, Professor of Organismic and Evolutionary Biology
Anne Harrington, Harvard College Professor and Professor of the History of Science *(on leave 2004-05)*
Marc D. Hauser, Harvard College Professor and Professor of Psychology *(on leave spring term)*
Richard G. Heck, Jr., Professor of Philosophy *(on leave spring term)*
Jill M. Hooley, Professor of Psychology
C.-T. James Huang, Professor of Linguistics
Frances Kamm, Professor of Philosophy *(FAS)* and Littauer Professor of Philosophy and Public Policy *(Kennedy School) (on leave 2004-2005)*
Kenneth S. Kosik, Professor of Neurology *(Medical School)*
Edward A. Kravitz, George Packer Berry Professor of Neurobiology *(Medical School)*
Jeff Lichtman, Professor of Molecular and Cellular Biology, Tutor in Biochemical Sciences
Richard J. McNally, Professor of Psychology
Venkatesh N. Murthy, Morris Kahn Associate Professor of Molecular and Cellular Biology
Avrom J. Pfeffer, Associate Professor of Computer Science on the Gordon McKay Endowment
Naomi E. Pierce, Sidney A. and John H. Hessel Professor of Biology
Steven Pinker, Johnstone Family Professor of Psychology
Maryellen Ruvolo, Professor of Anthropology
Joshua Sanes, Professor of Molecular and Cellular Biology, Tutor in Biochemical Sciences
Susanna Siegel, John L. Loeb Associate Professor of the Humanities *(on leave 2004-2005)*

Elizabeth S. Spelke, Marshall L. Berkman Professor of Psychology
Garrett B. Stanley, Associate Professor of Biomedical Engineering on the Gordon McKay Endowment
Robert A. Stickgold, Assistant Professor of Psychiatry *(Medical School)*
Mark Tramo, Assistant Professor of Neurology *(Medical School)*
Daniel M. Wegner, Professor of Psychology

The Committee on Mind, Brain, and Behavior is an interdisciplinary group of scholars appointed to coordinate the teaching of neuroscience and related fields among Harvard's departments. Working closely with the University's Mind, Brain, and Behavior Interfaculty Initiative, the Committee is designed to advance knowledge of neuroscience at multiple levels of analysis ranging from the molecular events within individual neurons to the behavior of organisms (including man) in a wider environmental and social context. The Committee: 1) coordinates the wide and varied course offerings that address methods, findings, and theory in neuroscience; 2) helps students learn of opportunities within the various fields allied with neuroscience; and 3) promotes interdisciplinary interaction among members of these fields.

For undergraduate students wishing to specialize in an area related to the neurosciences, seven concentrations offer specialized tracks: Anthropology offers a Mind/Brain/Behavior track within its Biological Anthropology program; Biology offers a Neurobiology track; Computer Science offers a Computational Neuroscience track; History and Science offers a Mind, Brain, and Behavioral Sciences track; Linguistics offers a Mind/Brain/Behavior track; Philosophy offers a Mind/Brain/Behavior track; and Psychology offers a Cognitive Neuroscience track. Foundation courses are required or recommended each year in all tracks so that students in the seven concentrations can interact. The foundation courses include Science B-29, Evolution of Human Nature (first year); Biological Sciences 80, Behavioral Neuroscience (sophomore year); one of several designated seminars (junior year); and a senior thesis event or series of workshops (senior year). For the requirements of each track, consult *http://mbb.harvard.edu/Information—Undergraduates.html*.

The courses listed below address various facets of neuroscience or topics closely related to the study of mind, brain, and behavior. Complete descriptions may be found under the various departments.

Additional course listings will appear in the booklet *Courses in Mind/Brain/Behavior*.

Courses of Interest

[Anthropology 1310 (formerly Anthropology 111). Behavioral and Reproductive Endocrinology]
[Anthropology 1320 (formerly Anthropology 131). Hunter-Gatherers]
[Anthropology 1330 (formerly Anthropology 106). Primate Social Behavior]
[Anthropology 1340 (formerly Anthropology 134). Race and Racism in Evolutionary Perspective]
[Anthropology 1370 (formerly Anthropology 137). Evolution and Human Behavior]
***Anthropology 1375. Testosterone and Human Behavior**

Anthropology 1380 (formerly Anthropology 138). The Behavioral Biology of Women
Anthropology 1410 (formerly Anthropology 114). Evolution of Human Sexuality: Research Seminar
*Anthropology 1418 (formerly *Anthropology 118). Endocrinology and Behavior: Research Seminar
Anthropology 1465. Human Origins
Anthropology 1560r (formerly Anthropology 181r). Biology of Aggression
Anthropology 2420. Apes and Human Foragers
[Anthropology 2660 (formerly Anthropology 221). The Anthropology of Knowledge: Seminar]
[Anthropology 2740 (formerly Anthropology 245). Culture, Mental Illness, and the Body]
[Anthropology 2750 (formerly Anthropology 250). Local Biologies: Perspectives on the Interaction Between Culture and Biology]
*BCMP 213. Behavioral Pharmacology
BCMP 230. Principles and Practice of Drug Development
Biological Sciences 57. Animal Behavior
Biological Sciences 80. Behavioral Neuroscience
*Biology 95hfd. Problem Solving in Neuroscience: An Interactive Case-Based Online Network (ICON)
*Biology 95hfj. Neurophysiology of Primate Visual Attention and Memory
*Biology 95hfk. Mechanisms of Neurological Disease
*Biology 95hfm. The Retina and the First Steps in Seeing
Business Studies 2000ab. Management and Markets: Human Behavior and Administration
[Business Studies 2630. Consumer Behavior]
Computer Science 181. Intelligent Machines: Perception, Learning, and Uncertainty
Computer Science 182. Intelligent Machines: Reasoning, Actions, and Plans
[Computer Science 187. Computational Linguistics]
Computer Science 228. Computational Learning Theory
Computer Science 232. Introduction to Computational Molecular Biology
[Computer Science 281r. Artificial Intelligence: Reasoning and Planning Systems]
[Computer Science 282. Probabilistic Reasoning]
Computer Science 283. Computer Vision
Computer Science 285. Multi-agent Planning Systems
Computer Science 287r. Natural Language Processing
[Computer Science 288. Computational Models of Discourse]
Economics 1030. Psychology and Economics
Economics 2030. Psychology and Economics
Engineering Sciences 145. Introduction to Systems Analysis with Physiological Applications
[Engineering Sciences 148. Neural Signal Processing]
Engineering Sciences 157. Speech and Audio Processing
Engineering Sciences 217. Computational Neuroscience
[Engineering Sciences 218. Advanced Neural Signal Processing]
*English 90ps. Subjects in Literature and Psychoanalysis
*Freshman Seminar 21j. Human Evolution
*Freshman Seminar 21o. The Neurophysiology of Visual Perception

***Freshman Seminar 22k. Can Machines Think? The Turing Test and the Possibility of Natural-Language Interaction with Computers**
***Freshman Seminar 22n. Addiction**
***Freshman Seminar 23s. The Seven Sins of Memory**
***Freshman Seminar 24x. Global Mental Health**
***Freshman Seminar 34x. Language and Prehistory**
***Freshman Seminar 35g. Jean-Jacques Rousseau**
***Freshman Seminar 35w. Language, Sex, and Culture**
***Freshman Seminar 36z. Utopia and Anti-Utopia**
***Freshman Seminar 38e. Madness and the Creative Imagination: Literary and Biomedical Perspectives**
***Freshman Seminar 38g. Lost Languages and Decipherment**
***Freshman Seminar 48g. Madness and Society**
[German 147. Nietzsche]
[German 148. Freud]
Government 10. Introduction to Political Thought
Government 1370. Psychology of Politics in the United States
History 1444. John Locke: Conference Course
History 1454. French Social Thought from Rousseau to Foucault and Beyond
[History 1470. European Intellectual History]
[History 1471. The Thought of Martin Heidegger]
[History 1472. Epistemic Regimes: Conference Course]
History 1666. The World of William James: Conference Course
[History of Science 171. Narrative and Neurology]
[History of Science 175. Madness and Medicine: Themes in the History of Psychiatry]
[History of Science 176. Evolution and the Mind: Conference Course]
[History of Science 177. Stories Under the Skin: The Mind-Body Connection in Modern Medicine]
[History of Science 273. Freud and the American Academy]
[History of Science 275. "The Minded Body": Theoretical and Empirical Explorations]
[*History of Science 278. In Search of Mind: Seminar]
[Linguistics 81. Language and Gender]
Linguistics 88. Language and Cognition
Linguistics 110. Introduction to Linguistics
[Linguistics 113. Acoustic and Articulatory Phonetics]
Linguistics 115. Introduction to Phonetics and Phonology
[Linguistics 116. Semantics]
[Linguistics 142. Bilingual Grammar]
[Literature 110. Furor Poeticus: Madness, Inspiration, Genius]
***Literature 118. Film, Philosophy and Psychoanalysis**
MCB 105. Systems Neuroscience
MCB 115. Cellular Basis of Neuronal Function
MCB 117. Experimental Neuroscience
***MCB 129. Molecular Genetics of Neural Development and Behavior**
[MCB 141. Molecular and Developmental Neurobiology]
MCB 186. Circadian Biology: From Cellular Oscillators to Sleep Regulation

*MCB 195. A Systems Approach to Biology (formerly Genomics and the Biology of Complex Systems)
Mathematics 153. Mathematical Biology-Evolutionary Dynamics
Microbiology 213. Social Issues in Biology
Neurobiology 200. Introduction to Neurobiology
Neurobiology 204. Neurophysiology of Central Circuits
Neurobiology 207. Developmental Neurobiology
[Neurobiology 209. Neurobiology of Disease]
*Neurobiology 220. Cellular Neurophysiology
*Neurobiology 221. Molecular Neurobiology
OEB 174r (formerly Biology 174r). Topics in Behavioral Ecology: Learning and Memory
*Pathology 205. Molecular Biology of the Auditory System
Philosophy 3. Introduction to the Problems of Philosophy
Philosophy 7. Introduction to Ancient Philosophy
Philosophy 8. Introduction to the History of Early Modern Philosophy
Philosophy 105. Ancient Theories of Mind
[Philosophy 144. Logic and Philosophy]
Philosophy 147w. Philosophy of Language: Language and the World
[Philosophy 149z. Philosophy of Science]
Philosophy 156. Philosophy of Mind
Philosophy 157. Philosophy of Action
*Philosophy 246. Contextualism in the Philosophy of Language: Seminar
*Philosophy 252. Evolution and Social Behavior: Seminar
Psychology 1. Introduction to Psychology
Psychology 13. Cognitive Psychology
Psychology 15. Social Psychology
Psychology 16. Developmental Psychology
Psychology 18. Abnormal Psychology
*Psychology 970. Contemporary Issues in Psychology: Intensive Cross-level Analyses
*Psychology 971. Contemporary Issues in Psychology: Intensive Cross-level Analyses
[*Psychology 980n. Behavioral Genetics Seminar]
*Psychology 980p. The Nature of Memory
*Psychology 980q. Patient-Based Cognitive Neuroscience
[*Psychology 980r. Theories of Consciousness]
*Psychology 980s. Social and Affective Neuroscience
*Psychology 980t. Psychology of Action
[*Psychology 980u. Love and Relationships]
*Psychology 980v. The Insanity Defense
*Psychology 980w. Risk and Resilience
[*Psychology 980x. Stress and Coping]
*Psychology 980y. Interfaces of Clinical and Social Psychology
*Psychology 980z. Unconscious Cognition and the Automaticity of Everyday Life
*Psychology 987b. Ear, Brain, and Music
*Psychology 987c. Multidisciplinary Perspectives on Drug Policy
*Psychology 987f. The Biology of Conscious States: Waking, Sleeping, and Dreaming
*Psychology 987g. Theories of Violence

[*Psychology 987h. Addiction, Behavior, and Choice](#)
[*Psychology 987i. The Science of Happiness](#)
[*Psychology 987k. Neurobiological Approaches to Conscious Visual Perception and Other Modalities of Conscious Experience](#)
[Psychology 1001. Human Nature](#)
[*Psychology 1152r. Animal Cognition: Laboratory](#)
[Psychology 1304. Cognitive Neuropsychology](#)
[*Psychology 1350. Memory and Amnesia: Seminar]
[*Psychology 1356r. Laboratory in Language Research](#)
[Psychology 1501. Social Psychology of Organizations](#)
[Psychology 1502. Applied Social Psychology](#)
[*Psychology 1503. Psychology and Law]
[Psychology 1504. Positive Psychology](#)
[*Psychology 1557. Self and Identity: Seminar](#)
[*Psychology 1563. Psychological Themes in Text: Seminar](#)
[*Psychology 1564. Designs for a Positive Psychology: Seminar]
[*Psychology 1565. Conscious Will](#)
[*Psychology 1569. Psychosocial Aspects of HIV/AIDS](#)
[Psychology 1603. Adolescent Development](#)
[Psychology 1606. Language Acquisition]
[Psychology 1607 (Formerly Psychology 1202 and Psychology 1604). Cognitive Development, Education, and the Brain](#)
[*Psychology 1652r. Laboratory in Early Cognitive Development](#)
[*Psychology 1655. Conceptual Development: Research Seminar](#)
[*Psychology 1658. Infancy: Seminar](#)
[*Psychology 1659. Social Development: Seminar](#)
[Psychology 1701. Personality Psychology]
[Psychology 1703. Human Sexuality](#)
[Psychology 1704. Creativity: Geniuses, Madmen, and Harvard Students](#)
[*Psychology 1756. Personality Psychology and Organizations: Seminar](#)
[Psychology 1801. Anxiety Disorders](#)
[Psychology 1808. Neurobiological Aspects of Psychopathology]
[*Psychology 1851. Introduction to Clinical Science](#)
[*Psychology 1853. Self-Destructive Behaviors](#)
[Psychology 1854. Schizophrenia: Seminar]
[*Psychology 1855. Mood Disorders]
[*Psychology 1857 (formerly *Psychology 1803). Eating Disorders: Seminar](#)
[*Psychology 1861. Developmental Psychopathology: Seminar](#)
[Psychology 1900. Introduction to Statistics for the Behavioral Sciences](#)
[Psychology 1901. Methods of Behavioral Research](#)
[*Psychology 1951. Intermediate Quantitative Methods](#)
[*Psychology 1952. Multivariate Analysis in Psychology](#)
[*Psychology 2040. Contemporary Topics in Psychopathology]
[*Psychology 2050. History of Psychology: Seminar]
[*Psychology 2170. Developmental Proseminar]
[*Psychology 2180. Concepts and Theories: Computational Models]

*Psychology 2190. Topics in Language Acquisition
[*Psychology 2270. Research in Language Acquisition]
[*Psychology 2300r. Perception, Cognition, and Representation: Seminar]
[*Psychology 2310. The Neuroscience of Law: Can a Legal System be Grounded in Knowledge about the Brain?]
*Psychology 2320. Applying fMRI to Cognitive Research
*Psychology 2330r. Cognitive Psychology and Neuroscience: Research Seminar
*Psychology 2335r. Language: Research Seminar
[*Psychology 2345. Topics in Language Research: Linguistic, Cognitive, and Neural Aspects]
[*Psychology 2355r. Laboratory in Cognitive Neuroscience: Seminar]
*Psychology 2358. Memory: Research Seminar
[*Psychology 2360. Conceptual Development: Research Seminar]
[*Psychology 2445. Psychotherapy Research]
[*Psychology 2450. Affective and Social Neuroscience]
Psychology 2461r. Laboratory for Clinical and Developmental Research
*Psychology 2475. Social Psychophysiology: Seminar
*Psychology 2480. Human Neuropsychology/Neuroanatomy: Seminar
[Psychology 2482. Neuropsychological Assessment]
[*Psychology 2500. Advanced Social Psychology]
[*Psychology 2510. Mind Perception]
*Psychology 2530r. Mental Control: Research Seminar
*Psychology 2580r. Affective Forecasting: Research Seminar
*Psychology 2640r (formerly *Psychology 3450r). The Understand Seminar
*Psychology 2650. Behavioral Approaches to Decision Making and Negotiation
*Psychology 2660r. Research Seminar in Mindfulness Theory
*Psychology 2670a. Decision Making and Perceived Control I
*Psychology 2670b. Decision Making and Perceived Control II
[Psychology 2680. Applied Social Psychology: Seminar]
*Psychology 2690r. Self and Social Judgment: Research Seminar
[*Psychology 2701. Advanced Topics in Human Assessment]
Quantitative Reasoning 22. Deductive Logic
[Religion 1457. Renaissance Thought: Utopia and its Critics: Seminar]
Science B-27. Human Evolution
Science B-29. Evolution of Human Nature
[Science B-44. Vision and Brain]
Science B-60. Origins of Knowledge
Science B-62. The Human Mind
Social Analysis 28. Culture, Illness, and Healing: An Introduction to Medical Anthropology
Social Analysis 34. Knowledge of Language
Social Analysis 43. Psychological Trauma
Social Analysis 74. Visible Language: Writing Systems, Scripts, and Literacy
*Social Studies 98fq. Psychoanalysis and Culture

Harvard University
Faculty of Arts and Sciences
Office of the Registrar

Music

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Music

Thomas Forrest Kelly, Harvard College Professor and Morton B. Knafel Professor of Music *(Chair, fall term only) (on leave spring term)*
Kay Kaufman Shelemay, G. Gordon Watts Professor of Music and Professor of African and African American Studies *(Chair, spring term only)*
Julian Anderson, Professor of Music *(on leave fall term)*
Daniel Beller-McKenna, Visiting Associate Professor of Music *(University of New Hampshire)*
Harrison Birtwistle, Visiting Lecturer on Music
Ignace Bossuyt, Erasmus Lecturer on the History and Civilization of the Netherlands and Flanders *(Katholieke Universiteit Leuven, Belgium)*
Mauro Calcagno, Associate Professor of Music, Associate in Eliot House *(on leave 2004-05)*
Virginia Danielson, Lecturer on Music *(spring term only)*
Joshua Fineberg, John L. Loeb Associate Professor of the Humanities
Sean Thomas Gallagher, Assistant Professor of Music
Elliott John Gyger, Assistant Professor of Music *(on leave spring term)*
Christopher Hasty, Walter W. Naumburg Professor of Music *(Head Tutor) (on leave fall term)*
Mary K. Hunter, Visiting Professor of Music
Robert D. Levin, Dwight P. Robinson, Jr. Professor of Music
Jameson N. Marvin, Senior Lecturer on Music
Lansing D. McLoskey, Lecturer on Music
Ingrid Monson, Quincy Jones Professor of African-American Music, Supported by the Time Warner Endowment *(on leave 2004-05)*
Carol J. Oja, William Powell Mason Professor of Music *(on leave 2004-05)*
Karen Painter, Associate Professor of Music *(on leave fall term)*
Bernard Rands, Walter Bigelow Rosen Professor of Music *(on leave fall term)*
Alexander Rehding, Assistant Professor of Music
Edward Roesner, Visiting Professor of Music *(New York University) (spring term only)*
Janet Schmalfeldt, Visiting Associate Professor of Music *(Tufts University) (fall term only)*
Anne C. Shreffler, James Edward Ditson Professor of Music
Daniel Stepner, Preceptor in Music
John Stewart, Senior Preceptor in Music
Denise Von Glahn, Visiting Associate Professor of Music *(Florida State University) (spring term only)*
Sarah Weiss, Visiting Assistant Professor of Music
Richard K. Wolf, Harris K. Weston Associate Professor of the Humanities *(on leave 2004-05)*
Christoph Wolff, Adams University Professor *(on leave 2004-05)*
James D. Yannatos, Senior Lecturer on Music

Undergraduates considering a concentration in Music should meet with the Head Tutor to discuss the program. Prospective concentrators in Music are encouraged to take Music 51 in their freshman year; Music 51 is a prerequisite of Music A. Music A is required of concentrators, and should be taken as early as possible. Students who know they are going to concentrate in Music and do not have piano background should consult with the instructor of Music A immediately upon arrival at Harvard. In order to obtain concentration credit for a course for which such credit is not normally given, students must petition the Department at the beginning of the term. For students not intending to concentrate in Music, the department ordinarily offers Music 1 and Music 2 every year. Other courses may be taken with permission of the instructor. See also listings in African and African American Studies, Core Curriculum, Folklore and Mythology, General Education, and Medieval Studies.

Primarily for Undergraduates

***Music Ar. Musicianship**
Catalog Number: 4859
John Stewart
Half course (fall term; repeated spring term). Hours to be arranged.
Consists of two parts: (1) Basic piano skills involving sight reading, score reading, figured bass realization, harmonization of melodies. Individual or small-group instruction; and (2) Earlab (sight singing, rhythmic studies, melodic/harmonic dictation, and other exercises). Two class meetings per week. In addition, individual instruction in piano playing is given to those not proficient at the keyboard.
Note: Limited to concentrators; the Earlab is open to students concurrently taking another course in the Music Concentration Program. Music concentrators are required to enroll in two terms of Music A, starting in the fall term. A special examination is required of Music concentrators to meet the Musicianship requirement. While credit is awarded for suitable progress in the course, concentrators may find it necessary to repeat (audit) all or portions of Music A in order to prepare for this exam (see Concentrator's Handbook).
Prerequisite: Music 51.

Music 1a. Introduction to Music I
Catalog Number: 8071
Sean Thomas Gallagher
Half course (fall term). M., W., (F.), at 10. EXAM GROUP: 3
Explores about one thousand years of music history (ca. 800-1800), from the medieval through the Classical period. Particular emphasis is given to the liturgical and stylistic context of Gregorian chant and early polyphony; text-music relationships in Renaissance and early baroque compositions; and the works of J. S. Bach, Handel, Haydn, and Mozart.
Note: Music 1a can be taken independently of Music 1b. No prior knowledge of music is presumed.

Music 1b. Introduction to Music II
Catalog Number: 4952
Sean Thomas Gallagher
Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 3

Music 1b continues the survey started in Music 1a, beginning with the transition from the Classical to the Romantic period. Explores the history of music in its stylistic and cultural contexts, including aspects of form, composition, social significance, and politics. Composers studied include Beethoven, Schubert, Robert and Clara Schumann, Liszt, Berlioz, Mahler, Wagner, Bizet, Verdi, Schoenberg, Berg, Stravinsky, Debussy, and later twentieth-century figures.
Note: Music 1b can be taken independently of Music 1a. No prior knowledge of music presumed.

Music 2. Foundations of Tonal Music I
Catalog Number: 0645 Enrollment: Limited to 60.
Joshua Fineberg
Half course (spring term). M., W., F., at 3. EXAM GROUP: 8
Seeks to develop a greater understanding of musical language, the conceptual foundations of musical literature, and of how critical listening and analysis can be performed. We will make use of traditional prose analysis in the form of written essays as well as musically specific writing and analytical techniques. While reading knowledge of simple musical notation is helpful, there will be at least one section for students with no previous experience.
Note: Open to all students. May not be counted for concentration. This course, when taken for a letter grade, meets the Core area requirement for Literature and Arts B.

[Music 3. Foundations of Tonal Music II]
Catalog Number: 5805 Enrollment: Limited to 48.
Joshua Fineberg
Half course (spring term). Hours to be arranged.
The first part of the course concentrates on increasing understanding and fluency in writing within the musical language of "common practice tonality." The second part of the course looks at 20th-century techniques for composing music. The final project is a short composition that will be performed during reading period. Teaching takes place in groups of 10-12, divided according to background, with full group lectures once every second week.
Note: Expected to be given in 2005–06. May not be counted for concentration credit.
Prerequisite: Music 2 or permission of the instructor.

Music 4. Introduction to Composition
Catalog Number: 2239 Enrollment: Limited to 16.
Elliott John Gyger
Half course (fall term). M., 2–4; F., at 2. EXAM GROUP: 7, 8
Open to students with little or no prior experience in composition. Explores ways of thinking about and organizing basic compositional elements such as melody, harmony, rhythm and instrumental color, as well as developing skills of score preparation and analytical listening. The primary focus of the course is a series of short compositional exercises, culminating in a somewhat longer final project. Workshop performances of students' music take place throughout the term.
Note: May not be counted for concentration credit.
Prerequisite: Music 2 or equivalent or permission of the instructor.

[Music 5. Intermediate Composition]
Catalog Number: 2376 Enrollment: Limited to 16.

Half course (spring term). Hours to be arranged.
Open to students with a small amount of prior experience in composition. Continues the exploration of basic compositional principles begun in Music 4, but with a focus on strategies of large-scale organization. Students write four short pieces, each elaborated over a period of several weeks, exploring different principles of formal design (e.g. theme and variations, motivic development, collage). Workshop performances of students' music take place throughout the term.
Note: Expected to be given in 2005–06. May not be taken for concentration credit. May be taken independently of Music 4.
Prerequisite: Music 2 or equivalent or permission of the instructor.

***Music 51. Theory I**
Catalog Number: 3649
John Stewart
Full course. Tu., Th., at 1, and additional hours to be arranged. EXAM GROUP: 15
Elementary counterpoint and harmony; small forms and chorale harmonization. Concentration on written exercises, ear training, and keyboard.
Note: Music 51 or its equivalent is required of all concentrators. Students planning to concentrate in Music are encouraged to take the course in their freshman year. Concentrators should plan to meet this requirement by no later than the end of the sophomore year.
Prerequisite: Basic theory and ear training skills. Basic keyboard and sight reading of a Bach Chorale required.

***Music 91r. Supervised Reading and Research**
Catalog Number: 1298
Robert Levin (fall term); Christopher Hasty (spring term); and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Open to students wishing to pursue supervised study in an area not covered by the courses currently offered. Students must submit a study proposal to the faculty member with whom they wish to study and a signed proposal to the Assistant to the Head Tutor. May be counted for concentration *only* with the prior approval of the Department.

***Music 92r. Senior Project**
Catalog Number: 2744
Robert Levin (fall term); Christopher Hasty (spring term); and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
For students doing a Senior Project, when a pertinent regularly listed course does not exist, or is not being offered during the student's senior year.
Note: Students should read carefully and well in advance the relevant material in Handbook for Students, under the section of "Fields of Concentration: Music". Students should note, in particular #3 in the section marked 'Basic requirements': "a brief written prospectus . . . must be approved and signed by the instructor, and submitted to the Head Tutor no later than the second

week of the semester." The prospectus must clarify, when appropriate, why no regularly listed course being offered during the student's senior year is pertinent to the proposed work.

***Music 93r. Supervised Reading and Research**
Catalog Number: 8849
James D. Yannatos
Half course (fall term; repeated spring term). Hours to be arranged.
Open to students wishing to pursue supervised study in chamber music. Students must submit a study proposal to Professor Yannatos and a signed proposal to the Assistant to the Head Tutor.
Note: May not be taken Pass/Fail. May not be counted for concentration.

***Music 97r. Tutorial—Sophomore Year: Music History and Repertory**
Catalog Number: 0113
Members of the Department
Full course (indivisible). M., W., F., at 10, and an additional meeting to be arranged. EXAM GROUP: 3
For concentrators only. An intensive survey of Western music throughout its history and of selected non-Western musical traditions, providing methods of further study of music in historical and cultural contexts as well as basic knowledge of repertory.
Note: Music 97r is required of all concentrators and should be taken in the sophomore year or earlier by permission. Each half of the course culminates in an examination testing students' knowledge of a large listening repertory. These examinations must be passed in order to receive credit for the course.
Prerequisite: Music 51 (may be taken concurrently).

***Music 98r. Tutorial — Junior Year**
Catalog Number: 5601
Robert Levin (fall term); Christopher Hasty (spring term); and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Open to junior candidates for honors in Music who have written permission to enroll from the instructor with whom they wish to work, and also from the Head Tutor in Music. With permission, may be taken for a second term.

***Music 99r. Tutorial — Senior Year**
Catalog Number: 1765
Robert Levin (fall term); Christopher Hasty (spring term); and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Open to senior candidates for honors in Music who have written permission to enroll from the instructor with whom they wish to work, and also from the Head Tutor in Music. May be counted toward concentration credit only by honors candidates.

Cross-listed Courses

***Freshman Seminar 32w. African Musical Traditions**
***Freshman Seminar 38t. Beethoven's String Quartets**

For Undergraduates and Graduates

[Music 121a. Choral Conducting]
Catalog Number: 1550
Jameson N. Marvin
Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7
Students will conduct the class/choir to gain experience in building and refining their conducting technique. Through repertoire from the 16th - 20th century, students will develop clear, precise and expressive conducting gestures.
Note: Expected to be given in 2005–06. May not be counted for concentration credit.
Prerequisite: Choral or ensemble experience; ear training, keyboard, and theory background helpful.

Music 121b. Advanced Choral Conducting
Catalog Number: 1675
Jameson N. Marvin
Half course (spring term). M., W., 1–2:30. EXAM GROUP: 6, 7
Score Analysis and Interpretation: learning to understand the symbolic notation of musical gesture. Development of the mental-aural image of the score: preparing the conductor's ear for rehearsal. Rehearsing: how to hear, how to listen, how to fix. Further development of conducting technique: clarity, precision, and informed expressivity revealing musical gesture.
Prerequisite: Music 121a, Music 51, or conducting and musicianship background.

***Music 125a. Beginning Orchestration and Conducting**
Catalog Number: 8397
James D. Yannatos
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
Studies in basic conducting skills related to exercises in 17th- and 18th-century orchestration. Demonstration of stringed instruments.
Note: May not be counted for concentration credit.
Prerequisite: Music 51 or permission of instructor.

***Music 125b. Advanced Orchestration and Conducting**
Catalog Number: 8304
James D. Yannatos
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Advanced conducting skills related to studies in tonal, polytonal, atonal, 12-tone and avant-garde orchestration. Demonstration of wind, brass, and percussion instruments.
Prerequisite: Music 154 or permission of instructor.

[Music 126b. Advanced Conducting]
Catalog Number: 4868
James D. Yannatos
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Workshop for aspiring conductors with some experience. The technical aspects of conducting and rehearsing in relation to an understanding of the score will be studied with practical

classroom exercises using piano and various instrumental groups.
Note: Expected to be given in 2005–06.
Prerequisite: Music 125a, Music 154, and/or permission of the instructor.

Music 154. Theory II
Catalog Number: 4771
Alexander Rehding
Full course. Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Continues the work of Music 51 with emphasis on Classical style (Mozart, Haydn, Beethoven). Concepts are developed through composition, keyboard and analytical exercises. Topics include harmony, phrase structure, form, sonata procedures. Spring term also explores chromatic harmony in 18th- and 19th-century music.
Note: Required of all concentrators. May not be counted for credit toward an advanced degree.
Prerequisite: Music 51 or equivalent.

Music 155. Modal Counterpoint
Catalog Number: 7710
Howard G. Stern
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Study of representative styles and genres of 16th-century polyphony. Detailed analytic work will be combined with compositional exercises.
Prerequisite: Music 154 or permission of instructor.

Music 156. Tonal Counterpoint
Catalog Number: 3930
Howard G. Stern
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Written work in the Bach style.
Prerequisite: Music 154 or equivalent.

Music 157x. Tonal Analysis
Catalog Number: 6830
Christopher Hasty
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
Detailed examination of representative tonal compositions.
Note: For undergraduates who have completed Music 154 or equivalent, and strongly recommended for incoming graduate students in composition and musicology.
Prerequisite: Music 154 or permission of instructor.

Music 157y (formerly Music 157y). Analysis of 20th-Century Music
Catalog Number: 4397
Elliott John Gyger
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
Detailed examination of representative 20th-century compositions.
Prerequisite: Music 154 or permission of instructor.

[Music 158r. Interpreting Musical Performance]
Catalog Number: 9813
Christopher Hasty
Half course (spring term). Hours to be arranged.
Detailed analysis of selected pieces of music aimed at discovering and evaluating possibilities for execution and perception. Repertory will include fully notated music and music that has no tradition of notation. Among the questions to be addressed are those of perception, notation, and the adequacy of conventional analytic categories.
Note: Expected to be given in 2005–06.
Prerequisite: Music 154 or permission of instructor.

***Music 160r. Composition: Proseminar**
Catalog Number: 8026
Joshua Fineberg
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Open to students prepared for individual work in composition. Focus on the string quartet, including contemporary repertoire survey, short exercises, and a final project of modest dimensions. Incorporates readings and final performance of students' work.
Prerequisite: Music 154 or permission of instructor.

[*Music 161r. Advanced Composition]
Catalog Number: 6714

Half course (spring term). Hours to be arranged.
Individual work in musical composition. Consists primarily of one-on-one instruction, with occasional group meetings.
Note: Expected to be given in 2005–06.

***Music 167ar. Electro-Acoustic Composition**
Catalog Number: 3806 Enrollment: Limited to 12.
Hans Tutschku
Half course (fall term). Tu., 3–5. EXAM GROUP: 17, 18
Composition/performance involving electronic medium, analog and digital. Projects realized in electronic studio using synthesizers and computers, includes study of relevant aspects of acoustic and electronic theory. Compositions since 1948 in the genres of musique concrete, "pure" and "live" electronic music, music for instruments and tape and multi-disciplinary studied. Synthesis, sampling, MIDI sequencing, digital recording, editing, and live performance techniques also covered.
Prerequisite: One course in theory/composition or by permission of instructor

***Music 167br. Electro-Acoustic Composition**
Catalog Number: 9187 Enrollment: Limited to 12.
Hans Tutschku
Half course (spring term). Tu., 3–5. EXAM GROUP: 17, 18
Continuation of Music 167ar.
Prerequisite: One course in music theory/composition or by permission of instructor

[*Music 178r. Performing Music]
Catalog Number: 6366 Enrollment: Limited to 14.

Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06.

***Music 180r. Performance and Analysis: Seminar**
Catalog Number: 2294 Enrollment: By audition only, prior to the first meeting.
Robert D. Levin and Daniel Stepner
Half course (fall term; repeated spring term). M., 7–10 p.m.; additional meeting time to be arranged. EXAM GROUP: 9
Representative chamber music of the past and present is prepared for performance in class sessions and private coachings. Intensive class analysis as the basis of musical expression and interpretation.
Note: Open to singers and instrumentalists.

***Music 182. 17th- and 18th-Century Performance Practice**
Catalog Number: 1460
Robert D. Levin
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Articulation, ornamentation, improvisation, and other stylistic domains are considered from the perspectives of historical evidence and modern performance.
Note: May be counted for music concentration credit for Music 192r.
Prerequisite: Music 154 or permission of instructor.

[Music 183. 19th-Century and 20th-Century Performance Practice]
Catalog Number: 0117
Robert D. Levin
Half course (fall term). Hours to be arranged.
Evolution of performance style from the Classical era to the present day. The decline in the creative role of the performer; the profound changes in the nature of articulation; dynamics; vibrato; virtuosity; performance techniques; the proliferation of myriad individual compositional styles; and the rapid technological developments in musical instruments are explored. Includes examination of contemporary treatises and performance styles. A dialogue between scholarship and performance is encouraged.
Note: Expected to be given in 2005–06. May be counted for music concentration credit for Music 193r.
Prerequisite: Music 154 or permission of the instructor.

Music 190r. Topics in World Music: Proseminar
Catalog Number: 1312
Sarah Weiss
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Shadows, Gongs and Punk. Music Cultures of Southeast Asia. Questions from domains of aesthetics, genders and post-colonial studies provide the theoretical background for an exploration of several performance genres that reach across the region of Southeast Asia,

including past and present forms of gong culture, shadow puppet theatre, and popular music.
Note: For music concentrators or by permission of instructor.

***Music 190rs. Topics in World Music: Proseminar**
Catalog Number: 7577
Virginia Danielson
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
Music in Middle Eastern Contexts.

[Music 191r. Topics in Medieval and Renaissance Music: Proseminar]
Catalog Number: 2524
Mauro Calcagno
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06. For music concentrators or by permission of instructor.

[Music 192r. Topics in Music from 1600-1800: Proseminar]
Catalog Number: 2944
Karen Painter
Half course (spring term). Hours to be arranged.
Mozart at Work. How Mozart composed will be reconstructed from sketches, manuscripts, and biographies for insights into musical analysis and interpretations.
Note: Expected to be given in 2005–06. For music concentrators or by permission of instructor.

Music 193r. Topics in Music from 1800 to the Present: Proseminar
Catalog Number: 3741
Daniel Beller-McKenna (University of New Hampshire)
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
Brahm's Choral Music and German Society. This course will survey selected choral works from various periods in Brahms's career. In addition to examining Brahms's place in the German musical work during the second half to the nineteenth century, the course will consider the role of choral singing and choral music in German culture at this time.
Note: For music concentrators or by permission of instructor.

Music 194r. Special Topics: Proseminar
Catalog Number: 2846
Sarah Weiss
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
World Music Theory, Practice, and Aesthetics. A comparative exploration of musical processes of Javanese pathet, North Indian raga, and Irish tune-family. Course will include ear-training, notation, analysis and in-depth readings about the musical cultures studied.
Note: For music concentrators or by permission of instructor.

Music 194rs. Topics in Music from 1800 to Present: Proseminar
Catalog Number: 8586
Sarah Weiss
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16

Permeable Boundaries. Beginning from the critical discourse on hybridity, the course will examine the musical results of cultural interaction exploring both "natural" and "intentional" hybrids.
Note: For music concentrators or by permission of instructor.

Music 194rt. Special Topics: Proseminar
Catalog Number: 8523
Denise Von Glahn (Florida State University)
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
Programmatic, Absolute, and Other: Perspectives on Musical Meaning. Writings from the 19th-century to the present to develop an appreciation of multiple approaches to ascribing meaning to art music.

Cross-listed Courses

***English 282. Theories of Modernism: Graduate Seminar**
Literature and Arts B-51. First Nights: Five Performance Premieres
[Literature and Arts B-54. Chamber Music from Mozart to Ravel]
[Literature and Arts B-63. Bach in His Time and Through the Centuries]
Literature and Arts B-68. Opera
[Literature and Arts B-78. Soundscapes: Exploring Music in a Changing World]
Literature and Arts B-80. The Swing Era
[Literature and Arts B-82. Sayin' Something: Jazz as Sound, Sensibility, and Social Dialogue]
[Medieval Studies 210. Medieval Manuscripts and Liturgical Arts]

Primarily for Graduates

Music Bhf. Exercises in Tonal Writing and Analysis
Catalog Number: 3045
Lansing D. McLoskey
Half course (throughout the year). Hours to be arranged.
Includes theory (level of Music 154) as well as keyboard and ear training.
Note: Required of all graduate students. This requirement must be met before admission to the General Examination.

Music 201a. Current Methods in Historical Musicology
Catalog Number: 4975
Sean Thomas Gallagher
Half course (fall term). Tu., 10–12. EXAM GROUP: 12, 13
An introduction to scholarship, drawing upon the history, theoretical frameworks, and working methods of historical musicology. One focus of the course will be the concept of musical borrowing, broadly construed, from the medieval period through the 20th century.
Note: May be taken independently by students from other departments with permission of instructor.

Music 201b. Current Methods in Ethnomusicology
Catalog Number: 3995
Kay Kaufman Shelemay
Half course (spring term). M., 10–12. EXAM GROUP: 3, 4
Focuses on the introduction to scholarly study of music with emphasis on the history and methodologies of ethnomusicology. Theories of music in culture, field methods, analytical and notational strategies, and critical tools for scholarship.
Note: May be taken independently by students from other departments with permission of instructor.

Music 206r. Research Methods in Ethnomusicology: Musical Ethnography
Catalog Number: 6891
Kay Kaufman Shelemay
Half course (fall term). M., 10–12. EXAM GROUP: 3, 4
An introduction to the theories and methods of ethnomusicological fieldwork, including changing conceptions of the research site, ethical concerns, interview techniques, the ethnography of musical performance, and data analysis and interpretation.
Note: Individual research project required. Open to undergraduates with permission of instructor.

Music 207r. Ethnomusicology: Seminar
Catalog Number: 2149
Sarah Weiss
Half course (spring term). Tu., 10–12. EXAM GROUP: 12, 13
Sounding Royal: A Comparative Examination of Music in Court Life. In courts around the world, religion, politics, and the practicalities of government regulations regularly intersect with aesthetic systems and theatrical and musical performance.
Note: Open to undergraduates with permission of instructor.

[Music 207rs. Ethnomusicology: Seminar]
Catalog Number: 8999
Richard K. Wolf
Half course (spring term). Hours to be arranged.
Music and Mourning. Probes how actors attach social and cultural meaning to music in contexts of funerals and dolorous pieties (especially Muharram). Readings include classic anthropological treatments of mortuary ritual and theoretical approaches to music and emotion.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

[Music 208r. Ethnomusicology: Seminar]
Catalog Number: 2232

Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

[Music 209r. Ethnomusicology: Seminar]
Catalog Number: 4022

Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

[Music 212r. Chant: Seminar]
Catalog Number: 4984
Thomas Forrest Kelly
Half course (spring term). Hours to be arranged.
Melodic Transmission in Chant.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

Music 213r. Topics in Medieval Polyphony: Seminar
Catalog Number: 5802
Edward Roesner (New York University)
Half course (spring term). F., 1–3. EXAM GROUP: 6, 7
Notre Dame Polyphony.
Note: Permission of instructor required for undergraduates.

Music 214r. Renaissance Music: Seminar
Catalog Number: 7825
Sean Thomas Gallagher
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Guillaume Du Fay and Song Traditions in the Fifteenth Century.
Note: Open to undergraduates with permission of instructor.

[Music 214rs. Renaissance Music: Seminar]
Catalog Number: 6294

Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

Music 215r. Baroque: Seminar
Catalog Number: 6817
Ignace Bossuyt (Katholieke Universiteit Leuven, Belgium)
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
Orlando di Lasso and the Motet in the Second Half of the Sixteenth Century.
Note: Open to undergraduates with permission of instructor.

Music 216r. 18th-Century Music: Seminar
Catalog Number: 6868
Mary K. Hunter
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
String Quartets of Haydn and Mozart: Meaning and Culture.
Note: Open to undergraduates with permission of instructor.

[Music 217r. 19th-Century Music: Seminar]
Catalog Number: 9814

Karen Painter
Half course (spring term). Hours to be arranged.
Bruckner, Mahler and the Symphonic Legacy. Analysis focuses on the nature of symphonic form and the "symphonic". Other topics explored through aesthetic, philosophical, and historical writings include the reification of symphonic form, tradition and tension between structure and process.
Note: Expected to be given in 2005–06. Open to undergraduates and students outside the department by permission of instructor.

Music 218r. 20th-Century Music: Seminar
Catalog Number: 0774
Anne C. Shreffler
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
Music of the Last Ten Years.
Note: Open to undergraduates with permission of instructor.

Music 218rs. 20th-Century Music: Seminar
Catalog Number: 0301
Denise Von Glahn (Florida State University)
Half course (spring term). Th., 10–12. EXAM GROUP: 12, 13
Ives on Ives in Prose and Music. Students will read the complete body of Ives' writings and study select musical works to develop a sense of the values informing his thinking and art.

[Music 219r. 19th and 20th Century Music]
Catalog Number: 2275
Karen Painter
Half course (fall term). Hours to be arranged.
Jewish Identity and Anti-Semitism in Music and Thought, 1850 - 1945. Debates over Jewish assimiliation will be explored in German intellectual life and musical thought. Topics include Wagner's writings and music, the fin-de-siècle critique of modernism, and the post-1914 politicization of music.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

Music 220ar. History of Music Theory: Seminar
Catalog Number: 2119
Alexander Rehding
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Theories of Musical Degeneration. What happens to music if the musical germ-cell goes wrong in the context of 19th-century musical organicism? Music-theoretical and historiographical implications of cultural pessimism and decadence (from 1850 to present).
Note: Open to undergraduates with permission of instructor.

[Music 220br. History of Music Theory: Seminar]
Catalog Number: 1580 Enrollment: Limited to 20.
Alexander Rehding

Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

Music 222r. Schenkerian Analysis I
Catalog Number: 4055
Janet Schmalfeldt
Half course (fall term). F., 1:30–3:30. EXAM GROUP: 6, 7, 8
Introduction to the theories and graphing techniques of Heinrich Schenker and his followers through the analysis of selected works.
Note: Open to undergraduates with permission of instructor.

Music 224r. Music Analysis
Catalog Number: 7136
Alexander Rehding
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
Milestones of Music Analysis. Examining three key works (*Eroica*, *Tristan* Prelude, *Rite of Spring*) through analyses they engendered. Comparing analytical approaches and their historical place, practicing analytical skills, examining claims and limitations of analysis.

[Music 230ar. Topics in Music Theory I]
Catalog Number: 5712
Christopher Hasty
Half course (fall term). Hours to be arranged.
Music and Meaning. The past decade has seen a renewal of interest in problems of musical meaning and in comparisons of music and language. This seminar will consider the arguments and motivations of prominent theorists and attempt to develop concepts that might adequately address questions of the meaningfulness of musical experience.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

[Music 230br. Topics in Music Theory II]
Catalog Number: 6696

Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

***Music 261r. Composition: Seminar**
Catalog Number: 3326 Enrollment: Limited to 10.
Harrison Birtwistle (fall term) and Bernard Rands (spring term)
Full course (indivisible). Hours to be arranged.
For students prepared for work in original composition.

***Music 262r. Composition: Seminar**
Catalog Number: 4457 Enrollment: Limited to 10.
Harrison Birtwistle (fall term) and Julian Anderson (spring term)
Full course (indivisible). Hours to be arranged.
For students prepared for work in original composition.

Music 264r. Electronic Music Composition: Seminar
Catalog Number: 1939
Joshua Fineberg
Full course (indivisible). Fall: M., 2–4; Spring: W., 11–2. EXAM GROUP: Fall: 6, 7; Spring: 4, 5, 6
Intensive work in computer music concentrating on the application of traditional electronic techniques in the computer realm. Includes use of UNIX-based software synthesis tools cmix and csound, and the real-time mixing program, RT.
Prerequisite: Previous knowledge of electronic music techniques, or permission of instructor.

[Music 265r. Orchestration]
Catalog Number: 2379 Enrollment: Limited to 8.
Joshua Fineberg
Half course (spring term). Hours to be arranged.
Focuses on composing for orchestral instruments in large ensembles and orchestras. It alternates classroom meetings and practical sessions with instrumentalists.
Note: Expected to be given in 2005–06. Open to composition graduate students, or by permission of instructor.

Music 270r. Special Topics
Catalog Number: 3727
Bernard Rands
Half course (spring term). Tu., 10–12. EXAM GROUP: 12, 13
Topics in Composition. Principles of aleatory music and corresponding notations; music and text; the modern orchestra and issues in composition brought to the seminar by participating composers.

[Music 271r. From Seminar in Composition]
Catalog Number: 1311

Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.

[Music 272r. Special Topics]
Catalog Number: 2059

Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.

Music 273r. Topics in Electroacoustic Music
Catalog Number: 7701
Hans Tutschku
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8

Graduate Courses of Reading and Research

***Music 300. Reading and Research for Advanced Students**
Catalog Number: 2504
Julian Anderson 5148 (on leave fall term), Mauro Calcagno 3871 (on leave 2004-05), Joshua Fineberg 3749, Sean Thomas Gallagher 4415, Elliott John Gyger 4462 (on leave spring term), Christopher Hasty 4445 (on leave fall term), Thomas Forrest Kelly 1324 (on leave spring term), Robert D. Levin 3482, Ingrid Monson 1591 (on leave 2004-05), Carol J. Oja 4599 (on leave 2004-05), Karen Painter 3615 (on leave fall term), Bernard Rands 1900 (on leave fall term), Alexander Rehding 4651, Kay Kaufman Shelemay 3483, Anne C. Shreffler 4656, Hans Tutschku 5147, Richard K. Wolf 1386 (on leave 2004-05), and Christoph Wolff 4532 (on leave 2004-05)
Individual work on specific topics not included in the announced course offerings.

***Music 301. Reading and Research**
Catalog Number: 6543
Julian Anderson 5148 (on leave fall term), Mauro Calcagno 3871 (on leave 2004-05), Joshua Fineberg 3749, Sean Thomas Gallagher 4415, Elliott John Gyger 4462 (on leave spring term), Christopher Hasty 4445 (on leave fall term), Thomas Forrest Kelly 1324 (on leave spring term), Ingrid Monson 1591 (on leave 2004-05), Carol J. Oja 4599 (on leave 2004-05), Karen Painter 3615 (on leave fall term), Bernard Rands 1900 (on leave fall term), Alexander Rehding 4651, Kay Kaufman Shelemay 3483, Anne C. Shreffler 4656, Hans Tutschku 5147, Richard K. Wolf 1386 (on leave 2004-05), and Christoph Wolff 4532 (on leave 2004-05)
Individual work in preparation for the General Examination for the PhD degree.
Note: May not be counted toward course requirements for the PhD degree.

***Music 309. Doctoral Colloquium**
Catalog Number: 2260
Anne C. Shreffler 4656 and Julian Anderson 5148 (on leave fall term)
Half course (spring term). Th., 1–3.

***Music 310. Direction of Doctoral Dissertations**
Catalog Number: 1819
Christopher Hasty 4445 (on leave fall term), Thomas Forrest Kelly 1324 (on leave spring term), Robert D. Levin 3482, Ingrid Monson 1591 (on leave 2004-05), Carol J. Oja 4599 (on leave 2004-05), Bernard Rands 1900 (on leave fall term), Kay Kaufman Shelemay 3483, Anne C. Shreffler 4656, and Christoph Wolff 4532 (on leave 2004-05)
Note: May not be counted toward course requirements for the PhD degree.

Near Eastern Languages and Civilizations

Faculty of the Department of Near Eastern Languages and Civilizations

P. Oktor Skjaervo, Aga Khan Professor of Iranian *(Chair) (on leave fall term)*
John Huehnergard, Professor of Semitic Philology *(Acting Chair, fall term) (Director of Graduate Studies)*
Irit Aharony, Preceptor in Modern Hebrew
James A. Armstrong, Lecturer on the Ancient Near East
Ali S. Asani, Professor of the Practice of Indo-Muslim Languages and Cultures
Mostafa Atamnia, Preceptor in Modern Arabic
Paul-Alain Beaulieu, Associate Professor of Assyriology *(on leave 2004-05)*
Tami Ben-Shahar, Preceptor in Modern Hebrew
David Braun, Preceptor in Yiddish
J. F. Coakley, Senior Lecturer on Near Eastern Languages and Civilizations
Shaye J.D. Cohen, Nathan Littauer Professor of Hebrew Literature and Philosophy *(on leave 2004-05)*
Michael D. Coogan, Visiting Lecturer on Near Eastern Languages and Civilizations
Carl Sharif El-Tobgui, Preceptor in Arabic
John L. Ellison, Lecturer on Near Eastern Languages and Civilizations
Isaiah M. Gafni, Gerard Weinstock Visiting Professor of Jewish Studies *(Hebrew University) (spring term only)*
William A. Graham, Jr., Murray A. Albertson Professor of Middle Eastern Studies and John Lord O'Brian Professor of Divinity
William E. Granara, Professor of the Practice of Arabic on the Gordon Gray Endowment *(Director of Undergraduate Studies)*
Anna Grinfeld, Preceptor in Modern Hebrew
Jo Ann Hackett, Professor of the Practice of Biblical Hebrew and Northwest Semitic Epigraphy
Sabry Hafez, Shawwaf Visiting Professor of Arabic and Islamic Studies *(University of London)*
Paul D. Hanson, Florence Corliss Lamont Professor of Divinity *(Divinity School)*
Jay M. Harris, Harvard College Professor and Harry Austryn Wolfson Professor of Jewish Studies
Rebecca Hasselbach, Preceptor in Semitic Languages
Wolfhart P. Heinrichs, James Richard Jewett Professor of Arabic
Susan M. Kahn, Lecturer on Anthropology and Lecturer on Near Eastern Languages and Civilizations
Hakan T. Karateke, Preceptor in Modern Turkish Language
Miri Kubovy, Professor of the Practice of Near Eastern Languages and Civilizations
Jon D. Levenson, Albert A. List Professor of Jewish Studies *(Divinity School)*
Peter Machinist, Hancock Professor of Hebrew and other Oriental Languages
Avi Matalon, Assistant Professor of Near Eastern Languages and Civilizations
Susan G. Miller, Senior Lecturer on Near Eastern Languages and Civilizations
James R. Russell, Mashtots Professor of Armenian Studies *(on leave spring term)*
Richard J. Saley, Lecturer on Near Eastern Languages and Civilizations
John S. Schoeberlein, Lecturer on Government *(spring term only)* and Lecturer on Near Eastern Languages and Civilizations *(fall term only)*
Bernard Septimus, Jacob E. Safra Professor of Jewish History and Sephardic Civilization
Benjamin L. Smith, Preceptor in Modern Arabic

Lawrence E. Stager, Dorot Professor of the Archaeology of Israel
Piotr Steinkeller, Professor of Assyriology *(on leave fall term)*
Wheeler M. Thackston, Jr., Professor of the Practice of Persian and other Near Eastern Languages
Ruth R. Wisse, Harvard College Professor, Martin Peretz Professor of Yiddish Literature, and Professor of Comparative Literature
Aron Zysow, Lecturer on Near Eastern Languages and Civilizations *(fall term only)*

Other Faculty Offering Instruction in the Department of Near Eastern Languages and Civilizations

Ofer Bar-Yosef, George Grant MacCurdy and Janet G. B. MacCurdy Professor of Prehistoric Archaeology
Joseph Dan, Visiting Professor of Jewish Studies *(Hebrew University)*
Tariq Jaffer, Visiting Lecturer on the Study of Religion
Roy Mottahedeh, Gurney Professor of History
Tonia M. Sharlach, Visiting Assistant Professor of Women's Studies and World Religions *(Divinity School)*

Knowledge of a Near Eastern language is not required in courses designated as Near Eastern Civilizations, Ancient Near East, Jewish Studies, Early Iranian Civilizations, Islamic Civilizations, and Armenian Studies, unless otherwise stated.

Graduate students in the Faculty of Arts and Sciences may enroll in certain foreign language courses for the grade of Satisfactory/Unsatisfactory. Students should consult with course heads to determine if a course is offered on that basis.

Near Eastern Civilizations

Primarily for Undergraduates

Near Eastern Civilizations 90. Junior Seminars. These half courses are limited in enrollment with preference given to Near Eastern Languages and Civilizations concentrators in their junior years. Undergraduate non-concentrators may enroll in junior seminars on a space available basis.

***Near Eastern Civilizations 91r. Supervised Reading and Research**
Catalog Number: 1132
William E. Granara and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Tutorial supervision of research in subjects not treated in regular courses.

***Near Eastern Civilizations 97r. Group Tutorial—Sophomore Year**
Catalog Number: 0167
William E. Granara and members of the Department
Half course (spring term). M., 4–5:45. EXAM GROUP: 9
An introduction to the cultures and literatures of the Near East in ancient, classical, and modern

times, emphasizing major themes and problems that cut across individual cultures and historical periods.

***Near Eastern Civilizations 98r. Tutorial — Junior Year**
Catalog Number: 2612
William E. Granara and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Designed for juniors concentrating in Near Eastern Languages and Civilizations.

***Near Eastern Civilizations 99r. Tutorial — Senior Year**
Catalog Number: 6623
William E. Granara and members of the Department
Full course. Hours to be arranged.
Note: Designed for seniors concentrating in Near Eastern Languages and Civilizations.

Cross-listed courses

Social Analysis 74. Visible Language: Writing Systems, Scripts, and Literacy

Primarily for Graduates

***Near Eastern Civilizations 200a (formerly Islamic Civilizations 200a). Approaches to Middle Eastern Studies: Proseminar**
Catalog Number: 5918
Susan M. Kahn
Half course (fall term). M., 3–5. EXAM GROUP: 8, 9
Interdisciplinary seminar serves as an introduction to the major disciplines constituting Middle Eastern Studies, including history, political science, anthropology, literature and Islamic Studies. Guest lecturers comprise faculty members.
Note: Required for students pursuing the AM in Middle Eastern Studies. Primarily for first-term students in the AM in Middle Eastern Studies program, although open to AM students in related fields.

Near Eastern Civilizations 200b (formerly Islamic Civilizations 200b). Middle Eastern Studies Research Project: Seminar
Catalog Number: 9274
Susan M. Kahn
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
Interdisciplinary seminar where students are required to expand a paper written previously for another course in Middle Eastern Studies into a long research paper and present their findings to the seminar. Students critique the presentations.
Note: Required for students pursuing the AM in Middle Eastern Studies. Primarily for students in the final term in the AM in Middle Eastern Studies program, although open to AM students in related fields.

Graduate Courses of Reading and Research

***Near Eastern Civilizations 300. Direction of Master's Thesis**
Catalog Number: 2448
J. F. Coakley 3409, William E. Granara 1054, Jon D. Levenson (Divinity School) 2264, and Wheeler M. Thackston, Jr. 4004

***Near Eastern Civilizations 390. Direction of Doctoral Dissertations**
Catalog Number: 3041
Ali S. Asani 7739, Shaye J.D. Cohen 4180 (on leave 2004-05), William A. Graham, Jr. 4156, William E. Granara 1054, Jo Ann Hackett 2389, Paul D. Hanson (Divinity School) 1394, Jay M. Harris 2266, Wolfhart P. Heinrichs 4988, John Huehnergard 7697, Jon D. Levenson (Divinity School) 2264, Peter Machinist 2812, James R. Russell 3411 (on leave spring term), Bernard Septimus 7160, P. Oktor Skjaervo 2869 (on leave fall term), Lawrence E. Stager 1468, Piotr Steinkeller 7337 (on leave fall term), Wheeler M. Thackston, Jr. 4004, and Ruth R. Wisse 3177

Ancient Near Eastern and Biblical Studies

See also below under Akkadian and Sumerian, Aramaic, Hebrew, and Semitic Philology.

For Undergraduates and Graduates

[Ancient Near East 100. History of the Ancient Near East: Mesopotamia]
Catalog Number: 0702

Half course (spring term). Hours to be arranged.
Surveys the political and cultural history of Mesopotamia from c. 4000 B.C.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1115.

[Ancient Near East 101. Introduction to Mesopotamian Archaeology]
Catalog Number: 1245
James A. Armstrong
Half course (spring term). Hours to be arranged.
Surveys the archaeology of ancient Mesopotamia (geographically defined as the territory of modern Iraq plus immediately adjacent areas) from the Neolithic Period until the conquest of Alexander the Great. While theoretical issues and approaches will not be neglected, the emphasis in this class is on the archaeological data that are used in reconstructions of Mesopotamia's history and its ancient social systems.
Note: Expected to be given in 2005–06.

[Ancient Near East 102. Introduction to Mesopotamian Religion]
Catalog Number: 0486
Piotr Steinkeller
Half course (spring term). Hours to be arranged.
A survey of the sources, data, and principal concerns. A selection of texts are read in translation.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3661.

Ancient Near East 103. Goddesses, Priestesses, and Dreams: Gender in the Ancient Near East
Catalog Number: 0792
Tonia M. Sharlach (Divinity School)
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
Through investigation of textual and archaeological sources, this course will examine the role of gender in the polytheistic religions of ancient Mesopotamia and Canaan. Topics to be covered include goddesses and their relation to gods, priestesses and their relations to priests, witches and exorcists, gender in dreams and omens, and gender bending.
Note: Offered jointly with the Divinity School as 3845.

Ancient Near East 105. History of the Ancient Near East: The Levant (up to Alexander the Great)
Catalog Number: 0711
Lawrence E. Stager
Half course (spring term). Tu., Th., at 1. EXAM GROUP: 15
The civilization and cultural traditions of the peoples of Syria-Palestine from the third millennium to the time of Alexander the Great.
Note: Offered jointly with the Divinity School as 1118.

Ancient Near East 109r. History and Historiography in the Ancient Near East: Seminar
Catalog Number: 1822
Lawrence E. Stager and Peter Machinist
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
Topic for 2004-05: Archaeology and History of the Aramaeans.
Note: Offered jointly with the Divinity School as 1822.

Ancient Near East 115. Archaeology of the Levant (Syria-Palestine)
Catalog Number: 2813
Lawrence E. Stager and Ofer Bar-Yosef
Half course (fall term). F., 1–3. EXAM GROUP: 6, 7
A chronological survey of the archaeology of the Levant in which material culture provides a window on human evolution, society, economy, and religion from the Lower Palaeolithic to Hellenistic times. Special topics include the earliest colonization of *Homo erectus*, the origin of modern humans, the emergence of farming and pastoral societies, the formation and dissolution of Bronze Age city-states, and the rise and fall of Iron Age kingdoms such as Israel, Moab, and Edom.
Note: Offered jointly with the Divinity School as 1420. Includes a lab section.

[Ancient Near East 117. Biblical Archaeology]
Catalog Number: 1371
Lawrence E. Stager
Half course (fall term). Hours to be arranged.
Archaeology and texts, such as the Bible, used to reconstruct aspects of social, economic, and religious life (from courtier to commoner) in ancient Israel during the Iron Age.

Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1422. Includes a lab section.

[Ancient Near East 118. Syro-Palestinian Pottery]
Catalog Number: 1368
Lawrence E. Stager
Half course (fall term). Hours to be arranged.
A basic introduction to the pottery sequence of Palestine and Syria from Neolithic through Roman times, with emphasis on typological attributes having chronological significance. Conducted in the Harvard Semitic Museum laboratory.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1862. Includes a lab section.

Ancient Near East 120. Introduction to the Hebrew Scriptures
Catalog Number: 6544
Michael D. Coogan
Half course (fall term). F., 9–11. EXAM GROUP: 2, 3
A survey of the Hebrew Scriptures as viewed in their historical and cultural setting in the ancient Near East and as interpreted by modern scholarship, with attention to this literature as an expression of the religious thought of Israel and one of the formative influences on Western civilization.
Note: Offered jointly with the Divinity School as 1101.

Ancient Near East 122. Biblical Interpretation
Catalog Number: 4289
Paul D. Hanson (Divinity School)
Half course (fall term). Tu., 3–5. EXAM GROUP: 17, 18
Note: Offered jointly with the Divinity School as 1413.
Prerequisite: Ancient Near East 120 or equivalent.

[Ancient Near East 124. Myth and Myth-Making in the Biblical and Ancient Near Eastern World]
Catalog Number: 7859
Peter Machinist
Half course (fall term). Hours to be arranged.
An exploration of the nature and function of myth in the context of the ancient Near East. The course focuses on selected mythic texts from various Near Eastern cultures and consider them in the light of general approaches to myth developed in Western scholarship. Particular attention is given to the issue of myth in the Hebrew Bible.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1128/3410.

[Ancient Near East 126. History of the Religion of Israel]
Catalog Number: 1672
Peter Machinist
Half course (spring term). Hours to be arranged.
The study of ancient Israelite religion and culture in comparative historical context. Topics

examined include conceptions of divinity, prophecy, law, kingship, and cult. Through such topics the aim is to see how Israel related to other cultures of the ancient Near East and, thus, of what value the study of the other cultures has in understanding the character of Israelite religion itself.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 1110.

Ancient Near East 127. Prophecy in Ancient Israel
Catalog Number: 6739
Peter Machinist
Half course (spring term). Tu., Th., at 11, and one additional hour to be arranged. EXAM GROUP: 13
A study of the phenomenon and history of Israelite prophecy, as recorded in the Hebrew Bible, in the light of prophecy elsewhere in the ancient Near East and in other cultures. Pertinent sociological, literary, and religious issues explored.
Note: Offered jointly with the Divinity School as 1125.

[Ancient Near East 128. Jewish Apocalypticism]
Catalog Number: 8249
Paul D. Hanson (Divinity School)
Half course (fall term). Hours to be arranged.
A study of Jewish apocalyptic movements from their roots in late biblical prophesy to their flowering in Hellenistic and Roman times. Attention will be paid to the biblical and extra-biblical traditions incorporated in these texts and woven into messages addressing crises such as persecution and forced assimilation. The manner in which books like Daniel and Revelation are used by contemporary apocalyptic movements will be assessed.
Note: Expected to be given in 2005–06. All texts read in English translation. Offered jointly with the Divinity School as 1460.
Prerequisite: Ancient Near East 120 or the equivalent.

[Ancient Near East 134. Genesis: Narrative Artistry and Theological Meanings]
Catalog Number: 3291
Jon D. Levenson (Divinity School)
Half course (fall term). Hours to be arranged.
A close critical reading in English of the book of Genesis with an eye both to the storytellers' techniques and to the moral and theological dimensions of the text. Emphasis on literary and religious rather than historical and editorial issues.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1417.
Prerequisite: Ancient Near East 120.

[Ancient Near East 135. Biblical Theology: Hebrew Bible]
Catalog Number: 4476
Paul D. Hanson (Divinity School)
Half course (fall term). Hours to be arranged.
The theology of the Hebrew Bible studied by explicating major biblical themes (e.g., creation, liberation, war and peace, economic justice, social reform) and then relating them to issues in the contemporary world. Attention also given to background questions such as concepts of biblical

authority and hermeneutical theory.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1150/2470.
Prerequisite: Ancient Near East 120 or equivalent.

Ancient Near East 138. The Bible and Politics
Catalog Number: 8073
Paul D. Hanson (Divinity School)
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Political models found in the Hebrew Bible; the role of biblical traditions in the development of church-state relations in the history of the US; the possibility of a suitable political theology within the context of contemporary religion and politics.
Note: Offered jointly with the Divinity School as 1465/2529.

Ancient Near East 141r. Akkadian Myths and Epics
Catalog Number: 7618
Peter Machinist
Half course (spring term). W., at 3. EXAM GROUP: 8
Examination of selected Assyrian and Babylonian epics from the latter second and first millennia B.C. Topic for 2004-05: Anzu, Erra, and other myths of order and disorder.
Prerequisite: Akkadian grammar, basic vocabulary, knowledge of cuneiform script.

Primarily for Graduates

Ancient Near East 210. Textual Criticism of the Hebrew Bible: Seminar
Catalog Number: 5492
Richard J. Saley
Half course (fall term). Tu., 3–6. EXAM GROUP: 17, 18
Focus is on the art of recovering/reconstructing the text of the Hebrew Bible on the basis of Hebrew and Greek manuscripts as well as other early textual witnesses.
Note: Offered jointly with the Divinity School as 1819.
Prerequisite: At least two years of Hebrew and one year of Greek; some knowledge of Aramaic, Latin, and Syriac is beneficial but not required.

***Ancient Near East 215r. Problems in the Archaeology of Bronze and Iron Age Levant: Seminar**
Catalog Number: 2960
Lawrence E. Stager
Half course (fall term). F., 3–5. EXAM GROUP: 8, 9
Topic for 2004-05: Domestic Architecture of the Iron Age Israel and Neighboring Cultures.
Note: Conducted in the Harvard Semitic Museum Laboratory.

[Ancient Near East 222 (formerly Ancient Near East 121). History of the Study of the Hebrew Bible: From the Renaissance to the Present: Seminar]
Catalog Number: 8086
Peter Machinist
Half course (spring term). Hours to be arranged.

Within the framework of a broad survey of Hebrew biblical scholarship since the Renaissance, the course focuses on particular scholars and their representative and seminal works. The central theme is the emergence of a historical-critical understanding of the Bible and the elaborations of and reactions to this understanding.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 1425.
Prerequisite: A background in the study of the Hebrew Bible. Also, Biblical Hebrew and at least one of the following: French, German, or Modern Hebrew.

Ancient Near East 236. Biblical Theology: Seminar
Catalog Number: 7022
Paul D. Hanson (Divinity School)
Half course (spring term). Tu., 3–5. EXAM GROUP: 17, 18
An examination of resources within the Bible for the construction of contemporary political theology.
Note: Offered jointly with the Divinity School as 1801/2471.
Prerequisite: Ancient Near East 120 or equivalent.

Cross-listed Courses

[Classical Archaeology 256. Greeks and Persians]
[Historical Study B-01. The Intellectual Traditions of the Ancient Near East]
History of Art and Architecture 13h. Foundations of Early Civilization: An Introduction to the Art of Ancient Mesopotamia
History of Art and Architecture 137. Cross-Cultural Aesthetics: Proseminar
Literature and Arts A-53. "Athens and Jerusalem": Self and Other in Classical Greek and Hebrew Literature
[Literature and Arts A-70. The Book of Job and the Joban Tradition]

Graduate Courses of Reading and Research

***Ancient Near East 310. Reading and Research in Ancient Near Eastern Archaeology**
Catalog Number: 4264
Lawrence E. Stager 1468

***Ancient Near East 320. Reading and Research in Ancient Mesopotamian Civilization**
Catalog Number: 5678
Piotr Steinkeller 7337 (on leave fall term), John Huehnergard 7697, and Peter Machinist 2812

***Ancient Near East 330. Reading and Research in Biblical Studies**
Catalog Number: 1524
J. F. Coakley 3409, Jo Ann Hackett 2389, Paul D. Hanson (Divinity School) 1394, Jon D. Levenson (Divinity School) 2264, Peter Machinist 2812, and Lawrence E. Stager 1468

Postbiblical Jewish Studies

See also below under Aramaic, Hebrew, and Yiddish.

For Undergraduates and Graduates

Jewish Studies 110. Modern Jewish Religious Movements
Catalog Number: 0214
Jay M. Harris
Half course (spring term). M., W., (F.), at 12. EXAM GROUP: 5
A study of the various forms of Judaism that have emerged in the last two centuries. Examination of the Reform, Orthodox, Conservative, and Reconstructionist movements, as well as Hasidism and its opposition. Emphasis is on institutions, ideology, and significant figures.
Note: Offered jointly with the Divinity School as 3681.

[Jewish Studies 111. Modern Jewish Thought]
Catalog Number: 5461
Jay M. Harris
Half course (fall term). Hours to be arranged.
A study of significant Jewish thinkers in the modern period and their reflections on the past and present meaning of Judaism. All thinkers studied against the background of premodern Jewish thought and the challenges posed by modern Western philosophical systems.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3682.

Jewish Studies 119. The Language of the Mystics
Catalog Number: 1747
Joseph Dan (Hebrew University)
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Christian and Jewish mysticism originated at the same time and place: in the Holy Land, between the second and third centuries. The common denominator was the denial of language as a vehicle for expressing divine truth. Mystics developed their own, meta-linguistic means by which Truth can be partially revealed, though it can never be grasped by logical, sensual or linguistic modes of expression. The course will include detailed analyses of texts that illustrate this mystical paradox.
Note: Offered jointly with the Divinity School as 3720.

[Jewish Studies 123. Jews and Greeks, Judaism and Hellenism]
Catalog Number: 3408
Shaye J.D. Cohen
Half course (spring term). Hours to be arranged.
A study of the encounter between Judaism and Hellenism in antiquity, from the Hasmonean revolt until the emergence of Rabbinic Judaism. Focuses on the land of Israel but some attention, for purposes of contrast, is also paid to the diaspora. Themes: definitions of “Judaism” and “Hellenism,” religious and philosophical resistance and accommodation, knowledge of Greek, literary forms, the “common culture” of Hellenistic near east, art, and architecture.
Note: Expected to be given in 2006–07. Knowledge of ancient Greek and Hebrew is occasionally useful, but not required. Offered jointly with the Divinity School as 1461.

[Jewish Studies 125 (formerly History 1091). Jewish History in the Second and Post-Temple Period]
Catalog Number: 6035
Shaye J.D. Cohen
Half course (spring term). Hours to be arranged.
A survey of Jewish history in antiquity from the Persian period (5th century BCE) to the Byzantine period (5th century CE). Topics include: political accommodation and resistance, Hellenism, the Hasmoneans and Herod the Great, the effects of Roman rule, Pharisees, Qumran, Christians, unity and diversity, the destruction of the temple and its aftermath, the emergence of rabbinic Judaism, homeland and diaspora.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1462.

Jewish Studies 127. Center and Diaspora in Jewish History
Catalog Number: 4898
Isaiah M. Gafni (Hebrew University)
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Explores a wide range of aspects relating to the Diaspora phenomenon from the post-biblical period, through the rabbinic period and down to the 10th century geonic attempts at creating a new center-diaspora relationship.
Note: Offered jointly with the Divinity School as 3680.

Jewish Studies 128. The Jewish Enlightenment in Comparative Perspective
Catalog Number: 7894
Jay M. Harris
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
The Jewish Enlightenment Movement (or *Haskalah*) represented a major ideological shift in European Jewish life. This course will examine thatshift in the light of the French, German, and Scottish Enlightenments.

Jewish Studies 129. Jewish Gnosticism?
Catalog Number: 7062
Joseph Dan (Hebrew University)
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Since the nineteenth century it has been accepted that there was a gnostic movement in ancient Judaism, which had some impact on medieval and early modern Jewish spirituality, especially on the Kabbalah. Many scholars assumed that Jewish gnosticism was a source, or even the source, of the emergence of gnosticism in Christianity in the second century. This course re-examines the problem in the light of new, radical conceptions concerning the origins and nature of Christian Gnosticism.
Note: Offered jointly with the Divinity School as 3671.

Cross-listed Courses

Comparative Literature 166. The Comic Tradition in Jewish Culture
[Foreign Cultures 56. Jewish Life in Eastern Europe]
***Freshman Seminar 38k. The Road to Zion**

[Historical Study A-44. Jews in Modern Times: From the French Revolution to the Emergence of Israel]
History 1150. The Jews in Muslim and Christian Spain
[Literature and Arts A-48. Modern Jewish Literature]
[Religion 1212a. Judaism: The Liturgical Year]
[Religion 1212b. Judaism: The Liturgical Year]
[Religion 1260. Midrash: Jewish Biblical Interpretation in the Rabbinic Period]

Primarily for Graduates

***Jewish Studies 200r. Guided Readings in Jewish History**
Catalog Number: 4478
Jay M. Harris
Half course (fall term; repeated spring term). Hours to be arranged.

[Jewish Studies 210. From Pharisees to Rabbis: Seminar]
Catalog Number: 1785
Shaye J.D. Cohen
Half course (fall term). Hours to be arranged.
Explores the connections between the Pharisees of the Second Temple period and the Rabbis of the Mishnah. We study the historical traditions about the Pharisees (Josephus, New Testament, rabbinic materials, perhaps Qumran) and about the "reconstruction" of Judaism at Yavneh.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3910.
Prerequisite: Ability to read New Testament Greek *or* the ability to read Mishnaic Hebrew, preferably both.

Graduate Courses of Reading and Research

***Jewish Studies 300. Reading and Research in Postbiblical Jewish Studies**
Catalog Number: 1544
Shaye J.D. Cohen 4180 (on leave 2004-05), Jay M. Harris 2266, Bernard Septimus 7160, and Ruth R. Wisse 3177

Early Iranian Civilizations

For Undergraduates and Graduates

See also below under Arabic, Aramaic, and Iranian.
Early Iranian Civilizations 102. Old Iranian Religion
Catalog Number: 5408
P. Oktor Skjaervo
Half course (spring term). F., 1–3. EXAM GROUP: 6, 7
Introduction to and readings in Mazdaism/Zoroastrianism (on the basis of translated texts).
Note: Offered jointly with the Divinity School as 3663a.

[Early Iranian Civilizations 103. Manicheism]
Catalog Number: 2604
P. Oktor Skjaervo
Half course (fall term). Hours to be arranged.
Introduction to and readings in Iranian Manicheism (on the basis of translated texts).
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3580.

Islamic Civilizations

See also below under Arabic, Iranian, and Turkish.

For Undergraduates and Graduates

[Islamic Civilizations 120. The Muslim Mediterranean City]
Catalog Number: 0686
Susan G. Miller
Half course (fall term). Hours to be arranged.
Cities have defined Mediterranean culture for thousands of years. Using sources from medieval times to the present, the interaction between urban form and social practice is traced against the background of an encompassing Islamic culture. Topics include theories about Islam and urbanism, the city as sacred space, modernism and the making of the colonial city, the contemporary city and the literary imagination, and the city in the age of globalization.
Note: Expected to be given in 2005–06.

Islamic Civilizations 122. The Maghrib in the Modern World
Catalog Number: 5752
Susan G. Miller
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
A survey of North African history in the nineteenth and twentieth centuries, focusing on the transformations brought about through contact with the West. Historical antecedents, the rise of the technocratic state, colonialism and its impact, social conflict and civil war, the growth of religious feeling and ethnic identification, women in politics and society, changes in intellectual life, and the Maghribi state in the global economy are among the topics explored.

Islamic Civilizations 124. Central Asian Culture and Society
Catalog Number: 3927 Enrollment: Limited to 20.
John S. Schoeberlein
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Explores the diversity and continuity in contemporary Central Asian culture and society and their historical roots. Course readings draw on diverse sources from travelers' and ethnographic accounts to indigenous traditions and Western analyses. Topics include principles of social order and cultural values stemming from nomadic traditions, Islamic civilizations, nationalist movements and the Soviet system. Particular attention is devoted to post-Soviet developments and the challenges of social transformation and potential conflict facing the region.

Note: Primarily for advanced undergraduates and graduate students; some background in the Near East and/or the former Soviet Union is desirable.

[Islamic Civilizations 125. History and Culture of Islamic Peoples of the Former Soviet Union]
Catalog Number: 0646 Enrollment: Limited to 20.
John S. Schoeberlein
Half course (spring term). Hours to be arranged.
Themes in the history of cultural change, from prior to Russian expansion into Muslim lands until the post-Soviet period. The course encompasses cultures falling under Russian dominion which are culturally more akin to Asia and the Islamic Middle East than to Europe, including Central Asia, the Caucasus, and southern Russia. Themes include the background of Iranian, Turkic and Islamic culture, problems of induced cultural change, Soviet social transformation, the institutionalization of national identities.
Note: Expected to be given in 2005–06. Primarily for graduates and advanced undergraduates; some background in the Near East and/or the Soviet Union is desirable.

[Islamic Civilizations 160. The Meanings of Islam in Central Asia]
Catalog Number: 8678 Enrollment: Limited to 20.
John S. Schoeberlein
Half course (fall term). Hours to be arranged.
Examines the changing role of Islam in Central Asia through history from a multidisciplinary perspective. Central Asia is on the margins of the Islamic world, though integral to it. The course considers ways that regions' position on transcontinental trade routes and desert-oasis borderlands have led to particular expressions of processes that are common to the Islamic world, and looks at the process of modernization and the role of Islam in the sphere of Russian domination.
Note: Expected to be given in 2005–06.
Prerequisite: Some background in Central Asia and/or Islamic civilizations.

Primarily for Graduates

***Islamic Civilizations 241r. Approaches to Studying Indo-Muslim Culture and South Asian Islam**
Catalog Number: 7515
Ali S. Asani
Half course (fall term; repeated spring term). Fall: Th., 4–6; Spring: W., 3–5. EXAM GROUP: Fall: 18; Spring: 8, 9
A seminar for graduate students focusing on current scholarship on Islamic civilization in South Asia.
Note: Open to undergraduates with a background in Islamic or South Asian studies.
Prerequisite: Introductory coursework on Islam, Religion 1585 or equivalent.

Cross-listed Courses

[Foreign Cultures 70. Understanding Islam and Contemporary Muslim Societies]
Foreign Cultures 82. Modern Arabic Narratives: Self, Society, and Culture
***Freshman Seminar 37y. Muslim Voices in Contemporary World Literatures**
[Historical Study A-40. The Middle East and Europe since the Crusades: Relations and Perceptions]
History 1877a. History of the Near East, 600-1055
History 1877b. History of the Near East, 1055-1517: Conference Course
[History 1878a. Ottoman State and Society I (1300-1550)]
[History 1878b. Ottoman State and Society II (1550-1920)]
[History 1889. Transmission of Traditional Islamic Learning in the Middle East from the Beginning of Islam to the Present]
[History 2884. Topics in Ottoman Social and Cultural History: Seminar]
History 2886r. Topics in Islamic History: Seminar
[History of Art and Architecture 124z. Architecture and Dynastic Legitimacy: The Early Modern Islamic Empires (1450-1650)]
History of Art and Architecture 128g. Islamic Epigraphy and Calligraphy: Spiritual Geometries and Bodily Instruments
Religion 1801 (formerly Religion 1551). For the Love of God and His Prophet: Literary and Artistic Expressions of Muslim Devotional Life
[Religion 1802 (formerly Religion 1555). Introduction to Islamic Mysticism: The Sufi Tradition]
Religion 1805. Introduction to the Qur'an
Religion 1807. Introduction to Islamic Theology
[*Religion 1820 (formerly *Religion 1585). Islam in South Asia: Religion, Culture, and Identity in South Asian Muslim Societies]

Graduate Courses of Reading and Research

***Islamic Civilizations 300. Reading and Research in Islamic Civilizations**
Catalog Number: 1963
Ali S. Asani 7739, William A. Graham, Jr. 4156, William E. Granara 1054, Wolfhart P. Heinrichs 4988, and Wheeler M. Thackston, Jr. 4004

[*Islamic Civilizations 350. Reading and Research in Ottoman History and Literature]
Catalog Number: 4084

Note: Expected to be given in 2005–06.

Armenian Studies

See also below under Armenian.

For Undergraduates and Graduates

Armenian Studies 105. Survey of 19th and 20th Century Armenian Poetry: From Romantics to Revolutionaries
Catalog Number: 3496
James R. Russell
Half course (fall term). Hours to be arranged.
A survey of the great innovators and visionaries: Bedros Tourian, Misak Medzarents, Yeghia Demirjibashian, Daniel Varouzhan, Siamanto, Vahan Teryan, Yeghishe Charents, and their English, Russian, and French colleagues and translators. The course spans the fateful epoch from the mid-19th century to the aftermath of the Russian Revolution.
Note: Knowledge of Armenian preferred but not required.

Primarily for Graduates

[Armenian Studies 200r. Guided Readings in Armenian Studies]
Catalog Number: 8105
James R. Russell
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06.

Graduate Courses of Reading and Research

***Armenian Studies 300. Reading and Research in Armenian Studies**
Catalog Number: 1740
James R. Russell 3411 (on leave spring term)

Akkadian and Sumerian

See also above under Ancient Near Eastern and Biblical Studies.

Akkadian

For Undergraduates and Graduates

Akkadian A. Elementary Akkadian
Catalog Number: 4891
Piotr Steinkeller and assistant
Full course (indivisible). M., W., F., at 9. EXAM GROUP: 2
Introduction to the fundamentals of Akkadian grammar and the most commonly encountered Neo-Assyrian cuneiform signs.

Akkadian 120. Intermediate Akkadian
Catalog Number: 3724
Rebecca Hasselbach
Full course (indivisible). Fall: M., W., F., at 11; Spring: M., 1–4. EXAM GROUP: Fall: 4;

Spring: 6, 7, 8
Prerequisite: Akkadian grammar, basic vocabulary, knowledge of cuneiform script.

[Akkadian 142. Akkadian Hymns and Prayers]
Catalog Number: 6387

Half course (fall term). Hours to be arranged.
Readings from the various genres of Akkadian hymns and prayers, with particular emphasis on the genre of *shuilla* prayers. In the course of the term, students are expected to master the style and vocabulary of these texts, as well as to learn how to reconstruct a text from several manuscripts.
Note: Expected to be given in 2005–06.
Prerequisite: Akkadian grammar, basic vocabulary, knowledge of cuneiform script.

[Akkadian 144. Akkadian Divination Texts]
Catalog Number: 6734
Piotr Steinkeller
Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.

Akkadian 148. Akkadian Letters
Catalog Number: 0975
John Huehnergard
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Prerequisite: Akkadian A.

[Akkadian 149. Akkadian Legal and Economic Texts]
Catalog Number: 6703
Piotr Steinkeller
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06.
Prerequisite: Akkadian grammar, basic vocabulary, knowledge of cuneiform script.

Akkadian 153. Old Akkadian
Catalog Number: 8334
Rebecca Hasselbach
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Readings in representative historical, epistolary, literary, and economic texts with emphasis on the grammar.
Prerequisite: Akkadian grammar, basic vocabulary, knowledge of cuneiform script.

[Akkadian 154a. Peripheral Akkadian]
Catalog Number: 2416
Piotr Steinkeller
Half course (spring term). Hours to be arranged.

Note: Expected to be given in 2005–06.
Prerequisite: Two full courses in Akkadian.

[Akkadian 155r. Akkadian Historical Grammar and Dialectology]
Catalog Number: 0232
John Huehnergard
Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2006–07.
Prerequisite: Two full courses in Akkadian.

Primarily for Graduates

Akkadian 200r. Readings in Akkadian: Seminar
Catalog Number: 2970
Piotr Steinkeller
Half course (spring term). Hours to be arranged.

Graduate Courses of Reading and Research

***Akkadian 300. Akkadian Language and Literature**
Catalog Number: 2233
John Huehnergard 7697, Peter Machinist 2812, and Piotr Steinkeller 7337 (on leave fall term)

Sumerian

For Undergraduates and Graduates

[Sumerian A. Elementary Sumerian]
Catalog Number: 5260
Piotr Steinkeller
Full course (indivisible). Hours to be arranged.
Introduction to the Sumerian language with emphasis on grammatical structure.
Note: Expected to be given in 2005–06.

Sumerian 120. Intermediate Sumerian
Catalog Number: 7399
Piotr Steinkeller
Full course (indivisible). Spring: Tu., Th., at 11. EXAM GROUP: Spring: 13
Prerequisite: Knowledge of basic Sumerian grammar, vocabulary, and cuneiform script.

Sumerian 145. Sumerian Incantations and Rituals
Catalog Number: 5259
Piotr Steinkeller
Half course (spring term). Tu., 1–4. EXAM GROUP: 15, 16, 17

[Sumerian 146. Sumerian Religious Literature]
Catalog Number: 2605
Piotr Steinkeller
Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.

Sumerian 149. Sumerian Legal and Economic Texts
Catalog Number: 8820
Piotr Steinkeller
Half course (spring term). Th., 1–4. EXAM GROUP: 15, 16, 17

Primarily for Graduates

Sumerian 200r. Readings in Sumerian: Seminar
Catalog Number: 7496
Piotr Steinkeller
Half course (spring term). Hours to be arranged.

Cross-listed Courses

Linguistics 225a. Introduction to Hittite
[Linguistics 226r. Advanced Hittite]

Graduate Courses of Reading and Research

***Sumerian 300. Sumerian Language and Literature**
Catalog Number: 7912
Piotr Steinkeller 7337 (on leave fall term)

Arabic

See also Islamic Civilizations.

For Undergraduates and Graduates

Arabic A. Elementary Arabic
Catalog Number: 5773
Mostafa Atamnia and staff
Full course (indivisible). Sections M. through F., at 9 or 10. EXAM GROUP: 2, 11
Introduces students to the phonology and script of classical/modern standard Arabic and covers the basic morphology and syntax of the written language. Emphasis on the development of the four skills (reading, speaking, listening, and writing) at the earliest stages. Samples of modern (contemporary) and classical styles of writing introduced into basic syllabus, and audio-visual material from the contemporary Arabic media.
Note: Not open to auditors. Cannot be taken pass/fail.

Arabic 110. Colloquial Levantine Arabic
Catalog Number: 6732
Wheeler M. Thackston, Jr.
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
A basic course in the spoken Arabic of the Levant (Lebanon, Syria, Palestine). Principles of grammar and syntax and foundation for conversation.
Note: Some knowledge of Arabic helpful but not required.

Arabic 120a. Intermediate Classical Arabic I
Catalog Number: 1106
William E. Granara and staff
Half course (fall term). M. through F., at 10. EXAM GROUP: 3, 12
A thorough review of classical Arabic grammar with emphasis on reading and writing, with some discussion in Arabic in class for vocabulary and structure reinforcement. Readings focus on medieval Arabic historiography: biographical dictionaries, chronicles, and geography/"travel" literature. Contemporary texts dealing with "classical" themes will form part of the syllabus to help students develop better reading fluency.
Note: Not open to auditors. Cannot be taken pass/fail.
Prerequisite: Arabic A or equivalent.

Arabic 120b. Intermediate Classical Arabic II
Catalog Number: 0597
William E. Granara
Half course (spring term). M. through F., at 10. EXAM GROUP: 3, 12
Continuation of Arabic 120a.
Note: Not open to auditors. Cannot be taken pass/fail.
Prerequisite: Arabic 120a or equivalent.

Arabic 121a. Intermediate Modern Arabic I
Catalog Number: 0973
William E. Granara and staff
Half course (fall term). Section I: M., W., F., at 11; Section II: M., W., F., at 12; speaking sections Tu., Th., at 11, 12, or 1. EXAM GROUP: 4, 5
A continuation of Elementary Arabic with equal emphasis on speaking, reading, oral, and aural skills. Selections from contemporary Arabic media are introduced and serve as bases for reading and conversation.
Note: Not open to auditors. Cannot be taken pass/fail.

Arabic 121b. Intermediate Modern Arabic II
Catalog Number: 0685
William E. Granara and staff
Half course (spring term). Sections I: M., W., F., at 11; Section II: M., W., F., at 12; speaking sections Tu., Th., at 11, 12, or 1. EXAM GROUP: 4, 5
A continuation of Arabic 121a.
Note: Not open to auditors. Cannot be taken pass/fail.

Arabic 130a. Advanced Classical Arabic I
Catalog Number: 4591
Aron Zysow and staff
Half course (fall term). Hours to be arranged.
Concentration on readings from classical Islamic texts, with emphasis on Qur'an, *hadîth, sîra,* and *tafsîr* literature; directed readings and textual analysis; review of classical Arabic morphology and syntax.
Note: Not open to auditors.

Arabic 130b. Advanced Classical Arabic II
Catalog Number: 2964
Carl Sharif El-Tobgui
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Continuation of Arabic 130a or may be taken separately with permission of the instructor. Readings from corpus of "Adab" (Belles-Lettres) literature, as well as various pieces of classical Arabic poetry.
Note: Not open to auditors.

Arabic 131a. Advanced Modern Arabic l
Catalog Number: 0739
Carl Sharif El-Tobgui and staff
Half course (fall term). Sections I & II: M., W., F., at 1; speaking sections Tu., Th., at 12 or 1. EXAM GROUP: 6
Reading and discussion of selections from Arabic newspapers and journals on contemporary political, social, religious, and cultural issues in the Arab world. Emphasis on developing advanced reading and speaking skills, with some attention to writing and listening comprehension.
Note: Not open to auditors.

Arabic 131b. Advanced Modern Arabic II
Catalog Number: 0697
Carl Sharif El-Tobgui and staff
Half course (spring term). Section I & II: M., W., F., at 1; speaking sections Tu., Th., at 12 or 1. EXAM GROUP: 6
A continuation of Arabic 131a or may be taken separately with permission of the instructor. Continued emphasis on advanced reading and speaking skills, and introduction to contemporary Arabic fiction, with emphasis on short stories and novellas.
Note: Not open to auditors.

Arabic 142. The Philosophical Theology of Fakhr al-Din al-Razi
Catalog Number: 3149
Tariq Jaffer
Half course (fall term). Th., 4–6. EXAM GROUP: 18
An examination of the principal philosophical and theological ideas of Fakhr al-Din al-Razi's "Great Commentary" on the Qur'an. Intensive study of his excursus on the Light Verse (Qur'an

24:35).
Prerequisite: Arabic 120b or the permission of the instructor.

Arabic 143. Islamic Mystical Texts
Catalog Number: 3044
Tariq Jaffer
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
A seminar focusing on primary texts from the Sufi tradition. Selections from major authors in the mystical tradition of Islam, including Sarraj, al-Ghazali, and Ibn al-Arabi.
Prerequisite: Arabic 120b or the permission of the instructor.

[Arabic 144. Sources for the Study of Islamic History]
Catalog Number: 3450
Roy Mottahedeh
Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.
Prerequisite: Elementary knowledge of Arabic.

Arabic 146r. History of the Arabic Languages
Catalog Number: 8526
Wolfhart P. Heinrichs
Half course (spring term). Hours to be arranged.
A presentation of the linguistic and cultural history of the various forms of Arabic, including Old North Arabian, Early Classical Arabic (pre-Islamic poetry and Koran), medieval Islamic Arabic, Middle Arabic (with Judeo-Arabic) and the dialects.
Note: Organizational meeting on Wed., February 2, at 2 pm in Semitic Museum 201.
Prerequisite: Two years of Arabic or equivalent.

[Arabic 150r. History of Classical Arabic Literature]
Catalog Number: 7759
Wolfhart P. Heinrichs
Half course (spring term). Hours to be arranged.
Overview of Classical Arabic literature, including reading and discussion of selected texts.
Note: Expected to be given in 2006–07. Knowledge of Arabic advantageous. An additional hour may be set aside for reading in the originals.

Arabic 157. Narrating the Nation in Modern Arabic Literature and Thought
Catalog Number: 3091
Sabry Hafez (University of London)
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
What is the relationship between nation and narration in modern Arabic literature and thought? How do Arab writers construct the nation textually? And why has the nation continued to haunt the writings of intellectuals throughout the Arab world? This course will address these issues using a variety of literary and cultural texts.
Note: Knowledge of Arabic is not required. Enrollment is open to both graduates and undergraduates.

Arabic 160r. Readings in Arabic Historians, Geographers and Biographers
Catalog Number: 5617
Roy Mottahedeh
Half course (spring term). Tu., 2–4 and an additional hour to be arranged. EXAM GROUP: 16, 17

Primarily for Graduates

Arabic 240r. Classical Arabic Philology
Catalog Number: 5920
Wolfhart P. Heinrichs
Full course (indivisible). Tu., 2–4. EXAM GROUP: 16, 17
Arabic philology, including discussion of difficult grammatical problems, introduction to manuscript and editorial work, and readings from the *ʻulûm al-lugha* (fall) and *ʻulûm al-dîn* (spring).
Note: This constitutes the fourth and final year of the Classical Arabic track.

Arabic 241ar (formerly Arabic 241a). Modern Arabic Literature and Culture
Catalog Number: 3309
William E. Granara and staff
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
This constitutes the final year of Modern Arabic track. Representative readings from contemporary literature and culture will form bases of discussions on major themes in contemporary Arab society.
Note: Conducted in Arabic.
Prerequisite: Advanced proficiency in Arabic.

Arabic 241br (formerly Arabic 241b). Modern Arabic Literature and Culture
Catalog Number: 6399
William E. Granara and staff
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
A continuation of Arabic 241ar.

Arabic 242. Selected Topics in Modern Arabic Literature and Literary Criticism: Seminar
Catalog Number: 1913
William E. Granara
Half course (fall term). Hours to be arranged.
Topic for 2004-05: To be announced.

[Arabic 245r. Classical Arabic Literature: Seminar]
Catalog Number: 4854
Wolfhart P. Heinrichs
Half course (fall term). Hours to be arranged.
Topic for 2006-07: To be announced.
Note: Expected to be given in 2006–07.
Prerequisite: Reading knowledge of Arabic.

Arabic 246r. Maghribi Literary and Cultural Texts: Seminar
Catalog Number: 6196
William E. Granara
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Literary and historical texts of the Arabo-Islamic cultures of Spain (*al-Andalus*), Sicily, and North Africa. Examines the emergence of a "Maghribi" identity amidst cross-cultural relations with the Christian North and the Muslim East.
Prerequisite: Three years of Arabic, or permission from the instructor.

Arabic 248r. Medieval Arabic Writings on Literary Theory: Seminar
Catalog Number: 1440
Wolfhart P. Heinrichs
Half course (fall term). W., 4–6. EXAM GROUP: 9
Introduction to the study of the medieval Arabic disciplines dealing with literature. Discussion of selected topics on the basis of text readings and recent secondary literature.
Note: First meeting on Wednesday, September 22, at 2 in Semitic Museum 202.
Prerequisite: Reading knowledge of Arabic.

Arabic 256. Readings in Modernist Islamic Law
Catalog Number: 0294
Aron Zysow
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
This course of Arabic text readings traces the development of modernist Sunni law from the time of 'Abduh and Rida with particular attention to the influence of medieval forerunners on modern legal theory.
Prerequisite: Knowledge of Arabic and basic familiarity with Islamic law.

Arabic 257. Arabic Fiction and Its Critics: Seminar
Catalog Number: 5399
Sabry Hafez (University of London)
Half course (spring term). Hours to be arranged.
This course treats selected topics in contemporary Arabic fiction and literary criticism.
Prerequisite: At least three years of Arabic or advanced proficiency in Arabic.

Graduate Courses of Reading and Research

***Arabic 300. Reading and Research in Arabic Language and Civilization**
Catalog Number: 7828
William A. Graham, Jr. 4156, William E. Granara 1054, Wolfhart P. Heinrichs 4988, Roy Mottahedeh 1454, and Wheeler M. Thackston, Jr. 4004

***Arabic 320. Reading and Research in Modern Arabic Literature and Literary Criticism**
Catalog Number: 9167
William E. Granara 1054

Aramaic

For Undergraduates and Graduates

See also Ancient Near East and Biblical Studies, Jewish Studies, and Early Iranian Civilizations.

Aramaic A. Introduction to Targumic Aramaic
Catalog Number: 5985
John Huehnergard and assistant
Half course (fall term). M., 2–5. EXAM GROUP: 7, 8, 9
An introduction to the grammar of the Aramaic of Targum Onqelos.
Note: No previous knowledge of any Semitic language is assumed. First meeting on Tuesday, September 21, at 4 in Semitic Museum 304.

[Aramaic C. Elementary Syriac]
Catalog Number: 3494
J. F. Coakley
Full course (indivisible). Hours to be arranged.
Basic Syriac grammar and syntax, with selected readings from the Syriac Bible and other early texts.
Note: Expected to be given in 2005–06.

Aramaic 124a. Readings in Syriac I
Catalog Number: 5557
J. F. Coakley
Half course (fall term). Hours to be arranged.
Historical and theological texts, and early poetry.
Prerequisite: Aramaic C or equivalent.

Aramaic 124b. Readings in Syriac II
Catalog Number: 0103
J. F. Coakley
Half course (spring term). M., W., 2–3:30. EXAM GROUP: 7, 8
Special attention to exegetical texts and to reading manuscripts.
Prerequisite: Aramaic C or equivalent.

Aramaic 128. Introduction to Turoyo
Catalog Number: 3747
Wolfhart P. Heinrichs
Half course (spring term). Hours to be arranged.
Prerequisite: Some knowledge of Syriac or any other classical Aramaic language.

Graduate Courses of Reading and Research

***Aramaic 300. Aramaic Language and Literature**
Catalog Number: 5758
John Huehnergard 7697, Jo Ann Hackett 2389, and Jon D. Levenson (Divinity School) 2264

Armenian

See also Armenian Studies.

For Undergraduates and Graduates

Armenian A. Elementary Classical Armenian
Catalog Number: 5476
James R. Russell
Half course (fall term). Hours to be arranged.
Introduction to classical Armenian grammar and reading of selected texts.

[Armenian B. Elementary Modern Eastern Armenian]
Catalog Number: 7168
James R. Russell
Full course. Hours to be arranged.
Introduction to the spoken and literary language of the Republic of Armenia.
Note: Expected to be given in 2005–06.

[Armenian 120a. Intermediate Modern Eastern Armenian]
Catalog Number: 4892
James R. Russell
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06.
Prerequisite: Armenian B or equivalent.

[Armenian 121a. Intermediate Classical Armenian]
Catalog Number: 0626
James R. Russell
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06.
Prerequisite: Armenian A or equivalent.

[Armenian 130. Advanced Classical Armenian]
Catalog Number: 4926
James R. Russell
Full course. Hours to be arranged.
The text of St. Grigor Narekats'i *Matean olbergut'ean,* with other mystical texts from Armenian and Eastern Christian traditions.
Note: Expected to be given in 2005–06.
Prerequisite: Armenian A.

Primarily for Graduates

[Armenian 240r. Readings in Classical Armenian]
Catalog Number: 6603
James R. Russell

Half course (fall term; repeated spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.

[Armenian 241r. Readings in Modern Armenian Literature]
Catalog Number: 8746
James R. Russell
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06.

Graduate Courses of Reading and Research

***Armenian 300. Armenian Language and Literature**
Catalog Number: 0240
James R. Russell 3411 (on leave spring term)

Ethiopic

For Undergraduates and Graduates

[Ethiopic A. Introduction to Classical Ethiopic (Ge‘ez)]
Catalog Number: 7667
John Huehnergard
Full course (indivisible). Hours to be arranged.
Note: Expected to be given in 2005–06.

Ethiopic 120ar. Readings in Classical Ethiopic (Ge‘ez) Texts I
Catalog Number: 0231
John Huehnergard
Half course (fall term). Hours to be arranged.
Prerequisite: Ethiopic A.

Ethiopic 120br. Readings in Classical Ethiopic (Ge‘ez) Texts II
Catalog Number: 0390
John Huehnergard
Half course (spring term). Hours to be arranged.
Prerequisite: Ethiopic A.

Graduate Courses of Reading and Research

***Ethiopic 300. Ethiopian Semitic Language and Literature**
Catalog Number: 5135
John Huehnergard 7697

Hebrew

See also Ancient Near Eastern and Biblical Studies and Jewish Studies.

Language Courses

For Undergraduates and Graduates

Classical Hebrew A. Elementary Classical Hebrew
Catalog Number: 8125
Jo Ann Hackett
Full course. M., W., F., at 11. EXAM GROUP: 4
A thorough and rigorous introduction to Biblical Hebrew, with emphasis on grammar, in preparation for translation of biblical prose. Daily preparation and active class participation mandatory. Readings in the Hebrew Bible/Old Testament begin in the first term and increase in complexity throughout the year.
Note: Offered jointly with the Divinity School as 4010.

Classical Hebrew 120a. Intermediate Classical Hebrew I
Catalog Number: 5545
Jo Ann Hackett and assistant
Half course (fall term). M., W., F., at 2. EXAM GROUP: 7
Readings in prose books; review of grammar.
Note: Offered jointly with the Divinity School as 4020.
Prerequisite: Classical Hebrew A or equivalent.

Classical Hebrew 120b. Intermediate Classical Hebrew II
Catalog Number: 8494
Jo Ann Hackett and assistant
Half course (spring term). M., W., F., at 2. EXAM GROUP: 7
Readings in prose and poetic books; review of grammar.
Note: Offered jointly with the Divinity School as 4021.
Prerequisite: Classical Hebrew 120a or equivalent.

Classical Hebrew 130ar. Rapid Reading (Classical Hebrew) I
Catalog Number: 7895
Jo Ann Hackett
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
Note: Offered jointly with the Divinity School as 1625/4030.
Prerequisite: Classical Hebrew A, 120a, and 120b, or equivalent.

Classical Hebrew 130br. Rapid Reading (Classical Hebrew) II
Catalog Number: 7896
Jo Ann Hackett
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
Note: Offered jointly with the Divinity School as 1626/4031.
Prerequisite: Classical Hebrew 130a or equivalent.

Classical Hebrew 138. Historical Grammar of Biblical Hebrew
Catalog Number: 4415
Rebecca Hasselbach
Half course (fall term). Tu., Th., at 11 and F., at 12. EXAM GROUP: 5, 13
Prerequisite: Classical Hebrew 130, or equivalent.

Modern Hebrew B. Elementary Modern Hebrew
Catalog Number: 4810
Miri Kubovy, Irit Aharony, and Anna Grinfeld
Full course (indivisible). Section I: M. through F., at 9; Section II: M. through F., at 12; Section III: M. through F., at 3. EXAM GROUP: 2, 11
For students with no previous instruction in Hebrew and for those who have had some unsystematic exposure to the language. Emphasis on developing skills necessary for fluent reading, speaking, and writing basic sentences in all tenses. Grammar is taught through the Israeli "Top 40."

***Modern Hebrew 91r. Supervised Reading and Research**
Catalog Number: 9854
Anna Grinfeld
Half course (fall term; repeated spring term). Hours to be arranged.

Modern Hebrew 120a. Intermediate Modern Hebrew I
Catalog Number: 1711
Irit Aharony and Anna Grinfeld
Half course (fall term). Section I: M. through F., at 10. Section II: M. through F., at 1. EXAM GROUP: 3, 12
Continuation of Modern Hebrew B. Selected readings from 20th-century Hebrew literature prose, poetry, and drama. The linguistic analysis of the texts is followed by a literary discussion as well as an examination of the individual works in relation to various trends in modern Hebrew culture. In addition, study will include exposure to the media, including newspapers, magazines, and satires.
Note: Conducted primarily in Hebrew.
Prerequisite: Modern Hebrew B or passing of special departmental placement test.

Modern Hebrew 120b. Intermediate Modern Hebrew II
Catalog Number: 2563
Irit Aharony and Anna Grinfeld
Half course (spring term). Section I: M. through F., at 10. Section II: M. through F., at 1 . EXAM GROUP: 3, 12
Continuation of Modern Hebrew 120a.
Note: Conducted primarily in Hebrew.
Prerequisite: Modern Hebrew 120a.

Modern Hebrew 125a. Advanced Modern Hebrew I
Catalog Number: 4985
Tami Ben-Shahar

Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Continuation of Intermediate Modern Hebrew 120a and 120b in preparation for the Modern Hebrew Seminar courses. The course explores oral and textual forms of the language such as journalism, literature, poetry, plays, music, and more. The course will take a broad look at Israeli culture and current events via the media: radio, television, the internet, and the arts. The course goal is to further develop practical skills in the language.
Prerequisite: Modern Hebrew 120a, 120b, or equivalent.

Modern Hebrew 125b. Advanced Modern Hebrew II
Catalog Number: 3201
Tami Ben-Shahar
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Continuation of Modern Hebrew 125a.
Prerequisite: Modern Hebrew 120a, 120b, and 125a.

Modern Hebrew 130r. Contemporary Israeli Culture: Seminar
Catalog Number: 8127
Miri Kubovy
Half course (fall term). W., 7–10 p.m. EXAM GROUP: 9
Surveys typical examples of contemporary Israeli culture: novels, short stories, poetry, feminist literature, Holocaust literature, literary and political journals and magazines, theater and films, rock music from the "Top 40," all representing current cultural trends and expressing attitudes toward social and political issues.
Note: Discussion, papers, and texts presented in Hebrew.
Prerequisite: Modern Hebrew 125a, 125b or equivalent.

Modern Hebrew 132r. Grammar in the Media: Seminar
Catalog Number: 8338
Anna Grinfeld
Half course (spring term). Tu., Th., 4–5:30. EXAM GROUP: 18
A high-level survey of Hebrew grammar for advanced students that focuses on syntax, morphology, vocabulary, idioms, and style. Most of the material used for the perfection of writing, reading, speaking, and oral understanding skills is taken from the most lively, changing field of the language, which reflects and shapes Israeli reality: the media. The course concentrates on oral and written grammatical drills, processing and mastering daily press, periodicals, television, radio, the Internet, and scholarly periodicals.
Note: Conducted in Hebrew.
Prerequisite: Modern Hebrew 125a, 125b, or equivalent

[Modern Hebrew 134r. The Layers of Hebrew in Texts about Jerusalem: Seminar]
Catalog Number: 6949
Irit Aharony
Half course (spring term). Hours to be arranged.
A survey of the layers of the Hebrew language as reflected in texts dealing with Jerusalem, written in different centuries. Students learn the characteristic components of all the periods of the Hebrew language in many kinds of texts. For the modern period, selections are taken from

literature, the press, the media, and academic papers. The goal is to facilitate scholarly work and research in Hebrew.
Note: Expected to be given in 2005–06. Conducted in Hebrew.
Prerequisite: Modern Hebrew 125a, 125b, or equivalent.

Modern Hebrew 135r. How to Say "I Love You" in Hebrew: Seminar
Catalog Number: 1159
Irit Aharony
Half course (spring term). M., W., 2–3:30. EXAM GROUP: 7, 8
A survey of literary Hebrew texts about love from different periods and origins. This survey includes: Biblical love stories, the concept of love in the Midrash and Agadah through the literature of the Middle Ages, the New Hebrew Literature of the early 20th century, and today's literature. Differences between ancient Hebrew and Modern Hebrew are examined. The goal of the course is to improve reading, writing, and speaking skills for advanced Modern Hebrew students.
Note: Conducted in Hebrew.
Prerequisite: Modern Hebrew 125a, 125b or the equivalent.

Primarily for Graduates

Classical Hebrew 238r. Advanced Study of Historical Hebrew Grammar
Catalog Number: 9997
Jo Ann Hackett and John Huehnergard
Half course (spring term). F., 1–3. EXAM GROUP: 6, 7
Reading of major sections of the Biblical corpus with emphasis on historical linguistic issues.
Prerequisite: Classical Hebrew 130b and either Classical Hebrew 138 or Semitic Philology 140.

Literature and History Courses

For Undergraduates and Graduates

Hebrew 149. History, Historiography, and Rabbinic Literature
Catalog Number: 2089
Isaiah M. Gafni (Hebrew University)
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
A textually based study of both the rabbinic attitudes towards "history," as well as the possibilities and pitfalls in reading rabbinic literature as history.

[Hebrew 150a. Introduction to Rabbinic Literature]
Catalog Number: 7629
Bernard Septimus
Half course (fall term). Hours to be arranged.
Designed to introduce students with a basic reading knowledge of Hebrew to Mishnah, Tosefta, Midrash, and Talmud through a close study of representative texts in the original. Texts are mostly non-legal and in Hebrew (rather than Aramaic). Attention to questions of language, exegetical method, literary, and intellectual history.

Note: Expected to be given in 2005–06.
Prerequisite: Intermediate biblical or modern Hebrew, or permission of instructor.

[Hebrew 150b. Introduction to Rabbinic Literature]
Catalog Number: 7878
Bernard Septimus
Half course (spring term). Hours to be arranged.
A continuation of Hebrew 150a, although it can be taken independently. The readings are slightly more difficult, and include legal texts and texts that use Aramaic as well as Hebrew.
Note: Expected to be given in 2005–06. No prior knowledge of Aramaic is assumed.
Prerequisite: Hebrew 150a or permission of the instructor.

Hebrew 160. The Origins and Development of the Classical Jewish Liturgy
Catalog Number: 9703
Bernard Septimus
Half course (fall term). M., 4–6. EXAM GROUP: 9
An examination of current scholarship and controversy on the origins of the classical liturgy and a consideration of the primary-source evidence. Related topics include: rabbinic liturgy and Second Temple sources, differences between the ancient Palestinian and Babylonian rites, the standard prayers and the origins of liturgical poetry (*piyyut*), the crystallization of the liturgy, and the emergence of local variations in the early Middle Ages.
Prerequisite: A good reading knowledge of Hebrew.

Hebrew 165. Maimonides' Book of Knowledge and its Medieval Critics
Catalog Number: 9792
Bernard Septimus
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
The interplay of law and philosophy in the first book of Maimonides' *Code*. Topics include: language, organization, legal theory, use of sources, theology, curricular ideals, historical thought, ethics, eschatology, the relationship of the *Book of Knowledge* to Maimonides' *Guide of the Perplexed*; repercussions of the *Book of Knowledge* in subsequent works and controversies.
Prerequisite: A good reading knowledge of Hebrew.

[Hebrew 168. Late Antique and Medieval Hebrew Poetry]
Catalog Number: 2715
Bernard Septimus
Half course (fall term). Hours to be arranged.
Close reading of selected classics of late-antique piyyut and of the Spanish "golden age." In addition to literary analysis, focuses on: the relationship of early piyyut to the classical liturgy and to midrashic culture; the social and religious functions of Hispano-Hebrew poetry and its intellectual context.
Note: Expected to be given in 2005–06.
Prerequisite: A good reading knowledge of Hebrew.

Hebrew 171. The Problem of Language in Medieval Jewish Thought
Catalog Number: 7205

Bernard Septimus
Half course (spring term). W., 4–6. EXAM GROUP: 9
The status and significance of language generally and Hebrew, in particular, viewed from a variety of perspectives in texts from several genres (exegetical, linguistic, literary, legal, philosophical and mystical) ranging chronologically from late antiquity through the Renaissance.
Prerequisite: A good reading knowledge of Hebrew.

[Hebrew 174. Political Thought: Late Antiquity through the Middle Ages]
Catalog Number: 8693
Bernard Septimus
Half course (spring term). Hours to be arranged.
Explores the following interrelated topics: the debate over monarchy; divine providence and political rationality; the theological significance of political defeat; the foundations of communal government. Legal exegetical, philosophical, and literary texts treating these topics will be read against their historical backdrop.
Note: Expected to be given in 2005–06.
Prerequisite: A good reading knowledge of Hebrew.

Hebrew 190. Democracy in Hebrew: Conference Course
Catalog Number: 8348
Avi Matalon
Half course (fall term). M., W., 4–5:15. EXAM GROUP: 9
How does rhetoric reflect ideology? This seminar will analyze and discuss political party manifestoes, campaign advertising and other electioneering materials produced by parties participating in the 2003 elections for the Knesset, Israel's parliament. Readings may also include selected historical and critical materials relating to Israeli parliamentary politics, law, and media campaign coverage.
Prerequisite: Reading knowledge of Modern Hebrew.

Hebrew 191. From Jewish Literature to Israeli Literature: Seminar
Catalog Number: 3376
Avi Matalon
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Examines the development and transition of Hebrew literature from Europe to Israel beginning in the 1850s.
Prerequisite: Reading knowledge of Modern Hebrew required.

Cross-listed Courses

Primarily for Graduates

***Hebrew 200r. Problems in the Literature, History, and Religion of Israel: Seminar**
Catalog Number: 3265
Peter Machinist and members of the Department
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Topic for 2004-05: The Book of Jeremiah.

Note: Primarily for doctoral students in Hebrew Bible. Offered jointly with the Divinity School as 1810.

Hebrew 208r. Literature of Israel: Seminar
Catalog Number: 1356
Peter Machinist
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
Topic for 2004-05: The beginnings of classical prophecy: Amos and Hosea. Close exegesis of the Hebrew text with versions, attending to historical, text-critical, literary, and religious issues.
Prerequisite: Advanced reading knowledge of biblical Hebrew. Acquaintance with other relevant ancient and modern languages desirable.

[Hebrew 209r. Literature of Israel: Seminar]
Catalog Number: 1326
Peter Machinist
Half course (spring term). Hours to be arranged.
Topic for 2005-06: To be announced.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1824.
Prerequisite: Good reading knowledge of biblical Hebrew.

Hebrew 211r. Literature of Israel: Seminar
Catalog Number: 0727 Enrollment: Limited to 10.
Paul D. Hanson (Divinity School)
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Isaiah 40-66. Close exegetical study utilizing text-, literary-, form-, and redation-criticism, with attention to the location of these chapters in their place in the development of Israelite religion. Hermeneutical and theological inquiry direct the historical study towards issues of contemporary meaning.
Note: Offered jointly with the Divinity School as 1821.
Prerequisite: Advanced reading knowledge of biblical Hebrew.

Hebrew 217. The Medieval Torah Commentary: A Practical Introduction: Seminar
Catalog Number: 5883
Jon D. Levenson (Divinity School)
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
An introduction to the use of the Jewish biblical commentaries of the Middle Ages as a resource for the modern exegete. Some discussion of the relationship of the hermeneutical presuppositions of these figures to those of the distinctively modern forms of biblical study.
Note: Offered jointly with the Divinity School as 1836.
Prerequisite: Three years of college-level Hebrew (any period).

[Hebrew 218. Joseph and Esther: Seminar]
Catalog Number: 0880
Jon D. Levenson (Divinity School)
Half course (fall term). Hours to be arranged.
A close critical reading of Genesis 37-50 and the Book of Esther in Hebrew. Emphasis on the

literary design and religious message of each work and on the influence of the story of Joseph upon the Book of Esther.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1802.
Prerequisite: Three years of Hebrew or the equivalent.

[Hebrew 226r. Seminar in Jewish Studies]
Catalog Number: 4663
Shaye J.D. Cohen
Half course (fall term). Hours to be arranged.
An overview of the methods, questions, and controversies in the field of Jewish Studies over the last two centuries. Topic for 2005-06: To be announced.
Note: Expected to be given in 2005–06. Required of all incoming graduate students in Jewish Studies. Open to qualified undergraduates with permission of the instructor.
Prerequisite: Facility in reading rabbinic Hebrew.

[Hebrew 231. Genesis 12-25: Seminar]
Catalog Number: 1109
Jon D. Levenson (Divinity School)
Half course (spring term). Hours to be arranged.
A close critical reading of Genesis 12-25 in Hebrew. Emphasis on literary design and religious message of this section of the story of Abraham and his family.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1809.
Prerequisite: An introductory course in critical biblical studies and three years of Hebrew or the equivalent.

[Hebrew 232. The Jacob Cycle: Seminar]
Catalog Number: 4763
Jon D. Levenson (Divinity School)
Half course (fall term). Hours to be arranged.
A close critical reading of Genesis 25-36 in Hebrew. Emphasis on issues of literary design and theological perspective in the story of Jacob.
Note: Offered jointly with the Divinity School as 1811.
Prerequisite: An introductory course in critical biblical studies and three years of Hebrew or the equivalent.

[Hebrew 251. The Hebrew Poet as Translator]
Catalog Number: 9860
Avi Matalon
Half course (spring term). Hours to be arranged.
Is translation a problem or a solution in literary study? We examine the phenomenon of poets who are also notable translators. How do poet-translators negotiate the creativity expected of poetic expression with the faithfulness expected of translation? Focus on Modern Hebrew literature in context of World literature.
Note: Expected to be given in 2005–06. Readings primarily in Hebrew.

[Hebrew 252. Printing, Enlightenment and Traditional Jewish Liturgy]
Catalog Number: 8132
Jay M. Harris
Half course (spring term). Hours to be arranged.
Traditional Jewish liturgy emerged over many centuries, with many local traditions. Over time, a more fixed text emerged, with supporters and detractors. Examines the roles of printing, enlightenment, and counter-enlightenment on the liturgical traditions of the Jews of Europe.
Note: Expected to be given in 2005–06.

Graduate Courses of Reading and Research

***Hebrew 300. Classical Hebrew Language and Literature**
Catalog Number: 7831
Shaye J.D. Cohen 4180 (on leave 2004-05), Jo Ann Hackett 2389, Paul D. Hanson (Divinity School) 1394, John Huehnergard 7697, Peter Machinist 2812, and Lawrence E. Stager 1468

***Hebrew 350. Postbiblical Hebrew Language and Literature**
Catalog Number: 4408
Shaye J.D. Cohen 4180 (on leave 2004-05), Jay M. Harris 2266, and Bernard Septimus 7160

Iranian

See also above under Near Eastern Civilizations; Early Iranian Civilizations; Islamic Civilizations; and below under Persian.

For Undergraduates and Graduates

Iranian A. Old Persian
Catalog Number: 5457
P. Oktor Skjaervo and assistant
Full course (indivisible). Fall: Hours to be arranged; Spring: M., W., at 11. EXAM GROUP: Spring: 4
Introduction to Old Persian.

[Iranian Ca. Middle Persian I]
Catalog Number: 0978
P. Oktor Skjaervo
Half course (fall term). Hours to be arranged.
Introduction to Middle Persian (Pahlavi or Manichean Middle Persian/Parthian).
Note: Expected to be given in 2005–06.

[Iranian Cb. Middle Persian II]
Catalog Number: 1696
P. Oktor Skjaervo
Half course (spring term). Hours to be arranged.

Readings in Middle Persian (Pahlavi or Manichean Middle Persian/Parthian).
Note: Expected to be given in 2005–06.

Iranian 150. Introduction to Iranian Linguistics and Dialectology
Catalog Number: 9073
P. Oktor Skjaervo
Half course (spring term). Hours to be arranged.
How does Iranian fit into the Indo-European language family, and what are the major divisions within the Iranian language family? We will survey the three chronological levels of Iranian languages—old, middle, and new—and see how the individual branches, languages, and dialects have developed, phonetically and grammatically, on the basis of samples of quite a few of these languages and dialects.
Prerequisite: Familiarity with modern Persian and at least one other Iranian language is required.

Cross-listed Courses

Linguistics 221r. Workshop in Indo-European

Primarily for Graduates

Iranian 206r. Advanced Middle Persian
Catalog Number: 6633
P. Oktor Skjaervo and assistant
Half course (fall term; repeated spring term). Hours to be arranged.
Advanced readings in Middle Persian texts (Zoroastrian, Manichean, inscriptions.)
Prerequisite: Two years of study of Middle Persian.

Graduate Courses of Reading and Research

***Iranian 300. Reading and Research in Iranian Languages and Literatures**
Catalog Number: 8155
P. Oktor Skjaervo 2869 (on leave fall term) and Wheeler M. Thackston, Jr. 4004

Persian

See also above under Near Eastern Civilizations; Early Iranian Civilizations; Islamic Civilizations; Iranian.

For Undergraduates and Graduates

Persian A. Elementary Persian
Catalog Number: 8143
Wheeler M. Thackston, Jr.
Full course. M., W., F., at 10, and two additional hours to be arranged. EXAM GROUP: 3

Introduction to the grammar of modern literary and spoken Persian. Selected readings from contemporary and classical Persian literature.

Persian 120a. Intermediate Persian I
Catalog Number: 2206
Wheeler M. Thackston, Jr.
Half course (fall term). M., W., F., at 9, and one additional hour to be arranged. EXAM GROUP: 2
Readings in modern prose literature. Introduction to classical metrics and prosody. Readings in classical prose and poetry.

Persian 120b. Intermediate Persian II
Catalog Number: 3712
Wheeler M. Thackston, Jr.
Half course (spring term). M., W., F., at 9, and one additional hour to be arranged. EXAM GROUP: 2
Continuation of Persian 120a.

Persian 140ar. Selected Readings in Classical Persian Literature
Catalog Number: 0814
Wheeler M. Thackston, Jr.
Half course (fall term). M., W., 2–3:30. EXAM GROUP: 7, 8
Selected topics in Classical Persian literature for the advanced student. Readings from historical and belletristic texts, the classics of Sufism, and the poets of Iran and India.
Prerequisite: Persian 120b or equivalent.

Persian 140br. Selected Readings in Classical Persian Literature
Catalog Number: 0258
Wheeler M. Thackston, Jr.
Half course (spring term). M., W., 2–3:30. EXAM GROUP: 7, 8
A continuation of Persian 140ar.

[Persian 150r. Readings in Persian Historians, Geographers and Biographers]
Catalog Number: 6538
Roy Mottahedeh
Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.

Graduate Courses of Reading and Research

***Persian 300. Persian Language and Literature**
Catalog Number: 6962
Wheeler M. Thackston, Jr. 4004 and Roy Mottahedeh 1454

Semitic Philology

For Undergraduates and Graduates

[Semitic Philology 140. Introduction to the Comparative Study of Semitic Languages]
Catalog Number: 8602
John Huehnergard
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06.
Prerequisite: Knowledge of two Semitic languages.

[Semitic Philology 151. Introduction to Northwest Semitic Epigraphy]
Catalog Number: 2858
Jo Ann Hackett
Half course (fall term). Hours to be arranged.
Readings in Hebrew and Phoenician inscriptions with an introduction to methods and techniques of Northwest Semitic palaeography, and attention to problems of historical grammar.
Note: Expected to be given in 2005–06.
Prerequisite: Classical Hebrew 138 or Semitic Philology 140.

Semitic Philology 152. Introduction to Ugaritic
Catalog Number: 2777
John L. Ellison
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Introduction to Ugaritic grammar, with readings in mythological, epistolary, and administrative texts.
Prerequisite: Semitic Philology 140 or equivalent.

Primarily for Graduates

Semitic Philology 200r. Comparative Semitic Grammar: Seminar
Catalog Number: 0168
John Huehnergard
Half course (spring term). Hours to be arranged.
Prerequisite: Classical Hebrew 138 or Semitic Philology 140 or equivalent.

Semitic Philology 220r. Northwest Semitic Epigraphy: Seminar
Catalog Number: 2948
John L. Ellison
Half course (spring term). W., 3:30–5:30. EXAM GROUP: 8, 9
Topic for 2004-05: Advanced study of Northwest Semitic texts.
Prerequisite: Some knowledge of a cuneiform language.

Semitic Philology 230. The Early History of Northwest Semitic
Catalog Number: 3959
John Huehnergard
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
Readings in the Canaanizing Akkadian tablets from el-Amarna; review of so-called “Amorite”

sources, as well as early alphabetic, Egyptian, and other evidence for Northwest Semitic in the second millennium BCE.
Prerequisite: Akkadian A and Classical Hebrew 138 or Semitic Philology 151.

Graduate Courses of Reading and Research

***Semitic Philology 300. Semitic and Afroasiatic Languages and Literatures**
Catalog Number: 2762
Jo Ann Hackett 2389, Wolfhart P. Heinrichs 4988, and John Huehnergard 7697

Turkish

See also above under Near Eastern Civilizations; Islamic Civilizations.

For Undergraduates and Graduates

Turkish A. Elementary Modern Turkish
Catalog Number: 2527
Hakan T. Karateke
Full course (indivisible). M. through F., at 9. EXAM GROUP: 2, 11
Emphasis on all aspects of Turkish grammar toward developing a solid foundation for speaking, listening, reading, writing, and vocabulary skills.
Note: Not open to auditors.

Turkish 120a. Intermediate Turkish I
Catalog Number: 4009
Hakan T. Karateke
Half course (fall term). M., Tu., Th., F., at 10. EXAM GROUP: 3, 12
Emphasis on complex sentence structure and building communicative competence in describing events and expressing ideas through exercises in reading, writing, and speaking.
Note: Not open to auditors.
Prerequisite: Turkish A or equivalent.

Turkish 120b. Intermediate Turkish II
Catalog Number: 1394
Hakan T. Karateke
Half course (spring term). M., Tu., Th., at 12 and F., at 10. EXAM GROUP: 3, 5, 14
Studies in argumentative and literary prose.
Note: Not open to auditors.
Prerequisite: Turkish 120a or equivalent.

Turkish 121a. Elementary Uzbek I
Catalog Number: 3006
Wheeler M. Thackston, Jr. and assistant
Half course (fall term). Tu., Th., at 9 with weekly sections to be arranged. EXAM GROUP: 11

Introduction to conversational and literary Uzbek. Overview of the grammar, intensive practice of the spoken language, and reading of contemporary texts.
Note: Some knowledge of Modern Turkish or other Turkic language helpful but not required.

Turkish 121b. Elementary Uzbek II
Catalog Number: 7303
Wheeler M. Thackston, Jr. and assistant
Half course (spring term). M., W., F., at 9. EXAM GROUP: 2
Continuation of Turkish 121a.
Note: Some knowledge of Modern Turkish or other Turkic language helpful but not required.

Turkish 125a. Intermediate Uzbek I
Catalog Number: 2947
Wheeler M. Thackston, Jr. and assistant
Half course (fall term). Hours to be arranged.
Continuation of Elementary Uzbek with an emphasis on further development of both conversational and literary Uzbek.
Prerequisite: Turkish 121b or equivalent.

Turkish 125b. Intermediate Uzbek II
Catalog Number: 0125
Wheeler M. Thackston, Jr. and assistant
Half course (spring term). Hours to be arranged.
A continuation of Turkish 125a.
Prerequisite: Turkish 125a or equivalent.

Turkish 130a. Advanced Turkish I
Catalog Number: 6964
Hakan T. Karateke
Half course (fall term). W., 1–4. EXAM GROUP: 6, 7
Gaining and improving advanced language skills in Modern Turkish through reading, writing, listening, and speaking with special emphasis on the proper usage of vocabulary and idiomatic expressions.
Note: Not open to auditors.
Prerequisite: Turkish 120b or equivalent.

Turkish 130b. Advanced Turkish II
Catalog Number: 4354
Hakan T. Karateke
Half course (spring term). Tu., 2–5. EXAM GROUP: 16, 17, 18
Studies in literary and idiomatic prose through readings, discussions, and writing of short analytical papers.
Note: Not open to auditors.
Prerequisite: Turkish 130a or equivalent.

Turkish 135. Readings in Modern Turkish Academic Prose
Catalog Number: 4391
Hakan T. Karateke
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
In this course the students will learn the complex idiom of modern Turkish academic language. Texts will be selected from various disciplines according to the needs of the students but with emphasis on works written after the 1950s.
Note: Not open to auditors. Conducted in Turkish.
Prerequisite: Turkish 130b or the equivalent.

[Turkish 140a. Introduction to Ottoman Turkish I]
Catalog Number: 8163

Half course (fall term). Hours to be arranged.
Introduction to basic orthographic conventions and grammatical characteristics of Ottoman Turkish through readings in printed selections from the 19th and 20th centuries, and exercises on techniques.
Note: Expected to be given in 2005–06.
Prerequisite: Turkish A or equivalent; one year of Arabic or Persian desirable.

[Turkish 140b. Introduction to Ottoman Turkish II]
Catalog Number: 8298

Half course (spring term). Hours to be arranged.
Continuation of Turkish 140a.
Note: Expected to be given in 2005–06.

Turkish 141. Ottoman Biographical Dictionaries
Catalog Number: 3234
Hakan T. Karateke
Half course (spring term). F., 3–5. EXAM GROUP: 8, 9
This seminar investigates the rich tradition of Ottoman biographical dictionaries from the beginning to the end of 19th century. Biographical dictionaries listing scholars, masters of religious orders, poets, and others will be read from primary sources and explored.
Prerequisite: Knowledge of Ottoman Turkish.

[Turkish 142a. Introduction to Ottoman Palaeography and Diplomatic Correspondence I]
Catalog Number: 1551

Half course (fall term). Hours to be arranged.
Calligraphic, orthographic, and stylistic characteristics of Ottoman legal and diplomatic correspondence through reading and analysis of primary sources.
Note: Expected to be given in 2005–06.
Prerequisite: Turkish 140 or equivalent.

[Turkish 142b. Introduction to Ottoman Palaeography and Diplomatic Correspondence II]
Catalog Number: 9991

Half course (spring term). Hours to be arranged.
Continuation of Turkish 142a.
Note: Expected to be given in 2005–06.

[Turkish 146a. Old Turkish I]
Catalog Number: 3150

Half course (fall term). Hours to be arranged.
Writing and structure of Old Turkish through readings in Orkhon inscriptions and Old Uyghur Buddhist and Manichaean texts.
Note: Expected to be given in 2005–06.
Prerequisite: Knowledge of one Turkish language.

[Turkish 146b. Old Turkish II]
Catalog Number: 7957

Half course (spring term). Hours to be arranged.
Continuation of Turkish 146a.
Note: Expected to be given in 2005–06.

Turkish 147a. Advanced Uzbek I
Catalog Number: 3846
Wheeler M. Thackston, Jr. and assistant
Half course (fall term). Hours to be arranged.
A continuation of Intermediate Uzbek.
Prerequisite: Turkish 125b or equivalent.

Turkish 147b. Advanced Uzbek II
Catalog Number: 4820
Wheeler M. Thackston, Jr. and assistant
Half course (spring term). Hours to be arranged.
Continuation of Turkish 147a.
Prerequisite: Turkish 147a or equivalent.

Primarily for Graduates

[Turkish 240a. Readings in Ottoman Sources I]
Catalog Number: 3475

Half course (fall term). Hours to be arranged.
Codicological analysis of handwritten documents from the 13th to the 18th century in photocopies and in the originals from a private collection. Analysis of textual styles of different genres.

Note: Expected to be given in 2005–06.
Prerequisite: Turkish 140 or equivalent.

[Turkish 240b. Readings in Ottoman Sources II]
Catalog Number: 5949

Half course (spring term). Hours to be arranged.
Continuation of Turkish 240a.
Note: Expected to be given in 2005–06.

Graduate Courses of Reading and Research

***Turkish 300. Turkish Languages and Literatures**
Catalog Number: 7702

Yiddish

See also above under Near Eastern Civilizations: Jewish Studies.

For Undergraduates and Graduates

Yiddish A. Elementary Yiddish
Catalog Number: 4623
David Braun
Full course (indivisible). M., W., F., at 10. EXAM GROUP: 3
Introduction to the Yiddish language, and to the culture of Ashkenazic Jewry.
Note: For students with little or no knowledge of Yiddish.

Yiddish Ba. Intermediate Yiddish I
Catalog Number: 6023
David Braun
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Further develops the four basic communication skills. Includes selected readings from modern Yiddish literature.
Prerequisite: Yiddish A or equivalent.

Yiddish Bb. Intermediate Yiddish II
Catalog Number: 1239
David Braun
Half course (spring term). Th., 11:30–1, Tu., 2:30–4. EXAM GROUP: 13, 14, 16, 17
Continuation of Yiddish Ba.

Yiddish Ca. Advanced Yiddish I
Catalog Number: 8331

David Braun
Half course (fall term). Hours to be arranged.

Yiddish Cb. Advanced Yiddish II
Catalog Number: 8968
David Braun
Half course (spring term). Hours to be arranged.
Prerequisite: Yiddish Ca or equivalent.

Yiddish 102r. Modern Yiddish Literature I: The Yiddish Short Story
Catalog Number: 4013
Ruth R. Wisse
Half course (fall term). Tu., Th., at 12. EXAM GROUP: 14
Topic for 2004-05: The most popular genre of modern Yiddish literature, the short story served Hasidic masters, Enlightenment satirists, turn-of-the-century Realists, Feminists, Impressionists, Symbolists, and other Modernists. Course will survey the development of short fiction from Nahman of Bratzlav through the post-Holocaust fiction of Isaac Bashevis Singer.

[Yiddish 103r. Modern Yiddish Literature II]
Catalog Number: 8269
Ruth R. Wisse
Half course (spring term). Hours to be arranged.
Topic for 2005-06: To be announced.
Note: Expected to be given in 2005–06. All works available in English translation. Extra sessions for those who can read Yiddish texts.

Yiddish 105. Yiddish Language and Linguistic Theory
Catalog Number: 7146
David Braun
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Yiddish, spoken among Ashkenazic Jews for the past millennium, belongs to the Germanic language family, although its contacts with Slavic and Semitic (Hebrew, Aramaic) have made lasting impressions. Facts of Yiddish phonology, morphology, syntax, and the syntax-semantics-pragmatics interface pose interesting problems for linguistic theory. We look at a wide range of Yiddish data and read and discuss some of the more recent analytical attempts to understand these phenomena.

[Yiddish 108. American Jewish Literature: At the Center or the Margins?]
Catalog Number: 6058
Ruth R. Wisse
Half course (fall term). Hours to be arranged.
Studies the simultaneous emergence of American Jewish literature in English and Yiddish as a mediating force between Europe and America: socialism, aestheticism, feminism, and other ideologies; popular vs. high culture; interpretation of Yiddish and English; rise of the New York intellectuals.

Note: Expected to be given in 2005–06.
Prerequisite: Reading knowledge of Yiddish preferred.

Yiddish 110. Studies in Yiddish Drama
Catalog Number: 7626
Ruth R. Wisse
Half course (spring term). Tu., 12–2. EXAM GROUP: 14, 15
Explores the role of Yiddish theater in Jewish and American society and culture. Features major plays from the repertoire, including The Dybbuk and The Golem; memoirs of leading actors and playwrights; modernist and radical experimentation, competing national, commercial, ideological, and artistic goals. Selected Yiddish films of the 1930s.
Prerequisite: Reading knowledge of Yiddish required.

Primarily for Graduates

[Yiddish 200r. Modern Yiddish Literature: Seminar]
Catalog Number: 4263
Ruth R. Wisse
Half course (fall term). Hours to be arranged.
Topic for 2005-06: To be announced.
Note: Expected to be given in 2005–06.
Prerequisite: Reading knowledge of Yiddish required.

[Yiddish 202r. Yiddish Literature: Seminar]
Catalog Number: 3854
Ruth R. Wisse
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06.
Prerequisite: Reading knowledge of Yiddish.

Graduate Courses of Reading and Research

***Yiddish 300. Yiddish Language and Literature**
Catalog Number: 7833
Ruth R. Wisse 3177

Oceanography

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Oceanography

Eli Tziperman, Pamela and Vasco McCoy, Jr. Professor of Oceanography and Applied Physics *(Chair)*
James J. McCarthy, Alexander Agassiz Professor of Biological Oceanography in the Museum of Comparative Zoology
Daniel P. Schrag, Professor of Earth and Planetary Sciences

Courses in the various branches of oceanography are listed separately under the headings Biology, Engineering Sciences and Applied Physics, and Earth and Planetary Sciences in this catalog. Further information on related courses and on other opportunities for study in oceanography at the University, at the Woods Hole Oceanographic Institution, and at the Marine Biological Laboratory may be obtained from the Official Register "Instruction in Oceanography," or from members of the Faculty Committee on Oceanography.

Philosophy

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Philosophy

Richard Moran, Brian D. Young Professor of Philosophy *(Chair)*
R. Lanier Anderson, Visiting Assistant Professor of Philosophy *(Stanford University) (fall term only)*
Peter Godfrey-Smith, Visiting Professor of Philosophy *(Australian National University) (spring term only)*
Warren Goldfarb, Walter Beverly Pearson Professor of Modern Mathematics and Mathematical Logic *(Head Tutor)*
Richard G. Heck, Jr., Professor of Philosophy *(on leave spring term)*
Frances Kamm, Professor of Philosophy *(FAS)* and Littauer Professor of Philosophy and Public Policy *(Kennedy School) (on leave 2004-2005)*
Peter Koellner, Assistant Professor of Philosophy
Niko Kolodny, Assistant Professor of Philosophy
Christine M. Korsgaard, Arthur Kingsley Porter Professor of Philosophy *(Director of Graduate Studies)*
Douglas Lavin, Instructor in Philosophy
Mary K. McGowan, Visiting Associate Professor of Philosophy *(Wellesley College) (fall term only)*

Charles D. Parsons, Edgar Pierce Professor of Philosophy *(on leave spring term)*
François Recanati, Visiting Professor of Philosophy *(Institut Jean Nicod, CNRS) (fall term only)*
Thomas M. Scanlon, Jr., Alford Professor of Natural Religion, Moral Philosophy, and Civil Policy *(on leave 2004-05)*
Amartya Sen, Lamont University Professor
Susanna Siegel, John L. Loeb Associate Professor of the Humanities *(on leave 2004-2005)*
Alison Simmons, Professor of Philosophy
Gisela Striker, Walter C. Klein Professor of Philosophy and of the Classics
Philippe van Parijs, Visiting Professor of Philosophy *(Université catholique de Louvain) (spring term only)*
Raphael G. Woolf, Associate Professor of Philosophy

Other Faculty Offering Instruction in Philosophy

Mark Schiefsky, Assistant Professor of the Classics

Primarily for Undergraduates

Philosophy 3. Introduction to the Problems of Philosophy
Catalog Number: 1996
Mary K. McGowan (Wellesley College)
Half course (fall term). M., W., (F.), at 11. EXAM GROUP: 4
Introduction to methods of contemporary analytic philosophy concentrating on three problems about the world and our knowledge of it. Can we know that God exists? What, if anything, can we know about the external world? If our actions are causally determined, are we free enough to be responsible for our actions?

Philosophy 7. Introduction to Ancient Philosophy
Catalog Number: 1583
Mark Schiefsky
Half course (fall term). Tu., Th., at 11. EXAM GROUP: 13
A survey of some main themes and figures of ancient philosophical thought, concentrating on the Pre-Socratics, Plato, and Aristotle. Topics include the nature of reality, the ways we might come to have knowledge, and the good life for human beings. Special attention to the relationship of philosophy and science.

Philosophy 8. Introduction to the History of Early Modern Philosophy
Catalog Number: 8947
Alison Simmons
Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 3
A survey of 17th- and 18th-century philosophy with a focus on the major metaphysical and epistemological writings of Descartes, Locke, Hume, and Kant. Topics include the natures of mind and body, the physical world, freedom, and human knowledge. Special attention to the rise of mechanistic science (the “Scientific Revolution”).

Philosophy 12. Introduction to the Philosophy of Law
Catalog Number: 1951
Douglas Lavin
Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12
What is law? How are we to distinguish laws from other kinds of norms of conduct, say, rules of etiquette or morality? Do we have a duty to obey the law? What justifies the practice of punishment? What kind of conduct should be criminalized? When is someone responsible for a loss suffered by another? An introduction to philosophical issues raised by reflection on the legal system. Readings mainly from contemporary philosophers.

***Philosophy 97hf. Tutorial — Sophomore Year**
Catalog Number: 1669
Warren Goldfarb
Half course (throughout the year). Hours to be arranged.
Note: Required of all sophomore concentrators.

***Philosophy 98hf. Tutorial — Junior Year**
Catalog Number: 5533
Warren Goldfarb
Half course (throughout the year). Hours to be arranged.
Note: Required of all junior concentrators.

***Philosophy 99. Tutorial — Senior Year**
Catalog Number: 4396
Warren Goldfarb and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.

Cross-listed Courses

[Moral Reasoning 33. Issues in Ethics]
[Moral Reasoning 56. Self, Freedom, and Existence]
[Moral Reasoning 66. Moral Reasoning about Social Protest]
Moral Reasoning 72. Are There Any Moral Truths?
Quantitative Reasoning 22. Deductive Logic

For Undergraduates and Graduates

Philosophy 101. Plato
Catalog Number: 5374
Raphael G. Woolf
Half course (spring term). M., W., (F.), at 11. EXAM GROUP: 4
A critical examination of some central themes in Plato's philosophy, concentrating on the early and middle dialogues, with some consideration of later developments. Topics include the search for definitions, the theory of Forms, the nature of the soul, and the good life.

[Philosophy 102. Aristotle]
Catalog Number: 8100
Raphael G. Woolf
Half course (spring term). Hours to be arranged.
A critical survey of some of the key areas of Aristotle's thought, examining a selection of his views on nature, substance, change, soul and mind, and the good life.
Note: Expected to be given in 2005–06.

Philosophy 105. Ancient Theories of Mind
Catalog Number: 5062
Raphael G. Woolf
Half course (fall term). M., W., (F.), at 10. EXAM GROUP: 3
An investigation of the Greek concept of *psuchê* and of ancient theories about the *psuchê*. Standardly but somewhat misleadingly translated as 'soul', the notion of *psuchê* corresponds in some respects with the modern notion of 'mind' but also has considerably wider scope. The course will concentrate mainly but not exclusively on the role of the *psuchê* as the seat of mentality. Readings from pre-Socratic authors, Plato, Aristotle, and possibly some post-Aristotelian philosophers.

Philosophy 111. Epistemology After Aristotle
Catalog Number: 3953
Gisela Striker
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
An introduction to, and discussion of, the doctrines of the Epicureans, Stoics, and Skeptics. The Hellenistic period was the first to make the question of the possibility of knowledge central to philosophical debates, and the arguments first put forward during this time had a profound influence on subsequent developments in epistemology, including the early modern period.

[Philosophy 120. The Rationalists]
Catalog Number: 2512
Alison Simmons
Half course (fall term). Hours to be arranged.
A study of the major writings of Descartes, Malebranche, Spinoza, and Leibniz, focusing on such topics as substance, causation and explanation, God, the natures of and relation between mind and body, and human cognition.
Note: Expected to be given in 2005–06.

Philosophy 122. British Empiricism
Catalog Number: 9025
Alison Simmons
Half course (fall term). Tu., Th., at 11. EXAM GROUP: 13
A study of the central works of Locke, Berkeley, and Hume with primary emphasis on their contributions to metaphysics and epistemology.

[Philosophy 137. The Later Philosophy of Wittgenstein]
Catalog Number: 3360

Warren Goldfarb
Half course (spring term). Hours to be arranged.
A close reading of Ludwig Wittgenstein's *Philosophical Investigations*, focusing on its treatments of the topics of meaning, reference, rule-following, cognition, perception, "the private mental realm" knowledge, scepticism, and the nature of philosophy. Attention to Wittgenstein's philosophical methodology, with its claim to dissolve philosophical problems rather than propose solutions to them.
Note: Expected to be given in 2005–06.
Prerequisite: Two half courses in Philosophy.

Philosophy 138. Existentialism
Catalog Number: 4458
R. Lanier Anderson (Stanford University)
Half course (fall term). Tu., Th., at 12 and a weekly section to be arranged. EXAM GROUP: 14
A survey of Existentialist thought with focus on the tradition's preoccupation with human freedom and the nature of authentic individuality. Attention to questions about the nature of our relation to the divine, the significance of death, and how to live a meaningful life. Some consideration of social and political consequences in light of 20th century phenomena like fascism and feminism. Readings from Rousseau, Kierkegaard, Nietzsche, Sartre, Beauvoir, Camus, and others.

Philosophy 141. Frege, Russell, and the Early Wittgenstein
Catalog Number: 6807
Warren Goldfarb
Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12
An examination of the beginnings of analytic philosophy, with primary interest in the reformulation of traditional philosophical problems by these three authors and the analytic and logical methods they introduced to treat them.

Philosophy 143y. Logic and the Foundations of Mathematics
Catalog Number: 4404
Peter Koellner
Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 3
An introduction to foundational aspects of set theory and model theory. Topics include: formalization of mathematics in set theory, theory of infinities, axiom of choice, completeness theorem, existence of non-standard models, and mathematical instances of incompleteness. Attention will be paid to how these developments affect views of the nature of mathematics.
Prerequisite: Some knowledge of deductive logic.

[Philosophy 144. Logic and Philosophy]
Catalog Number: 1111
Warren Goldfarb
Half course (spring term). Hours to be arranged.
Three philosophically important results of modern logic: Gödel's incompleteness theorems; Turing's definition of mechanical computability; Tarski's theory of truth for formalized languages. Discusses both mathematical content and philosophical significance of these results.

Note: Expected to be given in 2005–06.
Prerequisite: Some knowledge of deductive logic.

***Philosophy 146. Truth: Proseminar**
Catalog Number: 9082
Charles D. Parsons
Half course (fall term). F., 1–3. EXAM GROUP: 6, 7
An examination of some traditional questions about truth in the light of more contemporary debates. Correspondence, epistemic, and "deflationist" views. The Liar and related paradoxes. Is truth a "substantive" concept? How do we understand the importance of truth and truthfulness?

Philosophy 147w. Philosophy of Language: Language and the World
Catalog Number: 2617
François Recanati (Institut Jean Nicod, CNRS)
Half course (fall term). M., W., F., at 1; Th., at 9; Th., at 4. EXAM GROUP: 6
Language represents the world, and it is in the world. How language represents the world is the topic of the theory of reference. How language figures in the world is the topic of speech act theory. Both theories will be surveyed. The nature of meaning, the relations between language and thought, the social dimension of language, and the role of intentions (vs. conventions) in communication will be among the themes to be dealt with.

[Philosophy 149z. Philosophy of Science]
Catalog Number: 4473
Peter Godfrey-Smith (Australian National University)
Half course (spring term). Hours to be arranged.
Survey of 20th century views on the nature of scientific knowledge. Topics include: logical empiricism, Popper and "falsifiability," induction and confirmation and their paradoxes, models of explanation, scientific realism, Kuhn, Lakatos, Feyerabend, and the relations between philosophy, history, and sociology of science.
Note: Expected to be given in 2005–06.

Philosophy 151. Philosophy of Physics
Catalog Number: 6055
Peter Koellner
Half course (fall term). Tu., Th., at 12. EXAM GROUP: 14
A course on determinism and probability in physics. Topics include: analysis of the concept of determinism, instances of non-determinism in Newtonian physics, special relativity, and general relativity, and a detailed examination of versions of Bell's theorems in quantum mechanics.
Prerequisite: Some knowledge of linear algebra and calculus.

Philosophy 156. Philosophy of Mind
Catalog Number: 3410
Peter Godfrey-Smith (Australian National University)
Half course (spring term). M., W., (F.), at 1 and a weekly section to be arranged. EXAM GROUP: 6
The mind-body problem and proposed solutions to it, including dualism, behaviorism, identity

theories, functionalism, and eliminativism. Theories of consciousness, subjective experience, and the mind's representation of the world. Consideration of how recent work in psychology relates to the philosophical debates. Readings by Descartes, Ryle, Smart, Armstrong, Lewis, Putnam, Fodor, Dennett, Lycan, Dretske, and others.

Philosophy 157. Philosophy of Action
Catalog Number: 6262
Douglas Lavin
Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12
A study of contemporary work in the philosophy of action. Specific issues include: the nature of action and action explanation; knowledge and control of one's own action; the temporality of action. Particular attention to the work of Anscombe and Davidson.

Philosophy 168. Kant's Ethical Theory
Catalog Number: 8361
Christine M. Korsgaard
Half course (fall term). M., W., (F.), at 12 and a weekly section on W., at 3, 4, or 5. EXAM GROUP: 5
A study of Kant's moral philosophy, based primarily on the *Groundwork of Metaphysics of Morals*, the *Critique of Practical Reason*, and *The Metaphysics of Morals.*
Note: This course, when taken for a letter grade, meets the Core area requirement for Moral Reasoning.

Philosophy 170. History of Political Philosophy
Catalog Number: 4209
Niko Kolodny
Half course (fall term). M., W., (F.), at 11 and a weekly section to be arranged. EXAM GROUP: 4
A survey of the major works of political philosophy of the 17th-19th centuries, focusing on the principal figures in the social contract and utilitarian traditions: Hobbes, Locke, Rousseau, Hume, Bentham, and Mill. Attention also to the contrasting views of Aristotle, Filmer, and several conservative intuitionists.

Philosophy 171w. Political Philosophy
Catalog Number: 0945
Philippe van Parijs (Université catholique de Louvain)
Half course (spring term). Tu., Th., at 1. EXAM GROUP: 15
What is a just society? What is a just world? Does a just society need to be democratic? If so, in what sense and why? The course will survey the main contemporary answers to these questions and the controversies to which they gave rise.

Philosophy 174. Recent Ethical Theory
Catalog Number: 3266
Christine M. Korsgaard
Half course (spring term). M., W., (F.), at 12. EXAM GROUP: 5
We will study a selection of the major theories and trends in recent ethical theory.

Philosophy 187. Aesthetics: Experience and Expression
Catalog Number: 2594
Richard Moran
Half course (fall term). Tu., Th., at 1. EXAM GROUP: 15
An examination of some texts of philosophical aesthetics from the 18th and 19th centuries, texts which either represent or anticipate the Romantic period. Themes include the role of emotion in art, the nature of expression and its relation to the will, problems of sincerity, and art or poetry as sources of knowledge. Readings will include some, but probably not all, of the following authors: Diderot, Schiller, Burke, Kant, Hume, Hegel, Lessing, Rousseau.

Cross-listed Courses

African and African American Studies 129. African American Philosophy
Greek 110r. Plato
Greek 128. Aristotle's *Poetics*
[Indian Studies 118. Indian Philosophy: Advanced Introduction]
Latin 107. Lucretius' *De Rerum Natura*
Mathematics 144. Model Theory and Algebra
[Religion 1510. Hegel's *Phenomenology of Spirit*]
Religion 1541. Kant: Seminar

Primarily for Graduates

***Philosophy 205. Aristotle's Theories of Reasoning: Seminar**
Catalog Number: 2625
Gisela Striker
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
A look at the different types of argument Aristotle distinguishes—dialectical, demonstrative, rhetorical—and their connection with his formal logic. Texts will be selections from: *Topics, Analytics, and Rhetoric.*

***Philosophy 229r. Kant's *Critique of Pure Reason:* Seminar**
Catalog Number: 0632
R. Lanier Anderson (Stanford University)
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
Investigates Kant's criticism against Wolff's ideal of a strictly conceptual metaphysics. Attention to the concept containment theory of truth, the analytic/synthetic distinction, and key arguments of the *Critique's* Transcendental Dialectic.

***Philosophy 242. From Frege to Gödel: Seminar**
Catalog Number: 9201
Warren Goldfarb
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
The rise of modern logic in its formative period. Both technical and philosophical issues will be considered. Primary authors will be Cantor, Dedekind, Peano, Zermelo, Hilbert and his school, Brouwer, Weyl, Skolem, and Herbrand.

***Philosophy 243. Philosophy of Logic: Seminar**
Catalog Number: 5570
Charles D. Parsons
Half course (fall term). W., 4–6. EXAM GROUP: 9
Selected topics in philosophy related to logic, such as semantic and syntactic perspectives, logic and ontology, restricted and unrestricted quantification, the relation of logic to mathematics.

***Philosophy 246. Contextualism in the Philosophy of Language: Seminar**
Catalog Number: 1192
François Recanati (Institut Jean Nicod, CNRS)
Half course (fall term). Tu., 4–6. EXAM GROUP: 18
The following questions will be raised. What is 'literal meaning'? Do we need pragmatics to fix truth-conditions? To what extent is semantic composition a creative process? How pervasive is context-sensitivity?

***Philosophy 248r (formerly *Philosophy 248). Frege's Philosophy of Mathematics: Seminar**
Catalog Number: 3423
Richard G. Heck, Jr.
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Frege understood his logicist project to have both philosophical and mathematical aspects. We will discuss both, focusing on the latter.

***Philosophy 252. Evolution and Social Behavior: Seminar**
Catalog Number: 8332
Peter Godfrey-Smith (Australian National University)
Half course (spring term). Tu., 4–6. EXAM GROUP: 18
A comparison of philosophical and scientific work on the origins and maintenance of some key forms of social behavior, especially cooperation and communication.

***Philosophy 265. Practical Reason: Seminar**
Catalog Number: 8089
Douglas Lavin
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
An examination of constitutivist accounts of norms governing action, with special attention to the case of instrumental reason. Readings drawn from Anscombe, Foot, Korsgaard, Thompson, Velleman, Wallace, and others.

***Philosophy 266. Wronging: Seminar**
Catalog Number: 0439
Niko Kolodny
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
How is wronging (a three-place relation binding agent, act, and person wronged) related to acting wrongly (a two-place relation binding agent and act)? How is it related to other moral phenomena? Readings include work by Darwall, Kamm, Scanlon, Thompson, and Thomson.

***Philosophy 272z. Speech Act Theory and Free Speech: Seminar**
Catalog Number: 0484
Mary K. McGowan (Wellesley College)
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
An overview of the philosophy of speech acts and a consideration of its potential application to current free speech debates (e.g. over pornography and hate speech).

[*Philosophy 276. Topics in Bioethics: Seminar]
Catalog Number: 8040 Enrollment: Limited to 25.
Frances Kamm (Kennedy School)
Half course (spring term). Hours to be arranged.
Issues in bioethics and aspects of normative ethical theory bearing on them. Topics include aggregation and the distribution of scarce resources, discrimination and disability, death and physician-assisted suicide, abortion. Readings from contemporary philosophical sources.
Note: Expected to be given in 2005–06. Offered jointly with the Kennedy School of Government as API-604.
Prerequisite: At least one course in Ethics.

***Philosophy 277. Social Justice and Cultural Diversity: Seminar**
Catalog Number: 4212
Amartya Sen and Philippe van Parijs (Université catholique de Louvain)
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
Issues of justice related to cultural diversity, including linguistic diversity, and the challenges they pose. Should social justice be differently understood in different cultures?

***Philosophy 299hf. Individual Supervision**
Catalog Number: 8076
Christine M. Korsgaard and members of the Department
Half course (throughout the year). Hours to be arranged.
Note: Required of candidates for the AM or PhD in Philosophy. Consult the Department's *Supplement to the General Announcement* for details.

Cross-listed Courses

Economics 2054. Social Choice and Welfare Economics
History of Science 297r. Topics in the History of Medieval Latin Science
Mathematics 242. Set Theory: Large Cardinals from Determinacy

Graduate Courses of Reading and Research

***Philosophy 300a. Colloquium**
Catalog Number: 5615
Warren Goldfarb 4499
Half course (fall term). Hours to be arranged.
An intensive study—in small, informal seminars—of selected problems in contemporary

philosophy.
Note: Limited to first-year graduate students in the Department.

***Philosophy 300b. Colloquium**
Catalog Number: 6280
Richard Moran 1786
Half course (spring term). Hours to be arranged.
Continuation of Philosophy 300a.

***Philosophy 303. Colloquium: Dissertation Presentations**
Catalog Number: 1089
Alison Simmons 1300
Half course (fall term; repeated spring term). Hours to be arranged.

***Philosophy 305. Individual Reading and Research**
Catalog Number: 4462
R. Lanier Anderson (Stanford University) 5072 (fall term only), Peter Godfrey-Smith (Australian National University) 3338 (spring term only), Warren Goldfarb 4499, Richard G. Heck, Jr. 2993 (on leave spring term), Frances Kamm (Kennedy School) 4280 (on leave 2004-2005), Peter Koellner 4680, Niko Kolodny 4684, Christine M. Korsgaard 2994, Douglas Lavin 5091, Mary K. McGowan (Wellesley College) 5061 (fall term only), Richard Moran 1786, Charles D. Parsons 2298 (on leave spring term), François Recanati (Institut Jean Nicod, CNRS) 5088 (fall term only), Thomas M. Scanlon, Jr. 7986 (on leave 2004-05), Amartya Sen 1705 (spring term only), Susanna Siegel 2441 (on leave 2004-2005), Alison Simmons 1300, Gisela Striker 2271, Philippe van Parijs (Université catholique de Louvain) 5062 (spring term only), and Raphael G. Woolf 2488
Half course (fall term; repeated spring term). Hours to be arranged.

***Philosophy 310. Research Seminars**
Catalog Number: 4465
R. Lanier Anderson (Stanford University) 5072 (fall term only), Peter Godfrey-Smith (Australian National University) 3338 (spring term only), Warren Goldfarb 4499, Richard G. Heck, Jr. 2993 (on leave spring term), Frances Kamm (Kennedy School) 4280 (on leave 2004-2005), Peter Koellner 4680, Niko Kolodny 4684, Christine M. Korsgaard 2994, Douglas Lavin 5091, Mary K. McGowan (Wellesley College) 5061 (fall term only), Richard Moran 1786, Charles D. Parsons 2298 (on leave spring term), François Recanati (Institut Jean Nicod, CNRS) 5088 (fall term only), Thomas M. Scanlon, Jr. 7986 (on leave 2004-05), Amartya Sen 1705 (spring term only), Susanna Siegel 2441 (on leave 2004-2005), Alison Simmons 1300, Gisela Striker 2271, Philippe van Parijs (Université catholique de Louvain) 5062 (spring term only), and Raphael G. Woolf 2488
Small seminars on specialized topics, arranged by members of the Department in consultation with suitably prepared graduate students. Seminars will be listed individually with numbers from 311 through 398.

***Philosophy 311. Workshop in Moral and Political Philosophy**
Catalog Number: 5370

Christine M. Korsgaard 2994 and Douglas Lavin 5091
Half course (fall term; repeated spring term). M., 4–6.
A forum for the presentation and discussion of work in progress by students in moral and political philosophy. Open only to graduate students in the Philosophy Department or by invitation of the instructors.

***Philosophy 312. Workshop in Metaphysics and Epistemology**
Catalog Number: 0576
Peter Koellner 4680 and Alison Simmons 1300
Half course (fall term; repeated spring term). M., 4–6.
A forum for the presentation and discussion of work in progress by students in metaphysics and epistemology.
Note: Limited to graduate students in the Philosophy Department or by invitation of the instructors.

***Philosophy 333. Preparation for the Topical Examination**
Catalog Number: 1967
Peter Godfrey-Smith (Australian National University) 3338 (spring term only), Warren Goldfarb 4499, Richard G. Heck, Jr. 2993 (on leave spring term), Frances Kamm (Kennedy School) 4280 (on leave 2004-2005), Peter Koellner 4680, Niko Kolodny 4684, Christine M. Korsgaard 2994, Douglas Lavin 5091, Richard Moran 1786, Charles D. Parsons 2298 (on leave spring term), Thomas M. Scanlon, Jr. 7986 (on leave 2004-05), Amartya Sen 1705 (spring term only), Susanna Siegel 2441 (on leave 2004-2005), Alison Simmons 1300, Gisela Striker 2271, and Raphael G. Woolf 2488
Required in both fall and spring terms of all third-year graduate students in the Department.

***Philosophy 399. Direction of Doctoral Dissertations**
Catalog Number: 3283
Peter Godfrey-Smith (Australian National University) 3338 (spring term only), Warren Goldfarb 4499, Richard G. Heck, Jr. 2993 (on leave spring term), Frances Kamm (Kennedy School) 4280 (on leave 2004-2005), Peter Koellner 4680, Niko Kolodny 4684, Christine M. Korsgaard 2994, Douglas Lavin 5091, Richard Moran 1786, Charles D. Parsons 2298 (on leave spring term), Thomas M. Scanlon, Jr. 7986 (on leave 2004-05), Amartya Sen 1705 (spring term only), Susanna Siegel 2441 (on leave 2004-2005), Alison Simmons 1300, Gisela Striker 2271, and Raphael G. Woolf 2488

Physics

Faculty of the Department of Physics

John Huth, Professor of Physics *(Chair)*
Nima Arkani-Hamed, Professor of Physics
Howard C. Berg, Herchel Smith Professor of Physics and Professor of Molecular and Cellular Biology
George W. Brandenburg, Senior Research Fellow in Physics
Sidney Coleman, Donner Professor of Science *(on leave 2004-05)*
Eugene A. Demler, Assistant Professor of Physics
John M. Doyle, Professor of Physics
Gary J. Feldman, Frank B. Baird, Jr. Professor of Science *(on leave 2004-05)*
Daniel S. Fisher, Professor of Physics and Professor of Applied Physics
Andrew Foland, Assistant Professor of Physics
Melissa Franklin, Mallinckrodt Professor of Physics *(on leave 2004-05)*
Gerald Gabrielse, George Vasmer Leverett Professor of Physics
Peter L. Galison, Harvard College Professor and the Mallinckrodt Professor of the History of Science and of Physics
Howard Georgi, Mallinckrodt Professor of Physics *(Director of Undergraduate Studies)*
Roy J. Glauber, Mallinckrodt Professor of Physics *(on leave spring term)*
Jene A. Golovchenko, Gordon McKay Professor of Applied Physics and Professor of Physics
Bertrand I. Halperin, Hollis Professor of Mathematicks and Natural Philosophy *(on leave 2004-05)*
Lene V. Hau, Gordon McKay Professor of Applied Physics and Professor of Physics
Thomas C. Hayes, Lecturer on Physics
Eric J. Heller, Professor of Chemistry and Physics *(on leave 2004-05)*
Jennifer Eve Hoffman, Assistant Professor of Physics
Paul Horowitz, Professor of Physics and of Electrical Engineering
Arthur M. Jaffe, Landon T. Clay Professor of Mathematics and Theoretical Science *(on leave spring term)*
Bernard Julia, Visiting Professor of Physics, Visiting Scholar in Physics *(Ecole Normale Supérieure)*
Efthimios Kaxiras, Gordon McKay Professor of Applied Physics and Professor of Physics
Andrew J. M. Kiruluta, Assistant Professor of Radiology *(Medical School)*
Mikhail D. Lukin, Assistant Professor of Physics
Charles M. Marcus, Professor of Physics, Scientific Director of the Center for Imaging and Mesoscale Structures
Paul C. Martin, John Hasbrouck Van Vleck Professor of Pure and Applied Physics
Eric Mazur, Gordon McKay Professor of Applied Physics and Professor of Physics
Shiraz Minwalla, Assistant Professor of Physics *(on leave fall term)*
Masahiro Morii, John L. Loeb Associate Professor of the Natural Sciences
David J. Morin, Lecturer on Physics *(Assistant Director of Undergraduate Studies)*
Lubos Motl, Assistant Professor of Physics
Sekazi K. Mtingwa, Visiting Professor of Physics *(North Carolina Agricultural and Technical State University)*
Venkatesh Narayanamurti, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, Professor of Physics, Dean of the Division of Engineering and Applied

Sciences and Dean for Physical Sciences
David R. Nelson, Mallinckrodt Professor of Physics and Professor of Applied Physics *(on leave 2004-05)*
Peter S. Pershan, Frank B. Baird, Jr. Professor of Science *(on leave spring term)*
Mara Prentiss, Professor of Physics
Lisa Randall, Professor of Physics
Aravinthan D. T. Samuel, Assistant Professor of Physics
Irwin I. Shapiro, Timken University Professor
Isaac F. Silvera, Thomas D. Cabot Professor of the Natural Sciences
Andrew Strominger, Professor of Physics *(Director of Graduate Studies) (on leave spring term)*
Christopher Stubbs, Professor of Physics and of Astronomy
Michael Tinkham, Rumford Professor of Physics and Gordon McKay Professor of Applied Physics
Cumrun Vafa, Donner Professor of Science
Ronald L. Walsworth, Senior Lecturer on Physics
David A. Weitz, Gordon McKay Professor of Applied Physics and Professor of Physics *(on leave 2004-05)*
Robert M. Westervelt, Mallinckrodt Professor of Applied Physics and of Physics
Tai T. Wu, Gordon McKay Professor of Applied Physics and Professor of Physics *(on leave spring term)*
Matias Zaldarriaga, Professor of Astronomy
Xiaowei Zhuang, Assistant Professor of Chemistry and Chemical Biology and of Physics

Other Faculty Offering Instruction in Physics

Gerald Holton, Mallinckrodt Research Professor of Physics and Research Professor of the History of Science

The Physics Department offers three separate sequences of introductory courses: Physics 1a and 1b at the introductory calculus level and Physics 11a, 11b or Physics 15a, 15b, 15c at the intermediate calculus background. Students with strong preparation may also enter the 15 sequence by taking Physics 16 instead of Physics 15a. Each of the three sequences is designed to be a self-contained treatment of classical physics.

Students who expect to concentrate in physics or one of the other sciences in which physics plays a major role will usually take the Physics 15 sequence followed by Physics 143a, b. Students with excellent high-school preparation may begin the Physics 15 sequence taking Physics 16 instead of Physics 15a. Physics 16 is a course in mechanics and special relativity specifically designed for students who have done well in a high-school advanced placement course. The courses in the 15/16-143a sequence are ordinarily given on Tuesday and Thursday morning. However, scheduling issues may require a change in the time of one of these courses to the afternoon or to Monday and Wednesday, from 2:30-4. When this happens, every effort will be made to satisfy the requirements for simultaneous enrollment in courses with overlapping times.

Students who do not plan to continue in physics and have sufficient mathematical skills may wish to take the one year Physics 11 sequence. Physics 11a and 11b offer, in two terms, classical

physics at a level comparable to the longer Physics 15 sequence, but covering fewer topics.

Physics 1a and 1b present a self-contained treatment of classical and modern physics in one year, but at a lower mathematical level than the Physics 11 sequence. Physics 1a and 1b are designed to meet the requirements of all medical schools. Most medical schools also accept the Physics 15 or Physics 11 sequences. Some prefer that more than two half courses in physics be taken. Premedical students should inquire at the medical schools to which they expect to apply.

Students who do not intend to devote more than one year to the study of physics, and especially those not concentrating in a physical science or mathematics, will probably find that Physics 1a and 1b, with their broader range of subject matter, will more appropriately serve their needs than Physics 11a and 11b.

Further details may be found under the individual course headings.

Primarily for Undergraduates

Physics 1a. Principles of Physics: Mechanics
Catalog Number: 7422
Cumrun Vafa and Eric Mazur
Half course (fall term). Tu., Th., 9:30–11, plus weekly conference sections and six laboratory sessions to be arranged. EXAM GROUP: 11, 12
An introduction to classical mechanics: kinematics, Newton's laws of motion, conservation laws, oscillations, and thermodynamics as understood from the kinetic theory of particles. Brief applications of these ideas to elasticity and fluids as helpful preparation for the MCAT exams are included.
Note: Not designed as an introductory course for physics concentrators; those students should take Physics 15a or 16. Students who have taken Mathematics 21a or the equivalent and desire a one-year survey course may wish to take Physics 11a and 11b in order to make full use of their mathematical background. Physics 1a may not ordinarily be taken for credit in addition to Physics 11a, 15a, 16, or Science A-15. This course, when taken for a letter grade together with Physics 1b, meets the Core area requirement for Science A.
Prerequisite: Mathematics 1b or the equivalent. Students with a lower level of mathematical preparation should consult the instructor.

Physics 1b. Principles of Physics: Electricity and Magnetism, Circuits and Optics
Catalog Number: 7483
Eric Mazur and Cumrun Vafa
Half course (spring term). Tu., Th., 11:30–1, plus weekly 2-hour discussion sections and five laboratory sessions to be arranged. EXAM GROUP: 13, 14
A continuation of Physics 1a: electricity and magnetism, including electromagnetic waves, electric circuits, and optics.
Note: May not ordinarily be taken for credit in addition to Physics 11b or 15b. This course, when taken for a letter grade together with Physics 1a, meets the Core area requirement for Science A.
Prerequisite: Physics 1a and Mathematics 1b, or the equivalent.

Physics 11a. Mechanics
Catalog Number: 3131
Charles M. Marcus and Masahiro Morii
Half course (fall term). Lectures, Tu., Th., 11:30–1; weekly ninety-minute discussion sections. EXAM GROUP: 13, 14
Physics 11a is the first half of a one-year physics sequence. It provides an introduction to classical mechanics, including the laws of conservation of energy, momentum, and angular momentum; the translational motion of particles, rigid bodies, and fluids; the rotational motion of rigid bodies; the general description of waves. Physics 11a may be taken by students who have taken or who are concurrently taking Mathematics 21a or 23a or Applied Mathematics 21a. Calculus is used routinely but the emphasis is placed on the basic concepts.
Note: Physics 11a may not be taken for credit by students who have passed Physics 15a or 16. This course, when taken for a letter grade, meets the Core area requirement for Science A.

Physics 11b. Electricity, Magnetism, and Waves
Catalog Number: 5472
Masahiro Morii and Charles M. Marcus
Half course (spring term). Lectures, Tu., Th., 10–11:30, weekly ninety-minute discussion sections, and one three-hour laboratory session every two weeks. EXAM GROUP: 12, 13
Physics 11b is the second half of a one-year physics sequence. It covers the basic phenomena of electricity and magnetism, elements of circuits with selected applications, Maxwell's equations, electromagnetic waves, and a brief introduction to quantum physics.
Note: May not be taken for credit by students who have passed Physics 15b or Physics 15c. This course, when taken for a letter grade, meets the Core area requirement for Science A.
Prerequisite: Physics 11a; Mathematics 21a or 23a.

Physics 11c. Special Topics in Biology and Life Sciences
Catalog Number: 4697
Andrew J. M. Kiruluta (Medical School)
Half course (fall term). Tu., Th., 1:30–3. EXAM GROUP: 15, 16
Intended for undergraduate students in physics, biology, biophysics, biochemistry, chemistry, physiology, and biomedical engineering, this course introduces students to the underlying physics of functional bio-fluid dynamics and bio-thermodynamics applied to examples and problems in life sciences. Topics include probability, mechanics of motility, diffusion and osmotic transport including biological pumps, as well as thermodynamics of living systems.
Prerequisite: Preparation to the level of Physics 11a or AP physics. Students should have taken or be concurrently taking Mathematics 21a or 23a or Applied Mathematics 21a or equivalent.

Physics 15a. Introductory Mechanics and Relativity
Catalog Number: 1984
David J. Morin
Half course (fall term; repeated spring term). Tu., Th., 10–11:30, and a weekly ninety-minute discussion section. EXAM GROUP: 12, 13
Newtonian mechanics and special relativity. Topics include vectors; kinematics in three dimensions; Newton's laws; force, work, power; conservative forces, potential energy; momentum, collisions; rotational motion, angular momentum, torque; static equilibrium,

oscillations, simple harmonic motions; gravitation, planetary motion; fluids; special relativity.
Note: This course, when taken for a letter grade, meets the Core area requirement for Science A.
Prerequisite: Mathematics preparation at least at the level of Mathematics 1b concurrently is required. However, some elementary ideas from multivariable calculus may be used and students are encouraged to take Mathematics 21a concurrently.

Physics 15b. Introductory Electromagnetism
Catalog Number: 2701
Bernard Julia (Ecole Normale Supérieure) (fall term), Howard Georgi and Aravinthan D. T. Samuel (spring term)
Half course (fall term; repeated spring term). Fall: Tu., Th., 11:30–1; Spring: Tu., Th., 10–11:30; and a weekly two-hour discussion section and three-hour laboratory session every two weeks. EXAM GROUP: Fall: 13, 14; Spring: 12, 13
Electricity and magnetism at the level of Purcell's book. Covers all topics in Purcell including Maxwell's equations in differential form and electric and magnetic fields in materials.
Note: Laboratory "zap" electronics lab in a toolbox—students work on the labs in their dorm rooms—afternoon and evening help labs are scheduled. Laboratories will be under the supervision of Thomas C. Hayes. This course, when taken for a letter grade, meets the Core area requirement for Science A.
Prerequisite: Physics 15a, Physics 16, or written permission of the Head Tutor in Physics. Mathematics preparation at least at the level of Mathematics 21a taken concurrently is required. Vector calculus, div, grad and curl are used extensively—in principle, this is taught in the course. Students taking Mathematics 21a concurrently will likely find that some concepts are introduced in Physics 15b before they have seen them in Mathematics 21a. Some students may wish to postpone Physics 15b until they have completed Mathematics 21a.

Physics 15c. Wave Phenomena
Catalog Number: 8676
Nima Arkani-Hamed (fall term) and Christopher Stubbs (spring term)
Half course (fall term; repeated spring term). Tu., Th., 1–2:30, and three hours per week of conference and laboratory. EXAM GROUP: 15, 16
Forced oscillation and resonance; coupled oscillators and normal modes; Fourier series; Electromagnetic waves, radiation, longitudinal oscillations, sound; traveling waves; signals, wave packets and group velocity; two- and three-dimensional waves; polarization; geometrical and physical optics; interference and diffraction. Optional topics: Water waves, holography, x-ray crystallography. Solitons.
Note: Laboratory: Continuation of "zap" plus additional labs. Laboratories will be under the supervision of Thomas C. Hayes. This course, when taken for a letter grade, meets the Core area requirement for Science A.
Prerequisite: Physics 15b and mathematics preparation at the level of Mathematics 21b taken concurrently. Some prior knowledge of complex numbers (for example as taught in Mathematics 1b) is helpful. Multivariable calculus is used in the treatment of the wave equation, but plays a much less central role than in Physics 15b.

Physics 16. Mechanics and Special Relativity
Catalog Number: 2019

Howard Georgi
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Newtonian mechanics and special relativity for students with good preparation in physics and mathematics at the level of the advanced placement curriculum. Topics include an introduction to Lagrangian mechanics, Noether's theorem, special relativity, collisions and scattering, rotational motion, angular momentum, torque, the moment of inertia tensor, oscillators damped and driven, gravitation, planetary motion, and an introduction to cosmology.
Note: This course, when taken for a letter grade, meets the Core area requirement for Science A.
Prerequisite: Score of 5 on the mechanics section of the Physics C Advanced Placement exam, or equivalent. Mathematics preparation at least at the level of Mathematics 21a taken concurrently is required. Thorough knowledge of calculus of one variable and vectors plus some mathematical sophistication. The mathematical level will be significantly higher than that of Physics 15a.

***Physics 90r. Supervised Research**
Catalog Number: 2460
David J. Morin and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Primarily for selected concentrators in Physics, or in Chemistry and Physics, who have obtained honor grades in Physics 15 and a number of intermediate-level courses. The student must be accepted by some member of the faculty doing research in the student's field of interest. The form of the research depends on the student's interest and experience, the nature of the particular field of physics, and facilities and support available. Students wishing to write a senior thesis can do so by arranging for a sponsor and enrolling in this course. A list of possible faculty sponsors and their fields is available in Lyman 233 and on the Physics Department Web page. Course enrollment forms may be obtained from Lyman 233.

***Physics 91r. Supervised Reading Course for Undergraduates**
Catalog Number: 1218
David J. Morin and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Open to selected concentrators in Physics, Chemistry and Physics, and other fields who wish to do supervised reading and studying of special topics in physics. Ordinarily such topics do not include those covered in a regular course of the Department. Honor grades in Physics 15 and a number of intermediate-level courses are ordinarily required. The student must be accepted by a member of the faculty. A list of possible faculty sponsors and their fields is available in Lyman 233 and on the Physics Department Web page. Course enrollment forms may be obtained from Lyman 233.

***Physics 95. Topics in Current Research**
Catalog Number: 2806
Isaac F. Silvera
Half course (fall term). M., at 3, W., 7:30–9 p.m. EXAM GROUP: 8
The goal of this tutorial is to guide students from learning physics by subject (E&M, quantum mechanics, etc.) to appreciating physics as an intense, diverse discipline of modern research. Every Wednesday evening a faculty member speaks on his/her area of research, preceded by

assigned reading and a lecture designed to introduce students to some of the basic physics, as well as important developments and burning problems at the frontiers of research.
Note: Primarily for junior and senior concentrators.

Cross-listed Courses

Astronomy 45. Introduction to Extragalactic Astrophysics and Cosmology
***Freshman Seminar 22z. Quantitative Methods in Public Policy Decisions**
***Freshman Seminar 24k. Building a Scanning Tunneling Microscope**
Science A-29. The Nature of Light and Matter

For Undergraduates and Graduates

Certain physics courses are offered in several other departments. See especially the offerings of the Division of Engineering and Applied Sciences.
[Physics 121. History and Philosophy of 20th-Century Physics]
Catalog Number: 0160
Peter L. Galison
Half course (spring term). Hours to be arranged.
An introduction to the history and philosophy of physics for students with a strong undergraduate background in science. Topics include relativity, quantum theory, weapons development, and modern ideas about unification.
Note: Expected to be given in 2005–06. Expected to be omitted in 2006–07. May not be taken for credit by students who have taken History of Science 120.
Prerequisite: An introductory course in college physics, preferably at the level of Physics 15c.

Physics 123. Laboratory Electronics
Catalog Number: 0864 Enrollment: Limited to 22 students per section.
Paul Horowitz and Thomas C. Hayes
Half course (fall term; repeated spring term). Section I: Tu., Th., 1:30-5; Section II: W., F., 1:30-5. EXAM GROUP: 15, 16
A lab-intensive introduction to electronic circuit design. Develops circuit intuition and debugging skills through daily hands-on lab exercises, each preceded by class discussion, with minimal use of mathematics and physics. Moves quickly from passive circuits, to discrete transistors, then concentrates on operational amplifiers, used to make a variety of circuits including integrators, oscillators, regulators, and filters. The digital half of the course treats analog-digital interfacing, emphasizes the use of microcontrollers and programmable logic devices (PLD's).
Note: Regardless of section choice, all students must attend first course meeting on 9/21/04 or 2/2/05 at 1:30 in Science Center 206.

Physics 125. Widely Applied Physics
Catalog Number: 6990
Ronald L. Walsworth
Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7, 8
Applies elementary physics to real things and practical situations. Emphasis is on developing

physical intuition and the ability to do order-of-magnitude calculations. New physical concepts are introduced as necessary. Example topics: the Big Bang, stars, nuclear reactions, and searches for extra-solar planets; aerodynamics, rockets and spacecraft; materials properties; electronic noise, lasers, and the global positioning system; magnetic resonance imaging, physiology of major organs, and health risks; energy use and production; climate and global change.
Note: Physics 143a and 181 helpful, but not required.
Prerequisite: Physics 15a, b, c, and mathematics at the level of Mathematics 21a (which may be taken concurrently).

Physics 136. Physics of Medical Imaging
Catalog Number: 0182
Andrew J. M. Kiruluta (Medical School)
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Presents the physics of modern medical imaging techniques. Explores the physics of diagnostic imaging from a unified electromagnetics' viewpoint ranging from a simple mapping of radiation attenuation coefficients in X-ray, gamma radiative single photon (SPECT) and double photon (positron) emission tomography (PET), echo measurements in ultrasound, interferometric pulse echo characterization in optical coherence tomography (OCT) to resonance absorption in a nuclear magnetic resonance (NMR) induced inhomogeneously broadened RF absorber.
Prerequisite: Physics 15b or 11b and mathematics preparation at least to the level of Mathematics 21b taken concurrently. Physics 143a and b are recommended but not essential.

[Physics 140. Introduction to Biophysics]
Catalog Number: 5394
Howard C. Berg and Aravinthan D. T. Samuel
Half course (spring term). Hours to be arranged.
An introduction to the physics and biology of stochastic processes that affect the behavior of cells, biopolymers and biological motors. Elements of probability and statistics, entropic elasticity, the random walk, diffusion, sedimentation and electrophoresis. Applications to sensory physiology, cell motility, stretching and twisting of DNA and the motion of motors along biopolymers.
Note: Expected to be given in 2005–06. Given in alternate years. Lectures, problem sets, discussions. May not be taken for credit by students who have taken MCB 140.
Prerequisite: Mathematics at the level of 21a, Physics 15a/15b or Physics 11a/11b or permission of the instructor. Some familiarity with elementary statistical mechanics helpful.

Physics 143a. Quantum Mechanics I
Catalog Number: 1050
Michael Tinkham (fall term) and John M. Doyle (spring term)
Half course (fall term; repeated spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Introduction to nonrelativistic quantum mechanics: uncertainty relations; Schrödinger equation; Dirac notation; matrix mechanics; one-dimensional problems including particle in box, tunneling, and harmonic oscillator; angular momentum, hydrogen atom, spin, Pauli principle; time-independent perturbation theory; scattering.
Prerequisite: Linear algebra including matrix diagonalization; Physics 15c or written permission of the Head Tutor.

Physics 143b. Quantum Mechanics II
Catalog Number: 0253
John M. Doyle
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Further techniques and applications of quantum mechanics, including quantum statistics, Bose-Einstein condensation, advanced topics in angular momentum: rotations, tensor operators and the Wigner-Eckart theorem, variational methods, time-dependent perturbation theory, nuclear magnetic resonance, emission and absorption of radiation, quantization of the radiation field, Casimir effect, aidiabatic approximation, geometrical phases, Aharonov-Bohm effect, collision theory, measurement theory, Bell's inequality, and an introduction to quantum computing.
Prerequisite: Physics 143a.

Physics 145. Elementary Particle Physics
Catalog Number: 6057
Andrew Foland
Half course (spring term). Lecture meets M.,W., (F.,) at 10; seminars and sections Tu., Th., 7:30–9 p.m., as needed. EXAM GROUP: 3
Introduction to elementary particle physics. Emphasis is on concepts and phenomenology rather than on a detailed calculational development of theories. Starts with the discovery of the electron in 1897, ends with the theoretical motivation for the Higg's boson, and attempts to cover everything important in between. Taught partly in seminar mode, with each student presenting a classic paper of the field.
Prerequisite: Physics 143a. Physics 143b or equivalent is useful.

Physics 151. Mechanics
Catalog Number: 2068
Sekazi K. Mtingwa (North Carolina Agricultural and Technical State University)
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Fundamental ideas of classical mechanics including contact with modern work and applications. Topics include Lagrange's equations; action principles, Hamilton's equations; symmetry and conservation laws, Hamilton-Jacobi theory and phase space dynamics. Applications to celestial mechanics, quantum mechanics, rigid body motion, the theory of small oscillations and classical fields, and nonlinear oscillations, including chaotic systems presented.
Note: May not be taken for credit in addition to Engineering Sciences 125.
Prerequisite: Physics 15a, b or written permission of the Head Tutor; Mathematics 21a, b or equivalent.

Physics 153. Electrodynamics
Catalog Number: 0264
Mikhail D. Lukin
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Aimed at advanced undergraduates. Emphasis on the properties and sources of the electromagnetic fields and on the wave aspects of the fields. Course starts with electrostatics and subsequently develops the Maxwell equations. Topics: electrostatics, dielectrics, magnetostatics, electrodynamics, radiation, wave propagation in various media, wave optics, diffraction and interference. A number of applications of electrodynamics and optics in modern physics are

discussed.
Prerequisite: Physics 15 a, b, and c, or written permission of the Head Tutor; Mathematics 21a, b or equivalent.

Physics 167. Condensed Matter Physics of Modern Technologies
Catalog Number: 4654
Eugene A. Demler
Half course (spring term). Hours to be arranged.
This course will explore how recent developments in condensed matter physics are expanding the frontiers of modern technologies. We will review semiconducting, magneto- and optoelectronic devices, magnetoresistive materials, carbon nanotubes, and high temperature superconductors. Technologies in the earliest stages of their development, such as nanotechnology, quantum computations and communication, will also be discussed.
Prerequisite: Quantum mechanics (Physics 143a).

Physics 181. Statistical Mechanics and Thermodynamics
Catalog Number: 6346
Bertrand I. Halperin
Half course (spring term). M., W., F., at 11. EXAM GROUP: 4
Introduction to thermal physics: basic concepts of thermodynamics (energy, heat, work, temperature, entropy), classical and quantum ensembles and their origins, and distribution functions. Applications include Debye's theory of solids, Planck's theory of black body radiation, classical and quantum gases, magnetism and phase transitions.
Note: May not be taken for credit in addition to Engineering Sciences 181.
Prerequisite: Physics 143a or equivalent.

Physics 191r. Advanced Laboratory
Catalog Number: 7711 Enrollment: Together with Physics 247r, limited to a total of 24 students.
Peter S. Pershan (fall term), Isaac F. Silvera (spring term), George W. Brandenburg (fall term), Andrew Foland (fall term), Sekazi K. Mtingwa (North Carolina Agricultural and Technical State University) (spring term), and Mara Prentiss (spring term)
Half course (fall term; repeated spring term). Tu., Th., 1–5. EXAM GROUP: 15, 16
Students carry out three experimental projects selected from those available representing condensed matter, atomic, nuclear, and particle physics. Included are nuclear magnetic resonance, microwave spectroscopy, optical pumping, scattering of laser light, neutron activation of radioactive isotopes, Compton scattering of gamma rays, the relativistic mass of the electron, recoil free gamma-ray resonance, the lifetime of the muon, studies of superfluid helium, positron annihilation superconducting transitions, the quantum Hall effect, and properties of semiconductors. The facilities of the laboratory include several computers that are used extensively in the laboratory.
Note: The course cooperates with Applied Physics 191; experiments from that course may be chosen when available. A substantial amount of outside reading is expected.
Prerequisite: Physics 15. Physics 143a is recommended.

[Physics 195. Introduction to Solid State Physics]
Catalog Number: 2978

Eugene A. Demler
Half course (fall term). Hours to be arranged.
Fundamental physical properties of crystalline solids discussed in terms of the basic principles of classical and quantum physics. Crystal structure, lattice vibrations, specific heat, energy band theory of metals and semiconductors and insulators, electrical transport in metals and semiconductors, optical and magnetic properties, superconductivity.
Note: Expected to be given in 2005–06. Designed as a first course in solid state physics for students with knowledge of elementary quantum mechanics (Physics 143a). Some knowledge of statistical physics (Physics 181) is also helpful, but not a formal prerequisite. Students who propose to take Applied Physics 295a in the spring term, and who have not previously taken a formal course in solid state physics, are strongly advised to take this course first. It is suggested that students may wish to take Applied Physics 195 when this course is bracketed.

Cross-listed Courses

Applied Mathematics 147. Nonlinear Dynamical Systems
Applied Physics 195. Introduction to Solid State Physics
Astronomy 145. Topics in Astrophysics
Astronomy 150. Radiative Processes in Astrophysics
Astronomy 191. Astrophysics Laboratory
[Astronomy 192. Tools and Techniques of Astronomical Measurements]
Chemistry 160. Physical Chemistry
Chemistry 161. Statistical Thermodynamics
Chemistry 163. Frontiers in Biophysics
Chemistry 165. Experimental Physical Chemistry
[Earth and Planetary Sciences 131. Introduction to Physical Oceanography]
Engineering Sciences 120. Introduction to the Mechanics of Solids
Engineering Sciences 123. Introduction to Fluid Mechanics
Engineering Sciences 154. Electronic Devices and Circuits
Engineering Sciences 173. Optoelectronics and Photonics: Principles and Applications
Engineering Sciences 181. Thermodynamics
Engineering Sciences 190. Introduction to Materials Science

Primarily for Graduates

The courses primarily for graduates are open to undergraduates provided they have passed the prerequisites with a grade of C or higher; in each case, special permission by the instructor is needed. In cases where students do not have the listed prerequisites, the written approval of the Head Tutor is required.
Physics 210. General Theory of Relativity
Catalog Number: 4840
Andrew Strominger
Half course (fall term). W., F., 1–2:30. EXAM GROUP: 6, 7
An introduction to general relativity: Riemannian geometry; the Principle of Equivalence; Einstein's field equations; Schwarzchild black holes, the Newtonian limit; gravitational

radiation; experimental tests, cosmological solutions.
Prerequisite: Physics 151 and 153, and Mathematics 21 or equivalents.

Physics 211. General Relativity, Cosmology, and Other Topics
Catalog Number: 0469
Lisa Randall and Matias Zaldarriaga
Half course (spring term). W., 12:30–2, F., 1–2:30. EXAM GROUP: 5, 6, 7
Our focus is the classical and quantum theory of black holes. The general Kerr-Newman solution; causal structure; Penrose diagrams; the classical laws of black hole mechanics, experimental evidence; Hawking radiation; the information paradox; de Sitter and black hole entropy.
Note: Physics 253a is helpful but not required. Auditors should obtain permission of instructor. It is suggested that students may wish to take Astronomy 211 when this course is bracketed.
Prerequisite: General relativity at level of Physics 210 or equivalent.

[Physics 218. Modern Dynamical Systems]
Catalog Number: 1362
Paul C. Martin
Half course (spring term). Hours to be arranged.
Classical hamiltonian theory. Integrable systems, nonlinear dynamics, and chaos. Maps, KAM theory, and bifurcations. Mixing and ergodic theory. Dynamics of continuous systems, especially fluids. Stochastic processes.
Note: Expected to be given in 2005–06.
Prerequisite: Physics 151 and 143a, b or equivalent; Applied Math 201, 202 or equivalent.

Physics 232 (formerly Physics 232a). Advanced Electromagnetism
Catalog Number: 4885
Jene A. Golovchenko
Half course (fall term). M., W., 9:30–11. EXAM GROUP: 2, 3
Geometrical foundations, dynamical electromagnetic field and particle/matter equations of motion, Green's functions and static and time dependent solutions, special functions, relaxation methods, gauge invariance, conservation theorems, fields in dense matter. Applications include particle traps, spin resonance, adiabatic fast transfer, particle screening, Kapitza potentials, strong focusing, reactive, dissipative and radiating systems, solitons.
Prerequisite: Physics 153 and Applied Mathematics 105a, 105b, or equivalent.

Physics 247r. Laboratory Course in Contemporary Physics
Catalog Number: 8665 Enrollment: Together with Physics 191r, limited to a total of 24 students.
Peter S. Pershan, George W. Brandenburg, and Andrew Foland (fall term), and Isaac F. Silvera, Sekazi K. Mtingwa (North Carolina Agricultural and Technical State University), and Mara Prentiss (spring term)
Half course (fall term; repeated spring term). Hours to be arranged.
Three experimental projects are selected representing condensed matter, atomic, nuclear, and particle physics. Examples: experiments on NMR, microwave spectroscopy, optical pumping, scattering of laser light, neutron activation, Compton scattering of gamma rays, relativistic mass of the electron, recoil-free gamma ray resonance, lifetime of the muon, superfluid helium,

superconducting transitions, and properties of semiconductors.
Note: The course cooperates with Applied Physics 210r. A substantial amount of outside reading may be required.

Physics 251a. Advanced Quantum Mechanics I
Catalog Number: 2191
Lene V. Hau
Half course (fall term). M., W., F., at 12. EXAM GROUP: 5
Basic course in nonrelativistic quantum mechanics. Review of wave functions and the Schrödinger Equation; Hilbert space; the WKB approximation; central forces and angular momentum; scattering; electron spin; measurement theory; the density matrix; time-independent perturbation theory.
Prerequisite: Physics 143a, b or equivalent, or permission of instructor.

Physics 251b. Advanced Quantum Mechanics II
Catalog Number: 2689
Lene V. Hau
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
Time-dependent perturbations; quantized radiation field; absorption and emission of radiation; Heisenberg picture; identical particles and quantum field theory; Feynman Path integrals.
Prerequisite: Physics 251a.

Physics 253a. Quantum Field Theory I
Catalog Number: 8050
Arthur M. Jaffe
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Introduction to relativistic quantum mechanics and quantum field theory. Canonical quantization, scalar and spinor fields, scattering theory, Feynman diagrams, renormalization.
Prerequisite: Physics 251a,b or equivalents.

Physics 253b. Quantum Field Theory II
Catalog Number: 5250
Nima Arkani-Hamed
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A continuation of Physics 253a. Vector fields, gauge invariance, functional integration, quantum electrodynamics, spontaneous symmetry breakdown, and an introduction to the standard model.
Prerequisite: Physics 253a.

[Physics 253c. Quantum Field Theory III]
Catalog Number: 4000
Shiraz Minwalla
Half course (spring term). Hours to be arranged.
The course illustrates the power of quantum field theory in several concrete examples of physical interest. It studies spin systems (including ferro-magnets and anti-ferro magnets), 2-D CFTs, lattice gauge theories, continuum gauge theories (including confinement) and supersymmetric gauge theories.

Note: Expected to be given in 2005–06. Expected to be omitted in 2006–07.
Prerequisite: Physics 253b.

Physics 262. Statistical Physics
Catalog Number: 1157
Tai T. Wu
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Basic principles of statistical physics and thermodynamics, with applications including: the equilibrium properties of classical and quantum gases; phase diagrams, phase transitions and critical points, as illustrated by the gas-liquid transition and simple magnetic models; Bose-Einstein condensation.
Note: Students may wish to take Applied Physics 284 when this course is bracketed.
Prerequisite: Physics 143a, b and Physics 181 or Engineering Sciences 181.

[Physics 265. Photons and Atoms]
Catalog Number: 4203
Lene V. Hau
Half course (spring term). Hours to be arranged.
Introduction to quantum field theory, quantization of the electromagnetic radiation field and many-body atomic systems, Bose-Einstein condensates, superfluids, quantized vortices, and degenerate Fermi gases. Laser cooling, dressed states, stimulated radiation forces. Casimir force, atom interferometers.
Note: Expected to be given in 2005–06. Students may wish to take Applied Physics 217 when this course is bracketed.
Prerequisite: At least one term of quantum mechanics beyond the level of Physics 143a.

[Physics 268r. Physics of Strongly Correlated Electron Systems]
Catalog Number: 7951
Eugene A. Demler
Half course (spring term). Hours to be arranged.
An introduction to the subject of strongly correlated electron systems. We discuss problems including Migdal-Eliashberg strong-coupling theory of superconductivity, superconductivity in doped Mott insulators, integer and fractional quantum Hall effects.
Note: Expected to be given in 2005–06.
Prerequisite: Applied Physics 295b or equivalent.

[Physics 269r. Topics in Statistical Physics and Quantitative Biology]
Catalog Number: 6214

Half course (spring term). Hours to be arranged.
An introduction to strongly interacting soft condensed matter and biophysical systems will be given. We hope to discuss topics such as the renormalization group theory of critical phenomena, defect mediated phase transitions, nonlinear dynamics, the theory of RNA folding, and the statistical mechanics of DNA sequence matching.
Note: Expected to be given in 2005–06. Expected to be omitted in 2006–07.
Prerequisite: Physics 262 or equivalent.

[Physics 270. Experiments and Ideas in Mesoscopic Physics]
Catalog Number: 0788
Charles M. Marcus
Half course (spring term). Hours to be arranged.
This special topics course introduces the subject of mesoscopic quantum effects in small electronicsystems, including conductance fluctuations, localization, electron interference, and persistance currents in metals and semiconductors. More or less attention is given to specialized topics such as hybrid superconducting systems, magnetic and Kondo systems, clean (ballistic) systems,dynamical effects, and the high magnetic field regime, depending on the interests of participants. The reading list focuses primarily on the experimental literature, augmented by recent texts and reviews. The format of the course is a combination of lectures and journal-club-style presentations.
Note: Expected to be given in 2005–06. Given in alternate years.
Prerequisite: Basic familiarity with quantum mechanics and solid state physics at the level of undergraduate courses.

Physics 283b. Beyond the Standard Model
Catalog Number: 7153
Lisa Randall
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Covers current advances in particle physics beyond the Standard Model. Topics could include supersymmetry, the physics of extra dimensions, and connections between particle physics and cosmology.

[Physics 283r. The Standard Model]
Catalog Number: 3620
Lisa Randall
Half course (spring term). Hours to be arranged.
Theory and phenomenology of the Standard Model of particle physics and its extensions. Focus will be on the SU(2)xU(1)xSU(3) gauge theory of the electroweak and strong interactions and underlying physics that can generate the electroweak symmetry breaking scale. Topics might include effective field theories, supersymmetry, and theories of physics with extra dimensions.
Note: Expected to be given in 2005–06. Expected to be omitted in 2006–07.
Prerequisite: Physics 253a, b or equivalent.

Physics 285a. Modern Atomic and Optical Physics I
Catalog Number: 8204
Gerald Gabrielse
Half course (fall term). Tu., 1–2:30, W., 2:30–4. EXAM GROUP: 7, 8, 15, 16
Introduction to modern atomic physics. The fundamental concepts and modern experimental techniques will be introduced. Topics will include two-state systems, magnetic resonance, interaction of radiation with atoms, transition probabilities, spontaneous and stimulated emission, dressed atoms, trapping, laser cooling of “two-level” atoms, structure of simple atoms, fundamental symmetries, two-photon excitation, light scattering and selected experiments. The first of a two-term subject sequence that provides the foundations for contemporary research.
Prerequisite: One course in quantum mechanics (143a and b, or equivalent).

[Physics 285b. Modern Atomic and Optical Physics II]
Catalog Number: 4195
Mikhail D. Lukin
Half course (fall term). Hours to be arranged.
Introduction to quantum optics and modern atomic physics. The basic concepts and theoretical tools will be introduced. These will be used to consider fundamental systems in atomic and optical physics. Topics will include atomic coherence phenomena, non-classical states of light and matter, cavity quantum electrodynamics, atom cooling and trapping and atom optics. The second of a two-term subject sequence that provides the foundations for contemporary research.
Note: Expected to be given in 2005–06.
Prerequisite: A course in electromagnetic theory (Physics 232a or equivalent); one half-course in intermediate or advanced quantum mechanics.

[Physics 287. Topics in Physics of Quantum Information]
Catalog Number: 7647
Mikhail D. Lukin
Half course (fall term). Hours to be arranged.
Introduction to physics of quantum information, with emphasis on ideas and experiments ranging from quantum optics to condensed matter physics. Background and theoretical tools introduced. The format is a combination of lectures and class presentations.
Note: Expected to be given in 2005–06.
Prerequisite: Quantum mechanics at the level of introductory graduate courses.

Physics 287a. Introduction to String Theory
Catalog Number: 2012
Lubos Motl
Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7, 8
Introduction to the perturbative formulation of string theories and eleven-dimensional supergravity. Basic examples of compactifications and solitonic solutions and their role in strong-weak coupling dualites in string theory.
Prerequisite: Physics 253a, b or equivalent.

Physics 287br. Topics in String Theory
Catalog Number: 4555
Shiraz Minwalla
Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
A selection of topics from current areas of research on string theory.
Prerequisite: Physics 287a.

[Physics 289r. Supersymmetry and Invariants]
Catalog Number: 6400
Arthur M. Jaffe
Half course (spring term). Hours to be arranged.
An introduction to supersymmetry, to constructive field theory, and to related string ideas.
Note: Expected to be given in 2005–06.

Prerequisite: Knowledge of quantum theory and of analysis. Knowledge of field theory will be helpful but is not essential.

Cross-listed Courses

Applied Mathematics 201. Physical Mathematics I
Applied Mathematics 202. Physical Mathematics II
[Applied Mathematics 203 (formerly Applied Mathematics 203r). Nonlinear Dynamics and Chaos]
Applied Mathematics 205. Practical Scientific Computing
[Applied Physics 216. Modern Optics and Quantum Electronics]
[Applied Physics 284. Statistical Thermodynamics]
Applied Physics 295a. Introduction to Quantum Theory of Solids
Applied Physics 295b. Quantum Theory of Solids
Applied Physics 296r. Superconductivity
Applied Physics 298r. Interdisciplinary Chemistry, Engineering and Physics: Seminar
Engineering Sciences 274. Quantum Technology I
Engineering Sciences 275. Nanophotonics
MCB 212. Topics in Biophysics

Graduate Courses of Reading and Research

Odd numbers designate courses of preliminary reading or experimental research. Even numbers designate thesis research and are to be used only when an instructor has agreed to supervise a student's research for the doctorate. Reading and Research courses largely concerned with physics are offered under the sponsorship of several other departments, particularly Astronomy, Chemistry, and Earth and Planetary Sciences; and of the Division of Engineering and Applied Sciences (Applied Mathematics, Applied Physics, Computer Science, and Engineering Sciences).

***Physics 301,302. Experimental Atomic and Elementary Particle Physics**
Catalog Number: 1735,1736
Gerald Gabrielse 1768

***Physics 303,304. Topics in Biophysics, Neurobiology, and Animal Behavior**
Catalog Number: 1727,1792
Aravinthan D. T. Samuel 4625

***Physics 305,306. Experimental High Energy Physics**
Catalog Number: 7929,0855
John Huth 3506

***Physics 307,308. Experimental Atomic Physics, Bose-Einstein Condensation, and Quantum Optics**
Catalog Number: 7534,3277
Lene V. Hau 2151

***Physics 309,310. Topics in Elementary Particle Theory**
Catalog Number: 4556,4561
Cumrun Vafa 2069

***Physics 311,312. Experimental Atomic, Molecular, and Low-Energy Particle Physics**
Catalog Number: 6839,6838
John M. Doyle 3507

***Physics 315,316. Topics in Theoretical Atomic, Molecular, and Optical Physics**
Catalog Number: 7387,8871
Eric J. Heller 1074 (on leave 2004-05)

***Physics 317,318. Topics in Biophysics**
Catalog Number: 8345,0990
Xiaowei Zhuang 3991

***Physics 319,320. Topics in Experimental High Energy Physics**
Catalog Number: 4520,4521
Melissa Franklin 2500 (on leave 2004-05)

***Physics 321,322. Experimental Soft Condensed Matter Physics**
Catalog Number: 9963,7098
David A. Weitz 2497 (on leave 2004-05)

***Physics 323,324. Nanostructures and Mesoscopic Physics**
Catalog Number: 3629,9079
Charles M. Marcus 2890

***Physics 325,326. Topics in Theoretical Particle Physics and Quantum Gravity**
Catalog Number: 3686,1169
Lubos Motl 5053

***Physics 327,328. Topics in Condensed Matter Physics**
Catalog Number: 5969,6524
David R. Nelson 5066 (on leave 2004-05)

***Physics 329,330. Solid State and Statistical Theory**
Catalog Number: 6198,6373
Bertrand I. Halperin 4755 (on leave 2004-05)

***Physics 331,332. Topics in Experimental High Energy Physics**
Catalog Number: 2727,2820
Andrew Foland 3335

***Physics 333,334. Experimental Atomic Physics**
Catalog Number: 2902,2904
Mara Prentiss 2741

***Physics 335,336. Topics in the History and Philosophy of Physics**
Catalog Number: 6697,4276
Gerald Holton 1883

***Physics 337,338. Topics in Experimental High Energy Physics**
Catalog Number: 1809,6368
Masahiro Morii 3798

***Physics 341,342. Topics in Elementary Particles**
Catalog Number: 1990,6602
Sidney Coleman 2111 (on leave 2004-05)

***Physics 343,344. Observational Cosmology and Experimental Gravitation**
Catalog Number: 4253,6881
Christopher Stubbs 4856

***Physics 345,346. Experimental Gravitation: Radio and Radar Astronomy**
Catalog Number: 5067,5072
Irwin I. Shapiro 7660

***Physics 347,348. Topics in Quantum Optics**
Catalog Number: 8010,1627
Mikhail D. Lukin 3990

***Physics 349,350. Topics in String Theory, Quantum Gravity and Field Theory**
Catalog Number: 1818,0791
Shiraz Minwalla 4228 (on leave fall term)

***Physics 353,354. Topics in Statistical Physics**
Catalog Number: 3721,5287
Paul C. Martin 2103

***Physics 355,356. Theory of Elementary Particles**
Catalog Number: 1213,7654
Roy J. Glauber 2113 (on leave spring term)

***Physics 357,358. Experimental Condensed Matter Physics**
Catalog Number: 4430,5227
Robert M. Westervelt 6148

***Physics 359,360. Topics in Condensed Matter Physics**
Catalog Number: 8238,7560
Eugene A. Demler 3847

***Physics 361,362. Topics in Condensed Matter and Statistical Physics**
Catalog Number: 3750,4793
Daniel S. Fisher 2600

***Physics 363,364. Topics in Condensed Matter Theory**
Catalog Number: 2957,2958
Efthimios Kaxiras 3050

***Physics 365,366. Topics in Mathematical Physics**
Catalog Number: 5170,1567
Arthur M. Jaffe 2095 (on leave spring term)

***Physics 367,368. Experimental Astrophysics**
Catalog Number: 1075,1274
Paul Horowitz 3537

***Physics 369,370. Experimental Condensed Matter: Synchrotron Radiation Studies**
Catalog Number: 1538,1539
Peter S. Pershan 1105 (on leave spring term)

***Physics 371,372. Topics in Experimental High Energy Physics**
Catalog Number: 2519,6461
Gary J. Feldman 2599 (on leave 2004-05)

***Physics 373,374. Topics in the History and Philosophy of Modern Physics**
Catalog Number: 6140,6143
Peter L. Galison 3239

***Physics 375,376. Superconductivity and Mesoscopic Physics**
Catalog Number: 1228,7663
Michael Tinkham 2131

***Physics 377,378. Theoretical High Energy Physics**
Catalog Number: 1436,2007
Tai T. Wu 1051 (on leave spring term)

***Physics 379,380. Topics in Elementary Particle Research and String Theory**
Catalog Number: 7523,7524
Andrew Strominger 3700 (on leave spring term)

***Physics 381,382. Experimental Condensed Matter Physics**
Catalog Number: 1281,2355
Jennifer Eve Hoffman 4888

***Physics 383,384. Low Temperature Physics of Quantum Fluids and Solids; Ultra High Pressure Physics**
Catalog Number: 3851,4395
Isaac F. Silvera 7468

***Physics 385,386. Topics in Biophysics**
Catalog Number: 5901,5902
Howard C. Berg 1377

***Physics 387,388. Topics in Quantum Optics and Molecular Physics**
Catalog Number: 5772,5774
Eric Mazur 7952

***Physics 389,390. Topics in Field Theory: The Standard Model and Beyond**
Catalog Number: 4393,2571
Lisa Randall 4255

***Physics 391,392. Experimental Atomic Physics, Biophysics, and Soft Matter Physics**
Catalog Number: 1006,2753
Ronald L. Walsworth 2263

***Physics 393,394. Topics in Elementary Particle Theory**
Catalog Number: 6051,6218
Howard Georgi 4754

***Physics 395,396. Topics in Elementary Particle Theory**
Catalog Number: 9844,9408
Nima Arkani-Hamed 3886

***Physics 397,398. Experimental Condensed Matter Physics**
Catalog Number: 7355,7356
Jene A. Golovchenko 1986

Political Economy and Government

Faculty of the Committee on Higher Degrees in Political Economy and Government

Kenneth A. Shepsle, George D. Markham Professor of Government *(Chair)*
Christopher N. Avery, Professor of Public Policy *(Kennedy School)*
Robert H. Bates, Eaton Professor of the Science of Government *(on leave fall term)*
Iris Bohnet, Assistant Professor of Public Policy *(Kennedy School)*
Daniel P. Carpenter, Professor of Government
Suzanne J. Cooper, Assistant Professor of Public Policy *(Kennedy School)*
Jeffry Frieden, Stanfield Professor of International Peace
Jerry R. Green, John Leverett Professor and David A. Wells Professor of Political Economy
Merilee Grindle, Edward S. Mason Professor of International Development and Lecturer on Public Policy *(Kennedy School)*
Elhanan Helpman, Galen L. Stone Professor of International Trade *(on leave spring term)*
Michael J. Hiscox, John L. Loeb Associate Professor of the Social Sciences
William W. Hogan, Lucius N. Littauer Professor of Public Policy and Administration *(Kennedy School) (ex officio)*
Torben Iversen, Professor of Government *(on leave spring term)*
Andrew Harriman Kydd, Associate Professor of Government
David I. Laibson, Professor of Economics
Lisa L. Martin, Clarence Dillon Professor of International Affairs *(on leave fall term)*
Nolan H. Miller, Assistant Professor of Public Policy *(Kennedy School)*
Joseph P. Newhouse, John D. MacArthur Professor of Health Policy and Management *(Kennedy School, Medical School, Public Health)*
Dwight H. Perkins, Harold Hitchings Burbank Professor of Political Economy *(on leave fall term)*
Kevin M. Quinn, Assistant Professor of Government
John Mark Ramseyer, Mitsubishi Professor of Japanese Legal Studies *(Law School)*
James Robinson, Professor of Government
Dani Rodrik, Rafiq Hariri Professor of International Political Economy *(Kennedy School)*
Alvin E. Roth, George Gund Professor of Economics and Business Administration *(FAS, Business School) (on leave spring term)*
Beth A. Simmons, Professor of Government
Robert N. Stavins, Albert Pratt Professor of Business and Government *(Kennedy School)*
Richard Tuck, Frank G. Thomson Professor of Government
Richard J. Zeckhauser, Frank Plumpton Ramsey Professor of Political Economy *(Kennedy School)*

The Doctoral Program in Political Economy and Government (PEG) is intended for scholars interested in academic or policy making careers requiring advanced knowledge of both Economics and Political Science. It is appropriate for students whose academic interests are not fully served by doctoral studies in Economics or Political Science alone. In Political Economy, candidates have intellectual interests in the impact of politics on economic processes and outcomes, and the reciprocal influence of economic conditions on political life. This interest is often applied to such diverse areas as international political economy, political development, political and economic institutions, institutional transition and reform, environmental resource policies, and social policy.

Candidates for the PEG degree are typically in residence for two years before undertaking the oral general examination. Satisfactory completion of the general examination is a prerequisite for writing a dissertation. Continuation of candidacy is contingent upon suitable progress and achievement during each academic year.

Applicants to this program must present their academic credentials, career plans, and a tentative outline of their proposed program of residence and research. All applicants must specify whether they are applying to the Economics track or the Political Science track. For a full description of the track requirements, visit the PEG website at www.ksg.harvard.edu/ksgdoctoral/peg. Recent scores from the aptitude portion of the Graduate Record Examination are required, as are transcripts for all prior study and letters of recommendation. Application forms and leaflets describing field and other requirements are available at the Graduate School of Arts and Sciences. For further information on faculty, programs, and courses in the John F. Kennedy School of Government, see the school's catalog and courses of instruction.

For more information about the doctoral program, visit the program website at www.ksg.harvard.edu/ksgdoctoral/peg.

Psychology

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Psychology

Daniel L. Schacter, William R. Kenan, Jr. Professor of Psychology *(Chair)*
Mahzarin R. Banaji, Richard Clarke Cabot Professor of Social Ethics *(FAS)* and Carol K. Pforzheimer Professor *(Radcliffe Institute) (on leave 2004-05)*
Tal David Ben-Shachar, Lecturer on Psychology
Alfonso Caramazza, Daniel and Amy Starch Professor of Psychology
Susan E. Carey, Henry A. Morss, Jr. and Elizabeth W. Morss Professor of Psychology *(on leave spring term)*
Shelley H. Carson, Lecturer on Psychology
Patrick Cavanagh, Professor of Psychology *(on leave 2004-05)*
Erin Driver-Linn, Lecturer on Psychology
Nicholas Epley, Assistant Professor of Psychology *(fall term only)*
L. Dodge Fernald, Lecturer on Psychology
Daniel T. Gilbert, Professor of Psychology
J. Richard Hackman, Professor of Social and Organizational Psychology
Marc D. Hauser, Harvard College Professor and Professor of Psychology *(on leave spring term)*

Jill M. Hooley, Professor of Psychology
Yuhong Jiang, Assistant Professor of Psychology
Stephen M. Kosslyn, John Lindsley Professor of Psychology *(on leave 2004-2005)*
Ellen J. Langer, Professor of Psychology
Richard J. McNally, Professor of Psychology
Wendy Mendes, Assistant Professor of Psychology
Ken Nakayama, Edgar Pierce Professor of Psychology *(Head Tutor)*
Matthew K. Nock, Assistant Professor of Psychology
Steven Pinker, Johnstone Family Professor of Psychology
Diego Pizzagalli, Assistant Professor of Psychology *(on leave 2004-05)*
Michael R. Rodriguez, Lecturer on Psychology, Allston Burr Senior Tutor in Adams House
Jesse Snedeker, Assistant Professor of Psychology *(on leave fall term)*
Debra Ann Sorensen, Lecturer on Psychology
Elizabeth S. Spelke, Marshall L. Berkman Professor of Psychology
Philip Stone, Professor of Psychology
Ruth J. Tincoff, Lecturer on Psychology, Teaching Assistant in Psychology
Robert Trivers, Visiting Professor of Psychology *(Rutgers University) (spring term only)*
Kristin Vickers, Lecturer on Psychology
Daniel M. Wegner, Professor of Psychology

Other Faculty Offering Instruction in the Department of Psychology

Lee Baer, Associate Professor for Psychology *(Medical School)*
Greg M. Barron, Assistant Professor of Business Administration *(Business School)*
Max H. Bazerman, Jesse Isidor Straus Professor of Business Administration *(Business School)*
Alan Dershowitz, Felix Frankfurter Professor of Law *(Law School)*
Kurt W. Fischer, Professor of Education *(Education School)*
Howard E. Gardner, Professor of Education *(Education School) (on leave spring term)*
Gene M. Heyman, Lecturer in Psychiatry *(Medical School)*
Jerome Kagan, Daniel and Amy Starch Research Professor of Psychology
William P. Milberg, Associate Professor of Psychiatry in the Department of Psychiatry *(Medical School)*
Robert A. Stickgold, Assistant Professor of Psychiatry *(Medical School)*
Alan A. Stone, Touroff-Glueck Professor of Law and Psychiatry *(Law School and Medical School)*
Mark Tramo, Assistant Professor of Neurology *(Medical School)*
Roberto Mangabeira Unger, Roscoe Pound Professor of Law *(Law School)*
Jeremy M. Wolfe, Professor of Opthalmology *(Medical School)*

For a list of other courses which automtically count for undergraduate concentration credit, please see the note under the cross-listed courses for Undergraduates and Graduates.

Primarily for Undergraduates

Psychology 1. Introduction to Psychology
Catalog Number: 0854

Daniel T. Gilbert (fall term) and Jeremy M. Wolfe (Medical School) (spring term)
Half course (fall term; repeated spring term). M., W., 1–2:30 and an hour section to be arranged. EXAM GROUP: 6, 7
Surveys the scientific study of human psychology. Introduces students to topics such as perception, consciousness, development, cognition, emotion, motivation, psychopathology, decision making, and social behavior.

Psychology 13. Cognitive Psychology
Catalog Number: 8706
Yuhong Jiang
Half course (fall term). Tu., Th., 10–11:30 and a weekly section to be arranged. EXAM GROUP: 12, 13
An introduction to the study of human cognition. Topics include attention, memory, categorization, perception, and language. We cover cognitive and neuroscience approaches to these questions.

Psychology 15. Social Psychology
Catalog Number: 4760
Ellen J. Langer (fall term) and Daniel M. Wegner (spring term)
Half course (fall term; repeated spring term). Tu., Th., 10–11:30; and a weekly section to be arranged. EXAM GROUP: 12, 13
An introduction to social psychological research and theory regarding everyday behavior. Topics include: social influence, attitude change, and obedience to authority; stereotyping and prejudice; social cognition; social interaction and group processes; interpersonal attraction; prosocial behavior; and everyday human judgment. We also discuss applications of social psychology to law, politics, education, and health.
Note: Enrollment limited to 60 in the fall term, 130 in the spring term.

Psychology 16. Developmental Psychology
Catalog Number: 1483
Ruth J. Tincoff
Half course (spring term). Tu., Th., 1:30–3 and a weekly section meeting to be arranged. EXAM GROUP: 15, 16
Introduces theory, empirical research, and applied issues in developmental psychology. Focuses on cognitive, linguistic, social and emotional aspects of development across the life course, with emphasis on infancy and childhood. Includes child observation and testing.
Prerequisite: Psychology 1 or equivalent.

Psychology 18. Abnormal Psychology
Catalog Number: 8560
Shelley H. Carson
Half course (fall term). Tu., Th., 11:30–1 and a weekly section to be arranged. EXAM GROUP: 13, 14
Introduction to the study of psychopathology. Focuses on theoretical models of abnormal behavior as they relate to the definition, etiology, and treatment of mental disorders. Diagnostic classification, behavioral, and biological features of the major syndromes of psychopathology

emphasized.
Prerequisite: An introductory course in psychology.

***Psychology 910r. Supervised Research**
Catalog Number: 1472
Ken Nakayama and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Independent empirical research (laboratory or field) conducted under the supervision of a departmental faculty member. Research report or equivalent paper required. Apply for admission through the Psychology Undergraduate Office. Students may take course only once for honors concentration credit, up to twice for non-honors concentration credit, and up to three times for College credit.

***Psychology 970. Contemporary Issues in Psychology: Intensive Cross-level Analyses**
Catalog Number: 8008
Ken Nakayama and members of the Department
Full course. Hours to be arranged.
Examines selected issues and phenomena addressed in contemporary psychological research. Special attention to examining topics from a variety of perspectives, to reading primary sources in the field, and to developing thinking, writing, research, and discussion skills. This tutorial, or Psychology 971, is required of concentrators upon entering the concentration, normally in the sophomore year. Sophomore Essay required. Letter-graded.
Prerequisite: Psychology 1 or concurrent enrollment.

***Psychology 971. Contemporary Issues in Psychology: Intensive Cross-level Analyses**
Catalog Number: 3498
Ken Nakayama and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Examines selected issues and phenomena in contemporary psychological research. Examines topics from a variety of perspectives; reads primary sources in the field; develops thinking, writing, research, and discussion skills. Students must contact the Psychology Undergraduate Office before Study Cards are due for section assignment. Sophomore essay required. Letter graded.
Note: Required in lieu of Psychology 970 for students entering the concentration after the first semester of the sophomore year, and an additional concentration elective is required to fulfill the full-year tutorial requirement.
Prerequisite: Psychology 1 or concurrent enrollment.

***Psychology 980aa. Psychopharmacology: Theory and Cases**
Catalog Number: 8391
Ken Nakayama and members of the Department.
Half course (fall term). Tu., 4–6. EXAM GROUP: 18
An introduction to psychopharmacology with an emphasis on how psychoactive agents are developed and tested. Emphasizes both theory and practical problems in conducting clinical trials. Examples include St. John's wort for depression, omega-3 fatty acids for bipolar disorder, and hormonal supplements for psychiatric disorders. Background in basic neurobiology

(neurons, receptors, and neurotransmitters) is assumed.
Prerequisite: Biological Sciences 80 or permission of instructor.

[*Psychology 980n. Behavioral Genetics Seminar]
Catalog Number: 0204
Ken Nakayama and members of the Department
Half course (spring term). Hours to be arranged.
Begins by discussing genetic methods used to study individual differences in human and animal behaviors. Then attempts to understand the causes of psychopathology from this behavioral genetic perspective. Additionally, examines genetic influence on individual differences in the areas of personality and cognition.
Note: Expected to be given in 2005–06.
Prerequisite: Psychology 1 and Biological Sciences 80 or Biological Sciences 50 or permission of instructor.

***Psychology 980p. The Nature of Memory**
Catalog Number: 3497
Ken Nakayama and members of the Department.
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
Memory is the essence of the self, and even when we are not aware of it, our memories guide our current actions. Seminar draws on theory and research from cognitive psychology, neuropsychology, behavioral neuroscience, and neurobiology to examine what memory is and how it changes across the developmental lifespan.

***Psychology 980q. Patient-Based Cognitive Neuroscience**
Catalog Number: 4423
Ken Nakayama and members of the Department.
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
Examines how studies of brain-damaged patients have shaped our understanding of the neural bases of cognition. Patient-based studies of memory, language, perception, attention, self, and emotion are discussed. Topics include the lesion method in cognitive neuroscience, hemispheric specialization, memory systems, language processing, perception, spatial processing, and the notion of self. Limitations of patient-based research are discussed.

[*Psychology 980r. Theories of Consciousness]
Catalog Number: 4801
Ken Nakayama and members of the Department.
Half course (spring term). Hours to be arranged.
What is the source of consciousness? Reviews conscious and unconscious phenomena and then examines current research and theory aimed at identifying the neuroscientific explanation of consciousness. Concludes with an evaluation of the existing evidence for and against the most plausible theories to date.
Note: Expected to be given in 2005–06.
Prerequisite: PSY 13 or equivalent or permission of instructor.

***Psychology 980s. Social and Affective Neuroscience**
Catalog Number: 4826 Enrollment: Limited to 15. Preference given to undergraduates who have completed sophomore tutorial.
Ken Nakayama and members of the Department.
Half course (fall term). Tu., 4–6. EXAM GROUP: 18
Social and affective neuroscience applies the tools traditionally used to study cognition (neuroimaging, neuropsychology) to better understand social processes and how they interact with cognitive ones. Discusses research addressing questions including: What processes in the brain lead us to feel disgust? To understand the mental states of others? To evaluate risk? How are these processes affected by our moods and motivational states?

***Psychology 980t. Psychology of Action**
Catalog Number: 1334
Ken Nakayama and members of the Department.
Half course (fall term). M., 4–6. EXAM GROUP: 9
Why do we act the way we do? How much of our behavior is really under our control? Begins with overview of implicit versus explicit processes and then uses that distinction to examine the psychological roots of behavior. Concludes with an exploration of current research on the psychology of action.

[*Psychology 980u. Love and Relationships]
Catalog Number: 2869
Ken Nakayama and members of the Department.
Half course (spring term). Hours to be arranged.
Addresses various aspects of love and relationships. Not only covers romantic relationships but also examines them in the context of family and friendship. Topics include the neurobiological bases of love, the effect of love on cognition and health, gender differences in the expression of love, and cross-cultural norms for expressing love and affection.
Note: Expected to be given in 2005–06.

***Psychology 980v. The Insanity Defense**
Catalog Number: 6942
Ken Nakayama and members of the Department.
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Explores, through case materials and empirical research, the insanity defense in the legal system and its impact on psychology, law, and society. Topics include history of the defense; the relation among psychopathology, insanity, and diminished capacity; effects of different standards for determining insanity; arguments for its retention, abolition, and revision; media and other responses; controversies surrounding pre- and post-conviction commitment; and the roles of psychologists and lawyers in defining, implementing, and questioning the defense.

***Psychology 980w. Risk and Resilience**
Catalog Number: 6713
Ken Nakayama and members of the Department.
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
Adverse situations such as poverty and child abuse put people at risk for various problems, and

yet some people in such situations have a remarkably resilient outcome. Covers risk and resiliency factors in consideration of normal development, achievement, and psychopathology.

[*Psychology 980x. Stress and Coping]
Catalog Number: 4413
Ken Nakayama and members of the Department.
Half course (fall term). Hours to be arranged.
Addresses the neurobiological, psychological, and social aspects of stress and how people cope with stress. Issues addressed will include: What is the effect of stress on the brain? How do an individual's attitude and cognitions interact with stress levels? How does stress impact platonic and romantic relationships? Are there gender differences in how people handle stress?
Note: Expected to be given in 2005–06.

***Psychology 980y. Interfaces of Clinical and Social Psychology**
Catalog Number: 2699
Ken Nakayama and members of the Department.
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Examines the rich interplay in theory and research between clinical and social psychology, focusing on the role of social psychological processes in the development and maintenance, perception and diagnosis, and clinical treatment of psychopathological disorder. Topics covered will include social components of anxiety and mood disorders, the relationship between self-esteem and aggression, social cognitive processes in counseling and therapy, and the influence of culture on diagnosis and treatment of mental disorders.

***Psychology 980z. Unconscious Cognition and the Automaticity of Everyday Life**
Catalog Number: 9302
Ken Nakayama and members of the Department.
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
How much free will do people truly have? To what extent are our thoughts, feelings, and actions under our conscious control? Reviews recent perspectives in social and cognitive psychology on the role of implicit, or unconscious, cognition in mental life. Examines implicit processes in a range of mental phenomena, including memory, intuition, attitudes, stereotyping and prejudice, subliminal persuasion, and the self. Also considers the bidirectional interplay of implicit and explicit mental processing.

***Psychology 985. Junior Tutorial: Honors Thesis Preparation**
Catalog Number: 2343 Enrollment: Normally limited to junior psychology concentrators.
Ken Nakayama and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised reading and research normally resulting in an honors thesis prospectus. Supplemental group meetings to discuss topic and adviser selection, methodology, prospectus writing, and the prospectus meeting. Admission to course via application (available in Psychology Undergraduate Office). Graded SAT/UNS. Full prospectus or term paper required.
Prerequisite: Advanced methods course or concurrent enrollment.

Psychology 987. Junior Tutorials: Mind/Brain/Behavior

Interdisciplinary seminars that address currect research topics in mind/brain/behavior from a variety of perspectives. Enrollment preference given to juniors in Mind/Brain/Behavior tracks.

***Psychology 987b. Ear, Brain, and Music**
Catalog Number: 7107
Mark Tramo (Medical School)
Half course (spring term). W., 6:30–9:30 p.m. EXAM GROUP: 9
Takes a multidicisciplinary approach to understanding neural systems that govern music perception and cognition. Students master relevant topics in psychophysics, cognitive psychology, neurophysiology, neuroanatomy, and neurology. Individual seminars are thematic and examine a particular subject (e.g., melody perception; talent) from these multiple perspectives.

***Psychology 987c. Multidisciplinary Perspectives on Drug Policy**
Catalog Number: 1082
Marc D. Hauser and members of the Department
Half course (fall term). Th., 7:30–9:30 pm. EXAM GROUP: 18
Applies the perspectives of law, molecular psychiatry, psychology, epidemiology, and sociology to problems of substance abuse, focusing on cocaine and other illegal drugs. Considers fundamental public policy choices in the criminal justice and health care systems and suggests a closer working relationship between these systems, especially in urban poverty areas. Examines strategies to address substance abuse. Readings from neurobiology, psychiatry, psychology, public health, public policy, law, and history.

***Psychology 987f. The Biology of Conscious States: Waking, Sleeping, and Dreaming**
Catalog Number: 3372
Robert A. Stickgold (Medical School) and members of the Department
Half course (spring term). Tu., 3–5. EXAM GROUP: 17, 18
Focuses on waking, sleeping, and dreaming as examples of conscious states in both humans and animals. Original papers and books by Allan Hobson (*The Dreaming Brain*) and Antonio Damasio (*The Feeling of What Happens*) form the background for discussions of waking, sleeping, and dreaming from the perspectives of neurology, physiology, psychology, and cognitive neurosciences. Discusses various approaches to understanding the functions of sleep and wake (consciousness) and reviews several theories on the topic.

***Psychology 987g. Theories of Violence**
Catalog Number: 7611 Enrollment: Limited to 20.
Alan A. Stone (Law School and Medical School)
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Consider how law and science"construct" violence. Review clinical examples of violence (videotapes of a serial killer, a sexually violent predator, and a case of maternal infanticide) and the responses of law enforcement and the criminal justice system. Then examine the spectrum of scientific theories that seek to explain human violence and their relevance to law.

***Psychology 987h. Addiction, Behavior, and Choice**
Catalog Number: 5541
Gene M. Heyman (Medical School)

Half course (fall term). Tu., 4–6. EXAM GROUP: 18
What is addiction? Applies epidemiological, ethnographic, biological, and behavioral research to questions concerning how drug users behave. Topics include the history of opiate use, drug psychopharmacology, behavioral economic analyses of addiction, genetic influences on drug use, obsessive behavior, brain plasticity, and ways of distinguishing between voluntary and involuntary behaviors.

***Psychology 987i. The Science of Happiness**
Catalog Number: 4100
Elizabeth Spelke and members of the Department
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Focuses on the science of happiness, integrating findings from positive psychology, psychiatry, behavioral genetics, neuroscience, and behavioral economics. Begins with a brief history of ideas on happiness from Aristotle to Kahneman. Considers the genetics of happiness including the notion of a biologically determined hedonic set point, the brain's pleasure circuitry, and the mind's power to frame events positively, a tool used in cognitive therapies. Questions whether pleasure and happiness are our purpose.

***Psychology 987k. Neurobiological Approaches to Conscious Visual Perception and Other Modalities of Conscious Experience**
Catalog Number: 7336
Elizabeth S. Spelke and members of the Department.
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Dehaene and Changeux suggest that "understanding consciousness has become the ultimate intellectual challenge of the new millennium." Join a host of preeminent researchers and scholars as we explore the fundamental questions concerning the neural correlates of conscious sensory experience (with a special focus on conscious visual perception) as well as several other modalities of conscious experience, including ideation and language. How can experimental and theoretical neurobiological and neuropsychological approaches help us understand conscious experience itself?

Senior Tutorial

***Psychology 990. Senior Tutorial: Honors Thesis in Psychology**
Catalog Number: 3553 Enrollment: Required of and limited to senior honors psychology concentrators.
Ken Nakayama and members of the Department
Full course. Hours to be arranged.
Individual supervised thesis research supplemented with occasional group meetings Tuesdays at 4 pm to discuss major aspects of the thesis process (e.g., organizing, conducting, and presenting research). Graded Sat/Unsat. Prospectus meeting required for fall term credit, as well as a paper for students who divide course at mid-year. Submission of thesis required for full year credit. *Prerequisite:* Advanced methods course.

***Psychology 992. Senior Tutorial: Honors Thesis (Mind/Brain/Behavior)**
Catalog Number: 4990

Ken Nakayama and members of the Department
Full course. Hours to be arranged.
Supervised research leading to the submission of the senior honors thesis. Individual work with thesis adviser is supplemented by participation in Mind/Brain/Behavior Interdisciplinary Research Workshop as well as by optional but highly recommended group meetings occasional Tuesdays at 4 pm. Graded SAT/UNSAT. Prospectus meeting required for fall term credit; paper also required for students who divide course at mid-year. Submission of thesis required for full-year credit.
Note: Required of and limited to seniors in the MBB tracks in psychology, who will take this tutorial in lieu of Psychology 990.
Prerequisite: An advanced methods course.

***Psychology 995. Senior Seminar: General Psychology**
Catalog Number: 5201 Enrollment: Limited to 12.
L. Dodge Fernald and Erin Driver-Linn (spring term)
Half course (fall term; repeated spring term). Fall: M., 1-3 (Fernald); Spring: M., 1-3 (Fernald), or Th., 1–3 (Driver-Linn). EXAM GROUP: 6, 7
A capstone course aimed at an integrated review of the field through seminar discussions, oral reports, field experience, practitioner interviews, and independent research projects. Focus is upon the perspectives and prescriptions in contemporary psychology.
Note: Designed for senior concentrators not engaged in an honors thesis.

Cross-listed Courses

Biological Sciences 50. Genetics and Genomics
Biological Sciences 51. Integrative Biology of Organisms
Biological Sciences 53. Evolutionary Biology
Biological Sciences 80. Behavioral Neuroscience
***Freshman Seminar 23s. The Seven Sins of Memory**
***Freshman Seminar 46g. Changing Conceptions of Leadership**
Science B-29. Evolution of Human Nature
[Science B-44. Vision and Brain]
Science B-60. Origins of Knowledge
Science B-62. The Human Mind
Social Analysis 43. Psychological Trauma

For Undergraduates and Graduates

Psychology 1001. Human Nature
Catalog Number: 1781
Steven Pinker and Roberto Mangabeira Unger (Law School)
Half course (spring term). Tu., 6–8 pm. EXAM GROUP: 18
Theories of human nature and their implications. Is there a human nature? If so, what is it? What competing images of humanity are found in religion, art forms, social and political theories, and psychology, biology, and neuroscience? Can we change what we are? Is law a lever of behavior modification with a theory of human nature as its fulcrum? How might new approaches to

human nature affect the organization of the university?
Note: Jointly offered with the Law School as 38220-1/38220-32

***Psychology 1152r. Animal Cognition: Laboratory**
Catalog Number: 1805 Enrollment: Limited to 12.
Marc D. Hauser
Half course (fall term; repeated spring term). M., 5:30–7:30 pm plus 10-12 hours of lab work per week. EXAM GROUP: 9
An introduction to issues, laboratory techniques, and field methodology in animal cognition. Students develop and pilot research projects. Empirical research is accompanied by a critical reading and discussion of papers on such topics as language evolution, concept acquisition, acoustic perception, and domain-specific knowledge.
Note: Preference given to psychology undergraduates and students in the Mind/Brain/Behavior program. SPRING: First meeting on Wed., February 2, 5:30–7:30 pm in William James Hall.
Prerequisite: Science B-29 or BS 57 or permission of instructor.

Psychology 1304. Cognitive Neuropsychology
Catalog Number: 2419
Alfonso Caramazza
Half course (fall term). Tu., 1–3:30. EXAM GROUP: 15, 16, 17
Examines the patterns of linguistic, perceptual, and cognitive impairments resulting from brain damage. Focuses on the implications of various deficits on theories of normal language and cognitive processing and the functional organization of the brain.
Prerequisite: Psychology 1.

[*Psychology 1350. Memory and Amnesia: Seminar]
Catalog Number: 6014
Daniel L. Schacter
Half course (fall term). Hours to be arranged.
Examines memory and amnesia from cognitive, neuropsychological, evolutionary, and psychobiological perspectives. Focuses on the idea that memory problems can be divided into seven fundamental types: transcience, absent-mindedness, blocking, misattribution, suggestibility, bias, and persistence.
Note: Expected to be given in 2005–06.

***Psychology 1356r. Laboratory in Language Research**
Catalog Number: 5158
Alfonso Caramazza
Half course (fall term; repeated spring term). M., 1–2:30 plus 8 hours a week of laboratory time. EXAM GROUP: 6, 7
An introduction to issues and methods in language research. Students learn to design and carry out experiments on language and cognition. They also learn how to analyze, interpret, and report experimental results.
Prerequisite: Psychology 13.

Psychology 1501. Social Psychology of Organizations
Catalog Number: 0823 Enrollment: Limited to 45.
J. Richard Hackman
Half course (fall term). Tu., Th., 8:30–10; and a weekly section meeting to be arranged. EXAM GROUP: 10, 11
Surveys interpersonal and group processes in organizational settings. Includes how groups and organizations affect individual members and vice versa; interpersonal and group processes; work team behavior and performance; power dynamics in organizations; intergroup relations; the leadership of groups and organizations. Group project required.
Prerequisite: Psychology 1.

Psychology 1502. Applied Social Psychology
Catalog Number: 4239
Philip Stone
Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12
Examines aspects of responsible leadership including trust, principled negotiation, grounded decision-making, reward systems, and person/job matches in ways that capitalize upon personal strengths, intrinsic engagement, and diversity.
Note: Open to students without prior background in psychology. Regular lecture attendance and section participation required.

[*Psychology 1503. Psychology and Law]
Catalog Number: 3707 Enrollment: Limited to 140.

Half course (fall term). Hours to be arranged.
Compares legal and psychological approaches to human behavior and considers their interaction. Includes criminal profiling, trials and juries, insanity defense, eyewitness identification, commitment, child custody, human experimentation, punishment. Focuses on case studies and on research.
Note: Expected to be given in 2005–06. Graduate and professional students and students who have taken Psychology S-1870 not admitted.

Psychology 1504. Positive Psychology
Catalog Number: 8646
Tal Ben-Shahar
Half course (fall term). M., W., (F.), at 12 and a weekly section to be arranged. EXAM GROUP: 5
The course focuses on the psychological aspects of a fulfilling and flourishing life. Topics include happiness, self-esteem, morality, empathy, friendship, love, achievement, creativity, music, spirituality, and humor.

***Psychology 1557. Self and Identity: Seminar**
Catalog Number: 0491
Erin Driver-Linn
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7

Examines what William James called "the most puzzling puzzle with which psychology has to deal." Emphasizes social psychological research, draws on philosophy and other areas of psychology to address the following questions: (1) reflexivity - how does being the object of one's own attention affect the structure of the self-concept? (2) constancy - how is the self-concept both fluid and stable? (3) relativity - how do relationships and cultures influence self-processes and vice versa?
Note: The first class for PSY 1557 will be held Friday, 9/24/04 from 1-3 in William James Hall, Rm. 6.

***Psychology 1563. Psychological Themes in Text: Seminar**
Catalog Number: 9275
Philip Stone
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Reviews research on psychological themes in texts, including projective tests, survey responses, focus-group discussions, campaign speeches, editorials, published correspondence, children's stories, popular song lyrics, and corporate reports. Computer-based procedures for analyzing themes, including sentiments, attitudes, cognitive complexity, and attributions.
Note: Open to students in all fields. No prior psychology courses presumed.

[*Psychology 1564. Designs for a Positive Psychology: Seminar]
Catalog Number: 6442 Enrollment: Limited to 25.
Philip Stone
Half course (fall term). Hours to be arranged.
Topics include psychological research on self-esteem, intrinsic motivation, focus, flow, well-being, positive affect, gratitude, authenticity, humility, empathy, altruism, forgiveness, compassion, bonding, love, spirituality, discovery, creativity, wisdom, efficacy, resilience, mindfulness, hope, and meaningfulness.
Note: Expected to be given in 2005–06.

***Psychology 1565. Conscious Will**
Catalog Number: 4113 Enrollment: Limited to 20.
Daniel M. Wegner
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
What causes the feeling that we cause our actions? Examines questions of free will vs. determinism, mind vs. body by probing anomalies of will, from phantom limbs and Ouija boards to hypnosis and spirit possession.
Note: Preference given to undergraduate concentrators.
Prerequisite: Either Psychology 1 or Psychology 15.

***Psychology 1569. Psychosocial Aspects of HIV/AIDS**
Catalog Number: 6546 Enrollment: Limited to 15.
Michael R. Rodriguez
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
Examines current literature on the impact of HIV and AIDS on individuals and communities. Using an interdisciplinary perspective, explores topics including prevention, bereavement, stigma, homophobia, collective identity, resilience, stress and coping, survivor guilt, and

altruism.
Prerequisite: An introductory course in psychology or permission of the instructor.

Psychology 1603. Adolescent Development
Catalog Number: 6916
Debra Ann Sorensen
Half course (spring term). M., W., at 1. EXAM GROUP: 6
Adolescence is a fascinating time of life because of the vast physical and psychological changes that occur. Examines the biological changes that accompany puberty, cognitive development, identity formation, parent and peer relationships, gender, sexuality, cultural context, and ethnicity. Problems of adolescence, such as substance abuse, eating disorders, and risky behavior will be considered as well.

[Psychology 1606. Language Acquisition]
Catalog Number: 4632
Jesse Snedeker
Half course (fall term). Hours to be arranged and a weekly section meeting to be arranged.
Introduces theories of language acquisition. Topics include early speech perception; word learning; acquisition of phonology, morphology, and syntax; development of pragmatic and metalinguistic knowledge; developmental changes in language comprehension and production; and adult language processing.
Note: Expected to be given in 2005–06.

Psychology 1607 (Formerly Psychology 1202 and Psychology 1604). Cognitive Development, Education, and the Brain
Catalog Number: 9014
Kurt W. Fischer (Education School) and Howard E. Gardner (Education School)
Full course (indivisible). Fall: M., W., 10–12; Spring: M., W., 12–2. EXAM GROUP: Fall: 3, 4; Spring: 5, 6
An integrative survey of knowledge and research in cognitive development and neuroscience from infancy through early adulthood. Topics include normal cognitive and emotional development and brain development and their relation to learning and education.
Note: Offered jointly with the Graduate School of Education as HT 100.

***Psychology 1652r. Laboratory in Early Cognitive Development**
Catalog Number: 9913
Elizabeth S. Spelke
Half course (fall term; repeated spring term). Tu., 2–4. EXAM GROUP: 16, 17
An introduction to issues and methods in the study of cognition in human infants and young children. Students develop their own research projects, evaluate the ongoing and proposed projects of other students, and read and discuss papers on the development of perception and reasoning about objects, agents, space, and number.

***Psychology 1655. Conceptual Development: Research Seminar**
Catalog Number: 1865 Enrollment: Open to undergraduates doing theses in the instructor's laboratory.

Susan E. Carey
Half course (fall term). Hours to be arranged.
Students participate in research on conceptual development and language acquisition. Each student has responsibility for a project. Weekly meeting to discuss assigned readings relevant to ongoing projects. Ten hours a week commitment (includes lab meeting).

***Psychology 1658. Infancy: Seminar**
Catalog Number: 0197 Enrollment: Limited to 15.
Ruth J. Tincoff
Half course (fall term). Tu., 3–5. EXAM GROUP: 17, 18
Examines the premise that human infants have evolved adaptations for eliciting care and gathering information, thus increasing their chances of survival. Topics include crying and communication, sleep and feeding, memory, face and voice recognition, categories, theory of mind, imitation, learning mechanisms, historical and cross-cultural aspects of infant care, and implications for social policy.
Prerequisite: Psychology 16 or SB 60 or permission of instructor.

***Psychology 1659. Social Development: Seminar**
Catalog Number: 6880 Enrollment: Limited to 15.
Ken Nakayama and members of the Department
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
This seminar explores current research regarding infant and child social development. Topics include face recognition, attachment, self awareness, social cognition, interpersonal communication, shyness, moral development, gender identity, family and peer relationships, and other aspects of social development.

[Psychology 1701. Personality Psychology]
Catalog Number: 4538

Half course (spring term). Hours to be arranged, and a weekly section to be arranged.
Introduction to personality psychology. Reviews the major developments and debates in the area of personality. Covers a variety of approaches to understanding individual differences, including temperament, traits (factor analytic models), cognitive models, behavioral genetics, neurobiological processes, and person situation interaction.
Note: Expected to be given in 2005–06.
Prerequisite: An introductory course in psychology, preferably Psychology 1.

Psychology 1703. Human Sexuality
Catalog Number: 7683
Michael R. Rodriguez
Half course (spring term). M., W., 1–2:30, and a weekly section to be arranged. EXAM GROUP: 6, 7
Examines the development and expression of sexual behavior as a complex psychological, socio-cultural, biological, and historical phenomenon. Students explore topics that include: research methods in human sexuality; biological bases of sexual behavior; sexual arousal and response; gender identity and gender roles; attraction and love; sexual orientation; sexuality across the life

cycle; sexual dysfunctions and sex therapy; safer sex and STD prevention; atypical sexual variations; and sexual coercion and abuse and their treatment.

Psychology 1704. Creativity: Geniuses, Madmen, and Harvard Students
Catalog Number: 2386
Shelley H. Carson
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
We address the developmental, biological, phenomenological, and social aspects of creativity, including the interface between creativity and psychopathology. Empirical literature and case studies of famous artists and scientists enhance our understanding of creativity.

***Psychology 1756. Personality Psychology and Organizations: Seminar**
Catalog Number: 7835
Tal Ben-Shahar
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
How can the study of the person inform our understanding of the workplace? Course examines personality theories as they relate to leaderships, motivation, performance, and well-being in the context of an organization.

Psychology 1801. Anxiety Disorders
Catalog Number: 4906
Richard J. McNally
Half course (spring term). M., W., 2:30–4. EXAM GROUP: 7, 8
Concerns current theory and research on the etiology and treatment of anxiety disorders (e.g., panic disorder, obsessive-compulsive disorder, social phobia, post-traumatic stress disorder). Cognitive, behavioral, and biological approaches are emphasized.
Prerequisite: Psychology 18.

[Psychology 1808. Neurobiological Aspects of Psychopathology]
Catalog Number: 9917
Diego Pizzagalli
Half course (spring term). Hours to be arranged.
A neurobiological perspective to the study of psychopathology. Integrates anatomical, chemical, and electrical data to characterize affective and cognitive dysfunctions. Includes sections on neuroanatomy, animal models, and current evidence on the neuroanatomical basis of psychopathology.
Note: Expected to be given in 2006–07.
Prerequisite: Psychology 18 or Biological Sciences 80 recommended.

***Psychology 1851. Introduction to Clinical Science**
Catalog Number: 6392 Enrollment: Limited to 15.
Jill M. Hooley
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Extends the material covered in Psychology 18 in a more clinical direction. Provides students with an opportunity to approach issues in clinical psychology from a scientist-practitioner perspective. Focuses on how research-based approaches to the study and treatment of

psychopathology can translate into high quality ethical care for patients with major psychiatric problems.
Prerequisite: Psychology 18, and at least one other course in psychopathology strictly required.

***Psychology 1853. Self-Destructive Behaviors**
Catalog Number: 0615
Matthew K. Nock
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
Why do some individuals intentionally engage in behaviors that cause themselves direct bodily harm, such as suicide and self-mutilation? We explore past and current models for understanding self-harm behaviors. We consider the classification, etiology, assessment, and treatment of self-harm behaviors from psychological, developmental, contextual, and biological perspectives.
Prerequisite: Psychology 1 and Psychology 18.

[Psychology 1854. Schizophrenia: Seminar]
Catalog Number: 2771 Enrollment: Limited to 20.
Jill M. Hooley
Half course (fall term). Hours to be arranged.
Examines schizophrenia and schizophrenia-spectrum disorders from biological, psychological, and psychosocial perspectives. Focuses on early (e.g., Kraepelin) and modern (e.g., DSM-IV) perspectives, clinical case descriptions of the disorder, and recent theoretical and empirical developments in understanding etiology, phenomenology, and treatment.
Note: Expected to be given in 2005–06.
Prerequisite: Psychology 18.

[*Psychology 1855. Mood Disorders]
Catalog Number: 6867
Diego Pizzagalli
Half course (spring term). Hours to be arranged.
We examine current theory and research on the etiology, phenomenology, and treatment of mood disorders, particularly depressive disorders. Cognitive, behavioral, and biological approaches are emphasized.
Note: Expected to be given in 2005–06.
Prerequisite: Psychology 18.

***Psychology 1857 (formerly *Psychology 1803). Eating Disorders: Seminar**
Catalog Number: 4992 Enrollment: Limited to 15.
Kristin Vickers
Half course (spring term). W., 6–8 pm. EXAM GROUP: 9
Examines the diagnosis, epidemiology, etiology, assessment, and treatment of eating disorders, including anorexia nervosa, bulimia nervosa, binge eating disorder, and subclinical eating disorders. Theories of appetite control and weight regulation also covered.
Prerequisite: An introductory course in psychology.

***Psychology 1861. Developmental Psychopathology: Seminar**
Catalog Number: 1325 Enrollment: Limited to 20.

Shelley H. Carson
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
An overview of mental disorders in childhood and adolescence. Topics include internalizing problems (anxiety, depression, suicide, and somatic disorders), externalizing problems (conduct disorder and ADHD), and autism. Theoretical perspectives, diagnostic criteria, etiology, treatment, and risk and protective factors are examined.
Prerequisite: Psychology 1 or 18.

Psychology 1900. Introduction to Statistics for the Behavioral Sciences
Catalog Number: 4016
Matthew K. Nock
Half course (fall term). M., W., F., at 10 and a weekly lab section to be arranged. EXAM GROUP: 3
Provides a conceptual and practical introduction to statistics used in psychology and other behavioral sciences. Covers basic topics in statistics including: measures of central tendency and variability; probability and distributions, correlations and regression, hypothesis testing, t-tests, analysis of variance, and chi-square tests. Includes a lab section with instruction in statistical analysis using a computer program.
Note: Open to freshmen with permission of instructor.

Psychology 1901. Methods of Behavioral Research
Catalog Number: 3811
Wendy Mendes (fall term) and Kristin Vickers (spring term)
Half course (fall term; repeated spring term). Fall: Tu., Th., 10–11:30; Spring: Tu., Th., 2:30–4. EXAM GROUP: Fall: 12, 13; Spring: 16, 17
Theoretical and practical introduction to planning, conducting, reporting, and evaluating research in the social and behavioral sciences. Topics include experimental design, reliability and validity, experimental artifacts, and analysis of published research.
Prerequisite: Psychology 1900, Statistics 100, 101, 102, 104, or the equivalent.

***Psychology 1951. Intermediate Quantitative Methods**
Catalog Number: 8674
Lee Baer (Medical School)
Half course (fall term). M., W., 1–2:30, and a weekly section to be arranged. EXAM GROUP: 6, 7
Emphasizes analysis of variance (between group, within subject, and mixed) designs for applied behavioral research. Additional topics include reliability, statistical power, effect size, and meta-analysis.
Prerequisite: Psychology 1900, Statistics 100, 101, 102, 104, or the equivalent. Facility with at least one computer statistics package, and normally first- or second-year student standing in the Psychology graduate program.

***Psychology 1952. Multivariate Analysis in Psychology**
Catalog Number: 6191
Lee Baer (Medical School)
Half course (spring term). M., W., 1–2:30 and a weekly section to be arranged. EXAM GROUP:

6, 7
Emphasizes multiple regression analysis and factor analysis. Additional topics include multivariate analysis of variance, discriminant analysis, and logistic regression.
Prerequisite: Psychology 1951, facility with at least one computer statistics package, and normally first-or second-year student standing in the psychology graduate program.

Cross-listed Courses

[History of Science 171. Narrative and Neurology]
[History of Science 175. Madness and Medicine: Themes in the History of Psychiatry]
[History of Science 176. Evolution and the Mind: Conference Course]
[History of Science 177. Stories Under the Skin: The Mind-Body Connection in Modern Medicine]

Primarily for Graduates

***Psychology 2010. Contemporary Topics in Psychological Research**
Catalog Number: 6515
Daniel L. Schacter and members of the Department
Half course (fall term). M., Th., 4–6. EXAM GROUP: 9, 18
Advanced survey of research topics in experimental, personality, developmental, and social psychology.
Note: Required of, and limited to, first-year doctoral students in the department of Psychology.

***Psychology 2020ab. Cognition, Brain, and Behavior: Proseminar**
Catalog Number: 7860
Alfonso Caramazza and members of the Department
Full course (spring term). Tu., Th., 2–4. EXAM GROUP: 16, 17
Advanced survey of research topics in cognition, brain, and behavior.
Note: Required of, and limited to, first-year graduate students in the CBB program.

[*Psychology 2040. Contemporary Topics in Psychopathology]
Catalog Number: 4628 Enrollment: Doctoral students only.
Jill M. Hooley
Half course (spring term). Hours to be arranged.
Advanced survey of current topics in experimental psychopathology.
Note: Expected to be given in 2005–06. Required of first- or second-year graduate students in the psychopathology area.

[*Psychology 2050. History of Psychology: Seminar]
Catalog Number: 3378
Richard J. McNally
Half course (spring term). Hours to be arranged.
Covers major issues, theories, schools of thought, and controversies integral to the development of psychology from the late 19th century to the middle of the 20th century. Readings include

classic articles exemplifying these themes.
Note: Expected to be given in 2005–06. Undergraduates admitted with permission of instructor.

***Psychology 2100. Research Methodology**
Catalog Number: 8552
J. Richard Hackman
Half course (spring term). Tu., Th., 8:30–10. EXAM GROUP: 10, 11
How to conduct empirical research, primarily with human participants. Topics include formulating problems, design strategies, developing and validating concepts, designing and assessing measures and manipulations; issues in data collection, analysis, and interpretation; and publishing findings.
Note: Offered jointly with the Business School as 4080. Limited to doctoral students.

[*Psychology 2170. Developmental Proseminar]
Catalog Number: 6883
Elizabeth S. Spelke
Half course (fall term). Hours to be arranged.
Proseminar in conceptual development and language acquisition.
Note: Expected to be given in 2005–06. Open to all graduate students in the department; required of all first-year students in the Psychology Department Developmental Program. Open to others by permission of the instructor.

[*Psychology 2180. Concepts and Theories: Computational Models]
Catalog Number: 5200

Half course (fall term). Hours to be arranged.
Introduction to computational theories of cognition, with a focus on the structure and acquisition of concepts and intuitive theories.
Note: Expected to be given in 2005–06.
Prerequisite: A course in cognitive science and a course in probability or statistics.

***Psychology 2190. Topics in Language Acquisition**
Catalog Number: 2529
Jesse Snedeker
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
Examines basic issues in the development of language. Focuses on mid-level language: word segmentation, word learning, the development of basic clausal syntax, and the interaction between language acquisition and language processing.

[*Psychology 2270. Research in Language Acquisition]
Catalog Number: 0770
Jesse Snedeker
Half course (spring term). Hours to be arranged.
Research seminar open to graduate students and advanced undergraduates conducting research in language acquisition.
Note: Expected to be given in 2005–06.

[*Psychology 2300r. Perception, Cognition, and Representation: Seminar]
Catalog Number: 8369
Patrick Cavanagh
Half course (spring term). Hours to be arranged.
Discussion of issues in perception, attention, and cognition.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

[*Psychology 2310. The Neuroscience of Law: Can a Legal System be Grounded in Knowledge about the Brain?]
Catalog Number: 8722 Enrollment: Limited to 20.
Stephen M. Kosslyn and Alan Dershowitz (Law School)
Half course (spring term). Hours to be arranged.
Can a legal system be based on knowledge of the brain? Discusses implications of neuroscience on the characterization of human nature, the relation between genes, brain, and social interactions, and determination of right vs. wrong.
Note: Expected to be given in 2005–06. Preference given to upper-level undergraduates and to graduate students. Offered jointly with the Law School as 44041-31.

***Psychology 2320. Applying fMRI to Cognitive Research**
Catalog Number: 5380
Yuhong Jiang
Half course (spring term). F., 2–4. EXAM GROUP: 7, 8
Covers basic fMRI methods in cognitive neuroscience. It takes the user and the reader's perspectives. Topics include data collection and analysis, experimental design, and the connection between BOLD and neuronal activity.
Note: Open to undergraduates with permission of instructor.

***Psychology 2330r. Cognitive Psychology and Neuroscience: Research Seminar**
Catalog Number: 0503
Yuhong Jiang
Half course (fall term; repeated spring term). W., 2–4. EXAM GROUP: 7, 8
Covers basic research skills (experimental design, programming, statistics) in studies on attention and memory. In addition to guided readings, students conduct a research project and write an APA-style article on it.
Note: Open to undergraduate students with permission of the instructor.

***Psychology 2335r. Language: Research Seminar**
Catalog Number: 5121
Alfonso Caramazza
Half course (fall term; repeated spring term). W., 2–4. EXAM GROUP: 7, 8
Focuses on how to carry out research on language and cognition. Students discuss ongoing research projects on such issues as the organization of semantic, grammatical and lexical knowledge, language production, bilingualism and reading.
Note: Open to graduate and undergraduate students involved in research in language.

[*Psychology 2345. Topics in Language Research: Linguistic, Cognitive, and Neural Aspects]
Catalog Number: 6215
Alfonso Caramazza
Half course (fall term). Hours to be arranged.
Focuses on recent issues in language processing. Research findings from various areas and different approaches are considered, including neuroimaging studies, cross-linguistic investigations, aphasia research, and bilingualism.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

[*Psychology 2355r. Laboratory in Cognitive Neuroscience: Seminar]
Catalog Number: 1119
Stephen M. Kosslyn
Half course (fall term; repeated spring term). Hours to be arranged.
Focuses on how to research visual cognition. Students learn to conduct experiments, including fundamentals of experimental design and data analysis. Concludes with formal presentation of research.
Note: Expected to be given in 2005–06. Meets advanced methods requirment for undergraduates. Open to undergraduates with permission of instructor.
Prerequisite: Psychology 13 or Biological Sciences 80, plus statistics.

***Psychology 2358. Memory: Research Seminar**
Catalog Number: 0141
Daniel L. Schacter
Half course (fall term; repeated spring term). F., at 12. EXAM GROUP: 5
Topic to be announced.
Note: Limited to students involved in research.

[*Psychology 2360. Conceptual Development: Research Seminar]
Catalog Number: 6601
Susan E. Carey
Half course (spring term). Hours to be arranged.
Covers research methods for the study of conceptual development throughout the life span. All students must be currently engaged in experimental research.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

***Psychology 2400. Cognitive Psychology and Emotional Disorders**
Catalog Number: 6138
Richard J. McNally
Half course (fall term). Hours to be arranged.
Research and theory on the application of cognitive psychology methods applied to the understanding of anxiety and mood disorders.
Note: Limited to graduate students.

***Psychology 2420. Cognitive-Behavioral Treatment of Psychological Disorders**
Catalog Number: 8446

Jill M. Hooley
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Covers current cognitive-behavioral approaches to the treatment of common psychological disorders in adults. Emphasis is on the practical aspects of treatment, and on treatment outcome research. Includes theoretical underpinnings of cognitive-behavioral therapy.
Note: Limited to Harvard graduate students in clinical psychology.

***Psychology 2430. Cultural, Racial, and Ethnic Bases of Behavior**
Catalog Number: 9756
Matthew K. Nock
Half course (spring term). M., 4–6. EXAM GROUP: 9
Examines cultural, racial, ethnic, and other individual differences in human behavior which affect the practice of psychology. Reviews current science examining the relations between these factors and human behavior, psychopathology, and provision of psychological services.
Note: Enrollment limited to doctoral students.

[*Psychology 2445. Psychotherapy Research]
Catalog Number: 1835
Matthew K. Nock
Half course (fall term). Hours to be arranged.
Covers theories and research on psychotherapy and behavior change. Examines history of psychotherapy, methods for studying behavior change, and current issues in psychotherapy research: use of treatment manuals, study of efficacy/effectiveness, and evaluation of mechanisms/moderators of change.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

[*Psychology 2450. Affective and Social Neuroscience]
Catalog Number: 9796
Diego Pizzagalli
Half course (fall term). Hours to be arranged.
Reviews two emerging fields in neuroscience, affective and social neuroscience. Through integration of human and animal data, the course focuses on mapping affect, motivation, and social cognition to brain function.
Note: Expected to be given in 2005–06. Open to advanced undergraduates with permission of instructor.

***Psychology 2460. Diagnostic Interviewing**
Catalog Number: 4157 Enrollment: Limited to 12.
Jill M. Hooley
Half course (fall term). Hours to be arranged.
Students develop clinical interviewing and diagnostic skills using the Structured Clinical Interview for DSM-III-R and other instruments. Examines issues in diagnosis and assessment; provides exposure to psychopathology syndromes via tapes and clinical interviews.
Note: Graduate students only.
Prerequisite: Psychology 2040.

Psychology 2461r. Laboratory for Clinical and Developmental Research
Catalog Number: 8042
Matthew K. Nock
Half course (fall term; repeated spring term). Hours to be arranged.
Provides instruction and experience in conducting clinical research in laboratory and clinical settings, with a special focus on developmental psychopathology.
Note: Open to graduate and undergraduate students working in the instructor's laboratory.

[*Psychology 2462. Diagnostic Interviewing: Practicum]
Catalog Number: 3840
Jill M. Hooley
Half course (fall term). Hours to be arranged.
Supervised experience in psychiatric diagnosis. Students assess Axis I and Axis II disorders in clinical samples. Students are required to travel to practicum sites to conduct interviews between class meetings.
Note: Expected to be given in 2005–06. Graduate students only.
Prerequisite: Psychology 2040 and Psychology 2460 strictly required.

***Psychology 2475. Social Psychophysiology: Seminar**
Catalog Number: 0385
Wendy Mendes
Half course (spring term). W., 10–12. EXAM GROUP: 3, 4
Focuses on psychophysiology as a methodology in experimental work. Covers bases for psychological inference, biological systems (including autonomic, endocrine, and immune systems), and illustrative examples of physiological methodology in social, clinical, and developmental studies.
Note: Open to graduate students only.

***Psychology 2480. Human Neuropsychology/Neuroanatomy: Seminar**
Catalog Number: 4335
William P. Milberg (Medical School)
Half course (fall term). Tu., 4:30–6:30. EXAM GROUP: 18
Introduction to the anatomical structure of the human brain. Emphasis on neuropsychological correlates and cortical representation of higher cognitive functions. Gross brain dissection laboratory and discussions of descriptive and theoretical aspects of clinical neuropsychological phenomena.
Note: Preference given to graduate students who have completed Psychology 2010; if space is available, qualified undergraduates who have taken Biological Sciences 25 or 80 may enroll with permission of instructor.

[Psychology 2482. Neuropsychological Assessment]
Catalog Number: 3669 Enrollment: Limited to 12.
William P. Milberg (Medical School)
Half course (fall term). Hours to be arranged.
Introduction to the theory and technique of assessing higher mental functions in brain-damaged patients. Topics include a comparison of currently available test batteries, clinical localization of

cortical functions, and behavioral neurology.
Note: Expected to be given in 2005–06. Preference given to graduate students who have completed Psychology 2010 and Psychology 2480; if space is available, qualified undergraduates who have taken Biological Sciences 25 or 80 may enroll with permission of instructor.

[*Psychology 2500. Advanced Social Psychology]
Catalog Number: 5094
Daniel M. Wegner
Half course (fall term). Hours to be arranged.
Advanced survey of classic and current research and theory in social psychology, including self, social cognition, attitudes, social influence, altruism and aggression, prejudice and discrimination, close relationships, and group dynamics.
Note: Expected to be given in 2005–06. Open to undergraduates with permission of instructor.

[*Psychology 2510. Mind Perception]
Catalog Number: 2481 Enrollment: Limited to 15.
Daniel M. Wegner
Half course (fall term). Hours to be arranged.
Examines how people perceive the thoughts, desires, emotions, and conscious experiences of others, and how such mind perception processes are also involved in self-understanding.
Note: Expected to be given in 2005–06. Open to seniors with permission of instructor.

***Psychology 2530r. Mental Control: Research Seminar**
Catalog Number: 2364
Daniel M. Wegner
Half course (fall term; repeated spring term). F., at 12. EXAM GROUP: 5
Note: Limited to graduate students and undergraduates involved in research in the instructor's laboratory.

[*Psychology 2540. Implicit Social Cognition]
Catalog Number: 2213 Enrollment: Limited to 12.
Mahzarin R. Banaji
Half course (spring term). Hours to be arranged.
Cover contemporary research on social cognition that occurs without conscious awareness, intention, and control. Topics include analyses of self, other humans, and social groups.
Note: Expected to be given in 2007–08. Open to all graduate students with preference given to the most senior; not open to undergraduates.

Psychology 2560. Judgment and Decision Making: Seminar
Catalog Number: 3807
Nicholas Epley
Half course (fall term). Hours to be arranged.
Investigates the mechanisms used to make judgments under uncertainty and what these mechanisms suggest about the accuracy of everyday human judgment. Topics include judgmental heuristics, egocentrism, stereotypes, prediction and recollection, and metacognition.
Note: Open to graduate students only.

***Psychology 2580r. Affective Forecasting: Research Seminar**
Catalog Number: 4262
Daniel T. Gilbert
Half course (fall term; repeated spring term). Hours to be arranged.
Topic to be announced.
Note: Open to students working on research in the instructor's laboratory.

Psychology 2610r. Social Psychophysiology: Research Seminar
Catalog Number: 0190
Wendy Mendes
Half course (fall term; repeated spring term). Hours to be arranged.
This seminar provides lab experience in physiological acquisition obtained from studies examining stress, motivation, and emotion.
Note: Limited to graduate students and undergraduates involved in research in the instructor's laboratory.

[*Psychology 2630. Social Behavior in Organizations: Seminar]
Catalog Number: 0991
J. Richard Hackman
Half course (fall term). Hours to be arranged.
Topics include how groups and organizations affect individual members and vice versa; interpersonal and group processes; work team effectiveness; power, political, and intergroup dynamics; group and organizational leadership.
Note: Expected to be given in 2005–06. Limited to doctoral students. Students are expected to attend the lectures of Psychology 1501.

***Psychology 2640r (formerly *Psychology 3450r). The Understand Seminar**
Catalog Number: 7865
Mahzarin R. Banaji
Half course (fall term; repeated spring term). M., 4–6. EXAM GROUP: 9
Topic to be announced.
Note: Open to graduate students involved in research in the instructor's laboratory, and to select juniors and seniors.

***Psychology 2650. Behavioral Approaches to Decision Making and Negotiation**
Catalog Number: 7147
Max H. Bazerman (Business School) and Greg M. Barron (Business School)
Half course (spring term). M., 3–6. EXAM GROUP: 8, 9
Research overview of behavioral decision making and decision analytic perspectives to negotiation. Explores bounded rationality, decision biases, human decision making. Develops a behavioral decision perspective to negotiation, and examines how the field is currently evolving.
Note: Offered jointly with the Business School as 4420. Open to juniors and seniors in psychology and economics who are writing, or plan to write, a senior thesis.

***Psychology 2660r. Research Seminar in Mindfulness Theory**
Catalog Number: 4909

Ellen J. Langer
Half course (fall term; repeated spring term). Tu., 2–4. EXAM GROUP: 16, 17
Mindlessness/mindfulness theory is compared/contrasted to relevant theories in social and cognitive psychology. Experimental research is required.
Note: Open to undergraduates writing theses with instructor.

***Psychology 2670a. Decision Making and Perceived Control I**
Catalog Number: 1193
Ellen J. Langer
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Decision theory and research (including predictability and control; risk-taking; learned helplessness; mindfulness) examined in applied contexts, with special focus on health. Discussion centers on questions of if, when, why, and how people make decisions.
Note: Open to qualified undergraduates.

***Psychology 2670b. Decision Making and Perceived Control II**
Catalog Number: 3434
Ellen J. Langer
Half course (spring term). Hours to be arranged.
A deeper exploration of the theoretical and experimental issues, pertaining to decision making and mindfulness, raised in Psychology 2670a. Experimental research required.
Note: Open to qualified undergraduates.
Prerequisite: Psychology 2670a.

[Psychology 2680. Applied Social Psychology: Seminar]
Catalog Number: 1596
Philip Stone
Half course (spring term). Hours to be arranged.
Examines attempts to apply social psychology to education, health, work life, product marketing, political campaigns, and law. Considers factors that determine whether an application “tips” into widespread use and endures as more than a fad.
Note: Expected to be given in 2005–06. Open to undergraduates.

***Psychology 2690r. Self and Social Judgment: Research Seminar**
Catalog Number: 7990
Nicholas Epley
Half course (fall term). M., at 4. EXAM GROUP: 9
Topic to be announced.
Note: Limited to graduate students and undergraduates conducting research in the instructor’s laboratory.

***Psychology 2700r (formerly *Psychology 2700). Debates in the Practice of Good Psychological Science**
Catalog Number: 5986
Susan E. Carey and members of the Department
Half course (fall term; repeated spring term). W. 4-5:30, on non-colloquia days. EXAM

GROUP: 9
Addresses meta-level questions about practicing the science of psychology in graduate school. Graduate students and faculty guests discuss differences between areas of psychology and problems of professional development toward establishing productive, collegial cross talk.
Note: Open to doctoral students only.

[*Psychology 2701. Advanced Topics in Human Assessment]
Catalog Number: 2391 Enrollment: Limited to 12.

Half course (spring term). Hours to be arranged.
Surveys the theoretical, psychometric, and applied aspects of human assessment. Topics include individual differences, measurement, cognitive and action systems assessment, and research design issues. Spans areas including life-span developmental, personality/social, organizational, and clinical/health psychology.
Note: Expected to be given in 2005–06.

***Psychology 2750. Deceit and Self-Deception**
Catalog Number: 7363
Robert Trivers (Rutgers University)
Half course (spring term). M., 2:30–5:30. EXAM GROUP: 7, 8, 9
Evolutionary logic is combined with insights from genetics, animal behavior, neurophysiology, experimental and social psychology, and the study of everyday life, including warfare and aviation disasters, to outline a general theory of deceit and self-deception in humans, with emphasis on its selective benefits, mechanisms, and costs.

[*Psychology 2900. Professional Ethics]
Catalog Number: 6702 Enrollment: Limited to graduate students.

Half course (spring term). Hours to be arranged.
Examines ethical principles and legal issues involved in the practice of psychology, with an emphasis on clinical psychology. Covers ethical principles and code of conduct; uses case examples to highlight the application of these principles.
Note: Expected to be given in 2005–06.

Cross-listed Courses

[History of Science 275. "The Minded Body": Theoretical and Empirical Explorations]
[*History of Science 278. In Search of Mind: Seminar]

Graduate Courses of Reading and Research

***Psychology 3010. Special Reading and Research**
Catalog Number: 7858
Mahzarin R. Banaji 4258 (on leave 2004-05), Alfonso Caramazza 1871, Susan E. Carey 4113 (on leave spring term), Patrick Cavanagh 2447 (on leave 2004-05), Nicholas Epley 3975, Daniel T. Gilbert 2359, J. Richard Hackman 1504, Marc D. Hauser 3347 (on leave spring term), Jill M.

Hooley 1191, Yuhong Jiang 4646, Stephen M. Kosslyn 7836 (on leave 2004-2005), Ellen J. Langer 4967, Richard J. McNally 2978, Wendy Mendes 5033 (fall term only), Ken Nakayama 2558, Matthew K. Nock 4645, Steven Pinker 4733, Diego Pizzagalli 4425 (on leave 2004-05), Daniel L. Schacter 2805, Jesse Snedeker 4118 (on leave fall term), Elizabeth S. Spelke 3850, Philip Stone 2275, and Daniel M. Wegner 3758

***Psychology 3020. Direction of Doctoral Dissertations**
Catalog Number: 4492
Members of the Department and others listed under Psychology 3010.

***Psychology 3050. Clinical Practicum**
Catalog Number: 6299
Jill M. Hooley 1191, Richard J. McNally 2978, and Matthew K. Nock 4645
Students work in clinical settings locally and, under supervision, are directly involved in the treatment and clinical care of patients.
Note: Limited to Harvard doctoral students in clinical psychology.

***Psychology 3070. Clinical Assessment and Treatment Practicum**
Catalog Number: 4439
Jill M. Hooley 1191 and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Faculty interview psychiatric inpatients to demonstrate establishing treatment alliances, gathering histories, and initial assessment. Group discussion will consider how theoretical principles are applied to clinical work.
Note: Limited to graduate students in clinical psychology.

***Psychology 3080. Practicum in Clinical Neuropsychological Assessment**
Catalog Number: 3583
William P. Milberg (Medical School) 7912
Half course (spring term). Th., 5–7 p.m. EXAM GROUP: 18
Seminar for advanced doctoral students in clinical psychology; uses a case conference format to discuss the administration and interpretation of neuropsychological tests. Emphasizes integrating scientific literature and methods into the process of clinical decision making.
Note: Limited to Harvard doctoral students in clinical psychology.
Prerequisite: Psychology 2480 and 2482.

***Psychology 3200. Research Seminar in Experimental Psychopathology/Clinical Psychology**
Catalog Number: 6455
Matthew K. Nock 4645 and Diego Pizzagalli 4425 (on leave 2004-05)
Half course (fall term; repeated spring term). W., 4–5:30.
Provides a forum for presenting, discussing, and critically evaluating current research in experimental psychopathology/clinical psychology. Presenters include graduate students and faculty in experimental psychopathology/clinical psychology, as well as outside speakers.
Note: Attendance required for all students in Experimental Psychopathology/Clinical Psychology (first-, second-, and third-year graduate students are required to take this seminar for credit).

***Psychology 3220 (formerly *Psychology 2220a). LDS: Seminar**
Catalog Number: 4672
Susan E. Carey (fall term) 4113, Elizabeth S. Spelke (spring term) 3850, and members of the Department.
Half course (fall term; repeated spring term). W., 2:30–4.
Research seminar open to graduate students conducting research in cognitive development.

[*Psychology 3250. Psychological Testing]
Catalog Number: 7164

This weekly seminar for graduate students in clinical psychology is designed to provide basic skills in administering and interpreting standardized tests in the areas of intellectual assessment and personality assessment.
Note: Expected to be given in 2005–06. Open to Harvard doctoral students in clinical psychology.

***Psychology 3340. Research Seminar in Cognition, Brain, and Behavior.**
Catalog Number: 1754
Alfonso Caramazza 1871 and members of the Department.
Half course (fall term; repeated spring term). Th., 12–1:30.
Researchers in CBB, including graduate students, postdoctoral fellows, and faculty, present and discuss current research in cognitive science. Topics include memory, language, vision, mental imagery, concepts, animal and infant cognition, and related areas.

***Psychology 3360. Current Topics in Vision and Sensory Processes**
Catalog Number: 0604
Ken Nakayama 2558

***Psychology 3400. Developmental Psychopathology Research Workshop**
Catalog Number: 3205
Matthew K. Nock 4645
Half course (fall term; repeated spring term). Tu., 6–7:30. Spring: Meets the first and third Tuesday of every month. EXAM GROUP: 18
Research presentation series aimed at understanding developmental influences on the occurrence of psychopathology. This workshop welcomes graduate students, faculty, and other scientists from divergent research areas to facilitate cross-disciplinary advances on developmental psychopathology.

***Psychology 3420. Research Workshop in Social Psychology**
Catalog Number: 7610
Mahzarin R. Banaji 4258 (on leave 2004-05)
Half course (fall term; repeated spring term). Tu., 12–1:30.
Provides a forum for the presentation, discussion, and critique of current research in social psychology. Presenters include graduate students and faculty in social psychology plus visitors.
Note: Required of first-year graduate students in social psychology in fall and spring; open to all other social psychology students in fall and spring.

***Psychology 3500. The Human Mind: Talking Points**
Catalog Number: 5341
Steven Pinker 4733
Half course (spring term). Th., 3–6.
A graduate companion course to "The Human Mind," which explores the theories and controversies in greater depth. Topics include nature and nurture, reductionism, determinism, religion and science, consciousness, violence, politics, sex differences, and rationality.
Note: Enrollment is limited to teaching fellows for "The Human Mind" and graduate students who have obtained the permission of the instructor.

***Psychology 3550. Teaching Psychology**
Catalog Number: 0853
Ken Nakayama 2558
Half course (fall term; repeated spring term). W., at 12.
Note: Limited to and required of Sophomore Tutors.

***Psychology 3555hf (formerly *Psychology 3555). Instructional Styles in Psychology**
Catalog Number: 6831
Susan E. Carey 4113 (on leave spring term) and members of the Department
Half course (throughout the year). Indivisible. Meets every other week for full year.
Note: Normally required of and limited to department graduate students who are first-time teaching fellows.

[*Psychology 3560. The Real World]
Catalog Number: 5482
Stephen M. Kosslyn 7836 (on leave 2004-2005) and Patrick Cavanagh 2447 (on leave 2004-05)
Orientation to the world after graduate school. Reviews basic survival skills, including those used immediately, such as teaching, and those needed for academic jobs, such as writing vitas, giving job talks, preparing grant proposals.
Note: Expected to be given in 2005–06. Limited to graduate students in psychology.

***Psychology 3600. The Origins of Knowledge: Talking Points**
Catalog Number: 0489
Susan E. Carey 4113 (on leave spring term) and Elizabeth S. Spelke 3850
Half course (fall term). Hours to be arranged.
Graduate companion course to Origins of Knowledge, which explores the theories and controversies in greater depth. Topics include the evolutionary, cultural, and ontogenetic origins of representational capacities, including space, number, objects, agents, language, and intuitive theories.
Note: Limited to students in the Psychology Department or to those who have obtained permission of the instructor.

***Psychology 3610 (formerly *Psychology 2610r). Leadership and Group Behavior: Research Seminar**
Catalog Number: 5748
J. Richard Hackman 1504

Half course (fall term; repeated spring term). W., 11:30–1:30.
Workshop on theory and methods that are relevant to the conduct of empirical research on purposive groups. Participation is restricted to students who are conducting such research.

[*Psychology 3800. Psychometric Theory]
Catalog Number: 0607
Richard J. McNally 2978
Covers basic psychometric theory and methods essential for reliable and valid measurement. Reliability, validity, and generalizability reviewed. Detailed survey of techniques used to create and evaluate a scale.
Note: Expected to be given in 2005–06.

Public Policy

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Higher Degrees in Public Policy

William W. Hogan, Lucius N. Littauer Professor of Public Policy and Administration *(Kennedy School) (Chair)*
Arthur I. Applbaum, Professor of Ethics and Public Policy *(Kennedy School)*
Christopher N. Avery, Professor of Public Policy *(Kennedy School)*
Iris Bohnet, Assistant Professor of Public Policy *(Kennedy School)*
William C. Clark, Sidney Harman Professor of International Science, Public Policy, and Human Development *(Kennedy School)*
Pepper D. Culpepper, Associate Professor of Public Policy *(Kennedy School)*
David T. Ellwood, Lucius N. Littauer Professor of Political Economy *(Kennedy School)*
Peter Frumkin, Assistant Professor of Public Policy *(Kennedy School)*
Ricardo Hausmann, Professor of the Practice of Economic Development *(Kennedy School)*
Brian A. Jacob, Assistant Professor of Public Policy *(Kennedy School) (on leave spring term)*
Sheila S. Jasanoff, Pforzheimer Professor of Science and Technology Studies *(Kennedy School)*
Christopher Jencks, Malcolm Wiener Professor of Social Policy *(Kennedy School)*
Joseph P. Kalt, Ford Foundation Professor of International Political Economy *(Kennedy School) (on leave 2004-2005)*
Steven Kelman, Albert J. Weatherhead III and Richard W. Weatherhead Professor of Public Management *(Kennedy School)*
Sanjeev Khagram, Assistant Professor in Public Policy *(Kennedy School) (on leave 2004-2005)*
Robert D. Putnam, Peter and Isabel Malkin Professor of Public Policy
Dani Rodrik, Rafiq Hariri Professor of International Political Economy *(Kennedy School)*
Mark R. Rosenzweig, Professor of Public Policy *(Kennedy School)*

Frederick Schauer, Frank Stanton Professor of the First Amendment *(Kennedy School)*
Robert N. Stavins, Albert Pratt Professor of Business and Government *(Kennedy School)*
Monica D. Toft, Assistant Professor of Public Policy *(Kennedy School) (on leave 2004–05)*
Richard J. Zeckhauser, Frank Plumpton Ramsey Professor of Political Economy *(Kennedy School)*

The doctoral program in Public Policy trains qualified candidates to shape the direction of public policy research and to prepare the next generation of teachers for programs in public policy. It also qualifies individuals to perform high-level policy analysis and prepares them for positions of leadership in the public sector. Interested applicants should contact the John F. Kennedy School of Government for application material.

All PhD candidates must demonstrate mastery of five fields of study through a combination of course work and written and oral examinations. A sophisticated understanding of the core materials in the MPP program at the Kennedy School, and a demonstrated ability to apply analytic techniques to a field of policy are critical components of the faculty decision to recommend a student to the Graduate School of Arts and Sciences for the dissertation phase of study. Once admitted to the GSAS, a student is expected to work closely with a faculty adviser and dissertation committee. Most dissertations involve the application of analytic techniques to the solution of a substantive problem. A few methodological theses concentrate on developing new analytic techniques, their usefulness to be demonstrated through explicit application to a policy issue.

For more information about the doctoral program, visit the program website at www.ksg.harvard.edu/ksgdoctoral/.

The Study of Religion

Faculty of the Committee on the Study of Religion

Robert A. Orsi, Charles Warren Professor of History of Religion in America *(Divinity School) (Chair)*
Ryuichi Abe, Reischauer Institute Professor of Japanese Religions
Wallace D. Best, Assistant Professor of African American Religious Studies *(Divinity School)*
François Bovon, Frothingham Professor of the History of Religion *(Divinity School) (Director of ThD Studies)*
Davíd L. Carrasco, Neil L. Rudenstine Professor for the Study of Latin America in the Faculty of Divinity and the Faculty of Arts and Sciences

Shaye J.D. Cohen, Nathan Littauer Professor of Hebrew Literature and Philosophy *(on leave 2004-05)*
Diana L. Eck, Professor of Comparative Religion and Indian Studies
Francis Fiorenza, Charles Chauncey Stillman Professor of Roman Catholic Theological Studies *(Divinity School)*
Robert M. Gimello, Visiting Professor of East Asian Studies and Religious Studies *(University of Arizona)*
William A. Graham, Jr., Murray A. Albertson Professor of Middle Eastern Studies and John Lord O'Brian Professor of Divinity *(Dean of the Divinity School)*
Janet Gyatso, Hershey Professor of Buddhist Studies *(Divinity School)*
Richard G. Heck, Jr., Professor of Philosophy *(on leave spring term)*
Smita Lahiri, Assistant Professor of Anthropology *(on leave 2004-05)*
Thomas A. Lewis, Assistant Professor of Christian Studies *(Director of Undergraduate Studies)*
Kevin J. Madigan, Associate Professor of the History of Christianity *(Divinity School)*
Anne Elizabeth Monius, Professor of South Asian Religions *(Divinity School) (Director of PhD Studies)*
Laura S. Nasrallah, Assistant Professor of New Testament and Early Christianity *(Divinity School)*
Parimal G. Patil, Assistant Professor of the Study of Religion and of Sanskrit and Indian Studies
Patrick Provost-Smith, Assistant Professor of the History of Christianity *(Divinity School)*
Michael James Puett, Professor of Chinese History
Ronald Thiemann, Professor of Theology and of Religion and Society *(Divinity School)*

Other Faculty Offering Instruction in the Study of Religion

Leila Ahmed, Victor S. Thomas Professor of Divinity *(Divinity School)*
Ali S. Asani, Professor of the Practice of Indo-Muslim Languages and Cultures
Ann D. Braude, Senior Lecturer in American Religious History *(Divinity School)*
Sarah Coakley, Edward Mallinckrodt, Jr. Professor of Divinity *(Divinity School)*
Nicholas P. Constas, Associate Professor of Theology *(Divinity School)*
Harvey G. Cox, Jr., Hollis Professor of Divinity *(Divinity School)*
Arthur J. Dyck, Mary B. Saltonstall Professor of Population Ethics *(Public Health and Divinity School)*
James Engell, Gurney Professor of English Literature and Professor of Comparative Literature
Marla F. Frederick, Assistant Professor of African and African American Studies and of the Study of Religion
Peter J. Gomes, Plummer Professor of Christian Morals *(Divinity School)*
David D. Hall, Bartlett Professor of New England Church History *(Divinity School) (on leave 2004-2005)*
Helen Hardacre, Reischauer Institute Professor of Japanese Religions and Society
Jay M. Harris, Harvard College Professor and Harry Austryn Wolfson Professor of Jewish Studies
Albert Henrichs, Eliot Professor of Greek Literature
Swanee Hunt, Lecturer on the Study of Religion
William R. Hutchison, Charles Warren Research Professor of the History of Religion in America *(Divinity School)*

Tariq Jaffer, Visiting Lecturer on the Study of Religion
Beverly M. Kienzle, Professor of the Practice of Latin and Romance Languages *(Divinity School)*
Karen L. King, Winn Professor of Ecclesiastical History *(Divinity School) (on leave 2004-2005)*
Arthur Kleinman, Esther and Sidney Rabb Professor of Anthropology *(FAS)* and Professor of Psychiatry and Medical Anthropology *(Medical School)*
Helmut H. Koester, John H. Morison Research Professor of New Testament Studies and Winn Research Professor of Ecclesiastical History *(Divinity School)*
David Lamberth, Associate Professor of Theology *(Divinity School)*
Jon D. Levenson, Albert A. List Professor of Jewish Studies *(Divinity School)*
David Little, T. J. Dermot Dunphy Professor of the Practice in Religion, Ethnicity, and International Conflict *(Divinity School)*
Peter Machinist, Hancock Professor of Hebrew and other Oriental Languages
Everett I. Mendelsohn, Professor of the History of Science *(on leave spring term)*
David G. Mitten, James Loeb Professor of Classical Art and Archaeology
Roy Mottahedeh, Gurney Professor of History
Kimberley C. Patton, Associate Professor in the Comparative and Historical Study of Religion *(Divinity School)*
Christopher S. Queen, Lecturer on the Study of Religion
Elisabeth Schüssler Fiorenza, Krister Stendahl Professor of Divinity *(Divinity School)*
P. Oktor Skjaervo, Aga Khan Professor of Iranian *(on leave fall term)*
Wei-Ming Tu, Harvard-Yenching Professor of Chinese History and Philosophy and of Confucian Studies *(on leave spring term)*
Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies
Preston N. Williams, Houghton Research Professor of Theology and Contemporary Change *(Divinity School)*

Courses listed in this section are offered by the Committee on the Study of Religion and by various departments. The Committee is responsible for the program of concentration for undergraduates in the Comparative Study of Religion and for the program of studies leading to the PhD in The Study of Religion. Undergraduate concentrators may, with the prior approval of the Head Tutor, take courses offered by other departments and by the Divinity School for credit toward concentration requirements. Candidates for higher degrees also should consult other sections of this catalog relevant to their programs and the catalog of the Divinity School. Cross registration is required for all Divinity School courses. Many courses have separate requirements for undergraduate, masters, and doctoral students, and wherever possible also have separate discussion sections.

Courses numbered 10–999 are Primarily for Undergraduates; 1000–1999, For Undergraduates and Graduates; and 2000–2999, Primarily for Graduates. Courses are distributed according to their last three digits in the following sections:

000–099 General: Comparative and Methodological

100–199 Ancient Near Eastern and Israelite

200–299 Judaic

300–349 Greek, Hellenistic, and Roman

350–399 Iranian and Central Asian

400–499 Christianity

500–599 Modern Western

600–699 Hinduism

700–799 Buddhism

800–899 Islam

900–999 African and Other

Tutorials in the Comparative Study of Religion

Primarily for Undergraduates

***Religion 91r. Supervised Reading and Research**
Catalog Number: 8046
Thomas A. Lewis
Half course (fall term; repeated spring term). Hours to be arranged.
Study of special topics in the history and comparative study of religion on an individual or small-group basis.
Note: May not be taken Pass/Fail. Normally open only to concentrators. Permission of Head Tutor required.

***Religion 97a. Tutorial - Sophomore Year**
Catalog Number: 2313
Diana L. Eck and assistants
Half course (fall term). M., 2–4:30. EXAM GROUP: 7, 8, 9
Note: Required of concentrators.

***Religion 97b. Tutorial — Sophomore Year**
Catalog Number: 7608
Thomas A. Lewis and assistants
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Note: Required of concentrators.

***Religion 98a. Tutorial — Junior Year**
Catalog Number: 2832
Thomas A. Lewis and assistants.

Half course (fall term; repeated spring term). Hours to be arranged.
Note: Required of concentrators.

***Religion 98b. Tutorial — Junior Year**
Catalog Number: 2922
Thomas A. Lewis and assistants
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Required of concentrators.

***Religion 99. Tutorial — Senior Year**
Catalog Number: 6498
Thomas A. Lewis
Full course. Spring: W., 5–7 p.m.
A required component of the senior year tutorial is a monthly seminar, led by the Assistant Head Tutor. Covers research methods and strategies in thesis writing in the fall, becoming an intensive review for general examinations in the spring.
Note: Required of concentrators.

Introductory Courses

Primarily for Undergraduates

Religion 11. World Religions: Diversity and Dialogue
Catalog Number: 4811
Diana L. Eck
Half course (fall term). Tu., Th., 11:30–1 and an hour to be arranged. EXAM GROUP: 13, 14
An introduction to five of the world's religious traditions—Hindu, Buddhist, Jewish, Christian and Muslim—through the lens of modern adherents and interpreters. How do people in each tradition articulate their faith in the context of the modern world and its forms of globalization? How do they think about the challenges of religious pluralism? This course investigates questions of religious difference and introduces critical problems of interpretation in the study of religion.
Note: Offered jointly with the Divinity School as 3220.

[Religion 14. Comparative Religious Ethics]
Catalog Number: 1787
Anne Elizabeth Monius (Divinity School)
Half course (spring term). Hours to be arranged.
A comparative examination of conceptions of the moral self and ways of thinking and acting ethically within the framework of three religious traditions: Hinduism, Buddhism, and Christianity. These issues are explored in part through examination of a number of contemporary moral problems making use of a wide range of sources, including ethnographies, narratives, prescriptive codes, and the works of contemporary ethicists from each tradition.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 3409.

Religion 15. Locating "History" in the History of Religions
Catalog Number: 1307
Kevin J. Madigan (Divinity School) and Anne Elizabeth Monius (Divinity School)
Half course (spring term). M., W., at 11 and one hour to be arranged. EXAM GROUP: 4
Focusing on foundational scriptures from four religious traditions, this course considers the many ways in which such texts are used to build historical narratives, both within the religious communities and in academic discourse. Exploring the implications of historical-critical theory for the study of religion, this course examines the ways in which religious narratives provide useful points of entry into understanding conceptions of time, space, moral vision, and aesthetics that lie at the heart of human religiosity.
Note: Offered jointly with the Divinity School as 3400.

Religion 16 (formerly Religion 1004). Religious Dimensions in Human Experience
Catalog Number: 9089
Davíd L. Carrasco
Half course (fall term). Tu., Th., at 10 and a weekly section to be arranged. EXAM GROUP: 12
A critical introduction to major themes in the history of religions including religious experience, cosmic cities, ritual violence, charisma, ancestors and ghosts, the death of God(s), search for the soul, identity and ethnicity. A robust study of religious claims in Judeo-Christian, Islamic, Hindu traditions and Latin American and African American Religions by reading Toni Morrison, Tomas Eloy Martinez, Diana Eck, Mircea Eliade, Leila Ahmed, and others.
Note: Offered jointly with the Divinity School as 3160.

[Religion 18 (formerly Religion 1469). Religion, Medicine, and Suffering in the West]
Catalog Number: 9610
Robert A. Orsi (Divinity School)
Half course (spring term). Hours to be arranged.
Examination using a variety of theoretical approaches of the meanings of suffering and pain in Christian cultures. Course begins with theoretical reflection on culture and pain, then moves to consider how Christians have responded to the body in pain, including healing practice. Topics include theodicy as cultural practice; martyr as Christian hero; pain and the construction of religious meanings; power, pain, and discipline in religious settings.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2315.

Religion 42. The Christian Bible and Its Interpretations
Catalog Number: 5870
Peter J. Gomes (Divinity School)
Half course (fall term). W., F., at 11, and an hour to be arranged. EXAM GROUP: 4
Introduction to the Christian conception of scripture from the closing of the Canon to the Fundamentalist/Modernist controversy. Topics considered include the relationship of scripture to tradition, appropriation of Hebrew scripture, exegetical and hermeneutical theories, and scripture and culture. Particular attention paid to the development of theories of scriptural authority and their social consequences within the Western Christian experience and American Protestantism.
Note: Offered jointly with the Divinity School as 1210.

Cross-listed Courses

[Foreign Cultures 12. Sources of Indian Civilization]
[Foreign Cultures 70. Understanding Islam and Contemporary Muslim Societies]

General: Comparative and Methodological

For Undergraduates and Graduates

[Religion 1007. Religion in Multicultural America]
Catalog Number: 8833 Enrollment: Limited to 15.
Diana L. Eck
Half course (fall term). Hours to be arranged.
An exploration of the dynamic multi-religious landscape of the US. Special focus on the Muslim tradition and on Asian American traditions—Hindu, Buddhist, Sikh, and Jain. How are these traditions changing in the American environment and how is America changing as we struggle with civic, constitutional, and theological issues, especially in the post-9/11 period?
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3847.

Religion 1011. The Tree at the Center of the World: Seminar
Catalog Number: 9064 Enrollment: Limited to 15.
Kimberley C. Patton (Divinity School)
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
This comparative seminar will examine historical and contemporary traditions of primordial, cosmic, and sacred trees in religion, folklore, mythology, and ritual, including the ways in which the special natural characteristics of trees have been interpreted metaphorically and metaphysically. We will consider primary iconographic and textual evidence as well as secondary sources. Individual research projects in particular traditions will be featured.
Note: Offered jointly with the Divinity School as 3823.

Religion 1015. Angels: Messengers of God: Seminar
Catalog Number: 8351 Enrollment: Limited to 15.
Kimberley C. Patton (Divinity School)
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
The concept of divine intermediaries is widespread. The “messenger” often refracts crucial doctrinal tenets or executes divine will, as well as providing a spectacular focus for the religious imagination. Angels have a crucial theological and anthropological role in a range of religious genres. Using textual and iconographic evidence, this course explores the history, symbolism, and theological importance of angels and the development of angelology in three related monotheistic religious traditions: Judaism, Christianity, and Islam.
Note: Offered jointly by the Divinity School as 3824.

Religion 1032a. Sacrifice: Ritual, Reflexivity, and Paradox
Catalog Number: 6352
Kimberley C. Patton (Divinity School)
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Using primary sources and contemporary theory, we examine typologies of sacrifice, blood- and bloodless offerings. Special topics include the theological and sociological implications of

human sacrifice, sacrifice by divinities, and the relationship of sacrifice to religious authority, gender distinctions, and class or caste hierarchies. Sacrifice is studied in depth in the following three historical complexes: Indo-European, Abrahamic monotheistic, and Meso-American.
Note: Offered jointly by the Divinity School as 3254a.

Religion 1032b. Sacrifice: Ritual, Reflexivity, and Paradox
Catalog Number: 5386
Kimberley C. Patton (Divinity School)
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
A continuation of FAS Religion 1032a.
Note: Offered jointly by the Divinity School as 3254a. It is not necessary to have taken Religion 1032a/3254a to take Religion 1032b/3254b.

[Religion 1063. South Asian Religious Aesthetics: Seminar]
Catalog Number: 8607 Enrollment: Limited to 15.
Anne Elizabeth Monius (Divinity School)
Half course (spring term). Hours to be arranged.
An examination of South Asian theories of aesthetics and their relevance for understanding Hindu, Buddhist, and Jain discourses of ethics, literature, and theology.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 3925.
Prerequisite: Previous coursework in the religious history of South Asia.

[Religion 1069. Christianity in India: Seminar]
Catalog Number: 9613 Enrollment: Limited to 15.
Anne Elizabeth Monius (Divinity School)
Half course (spring term). Hours to be arranged.
An intensive examination of Christian thought and practice in South Asia, from the memoirs of 16th-century European missionaries to the political activism of moden Dalit liberation theologians. Emphasis throughout will be placed on the ways in which productive encounters among Christians and Hindus have shaped both Christianity and Hinduism, as well as the role that gender and social location play in the envisioning and enactment of Christian life in India.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2679.

Religion 1075. Jerusalem: An Interdisciplinary Inquiry
Catalog Number: 3014
Harvey G. Cox, Jr. (Divinity School)
Half course (fall term). Th., 1–3 and one hour to be arranged. EXAM GROUP: 15, 16
A holy city for three faiths, the focus of poetry, song, legend, and ideology, and a continuing political flashpoint, Jerusalem provides a rich case study in religious history, art and architecture, theology, and the phenomenology of sacred space. It also provides a critical test for inter-faith dialogue and peace-making. Utilizing a variety of disciplines, we will explore the meanings Jerusalem has had in the past and consider alternative solutions to current questions about its future.
Note: Offered jointly with the Divinity School as 2505.

[Religion 1076. Fundamentalisms]
Catalog Number: 8243
Harvey G. Cox, Jr. (Divinity School)
Half course (spring term). Hours to be arranged and hour to be arranged.
A comparative investigation of ultra-conservative movements within five different religious traditions: Jewish "Settler" theology; Roman Catholic cases such as Opus Dei; Protestant Christian Zionism; Islamic radicalism (Hamas).
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2511.

Religion 1085. Women, Religion, and Theory: Seminar
Catalog Number: 9239 Enrollment: Limited
Leila Ahmed (Divinity School)
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
This seminar will explore commonalities and differences in feminist issues, strategies, and methodologies across a number of religious traditions as they find expression in a variety of works, including those of some key feminist scholars. We will read texts on women and religion, as well as relevant texts in feminist and post-colonial theory.
Note: Offered jointly with the Divinity School as 2687.

Cross-listed Courses

Anthropology 1060 (formerly Anthropology 166). Archaeological Science
[Anthropology 1630 (formerly Anthropology 132). Anthropology of Religion]
[Comparative Literature 112. Religion and Literature in the Middle Ages]
***Folklore and Mythology 97b (formerly *Folklore and Mythology 103). Oral Literature and the History of Folkloristics**
[Indian Studies 118. Indian Philosophy: Advanced Introduction]
Social Analysis 36. Religion and Modernization: Cultural Revolutions and Secularism

Primarily for Graduates

***Religion 2001. Major Thinkers in the Study of Religion: Seminar**
Catalog Number: 0644
Anne Elizabeth Monius (Divinity School) and Parimal G. Patil
Half course (fall term). M., 5–7. EXAM GROUP: 9
This seminar is designed to usher first-year doctoral students into contemporary conversations about approaches to the study of religion and the very nature of "religion" itself as an object of academic inquiry.
Note: Limited to first-year doctoral students. Offered jointly with the Dvinity School as 4599.

***Religion 2002. Major Themes in the Study of Religion: Seminar**
Catalog Number: 0803
Davíd L. Carrasco
Half course (spring term). Hours to be arranged.
A consideration of the issue of comparison in the study of religion. Problems in comparing religious phenomena are discussed through the preparation and presentation of sample course

syllabi on particular themes across diverse religious traditions.
Note: For all second-year doctoral students in the Study of Religion.

Religion 2040. Religion and Human Rights
Catalog Number: 8115
David Little (Divinity School)
Half course (fall term). Th., 9:30–11:30. EXAM GROUP: 11, 12, 13
We consider the legal, historical, theoretical, and practical connections between religion and human rights. Debates over universality, particularly in relation to religious freedom and nondiscrimination, are given special attention. Recent theoretical and empirical work, particularly in Asia, Africa, the Middle East, and Europe, is taken up.
Note: Offered jointly with the Divinity School as 2800.

[Religion 2041. Conscience and Its Freedom: Seminar]
Catalog Number: 7093
David Little (Divinity School)
Half course (spring term). Hours to be arranged.
A consideration of the meaning and significance of the concept of conscience. The seminar will examine the history of the idea in Western thought, and give some attention to its place in Islamic and other cultural settings. It will also touch on the role of conscience in contemporary human rights discourse. It will take up contemporary philosophical, theological, and legal problems associated with the term.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2810.

Religion 2042. Religion, Nationalism, and Peace
Catalog Number: 7857
David Little (Divinity School)
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
The literature on nationalism and ethnicity as it bears on conflict, with special focus on the role of religion, in cases such as Sri Lanka, Sudan, Northern Ireland, Israel, the Palestinian Authority, and Bosnia. Attention to how religion may function constructively.
Note: Offered jointly with the Divinity School as 2812.

[Religion 2043. Religion, Justice, and Peace]
Catalog Number: 9558
David Little (Divinity School)
Half course (fall term). Hours to be arranged.
Assesses four areas of inquiry: how peace agreements are made, how they are implemented, how they are enforced, and how conditions congenial to peace are cultivated. The problems of justice posed by attempting to enforce or build peace.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2814.

[Religion 2050. Medicine and Religion: Seminar]
Catalog Number: 5000 Enrollment: Limited to 30.
Arthur Kleinman and Sarah Coakley (Divinity School)
Half course (fall term). Hours to be arranged.

An interdisciplinary course that aims to create a critical conversation between medicine and religion. Examines core questions concerning popular religious responses to health problems, the place that religion plays in decision-making concerning end-of-life care, bereavement, pastoral counseling in the hospital, spirituality as part of mind-body interactions, and the everyday work of health professionals.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2437.
Prerequisite: Clinical pastoral education or some other experience with hospitals preferred.

Graduate Courses in Reading and Research

***Religion 3005. Doctoral Colloquium in Religion, Gender, and Culture**
Catalog Number: 8016
Elisabeth Schüssler Fiorenza (Divinity School) 3193
Half course (fall term). W., 9–11. EXAM GROUP: 2, 3
The colloquium will explore key-topics and works in women's/gender/feminist studies in religion.
Note: This colloquium is required for all pre-Generals doctoral students as well as for those admitted as ThM students in Religion, Gender and Culture. Doctoral students from other departments or BTI schools as well as advanced Master's level students who intend to apply to the RGC program or plan to major in this field of study should contact the instructor in advance. Offered jointly with the Divinity School as 2690.

***Religion 3007. Religion and Society Colloquium**
Catalog Number: 5355 Enrollment: Limited to 15.
Ronald Thiemann (Divinity School) 3395
Half course (spring term). M., 11–1.
Topic for 2004-05: TBA
Note: Required for all doctoral candidates prior to their general examination in Religion and Society. Also open to a limited number of qualified master's-level students upon application. Offered jointly with the Divinity School as 2697.

Ancient Near Eastern and Israelite

Cross-listed Courses

[Ancient Near East 102. Introduction to Mesopotamian Religion]
[Ancient Near East 117. Biblical Archaeology]
Ancient Near East 120. Introduction to the Hebrew Scriptures
[Ancient Near East 126. History of the Religion of Israel]
[Ancient Near East 135. Biblical Theology: Hebrew Bible]
[*Comparative Literature 211. Mysticism and Literature: Seminar]
Early Iranian Civilizations 102. Old Iranian Religion
[Early Iranian Civilizations 103. Manicheism]
[Sumerian 146. Sumerian Religious Literature]

Judaic

For Undergraduates and Graduates

[Religion 1212a. Judaism: The Liturgical Year]
Catalog Number: 5679
Jon D. Levenson (Divinity School)
Half course (fall term). Hours to be arranged.
An introduction to the Jewish tradition through an examination of its liturgical calendar. The ancient Near Eastern affinities and biblical forms of the Jewish holidays; the observance of the holidays in rabbinic law, their characteristic themes as developed in rabbinic non–legal literature, their special biblical readings, the evolution of the holidays over the centuries, contemporary theological reflection upon them. Emphasis on classic texts, focus on theological and literary issues.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1667a/3667a.

[Religion 1212b. Judaism: The Liturgical Year]
Catalog Number: 8074
Jon D. Levenson (Divinity School)
Half course (spring term). Hours to be arranged.
A continuation of Religion 1212a.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1667b/3667b.
Prerequisite: Religion 1212a.

[Religion 1251. The History and Ideas of Jewish Nationalism and Zionism: Seminar]
Catalog Number: 7719 Enrollment: Limited to 20.

Half course (spring term). Hours to be arranged.
Examines Jewish nationalism and Zionism as diverse cultural, intellectual, and political movements within the context of modern Jewish and European history. We trace the origins of the Jewish national idea and study its many transformations during Enlightenment, Emancipation, and the rise of competing European nationalisms. Readings mostly focus on pre-State history.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3655.

Religion 1255. Classics of Twentieth Century Jewish Theology
Catalog Number: 0830
Jon D. Levenson (Divinity School)
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
A close reading of selected works of Jewish theology from the twentieth century, with special attention to the questions of God, Torah, and Israel and to the thinkers' understanding of Christianity in relation to Judaism. Authors read will be drawn fostly from the following: Baeck, Buber, Rosenzweig, Heschel, Soloveitchik, Fackenheim, L. Jacobs, and Wyschogrod.
Note: Offered jointly by the Divinity School as 3668.

[Religion 1260. Midrash: Jewish Biblical Interpretation in the Rabbinic Period]
Catalog Number: 2424

Jon D. Levenson (Divinity School)
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
An introduction to the way the rabbis of the Talmudic period interpreted their Bible. Close reading in English of a range of midrashic literature, halakhic and aggadic, exegetical and homiletical, Tannaitic and Amoraic. Emphasis on literary assumptions and theological affirmations. Consideration of the affinities and contrasts of midrash with early Christian biblical interpretation and with contemporary literary theory.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 3669.

Cross-listed Courses

[Hebrew 150a. Introduction to Rabbinic Literature]
[Hebrew 174. Political Thought: Late Antiquity through the Middle Ages]
[Jewish Studies 111. Modern Jewish Thought]

Greek, Hellenistic, Roman

For Undergraduates and Graduates

[Religion 1315. Prophecy, Ecstasy, and Dreams in Early Christian History]
Catalog Number: 7435
Laura S. Nasrallah (Divinity School)
Half course (fall term). Hours to be arranged.
In the Greco-Roman world, prophecies, ecstasies, and dreams were considered important ways in which the divine communicated with humans. We explore the history of early Christian debates over prophecy and ecstasy and places them within a broader context. We read various philosophical, theological, novelistic, and political texts from the first century BCE through the fourth century CE. We address questions of how these debates over prophecy and ecstasy connect with issues of power, gender, anthropology, socioeconomics, and religious identity.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 1546.

Cross-listed Courses

Literature and Arts C-14. Concepts of the Hero in Greek Civilization

Primarily for Graduates

Religion 2348ab. Archaeology and the World of the New Testament: Seminar
Catalog Number: 4069 Enrollment: Limited to 12.
Laura S. Nasrallah (Divinity School) and David G. Mitten
Full course (spring term). F., 2–5. EXAM GROUP: 7, 8, 9
First half introduces students to work with archaeological data from the Graeco-Roman world (inscriptions, architecture, sculpture, coins). Second half consists of on-site seminars in Greece and Turkey during the month of May under the leadership of Greek, German, Austrian, and American archaeologists.
Note: Offered jointly with the Divinity School as 1870.

Prerequisite: Greek and French or German; two half courses in the study of ancient Christianity and/or Greco-Roman religion, history, and archaeology. Course may be divided with permission of instructors.

Christianity

For additional courses on Christian Studies, see the catalog of the Divinity School.

For Undergraduates and Graduates

Religion 1400. Introduction to the New Testament: History and Interpretation
Catalog Number: 4486
Laura S. Nasrallah (Divinity School)
Half course (spring term). Th., 1–3, and an hour to be arranged. EXAM GROUP: 15, 16
The texts of the New Testament emerged in the diverse social and complex political context of the Roman empire. Examines historical-critical approaches that attempt to set New Testament texts within their first- and second-century contexts, pays special attention to archaeological materials which aid our understanding of the world from which these texts emerged, and considers how and why these particular texts came to be a canon.
Note: Offered jointly with the Divinity School as 1202.

[Religion 1409. The New Testament, Biblical Studies, and Empire: Seminar]
Catalog Number: 3075 Enrollment: Limited to 15.
Laura S. Nasrallah (Divinity School)
Half course (fall term). Hours to be arranged.
The intersection of the New Testament and postcolonial theory. We shall study not only the Roman imperial context in which the New Testament was written, but also 19th and 20th century approaches to the Bible, and the way in which their sometimes orientalizing enterprises constructed the field of biblical studies. Special attention paid to biblical archaeology, quests for the historical Jesus, and the academic institutionalization of biblical studies.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1887.

[Religion 1411. Saints, Sanctity, and Society in Ancient and Medieval Christianity]
Catalog Number: 6249 Enrollment: Limited to 15.
Kevin J. Madigan (Divinity School)
Half course (spring term). Hours to be arranged.
An historical introduction to the field of Christian hagiography. Topics include interpretive method, martyrdom and sanctity, sanctity and monasticism, shrines and pilgrimage, gender and sanctity, relics and veneration, canonization and the politics of sanctity. Some attention given to Jewish martyrology and parallels in other world religions, including Hinduism and Buddhism.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2233.

[Religion 1412. Christian Lives]
Catalog Number: 4544
Harvey G. Cox, Jr. (Divinity School)

Half course (spring term). Hours to be arranged.
Beginning with its founder, Christianity has always been a religion that makes its message known through personality. We draw on biography and autobiography to trace the history of Christianity and its central teachings from the ancient to the modern period. The first half of the course includes St. Augustine, St. Teresa of Avila, St. Francis of Assisi, and Martin Luther. We consider such modern representatives as Dietrich Bonhoeffer, Martin Luther King, Jr., and Dorothy Day. Through frequent short reports students study these figures in their socio-cultural contents, and to look for parallels to their own.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 2509.

Religion 1414. Gospel Stories of Women
Catalog Number: 6902
Elisabeth Schüssler Fiorenza (Divinity School)
Half course (spring term). Tu., 1–3; with meetings Tu., at 12. EXAM GROUP: 15, 16
The course will engage a critical feminist reading of texts in order to assess whether they are "good news" for wo/men. Special attention will be given to feminist reconstructions of early Christian beginnings. Discussions will focus on hermeneutical-theological questions and their consequence for contemporary religious self-understanding and ministerial praxis. Lectures, group discussions, and group projects seek to foster a participatory, democratic style of learning.
Note: Offered jointly with the Divinity School as 1503/ 2557.
Prerequisite: Religion 1415 or equivalent.

[Religion 1416. Feminist Biblical Interpretation]
Catalog Number: 3002
Elisabeth Schüssler Fiorenza (Divinity School)
Half course (spring term). Hours to be arranged.
A basic introduction to the emerging field of feminist biblical studies. We discuss different hermeneutical approaches, methods of interpretation, and theoretical perspectives. Special attention is given to historical interpretation and the significance of feminist hermeneutics for contemporary theological reflection and education for ministry. Lectures, group discussions, and presentations seek to foster a participatory style of learning.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1504/2558.

Religion 1418. The Apostle Paul: His Letters, His Cities, and His Legacy
Catalog Number: 7092
Helmut H. Koester (Divinity School)
Half course (fall term). Th., 3–5 with an additional hour to be arranged. EXAM GROUP: 17, 18
Addresses the entire Pauline Corpus. Beginning with the genuine letters of Paul in the New Testament it will demonstrate the developments attested in canonical and apocryphal writings that assumed the mantle of Paul's authority after his death. Archaeological materials will elucidate the cultural and religious world of Paul's cities.
Note: Offered jointly by the Divinity School as 1525.

[Religion 1420. History of Ancient Christianity from the Beginnings to the 4th Century]
Catalog Number: 2397
Karen L. King (Divinity School)

Half course (spring term). Hours to be arranged.
An introduction to select theological and historical materials of ancient Christianity from the 1st to 4th centuries. Particular attention is given to setting out the diversity of Christian ideas and practices, the invention of orthodoxy, and the processes of Christian identity formation within the social and political context of the Roman empire.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1260/2145.

[Religion 1421. The Gospel of Luke]
Catalog Number: 8662
François Bovon (Divinity School)
Half course (spring term). Hours to be arranged.
A literary, historical, and theological interpretation of some chapters of the Greek text of Luke's Gospel. Exegetical discussion will focus on Luke's style, art of composition, and sources, as well as his situation in the history of Christianity. Late Antique Christianity and Reformation interpretations of Luke will be compared from time to time with the work of modern exegetes.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 1511.
Prerequisite: Three terms of Greek.

Religion 1423. First Images of Christ—Earliest Christologies of the New Testament
Catalog Number: 8983
François Bovon (Divinity School)
Half course (fall term). Th., 1–3 and an hour to be arranged. EXAM GROUP: 15, 16
Will discuss the earliest forms of christology and their history. Starting from the Jewish messianic expectations of the first century C.E., it will investigate the prophetic perspective of Jesus and christological concepts of the first Christian congregations.
Note: Offered jointly with the Divinity School as 1479.
Prerequisite: Introduction to the New Testament or equivalent.

Religion 1424. The First Epistle to the Corinthians
Catalog Number: 1514
François Bovon (Divinity School)
Half course (spring term). Tu., 1–3 and an hour to be arranged. EXAM GROUP: 15, 16
This course will focus on Paul's historical and theological argument through a careful reading of the Greek text. An attempt will be made to reconstruct the social setting of the first Christian community in Corinth. Course may be elected as the equivalent of the fourth semester of Greek.
Note: Offered jointly with the Divinity School as 1521
Prerequisite: One year of Greek.

[Religion 1426. The Apocryphal Jesus and the Noncanonical Apostles: Introduction to Ancient Christian Apocryphal Literature]
Catalog Number: 8930
François Bovon (Divinity School)
Half course (fall term). Hours to be arranged.
Begins by exploring the field of non-canonical gospels, particularly Greek fragments of lost Gospels, then devotes a longer time to the apocryphal acts of the apostles, particularly to the *Acts*

of Philip, and concludes by reading the *Apocalypse of Peter* and the *Apocalypse of Paul*.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 2130.

[Religion 1427. Orthodoxy and Heresy in Ancient Christianity]
Catalog Number: 3574
Karen L. King (Divinity School)
Half course (fall term). Hours to be arranged and an hour to be arranged.
An examination of the dynamics of early Christian identity formation, including the development of discourses of orthodoxy and heresy, practices of interpreting Scripture, and categories of religious identity. Focuses on reading the primary literature, with special attention to those types of early Christianity later deemed heretical (for example, Marcion, Valentinian Christianity, and Sethian Gnosticism, as well as *The Gospel of Thomas*, *The Gospel of Mary*, and *The Apocryphon of James*).
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 1700.
Prerequisite: Introduction to the New Testament or History of Ancient Christianity, or the equivalent.

[Religion 1431. Introduction to Patristic Theology: The Cappadocians]
Catalog Number: 4279
Nicholas P. Constas (Divinity School)
Half course (spring term). Hours to be arranged.
An introduction to patristic theology through the work of Basil of Caesarea, Gregory Nazianzus, and Gregory of Nyssa. From the eastern province of Cappadocia, these fourth-century thinkers are among the most important theologians of Christian antiquity. Their major works will be studied in English translation and organized around the following themes: 1) Trinitarian theology and the ontology of personhood; 2) creation and cosmology; 3) anthropology, gender, and eschatology; and 4) asceticism and spirituality.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2581.

[Religion 1432. Theology of the Icon]
Catalog Number: 2091
Nicholas P. Constas (Divinity School)
Half course (spring term). Hours to be arranged.
Introduction to the icon as theological category and devotional artifact through lectures, readings, slides, and museum visits. History of the icon will be traced from Greco-Roman Egypt to the pop-icons of Andy Warhol, with attention to medieval icons. Themes include creation, incarnation, sacred space and perspective, and the role of women in the struggle against Byzantine Iconoclasm.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2582.

[Religion 1434. History of Western Christianity, 300-1100]
Catalog Number: 5783
Kevin J. Madigan (Divinity School)
Half course (fall term). Hours to be arranged, and an hour to be arranged.
Church and society in western Europe from the fourth through the twelfth century. Early and high medieval Christianity in social and cultural context, with attention to popular religious

belief and behavior as well as to the institutional church and its leaders.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2230.

Religion 1436. Medieval Heresy and Heretics: Conference Course
Catalog Number: 0849
Kevin J. Madigan (Divinity School)
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Investigations of heresy and heretics in western Europe in the Middle Ages, with emphasis on popular movements and on the responses of Church and society. Attention to methodological questions, and to the relationship of heresy, orthodoxy, and authority. Some attention will also be paid to others categorized as "outsiders" in Christendom, including Europe's Jewish communities.
Note: Offered jointly with the Divinity School as 2253.
Prerequisite: Previous work in the history of Christianity will be very helpful.

[Religion 1437. History of Western Christianity: 1100-1500]
Catalog Number: 5997
Kevin J. Madigan (Divinity School)
Half course (spring term). Hours to be arranged, and an hour to be arranged.
Church and society in western Europe during the high and late Middle Ages. Particular attention will be paid to theological and institutional change and continuity and to popular religious movements.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2250.

Religion 1438. The Friars and Their World, ca. 1100-1325
Catalog Number: 0851 Enrollment: Limited to 15.
Kevin J. Madigan (Divinity School)
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
Will focus on primary texts in English having to do with the origins and development of the Franciscans and Dominicans, the two major orders of friars in the high Middle Ages. We will look at these texts also as a way into the social and religious worlds of the 13th and 14th centuries. Topics include mendicant origins, mission, and hagiography; tension within the orders and between them; heresy and inquisition; apocalyptic though; scholasticism and the universities; and relations with the papacy.
Note: Offered jointly with the Divinty School as 2252.

[Religion 1439 (formerly Religion 1514). The History of Christianity: An Introduction to Interpretive Issues]
Catalog Number: 6685 Enrollment: Limited to 15.
David D. Hall (Divinity School) and Kevin J. Madigan (Divinity School)
Half course (fall term). Hours to be arranged.
An introduction to the interpretive literature of the history of Christianity in Europe and North America. Focus on major debates and the evolution of theory and method in "church history". Topics may include the transition from "church history" to "religious culture," the "triumph of Christianity" in the Roman Empire, the evolution of papal primacy, the causes of the

Reformation, the nature of “popular religion,” and American “exceptionalism.”
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2392.

Religion 1447. Christianity, War, and Peace
Catalog Number: 0659
Patrick Provost-Smith (Divinity School)
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
A study of Christian thinkers from Augustine through the present who sought and still seek to articulate the relationship between Christian morality and war. The course will not presuppose a commitment to the principles of “just war” or “pacifism,” but seek to develop a historical and critical approach to the larger historical and theological problems at stake in contemporary debates.
Note: Offered jointly with the Divinity School as 2279.

Religion 1448. Christianity, Mission, and the “Other”: Seminar
Catalog Number: 8843 Enrollment: Limited to 20.
Patrick Provost-Smith (Divinity School)
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
This seminar will explore a number of historical, theological, and theoretical problems in the history of Christian encounters with ’others.’ We will consider debates over the meaning of “conversion,” the geo-political expansion of Christendom, various historical paradigms of Christian missionary activity, the problems of colonialism and imperialism, and contemporary discussions of mission in a religiously plural world. Attention will also be given to the historiographical problems of "mission history."
Note: Offered jointly by the Divinity school as 2272.

[Religion 1450. European Images of Others: Seminar]
Catalog Number: 5735 Enrollment: Limited to 20.
Patrick Provost-Smith (Divinity School)
Half course (spring term). Hours to be arranged.
This seminar explores the varieties of “images” that have informed European perceptions of non-European cultures and religion. Readings include philosophical questions of “alterity,” background in Classical and Patristic sources from Thucydides to Augustine, philosophical histories from Acosta to Vico, and contemporary anthropological accounts from Levi-Strauss to Sahlins.
Note: Expected to be given in 2005–06. Offered jointly by the Divinity School as 2273.

[Religion 1451. Christian Thought: Renaissance and Early Modern]
Catalog Number: 8766
Patrick Provost-Smith (Divinity School)
Half course (spring term). Hours to be arranged.
Explores major movements in Christian thought from the "crisis of Christianity" recognized by early Renaissance humanists to the consolidation of confessional Christian identities in the early 17th century. Problems will include the meaning of the "Renaissance," the intellectual landscape of Protestant and Catholic reformations, and the expansion of Christianity to the Americas and

Asia.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2282.

[Religion 1452. Christian Thought: Early Modern to Modern]
Catalog Number: 0890
Patrick Provost-Smith (Divinity School)
Half course (spring term). Hours to be arranged.
Explores major trajectories and problems in Christian thought from the "wars of religion" in the 17th century through the challenges posed by the Enlightenment, social revolution, and colonial enterprises in the 19th century. We also will look at the problems posed by Christianity in other parts of the world other than Europe (e.g. Chinese rites controversy and missionary experience under the British Empire).
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2285.

[Religion 1457. Renaissance Thought: Utopia and its Critics: Seminar]
Catalog Number: 3165 Enrollment: Limited to 20.
Patrick Provost-Smith (Divinity School)
Half course (fall term). Hours to be arranged.
Reading the "utopias" of Thomas More and Francis Bacon, with examination of the intellectual context for these works, and attention to the development of "utopia" as a philosophical critical genre. We will then read contemporary philosophical material on "utopia," from Ernst Bloch and the early Frankfurt School.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2284.

Religion 1465. Liberalism and Orthodoxy, 1600–1870
Catalog Number: 0833

Half course (spring term). Tu., Th., at 10 and an hour to be arranged. EXAM GROUP: 12
The emergence of Unitarianism, Universalism, and Transcendental Perfectionism in the context of 17th-century Puritanism, the impact of the Enlightenment, romanticism, moral and social reform and the meaning and uses of “domesticity.”
Note: Offered jointly with the Divinity School as 2317.

[Religion 1468 (formerly Religion 1504). Religion in America: From the Coming of the Europeans to the 1870s]
Catalog Number: 2509
David D. Hall (Divinity School)
Half course (fall term). Tu., Th., at 10; and an hour to be arranged. EXAM GROUP: 12
Encompassing both “mainstream” and insurgent, “popular” or “new” forms of religion (e.g., the Society of Friends, Mormonism, African-American Protestantism), this survey course deals with the history of Christian thought; changing patterns of religious practice in relation, especially to gender; and religion and society in the context of the regulating and/or liberating “reform” movements of the 19th century.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2303.

Religion 1470. Introduction to Ethics
Catalog Number: 2884
Arthur J. Dyck (Public Health and Divinity School)
Half course (fall term). M., W., at 11. EXAM GROUP: 4
An introductory analysis of the major questions of ethics regarding the identification, justification, and attainment of what is moral for individuals and communities. Readings include classical and modern texts, both philosophical and theological, and acquaint the student with contemporary modes of moral reasoning.
Note: Offered jointly with the Divinity School as 2700.

Religion 1472. The Ethical and Religious Thought of Martin Luther King, Jr.
Catalog Number: 8761
Preston N. Williams (Divinity School)
Half course (spring term). Tu., 3–5. EXAM GROUP: 17, 18
A study of the life, thought, and actions of Martin Luther King, Jr. An ethical analysis of his primary concepts, ideas, and strategies based upon a reading and discussion of his writings and their sources.
Note: Offered jointly with the Divinity School as 2721.

[Religion 1478. Liberation Theology: Systematic and Contextual]
Catalog Number: 2556
Harvey G. Cox, Jr. (Divinity School)
Half course (fall term). Hours to be arranged.
Historical and religious sources of Liberation Theology in Latin America; variants in Asia and Africa; theological, political, and philosophical criticisms (e.g. Papal questions and "Radical Orthodoxy"); emerging Evangelical, Pentecostal, and non-Christian liberation theologies.
Note: Expected to be given in 2006–07. Separate requirements for undergraduate and graduate students. Offered jointly with the Divinity School as 2510.

Religion 1479. Liberation Theology in the Americas
Catalog Number: 5346
Thomas A. Lewis
Half course (fall term). Tu., Th., at 10; and an hour to be arranged. EXAM GROUP: 12
Liberation theology seeks to bring the social teachings of Christianity to bear on political and economic injustice. This course treats liberation theologies as socially grounded, politically engaged currents in religious thought. Focusing on Latin America, we will investigate the historical contexts and central themes of liberation theology: the relationship between theory and practice, the political function of the church, the relation between political freedom and salvation, and the role of intellectuals.
Note: Offered jointly by the Divinity School as 2472.

[Religion 1481. Introduction to Catholicism]
Catalog Number: 4993
Thomas A. Lewis
Half course (spring term). Hours to be arranged.
Explores Catholicism in its diversity, with emphasis on the modern world. Students examine

early developments of Christian theology and consider how Catholicism has responded to modern challenges including modern science, democratic ideals of equality, changing social values, increasing knowledge of other cultures, and struggles against injustice and poverty. Religion is viewed not simply as abstract ideas but in relation to social context and the lived religious practices of Catholics around the world.
Note: Expected to be given in 2006–07. Offered jointly with the Dvinity School as 2474.

[Religion 1482. The Catholic Experience in the US]
Catalog Number: 9510
Robert A. Orsi (Divinity School)
Half course (spring term). Hours to be arranged.
The varieties of Catholic cultures and practices from the colonial period to the present. Topics include: Catholicism and American liberalism; Catholic popular piety on American streets and farms; Catholic political radicalism; the rise of the Catholic school system; Catholics and American modernity; Catholics and public morality and civic culture in the US (motion picture censorship, for example, the anti-abortion debate).
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2310.

[Religion 1483. The Catholic Sixties]
Catalog Number: 8882 Enrollment: Limited to 35.
Robert A. Orsi (Divinity School)
Half course (spring term). Hours to be arranged.
An examination of profound change across US Catholic culture in the middle years of the 20th century, of the interplay of religious and social transformations. Topics include the Catholic anti-war movement; the new immigrations (from Haiti, for example) and of continuing migration from Mexico; the encounter with race and the cities; the new lives of women religious; sacrilege as cultural practice; memory and the making of popular historical consciousness.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2309.

[Religion 1485. Social Justice and the Catholic Church]
Catalog Number: 6144
Thomas A. Lewis
Half course (fall term). Hours to be arranged.
Catholic responses to 20th-century social justice issues: poverty, industrialization, racism, and sexism. The course examines official Church teachings, religious thinkers, and social movements, as well as Catholic collaboration with other religious and secular groups.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2475.

[Religion 1489. Contemporary Interpretations of Jesus]
Catalog Number: 6437
Harvey G. Cox, Jr. (Divinity School)
Half course (fall term). Hours to be arranged.
Beginning with the narratives of the life of Jesus in the Synoptic Gospels (Matthew, Mark, and Luke), we cover four current efforts to reclaim his significance: 1) the new search for the "historical Jesus," especially the Jesus Seminar and its critics; 2) emerging Asian, African, and Latin-American Christian views of Jesus; 3) recent interpretations of Jesus in such non-Christian

faiths as Judaism, Islam, Buddhism, and Hinduism; and 4) images of Jesus in music, film, and literature.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2483.

Religion 1491. Themes in Christian "Spirituality": Theories of Prayer, Self and Gender
Catalog Number: 3824
Sarah Coakley (Divinity School)
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
This course surveys a number of distinctive theories of prayer, meditation, and contemplation in the Christian tradition (both East and West) up to the 16th century CE, and analyzes how the discourse of prayer-practice is interwoven with presumptions about the nature of the (gendered) self.
Note: Offered jointly with the Divinity School as 2439.

Religion 1492. Introduction to Christian Theology
Catalog Number: 2161
Sarah Coakley (Divinity School)
Half course (fall term). Tu., Th., 11:30–1 and one hour to be arranged. EXAM GROUP: 13, 14
A basic course for beginning students which analyzes different approaches to Christian theology as evident in classic, modern, and contemporary theological texts.
Note: Offered jointly with the Divinity School as 2401.

[Religion 1493. Contemporary Roman Catholic Theology]
Catalog Number: 6926
Francis Fiorenza (Divinity School)
Half course (spring term). Hours to be arranged and an hour to be arranged.
A survey of contemporary Roman Catholic theology that discusses issues in the interpretations of God, Jesus, and the church with reference to theological method. The broad spectrum of present-day Roman Catholic theology will be covered through an analysis of diverse theologians and approaches: existential, transcendental, liberationist, feminist, analytical, and hermeneutical.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 2479.

[Religion 1495. Introduction to Theological Thinking]
Catalog Number: 5154
David Lamberth (Divinity School)
Half course (fall term). Hours to be arranged.
A basic survey of a variety of approaches to theology through selected major figures. We will consider: What is the nature of theology? How are theological questions posed and answered? What is distinctive about each author's view? We will also be concerned with what theological thinking is today, and its relation is to other fields of inquiry. Authors are drawn from the early medieval and contemporary periods, and are mostly Christian.
Note: Expected to be given in 2006–07. Offered by the Divinity School as 2402.

Cross-listed Courses

Medieval Greek 115ar. Introduction to Byzantine Greek
Medieval Studies 125. The Spirit's Voices: Holy Women in Medieval Christianity

Primarily for Graduates

[Religion 2401. New Testament Studies]
Catalog Number: 7788 Enrollment: Limited to 10.
Elisabeth Schüssler Fiorenza (Divinity School)
Half course (spring term). Hours to be arranged.
Focuses on New Testament studies but raises issues that are significant for all areas of theological and religious studies. Examines the history, methods, research areas, educational practices and theoretical paradigms of the discipline.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 1885.
Prerequisite: Work in biblical studies and/or critical theory/hermeneutics.

[Religion 2426. Editing Greek Christian Literature: Seminar]
Catalog Number: 9005
François Bovon (Divinity School) and John Duffy
Half course (spring term). Hours to be arranged.
We explore the several-step preparation of a scholarly text edition. The introductory sessions focus on heuristic questions: how to track down manuscripts of authors and individual works; how to find library catalogs and descriptions; how to obtain copies of documents. The rest of the course is devoted to a hands-on exercise in editing and translating one or more short Greek Christian texts, particularly apocryphal texts.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 1874.
Prerequisite: A course in Greek Paleography, and a strong background in Greek.

[Religion 2464. Radical Religion in England and America, 1550–1750: Seminar]
Catalog Number: 5810 Enrollment: Limited to 20.
David D. Hall (Divinity School)
Half course (fall term). Hours to be arranged.
The history of the Puritan movement in the context of the Reformation and the Reformed tradition; mainstream and radical movements, including Quakerism. A reading seminar, using primary materials and the major historiography.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2270.

Religion 2471. Eucharistic Theology - Contested Questions: Seminar
Catalog Number: 4317 Enrollment: Limited to 12.
Sarah Coakley (Divinity School)
Half course (fall term). W., 10–12. EXAM GROUP: 3, 4
This seminar provides an in-depth discussion of four contested topics in historical and contemporary Eucharistic theology: the status of the minister/priest as *in persona Christi*; the eucharist as 'sacrifice'; the eucharist as 'gift'; and the issue of 'real presence'. Historic liturgical and theological texts will be brought into discussion with contemporary ritual and gender theory with an eye to a fresh, ecumenical assessment of these themes.

Note: Offered jointly with the Divinity school as 2446.
Prerequisite: Advanced work in theology or philosophy.

Religion 2475. Teresa of Avila and John of the Cross: 'Mystical Theology', Epistemology and Gender: Seminar
Catalog Number: 7330 Enrollment: Limited to 15.
Sarah Coakley (Divinity School)
Half course (spring term). W., 10–12. EXAM GROUP: 3, 4
This seminar undertakes a close reading of the theories of prayer and self propounded by the 16th-century Carmelites, Teresa of Avila and John of the Cross. The course will be framed by a critical examination of the use (and misuse) of the Carmelites in some influential works of modern psychology, analytic philosophy, cultural theory, and gender theory.
Note: Offered jointly with the Divinity school as 2448.
Prerequisite: Graduate work in theology or philosophy.

[Religion 2477. God]
Catalog Number: 8838 Enrollment: Limited to 12.
Francis Fiorenza (Divinity School)
Half course (spring term). Hours to be arranged.
An analysis of select 20th-century theologians in their approach to the issue of the knowledge of God and in their intrepretations of the nature of God.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 2634.

Religion 2480. Karl Barth: Seminar
Catalog Number: 8592 Enrollment: Limited to 12.
Ronald Thiemann (Divinity School)
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
An intensive reading and research course on the work of Karl Barth. Attention will be given to the theological and political development throughout his work, including his involvement in the German Church Struggle.
Note: Offered jointly with the Divinity school as 2535.
Prerequisite: At least one course in modern theology.

Graduate Courses of Reading and Research

***Religion 3420hf. Seminar for Advanced New Testament Students**
Catalog Number: 6026 Enrollment: Limited to 15.
Elisabeth Schüssler Fiorenza (Divinity School) 3193
Half course (throughout the year). Alternate W., 3–5.
Topic for 2004-05: Early Christian Studies as Critical Rhetorical Studies. The seminar will explore classical and contemporary forms of rhetorical criticism and discuss the rhetoric and ethic of inquiry.
Note: Seminar for ThM, ThD, and PhD candidates, and qualified MTS and MDiv students. Required for ThM candidates in the field and for ThD and PhD candidates until the term following successful completion of general exams. Offered jointly with the Divinity School as 1980.

***Religion 3450hf. Colloquium in Religion and Theory**
Catalog Number: 5177 Enrollment: Limited to 25.
Patrick Provost-Smith (Divinity School) 4808
Half course (throughout the year). Fall: Tu., 4–6.
This colloquium will discuss theoretical issues and texts that have had a formative impact on the study of religion, with topics that will vary according to student interest. The topic for 2004-05 will be Foucault.
Note: Future topics may include critical theory (Frankfurt School), Marxism and religion, post-structuralism, and others. Offered jointly with the Divinity School as 2288.

Modern Western

For Undergraduates and Graduates

[Religion 1510. Hegel's *Phenomenology of Spirit*]
Catalog Number: 0138
Thomas A. Lewis
Half course (spring term). Hours to be arranged.
Perhaps the most influential of Hegel's writings, this work provides an introduction to his thought and considers topics in ethics, philosophy of history, religious thought, and epistemology.
Note: Expected to be given in 2005–06. Offered by the Divinity School 2653.

[Religion 1511. Hegel]
Catalog Number: 6782
Thomas A. Lewis
Half course (spring term). Hours to be arranged.
This seminar examines Hegel's philosophy of spirit, including his conception of human beings, ethics, politics, and the relationship between religion and philosophy. We investigate how these dimensions of his thought fit into the larger system as well as ask what aspects of his thought remain viable today. Readings from the *Encyclopaedia, Philosophy of Right, Lectures on the Philosophy of History,* and *Lectures on the Philosophy of Religion*.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2652.

[Religion 1513. History of Harvard and Its Presidents]
Catalog Number: 1233 Enrollment: Limited to 100.
Peter J. Gomes (Divinity School)
Half course (spring term). W., F., at 11, and an hour to be arranged. EXAM GROUP: 4
An exploration of the intellectual and institutional history of America's oldest college through the examination of four pairs of its 27 presidents. Among themes to be considered are European antecedents, developments in faculty, governance, and curriculum, as well as the maturation of the built environment. Significant attention is paid to the evolution of the religious context of the school, including the practice of and instruction in religion, and the challenges of secularism and pluralism.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2297.

[Religion 1515. Religion and Culture in 19th-Century America and Europe: Seminar]
Catalog Number: 4488 Enrollment: Limited to 20.
David D. Hall (Divinity School)
Half course (spring term). Hours to be arranged.
Encompassing the "Victorian" period (c.1830–1890) and such themes or ideas as: liberalism (laissez faire) and its critics; the idea of culture; medievalism, agnosticism, and the renewal of orthodoxy; the origins of the social sciences; and the social history of intellectuals. Materials drawn from British and American sources.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 2320.

[Religion 1517. The Spirit of American Religious Thought and Philosophy]
Catalog Number: 8858
David Lamberth (Divinity School)
Half course (fall term). Hours to be arranged.
Concentrates on important authors in the formative development of American religious thought and philosophy up to the early 20th century, such as Jonathan Edwards, William Ellery Channing, Ralph Waldo Emerson, Henry David Thoreau, C.S. Peirce, William James, and Josiah Royce.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 2551.

Religion 1520. Introduction to Hermeneutics and Theology
Catalog Number: 6184
Francis Fiorenza (Divinity School)
Half course (fall term). M., W., at 11. EXAM GROUP: 4
General introduction to hermeneutical theory. A survey of the development from classical to modern and contemporary hermeneutics. Examines the influence of contemporary hermeneutical theory upon the interpretation of biblical texts, the diverse conceptions of theology, and the explication of key theological categories such as revelation, experience, method, foundations, classics, community, and practice.
Note: Offered jointly with the Divinity School as 2410.

[Religion 1526. Religion in America from c. 1865 to the 1970s]
Catalog Number: 8025
Robert A. Orsi (Divinity School)
Half course (spring term). Hours to be arranged.
American religions from the end of the Civil War to the 1970s. Topics include religions of immigrants and migrants; religion and race; new religious idioms (such as Pentecostalism) and the reinvention of traditions in response to the challenges of modern culture; religious constructions of social and moral issues (e.g., abortion and workers' rights), the religious response to urbanization and suburbanization, religion and gender.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 2304.

[Religion 1530r. Religious Values and Cultural Conflict]
Catalog Number: 6858
Harvey G. Cox, Jr. (Divinity School)
Half course (fall term). Hours to be arranged.

By reading a number of recent novels and reflecting on both their content and their sometimes controversial reception, we will examine how conflicting theological, cultural, and ethical values find expression. The works considered are *Charming Billy* by Alice McDermott, *The God of Small Things* by Arundhati Roy, *The Beauty of the Lilies* by John Updike, *Children of Men* by P.D. James, *Satanic Verses* by Salmon Rushdie, *Left Behind* by Tim LaHaye and Jerry B. Jenkins, *Jazz* by Toni Morrison, and *Lying Awake* by Mark Salzman.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 2504.

Religion 1534. Feminist Theologies: Contexts and Methods Conference Course
Catalog Number: 3081 Enrollment: Limited to 24.
Elisabeth Schüssler Fiorenza (Divinity School)
Half course (fall term). Tu., 1–3 and a section to be arranged. EXAM GROUP: 15, 16
In the past decades many different feminist religious voices have emerged around the globe. The course will study key feminist thea/ological directions and explore how their theoretical frameworks and methods are shaped by their different socio-cultural-religious locations and struggles. Lectures, group sessions, and projects.
Note: Offered jointly with the Divinity School as 2688.

[Religion 1536. Introduction to Theology and Culture]
Catalog Number: 1908 Enrollment: Limited to 30.
Francis Fiorenza (Divinity School)
Half course (fall term). Hours to be arranged.
A basic introduction to theology and some of its central themes, topics, and issues. Specific attention is given to theological method, the relation between theology and religious studies, and the intersection of theology and culture, and the relation between faith and critical inquiry.
Note: Expected to be given in 2006–07.

Religion 1541. Kant: Seminar
Catalog Number: 5295
David Lamberth (Divinity School)
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
A close reading of major works of Kant relevant to theology and philosophy of religion. The seminar focuses on issues such as the nature and limits of reason, the concepts of freedom, morality and faith, and the idea of God.
Note: Offered jointly by the Divinity School as 2674.
Prerequisite: Advanced work in theology or philosophy of religion.

[Religion 1542. Kierkegaard: Seminar]
Catalog Number: 0515
David Lamberth (Divinity School)
Half course (spring term). Hours to be arranged.
A close consideration of theological and philosophical issues in the major works of Kierkegaard, both the pseudonymous and Christian writings.
Note: Expected to be given in 2005–06. Offered by the Divinity School as 2678.
Prerequisite: Advanced work in theology or philosophy of religion.

[Religion 1543. 19th-Century Religious Thought: Theology and the Critique of Religion]
Catalog Number: 5065
David Lamberth (Divinity School)
Half course (spring term). Hours to be arranged.
The 19th-century formulated many of the questions and frameworks that continue to dominate theology and religious reflection in the West. We consider the developing interplay between modern Christian theology (primarily continental) and the principal philosophical and social critiques of religion in the 19th-century. Topics include human nature, religion, the divine-human relationship, religious knowledge, the social, and historicity. Readings from Kant, Schleiermacher, Hegel, Marx, Feuerbach, Kierkegaard, Nietzsche, Harnack, and Troeltsch.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2431.

Religion 1546. Religion and the American Pragmatic Tradition
Catalog Number: 3565
David Lamberth (Divinity School)
Half course (spring term). M., W., at 11, and an hour to be arranged. EXAM GROUP: 4
Surveys the American pragmatic tradition, attending to views of the nature and place of religion. The first part takes up the classical pragmatists, beginning with Emerson as precursor, then focusing on Peirce, James, and Dewey. Topics include belief, experience, truth, action, ethics, rationality, and the nature and role, socially and individually, of religion. The latter part considers contemporary neo-pragmatists, including Rorty, Putnam, Chopp, and Stout. Prior work in theology or philosophy is recommended.
Note: Offered jointly by the Divinity School as 2671.

[Religion 1547. Modern Theology and the Ends of Modernity]
Catalog Number: 7008
David Lamberth (Divinity School)
Half course (spring term). Hours to be arranged.
Continuing Religion 1543, this course considers 20th-century developments within modern theology, focusing on the internationalization and extension of 19th-century derived forms of critique. Begins with the social gospel and kerygmatic theology, and pays particular attention to the emergence of feminist and black liberation theologies in the US, as well as selected developments in postmodern thought, Readings include Anderson, Barth, Cone, Daly, Dewey, Niebuhr, Rauschenbusch, Shüssler-Fiorenza, Tillich, Taylor.
Note: Expected to be given in 2005–06. Offered by the Divinity School as 2433.

Religion 1549. Media, Religion and Social Meaning
Catalog Number: 3414
Marla F. Frederick
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Looks at the historic development of radio and television ministries and their influence in articulating alternative interpretations of social meaning. In some cases, religious media have disrupted the simple binaries of black/white, rich/poor, male/female. What are the new and/or normalized categories of race, class, and gender presented by contemporary religious media? How might these meanings shift in different local/national as well as transnational settings?

[Religion 1550. Religion and American Public Life]
Catalog Number: 1431
Ronald Thiemann (Divinity School)
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
An overview of the issues that arise within American democracy concerning the public role of religion. Covers issues in public theology, democratic political theory, and constitutional law. Concludes with a case study in public policy, considering such issues as religion and welfare policy, religion and the First Amendment, religion and warfare.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2524.

Religion 1552. Reason, Tradition, and Modernity: Seminar
Catalog Number: 0740
Thomas A. Lewis
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
The modern West has been defined largely by pervasive challenges to inherited religious beliefs, ethical mores, and political institutions. Since the Enlightenment, these developments have provoked widespread reflection on the nature and significance of tradition, the limits of reason, as well as the relation between reason and tradition. We will trace this current from the developments of German romanticism though recent "new traditionalist" thought, such as that of Alasdair MacIntyre.
Note: Offered jointly with the Divinity School as 2638.

Religion 1558. Religion in the US Between WWI and WWII
Catalog Number: 1756
Robert A. Orsi (Divinity School)
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
US religious history in the interwar years and the public and academic construal of "religion" in the same period Topics include religion and labor and accounts of workers' religion, Middletown's religion, religion in the WPA guides.
Note: Offered jointly with the Divinity School as 2311.

Religion 1560. Religion and Society in 20th Century America: A Biographical Approach: Seminar
Catalog Number: 7061
Harvey G. Cox, Jr. (Divinity School)
Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
This course will focus on representative figures in the complex relationship of religion and society in the America of the 20th century, including Walter Rauschenbusch, Jane Addams, Aimee Semple McPherson, Reinhold Neibuhr, Billy Graham, Dorothy Day, Martin Luther King, Jr. and William Sloan Coffin.
Note: Offered jointly by the Divinity School as 2522.

Religion 1564. The Choreography of Social Movements
Catalog Number: 6365
Swanee Hunt
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13

What motivates masses to demand change? How has religion motivated leaders and shaped crusades for a better American society? Where do you fit intto that scene? We will analyze essential elements of American social movements; values, history, leadership, strategy, and resources. Students will apply this framework to past and current movements, learning through literature, lectures, guest speakers, documentaries, and discussions. Major assignment will challenge students to design a movement they would lead.

Religion 1567. Religion and the Public Intellectual
Catalog Number: 2548
Ronald Thiemann (Divinity School)
Half course (spring term). W., 1–3 and an hour to be arranged. EXAM GROUP: 6, 7
An inquiry into the role of the public intellectual in contemporary culture. The course will review the critical literature on the public intelletual focusing on the question of religion. Special attention will be given to the social and cultural conditions that enable religiously based social criticism and to the various genres (poetry, the essay, the novel) through which that criticism is communicated. Readings in Akhmatova, Bender, Camus, Hughes, Jacoby, Nussbaum, Orwell, West, and others.
Note: Offered jointly with the Divinity School as 2528.

Religion 1570. Theories of Social Ethics
Catalog Number: 5519
Hille Haker (Divinity School)
Half course (fall term). Hours to be arranged.
Social Ethics strives to focus on the political, cultural, and institutional sides of ethical reflection. The lecture course aims to reflect upon new theories of social ethics in the different fields, and will develop a new approach for theological and philosophical ethics taking into account globalization and power relations, race and gender questions.
Note: Offered jointly with the Divinity School as 2744.

Religion 1571. Concepts and Critique of the Self in Modern Ethics
Catalog Number: 0155
Hille Haker (Divinity School)
Half course (spring term). Hours to be arranged.
The Self is as central to ethics as it is questioned in contemporary philosophical writings, i.e. in poststructuralism. The course examines several approaches to the self, from a communitarian, existentialist, phenomenological, hermeneutic, analytical, and feminist tradition. It considers some newer works on identity and subject-forming, as presented by Ricoeur, Levinas, Schechtman, Lindemann Nelson, Benhabib, and Butler, and others, and is aimed at reconsidering the concept of moral identity and responsibility by these approaches.
Note: Offered jointly with the Divinity School as 2746

Religion 1572. Violence as a Cause for Ethics: Seminar
Catalog Number: 3866 Enrollment: Limited to 12.
Hille Haker
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Traditional virtue ethics related morality to happiness, self-fulfillment, friendship and justice.

However, the moral imperative to respect others in their striving for happiness and self-fulfillment emerges from the experience and recognition of violence. Different forms of violence— violence in personal relations, political violence, religious violence, and ethical violence are closely examined and conceptualized in an ethics meant as a response to violence.
Note: Offered jointly with the Divinity School as 2745.

Religion 1573. Feminist Ethics and the Notion of Autonomy, Care, and Justice in Different Contexts: Seminar
Catalog Number: 8419 Enrollment: Limited to 12.
Hille Haker
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
Several feminist approaches to ethics emphasize the necessity of transcending the perspective of liberalism as a starting point for the reflection of ethical responsibility. The course will assess different approaches of feminist ethics, e.g. S. Beauvoir, S. Weill, L. Irigaray, J. Butler, S. Benhabib, H. Lindemann-Nelson, D. Meyers, M. Friedman, M. Walker, and others.
Note: Offered jointly with the Divinity School as 2748.

Religion 1580. Introduction to African American Religious History
Catalog Number: 7140
Wallace D. Best (Divinity School)
Half course (fall term). M., W., at 10; M., at 11; M., at 3; M., at 4 and an hour to be arranged. EXAM GROUP: 3
This course will trace the origins and development of African American religion(s) in the US. We will explore the critical relationship between African American religion(s) and African American cultural forms (music, literature, and the visual arts), paying particular attention to the importance of socio-economic class and region. The connection between black churches and black political thought, black women and religion, and "Afro-centric Christianity" are but a few of the themes we will address.
Note: Offered jointly with the Divinity School as 2334.

Religion 1581. Black Women and Religious Narrative
Catalog Number: 1731 Enrollment: Limited to 20.
Wallace D. Best (Divinity School)
Half course (fall term). Tu., 3–5. EXAM GROUP: 17, 18
This course will analyze the personal narratives of several African American women from the 19th and 20th centuries. We will examine the notion that religious metaphor and symbolism have figured prominently in black women's writing across literary genres. We will explore the various ways black women have used their narrative not only to reveal their religions faith, but also to understand and to critique American society.
Note: Offered jointly with the Divinity School as 2333.

Religion 1582. Langston's *Salvation:* Race, Religion, and the Harlem Renaissance
Catalog Number: 6071 Enrollment: Limited to 20.
Wallace D. Best (Divinity School)
Half course (spring term). Tu., 3–5. EXAM GROUP: 17, 18
The Harlem Renaissance of the 1920s is most often depicted as "the flowering of African

American arts and literature." It can also be characterized as a period of emergence for diverse forms of African American religious expressions, ideologies, and institutions. This course will explore the literature and visual arts of the Harlem Renaissance to understand the pivotal intersection of race and religion during this time of black "cultural production."
Note: Offered jointly with the Divinity School as 2335.

Religion 1583. Black Gospel Music: A History
Catalog Number: 9242
Wallace D. Best (Divinity School)
Half course (spring term). M., W., at 10 and an hour to be arranged. EXAM GROUP: 3
Black Gospel has been called the "sacred sister to the blues." Like the blues, it is a musical genre deeply rooted in the African American experience. This course will trace the history of Black Gospel from its "modern" origins in 1930s Chicago, popularized by Thomas Dorsey and Mahalia Jackson, into the 1990s mainstream. Analyzing songs from each period of Black Gospel, we will explore the ways the music has tended to reflect and critique the current cultural climate.
Note: Offered jointly with the Divinity School as 2336.

Cross-listed Courses

African and African American Studies 184. Women and Religious Expression in 20th-Century African-American History
African and African American Studies 193. Religion and Social Change in Black America
***Freshman Seminar 33s. Rebellion, Violence, and Symbols of Grace: Religious Themes in American Literature**

Primarily for Graduates

Religion 2501. The Religious History of American Women: Seminar
Catalog Number: 6508 Enrollment: Limited to 16.
Ann D. Braude (Divinity School)
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Focuses on the relationship between concepts of piety and concepts of femininity in American culture. Assesses both the role of gender in shaping religious history and the impact of religion on gender norms. Explores established groups, as well as theological and institutional innovators such as in Shakerism and Christian Science.
Note: Offered jointly with the Divinity School as 2325.
Prerequisite: Some previous work in American religious history.

[Religion 2540. Circumscribing a Discipline: Theology and the Philosophy of Religion: Seminar]
Catalog Number: 4141 Enrollment: Limited to 12.
David Lamberth (Divinity School)
Half course (spring term). Hours to be arranged.
1) What are the conditions under which the philosophy of religion emerged as its own field? And 2) to what extent is it justifiable and valuable to consider the philosophy of religion as separate from theology?

Note: Expected to be given in 2005–06. Offered by the Divinity School as 2672.
Prerequisite: Advanced work in the theology or philosophy of religion.

Religion 2545. Religion and Social Theory: Seminar
Catalog Number: 2728
David Little (Divinity School)
Half course (spring term). Th., 10–12. EXAM GROUP: 12, 13
Our focus is the writings of Max Weber together with the reactions of his critics and defenders. Relevance to topics such as "secularization," "religious nationalism," and "cultural relativism."
Note: Offered jointly with the Divinity School as 2813.

[Religion 2550. Women and Religion in Contemporary America: Seminar]
Catalog Number: 8927
Ann D. Braude (Divinity School)
Half course (spring term). Hours to be arranged.
An historical examination of the engagement of religion with the changing roles of women religion in post-World War II US, with attention to feminism, anti-feminism and secularization.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 2328.

Graduate Courses of Reading and Research

***Religion 3505hf. Colloquium in American Religious History**
Catalog Number: 6445 Enrollment: Limited to 20.
Robert A. Orsi (Divinity School) 4242
Half course (throughout the year). Alternate Tu., 7:30–9:30 p.m.
Presentation and discussion of the research of doctoral candidates in American religious history.
Note: Open, with instructor's permission, to doctoral students in other fields of religious studies or American studies. Offered jointly with the Divinity School as 2390.

Hinduism

For Undergraduates and Graduates

Religion 1600. Introduction to the Hindu Traditions of India
Catalog Number: 9700
Anne Elizabeth Monius (Divinity School)
Half course (fall term). M., W., at 11, and one hour to be arranged. EXAM GROUP: 4
An introduction to the many distinct yet interrelated religious tradtions of South Asia that are often labeled "Hinduism". Students consider the ways in which Hindus from a variety of historical time periods, local traditions, and social backgrounds have attempted to make sense of their world and their lives within it.
Note: Offered jointly with the Divinity School as 3404.

[Religion 1625. Indian Religions Through Their Narrative Literatures]
Catalog Number: 9890
Anne Elizabeth Monius (Divinity School)

Half course (spring term). Hours to be arranged.
An examination of the religious traditions and communities of South Asia through the stories they tell. Material covered varies, with genres ranging from epics to novels and folk stories. Explores the many ways in which narrataive literatures have remained enduring sites for theological, ethical, and political reflection in South Asia.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3405.

Religion 1627. Hindu Ethics: Seminar
Catalog Number: 9638 Enrollment: Limited to 15.
Anne Elizabeth Monius (Divinity School)
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
An intensive exploration of the place of ethics and moral reasoning in Hindu thought and practice. Materials to be examined will be drawn from a wide range of sources, from classical Sanskrit dharmashastra to epic narrative, devotional poetry, and modern ethnography, but emphasis will be placed throughout upon the particularity of different Hindu visions of the ideal human life.
Note: Offered jointly with the Divinity School as 3923.

[Religion 1631. Hindu Traditions of Devotion]
Catalog Number: 9423
Anne Elizabeth Monius (Divinity School)
Half course (fall term). Hours to be arranged.
An examination of Hindu *bhakti* (devotional traditions), focusing on three specific geographic/cultural regions within the Indian subcontinent. Keeping in mind both continuities and differences in the *bhakti* traditions of these three distinct cultural areas, we explore a variety of devotional literatures in English translation and considers the enduring significance and use of that deeply emotional poetry in the lives of Hindus today.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 3406.

[Religion 1640. The Study of Hinduism in the Post-Modern, Post-Colonial World: Seminar]
Catalog Number: 8084 Enrollment: Limited to 15.
Anne Elizabeth Monius (Divinity School)
Half course (fall term). Hours to be arranged.
What does it mean to study "Hinduism" in a post-colonial context? How have the recent interpretive strategies of post-modernism and cultural studies shaped the study of India's Hindu traditions? Through careful examination of recent works in the field, this seminar explores the current state of Hindu Studies in both the Euro-American and South Asian academies and assess possible directions for future work.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity school as 3924.

[Religion 1650. Modern Hindu Movements: Seminar]
Catalog Number: 5120
Diana L. Eck
Half course (spring term). Hours to be arranged.
Readings in 19th and 20th century Hindu movements, investigating the many types of teachers, writings, and movements that have come to comprise modern "Hinduism." Consideration of such

thinkers, teachers, and activists as Ram Mohan Roy, Vivekananda, Gandhi, Sarvarkar, Radhakrishnan, and more recent movements such as the Chinmaya Mission and the Vishva Hindu Parishad. A consideration of post-colonial perspectives on the emergence of modern Hinduism.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3877.

[Religion 1670. Approaching Hinduism: Theories, Texts, and Practices]
Catalog Number: 9445 Enrollment: Limited to 12.
Parimal G. Patil
Half course (spring term). Hours to be arranged.
Studies selected theories, texts, and practices that have shaped (and are continuing to shape) the study of Hindu traditions. Pays particular attention to how the various subjects that scholars have chosen to study have been constituted, selected, and used to shape our understanding of Hinduism.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3927.

Cross-listed Courses

[Foreign Cultures 12. Sources of Indian Civilization]
[Indian Studies 119. South Asian Literature and Its Theorists]
[Indian Studies 206. Old Indian and Eurasian Creation Myths: Seminar]
Literature and Arts C-18. Hindu Myth, Image, and Pilgrimage

For Graduates

***Religion 3601. Readings in Hindu Myth, Image, and Pilgrimage: Seminar**
Catalog Number: 3998
Diana L. Eck 4514
Half course (spring term). Th., 2–4.
Intensive reading and research on specific topics in Hindu mythology, image and iconography, temples and temple towns, sacred geography and pilgrimage patterns.
Note: Offered jointly with the Divinity School as 3869.

Buddhism

For Undergraduates and Graduates

Religion 1700. Introduction to Buddhism, in Theory and Practice
Catalog Number: 3486
Janet Gyatso (Divinity School)
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
A study of the main ideas, practices, and classic texts of Buddhist tradition. The class will consider some of the principal religious, social, and philosophical questions in Buddhist history, as well as the hermeneutics of its modern academic study. It will survey early Buddhism and developments in Theravada, Mahayana, and Tantric Buddhism across Asia. These developments exemplify distinctive Buddhist modes of personal cultivation, community life, and literary

practice.
Note: Offered jointly with the Divinity School as 3558.

[Religion 1704. South Asian Buddhism: Studies in Indian Buddhism]
Catalog Number: 9467
Parimal G. Patil
Half course (spring term). Hours to be arranged.
How is it that we know what it is we know about Buddhism in India? We explore this question through a close reading of recent work in Indian Buddhism. In discussing recent scholarship on Buddhist intellectual and social history, literature, religious practices, ritual, and philosophy (and by consulting the primary material on which this work is based), we will develop a critical overview and assessment of the field.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3531.

[Religion 1705. Tibetan Religions]
Catalog Number: 7192
Janet Gyatso (Divinity School)
Half course (fall term). Hours to be arranged.
An in-depth study of Tibetan Buddhism and other religious groups in their particular social and historical contexts. The course will examine distinctive Tibetan traditions of ritual practice, poetic and autobiographical writing, personal cultivation, and meditation. It will look at various kinds of religious communities as well as the religious dimensions of Tibetan political institutions.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 3563.

[Religion 1706. South Asian Buddhism: Dharmas, Emptiness, and Idealism]
Catalog Number: 9464
Parimal G. Patil
Half course (fall term). Hours to be arranged.
A very close and contextual reading (in translation) of Buddhist "doctrinal" and "philosophical" texts. We will select chapters from Vasubandhu's *Treasury of Metaphysics*, Nagarjuna's *Basis of the Middle Way*, and Vasubandhu's *Twenty Verses*. Attempt to understand these texts on their own terms and in their South Asian contexts, while also inquiring into their significance for the study of Buddhism and religion in South Asia.
Note: Expected to be given in 2006–07. Offered jointly with the Divinity School as 3536.

[Religion 1708. Issues in Buddhist Philosophy: Conference Course]
Catalog Number: 8754 Enrollment: Limited to 25.
Janet Gyatso (Divinity School)
Half course (fall term). Hours to be arranged.
A critical examination of key issues in Indian Mahayana Buddhist philosophy. Readings in Madhyamika, Yogacara, and epistemological traditions. The class will also consider two later Asian appropriations of Indic philosophical concepts: a set of Tibetan writings on special forms of memory; and a modern Japanese attempt to write a philosophy of the body, which draws together meditation theory with key notions from western continental thinkers.

Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3562.
Prerequisite: Some knowledge of Buddhist traditions is preferrable.

[Religion 1710. Buddhist Ethics: Seminar]
Catalog Number: 8878
Janet Gyatso (Divinity School)
Half course (spring term). Hours to be arranged.
An exploration of selected classic doctrinal texts and contemporary Buddhist literary and autobiographical writings. In each instance the task will be to discern the bases of key ethical principles, with particular attention to the definition of the self, the grounds for human relationships, and the question of why one cares for another. Some works of western philosophical ethics will also be read in order to consider the relevance of the Buddhist material for contemporary ethical issues.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3568.

Religion 1725. Buddhism and Social Change: Seminar
Catalog Number: 4517 Enrollment: Limited to 15.
Christopher S. Queen
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
This survey of Buddhist social teachings examines the evolution of central concepts (impermanence, selflessness, suffering), ethical styles (discipline, virtue, altruism, engagement), and themes (peace, justice, gender, ecology) in Asia and the West. We consider representative figures and movements in the rise of socially engaged Buddhism since the 19th century.
Note: Offered jointly with the Divinity School as 3853.
Prerequisite: Previous study of Buddhism.

[Religion 1726. Buddhism in America: Seminar]
Catalog Number: 4292 Enrollment: Limited to 15.
Christopher S. Queen
Half course (fall term). Hours to be arranged.
The transmission of Buddhist teachings and institutions to the West. A survey of Buddhist thinkers and movements since the 19th century, with primary attention to America: immigrant Buddhist communities, Transcendentalists and Theosophists, Pragmatist and Process philosophers, the "beat" generation, and recent Zen, Tibetan, and Theravada developments. Topics for discussion and research include tradition and transformation, socially engaged Buddhism and environmentalism, feminism, peace activism, and the dialogue with other faiths.
Note: Expected to be given in 2005–06. Separate requirements for undergraduate and graduate students. Offered jointly with the Divinity School as 3851.
Prerequisite: Knowledge of Asian Buddhism.

Religion 1730. Buddhist Women and Representations of the Female: Conference Course
Catalog Number: 4463
Janet Gyatso (Divinity School)
Half course (fall term). W., 2–5. EXAM GROUP: 7, 8, 9
We explore three interrelated subjects: 1) Buddhist conceptions concerning the female gender; 2) the lifestyles and self-conceptions of historical Buddhist women, focusing upon autobiographical

writings by Buddhist women, and accounts of modern nuns involved in reform movements and political struggles in Asia; 3) Buddhist philosophy of language and its relation to Buddhist representations of the female. The latter is studied in conjunction with the writings of Western feminist thinkers on language and semiotics.
Note: Offered jointly with the Divinity School as 3559.

[Religion 1750. Philosophy of Religion: Religious Epistemology]
Catalog Number: 9826
Parimal G. Patil
Half course (spring term). Hours to be arranged.
Philosophers belonging to nearly every religious tradition have offered arguments in support of their traditions' most basic doctrines. We consider, in detail, some of the epistemological frameworks within which these arguments have been (and continue to be) offered. Specifically, we discuss: (1) Reformed Epistemology; (2) Virtue Epistemology; (3) The Epistemology of Religious Experience; (4) Proper Function; and (5) Buddhist, Hindu, and Jaina Epistemologies.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3535.

Primarily for Graduates

Religion 2710. Buddhist Studies: Seminar
Catalog Number: 1608
Janet Gyatso (Divinity School)
Half course (spring term). W., 2–5. EXAM GROUP: 7, 8, 9
Topic for 2005: An advanced seminar in Abhidharma ideas on physical matter, human emotions, karma and merit, and the mind-body relation, through a close reading of the Abhidharmakosa and the Visuddhimagga.
Note: Offered jointly with the Divinity School as 3888.
Prerequisite: Knowledge of at least one classical Asian language.

[Religion 2760. Buddhism and its Critics]
Catalog Number: 9484
Parimal G. Patil
Half course (spring term). Hours to be arranged.
Focuses on the Buddhist theory of momentariness. After discussing its intellectual history in India, we will read, in translation, a Buddhist "proof" of the theory and discuss a number of non-Buddhist criticisms of it.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3876.

Cross-Listed Courses

East Asian Buddhist Studies 114. The Mahayana in East Asia: Bodhisattvas and Their Cults in Medieval and Early Modern East Asian Buddhism
East Asian Buddhist Studies 115. Buddhist Meditation Traditions
[East Asian Buddhist Studies 116a. Buddhism in East Asia: I-VII Century]
[East Asian Buddhist Studies 116b. Buddhism in East Asia: VIII-XVI Century]
East Asian Buddhist Studies 210r. Topics in East Asian Buddhism

Islam

For Undergraduates and Graduates

Religion 1801 (formerly Religion 1551). For the Love of God and His Prophet: Literary and Artistic Expressions of Muslim Devotional Life
Catalog Number: 0110
Ali S. Asani
Half course (spring term). Tu., Th., 11:30–1 and a weekly section to be arranged. EXAM GROUP: 13, 14
Designed as an introduction to Islam, the course explores literature and the arts (poetry, calligraphy, dance, music, drama, and architecture) as expressions of Muslim devotion, as well as their role in worship and liturgy. An important aim is to understand and explore the connecting points between religion, literature and the arts in Islamic cultures. Course material drawn from several regions beyond the Middle East, particularly sub-Saharan Africa and South and Southeast Asia.
Note: Offered jointly with the Divinity School as 3627.

[Religion 1802 (formerly Religion 1555). Introduction to Islamic Mysticism: The Sufi Tradition]
Catalog Number: 3830
Ali S. Asani
Half course (spring term). Hours to be arranged.
Introductory survey of Sufism, focusing on its fundamental concepts, ritual practices, institutions, and its impact on literary and sociopolitical life in different regions of the Islamic world.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3620.
Prerequisite: An introduction course in Islam or equivalent helpful but not essential.

Religion 1805. Introduction to the Qur'an
Catalog Number: 6754
Tariq Jaffer
Half course (fall term). Tu., Th., at 10 and a weekly section to be arranged. EXAM GROUP: 12
Surveys the historical origins of Islamic revelation, the role of the Prophet Muhammad, and the development of traditions of Qur'an interpretation and commentary. Includes readings in translation of Quranic texts and in-depth analysis of particular suras (chapters).
Note: Offered jointly with the Divinity School as 3607.

Religion 1807. Introduction to Islamic Theology
Catalog Number: 4230 Enrollment: Limited to 18.
Tariq Jaffer
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
A survey of the historical development of Islamic theology in thepre-modern period. The course focuses on the principal theological issues that were debated in the formative period of Islamic thought: God's nature and the question of His attributes, the controversy concerning the

"created" and "uncreated" Qur'an, eschatology and reward and punishment.
Note: Offered jointly with the Divinity School as 3608.

[*Religion 1820 (formerly *Religion 1585). Islam in South Asia: Religion, Culture, and Identity in South Asian Muslim Societies]
Catalog Number: 2741 Enrollment: Limited to 20.
Ali S. Asani
Half course (fall term). Hours to be arranged.
A survey of Islamic civilization in the Indian subcontinent focusing on an exploration of Islamic identity. Issues and themes salient to Islamic identity considered within religious and political contexts, as well as the broader context of South Asian culture as expressed in language, literature, and the arts. Also examines the uses of the term "Islamic" in various pre-modern and modern discourses in South Asia.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3625.
Prerequisite: Introductory course in Islam or equivalent.

Religion 1825 (formerly Religion 1590). Issues in Feminism and Islam: A Historical Overview
Catalog Number: 9891
Leila Ahmed (Divinity School)
Half course (fall term). Th., 1–4. EXAM GROUP: 15, 16, 17
We explore some of the major issues and debates in relation to feminism and women in Islam in historical overview from a post-colonial perspective. Thus, as we explore these issues and debates, we will also be examining the methods, tools and assumptions forming the grounds of our studies, including in particular issues of Orientalism, colonialism and feminism in the construction of the religions/cultures of Others. Subsequent topics include an examination of some contemporary feminist readings of early Islam and exploration of women in Sufism and lived religion.
Note: Offered jointly with the Divinity School as 3604.

Religion 1827. Themes in Islam in America
Catalog Number: 0618
Leila Ahmed (Divinity School)
Half course (spring term). Tu., 1–4. EXAM GROUP: 15, 16, 17
This course will explore themes in contemporary American Islams, in particular, issues of gender, and of Progressive Islam. It will include guest speakers.
Note: Offered jointly with the Divinity School as 3606.

Religion 1840. Writing Lives: Readings in Contemporary Muslim and Arab Autobioraphy: Seminar
Catalog Number: 5833
Leila Ahmed (Divinity School)
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
An exploratory seminar in contemporary autobiographical writings by Arabs and Muslims, reflecting on themes of religiousness and secularism, among others, We will read the following texts: Edward Said's *Out of Place*, Sara Suleri's *Meatless Days*, and Fatima Mernissi's *Dreams*

of Trespass.
Note: Offered jointly with the Divinity School as 3913.

Cross-listed Courses

Anthropology 1675. Global Islam
Arabic 142. The Philosophical Theology of Fakhr al-Din al-Razi
Arabic 143. Islamic Mystical Texts
[Foreign Cultures 70. Understanding Islam and Contemporary Muslim Societies]
***Freshman Seminar 37y. Muslim Voices in Contemporary World Literatures**
[History 1889. Transmission of Traditional Islamic Learning in the Middle East from the Beginning of Islam to the Present]
***Islamic Civilizations 241r. Approaches to Studying Indo-Muslim Culture and South Asian Islam**
***Near Eastern Civilizations 200a (formerly Islamic Civilizations 200a). Approaches to Middle Eastern Studies: Proseminar**

Chinese and Japanese Religions

Cross-listed Courses

[Chinese History 251. Confucian Ethics: Conference Course]
East Asian Studies 140. Major Religious Texts of East Asia
Historical Study A-13. China: Traditions and Transformations
Historical Study A-14. Japan: Tradition and Transformation
History of Art and Architecture 282y. The Visual Culture of Relics in East Asia
Japanese History 115. Religion and Society in Edo and Meiji Japan
Japanese History 120. Religion and Society in Twentieth-Century Japan
Japanese History 125. Japanese Religious Traditions
Japanese History 126. Shinto: Conference Course

Graduate Courses of Reading and Research

***Religion 3000. Direction of Doctoral Dissertations**
Catalog Number: 1933
Ali S. Asani 7739, François Bovon (Divinity School) 3551, Sarah Coakley (Divinity School) 1873, Nicholas P. Constas (Divinity School) 2352, Harvey G. Cox, Jr. (Divinity School) 3479, Arthur J. Dyck (Public Health and Divinity School) 1670, Diana L. Eck 4514, James Engell 8076, Francis Fiorenza (Divinity School) 2735, Robert M. Gimello (University of Arizona) 9240, William A. Graham, Jr. 4156, Janet Gyatso (Divinity School) 4243, David D. Hall (Divinity School) 2510 (on leave 2004-2005), Jay M. Harris 2266, Albert Henrichs 4085, William R. Hutchison (Divinity School) 4061, Karen L. King (Divinity School) 4217 (on leave 2004-2005), Helmut H. Koester (Divinity School) 3477, David Lamberth (Divinity School) 3714, Jon D. Levenson (Divinity School) 2264, Peter Machinist 2812, Everett I. Mendelsohn 2700 (on leave spring term), David G. Mitten 1290, Anne Elizabeth Monius (Divinity School) 4489, Roy Mottahedeh 1454, Robert A. Orsi (Divinity School) 4242, Elisabeth Schüssler Fiorenza (Divinity

School) 3193, P. Oktor Skjaervo 2869 (on leave fall term), Ronald Thiemann (Divinity School) 3395, Wei-Ming Tu 7233 (on leave spring term), and Leonard W. J. van der Kuijp 1556
Note: May also be taken with other instructors, when authorized by the Chair.

***Religion 3001. Reading and Research**
Catalog Number: 7954
Ryuichi Abe 4974, Ali S. Asani 7739, François Bovon (Divinity School) 3551, Ann D. Braude (Divinity School) 2792, Davíd L. Carrasco 4213, Sarah Coakley (Divinity School) 1873, Nicholas P. Constas (Divinity School) 2352, Harvey G. Cox, Jr. (Divinity School) 3479, Arthur J. Dyck (Public Health and Divinity School) 1670, Diana L. Eck 4514, James Engell 8076, Francis Fiorenza (Divinity School) 2735, Robert M. Gimello (University of Arizona) 9240, William A. Graham, Jr. 4156, Janet Gyatso (Divinity School) 4243, David D. Hall (Divinity School) 2510 (on leave 2004-2005), Jay M. Harris 2266, Albert Henrichs 4085, William R. Hutchison (Divinity School) 4061, Beverly M. Kienzle (Divinity School) 2452, Karen L. King (Divinity School) 4217 (on leave 2004-2005), Helmut H. Koester (Divinity School) 3477, David Lamberth (Divinity School) 3714, Jon D. Levenson (Divinity School) 2264, David Little (Divinity School) 2793, Peter Machinist 2812, Kevin J. Madigan (Divinity School) 4287, Everett I. Mendelsohn 2700 (on leave spring term), David G. Mitten 1290, Anne Elizabeth Monius (Divinity School) 4489, Roy Mottahedeh 1454, Laura S. Nasrallah (Divinity School) 4834, Robert A. Orsi (Divinity School) 4242, Parimal G. Patil 4478, Kimberley C. Patton (Divinity School) 3306, Elisabeth Schüssler Fiorenza (Divinity School) 3193, Ronald Thiemann (Divinity School) 3395, Wei-Ming Tu 7233 (on leave spring term), and Leonard W. J. van der Kuijp 1556
Note: May also be taken with other instructors, when authorized by the Chair.

***Religion 3002. Foreign Language Certification**
Catalog Number: 4791
Members of the Committee
Reading and research conducted in a specific foreign language, normally French or German, to satisfy the modern language reading proficiency requirement for PhD students in the Study of Religion.
Note: Limited to PhD candidates who receive written permission from the Committee's Director of PhD Studies.

Romance Languages and Literatures

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Romance Languages and Literatures

Christie McDonald, Smith Professor of French Language and Literature *(Chair)*
José Ignacio Alvarez-Fernández, Preceptor in Romance Languages and Literatures
Janet Beizer, Professor of Romance Languages and Literature
Marie-France Bunting, Senior Preceptor in Romance Languages and Literatures *(Undergraduate Adviser in French)*
Kimberlee Campbell, Professor of the Practice of Romance Languages and Literatures, Director of Language Programs *(Director of Language Programs in Romance Languages and Literatures)*
Luis E. Cárcamo-Huechante, Assistant Professor of Romance Languages and Literatures *(Undergraduate Adviser in Latin American Studies)*
Joaquim-Francisco Coelho, Nancy Clark Smith Professor of the Language and Literature of Portugal and Professor of Comparative Literature *(Director of Graduate Studies in Portuguese)*
Tom Conley, Professor of Romance Languages and Literatures
Verena A. Conley, Visiting Professor of Literature and of Romance Languages and Literatures
J. Michael Dash, Visiting Professor of Romance Languages and Literatures *(New York University) (spring term only)*
Elvira G. DiFabio, Senior Preceptor in Romance Languages and Literatures *(Associate Director of Undergraduate Studies and Undergraduate Adviser in Italian)*
Samba Diop, Assistant Professor of Romance Languages and Literatures
Alexia E. Duc, Assistant Professor of Romance Languages and Literatures *(on leave 2004-05)*
Bradley S. Epps, Professor of Romance Languages and Literatures and of Studies of Women, Gender, and Sexuality
Francesco Erspamer, Visiting Professor of Romance Languages and Literatures *(New York University) (fall term only)*
Luis Fernández-Cifuentes, Robert S. and Ilse Friend Professor of Romance Languages and Literatures
Franco Fido, Carl A. Pescosolido Professor of Romance Languages and Literatures *(Director of Graduate Studies in Italian)*
Chiara Frenquellucci, Preceptor in Romance Languages and Literatures
Judith Frommer, Professor of the Practice of Romance Languages
Mary Malcolm Gaylord, Sosland Family Professor of Romance Languages and Literatures *(on leave spring term)*
Luis M. Girón Negrón, John L. Loeb Associate Professor of the Humanities
Elizabeth C. Goldsmith, Visiting Professor of Romance Languages and Literatures *(Boston University) (fall term only)*
Virginie Greene, John L. Loeb Associate Professor of the Humanities *(Undergraduate Adviser in Romance Studies and Director of Undergraduate Studies)*
Ernesto E. Guerra, Preceptor in Romance Languages and Literatures
Adriana Gutiérrez, Preceptor in Romance Languages and Literatures
James Iffland, Visiting Professor of Romance Languages and Literatures *(Boston University)*
Nina C. de W. Ingrao, Senior Preceptor in Romance Languages and Literatures
Francis Abiola Irele, Visiting Professor of African and African American Studies and of Romance Languages and Literatures *(Ohio State University)*
Alice Jardine, Professor of Romance Languages and Literatures and of Studies of Women, Gender, and Sexuality
Clémence Jouët-Pastré, Senior Preceptor in Romance Languages and Literatures *(Undergraduate*

Adviser in Portuguese)
Johanna Damgaard Liander, Senior Preceptor in Romance Languages and Literatures *(Undergraduate Adviser in Spanish)*
Isabel Lozano-Renieblas, Visiting Associate Professor of Romance Languages and Literatures *(Dartmouth College)*
D. Bradford Marshall, Preceptor in Romance Languages and Literatures
José Antonio Mazzotti, Gardner Cowles Associate Professor of Romance Languages and Literatures
Giuliana Minghelli, Lecturer on Romance Languages and Literatures
Aurelijus Antanas Mockus, Robert F. Kennedy Visiting Professor of Latin American Studies
Marlies Mueller, Senior Preceptor in Romance Languages and Literatures
Lino Pertile, Professor of Romance Languages and Literatures
Nicolau Sevcenko, Visiting Professor of Romance Languages and Literatures *(Universidade de São Paulo)*
Doris Sommer, Ira Jewell Williams, Jr. Professor of Romance Languages and Literatures *(Director of Graduate Studies in Spanish)*
Diana Sorensen, Professor of Romance Languages and Literatures and of Comparative Literature *(on leave spring term)*
Susan R. Suleiman, C. Douglas Dillon Professor of the Civilization of France and Professor of Comparative Literature *(Director of Graduate Studies in French)*

Other Faculty Offering Instruction in the Department of Romance Languages and Literatures

Francisco Márquez Villanueva, Arthur Kingsley Porter Research Professor of Romance Languages and Literatures

Romance Languages and Literatures offers courses in Catalan, French, Italian, Portuguese, and Spanish, as well as in Latin American Studies, and Romance Studies. Courses appear below under these headings. Letters A-D and numbers 20-99 indicate courses designed primarily for undergraduates. Courses numbered 100-199 are open to both undergraduates and graduate students. 200-level course are intended primarily for graduate students and, exceptionally, to advanced undergraduates.

Course groupings reflect both progression in level of language study and diversity of thematic focus. GROUP I: Courses focused on language acquisition. Courses A-D offer beginning and early intermediate instruction in language. Courses 20-59 give special attention to the development of language skills in a variety of literary and cultural contexts. Within this group, the first digit indicates the level of language study. Courses numbered 50-59 offer the most advanced level of language study. GROUP II: Courses designed to introduce students to systematic study of literature and culture. Courses 60-69 combine language study and engagement with living language communities in the Boston Area. Courses 70-79 introduce major works and currents of literary history as preparation for 100-level literature courses. Courses 80-99 include specialized undergraduate seminars, tutorials, and independent study. N.B. Courses numbered 43-97 require approximately the same level of language proficiency. GROUP III: Advanced courses in literature and culture. Numbers 100-199 reflect period, regional, and thematic groupings. All courses in this group assume the same degree of language

proficiency. GROUP IV: 200-299 Graduate courses, chiefly seminars.

Additionally, department faculty offer courses (some of which are cross-listed below) in the Department of Comparative Literature, in the Core, Freshman Seminar, Literature and Women's and Gender Studies Programs. For further offerings in general and comparative Romance literature, see listings of the Departments of Comparative Literature.

Students interested in earning a foreign language citation in a Romance language should read carefully the sections on French, Italian, Portuguese, and Spanish in the description of "Citations in Foreign Language" in the Academic Performance section of the FAS Student Handbook. In general, language courses Ca and above can count toward a citation if they are taken in sequence and if they meet the criteria set forth in the Student Handbook. Literature courses taught in the target language usually offer citation credit, but students should consult course descriptions in the online catalog for exact information.

No language courses may be taken pass/fail. Graduate students in the Faculty of Arts and Sciences may take language courses (numbered A-54) for a grade of Sat/Unsat, with permission of the course head. All Romance language courses, 100-level and above, may be taken Pass/Fail without course head's signature unless otherwise noted. Undergraduates are free to enroll in 200-level graduate courses without course head's signature unless otherwise noted. No auditors are allowed in lettered language courses or in courses numbered 20 to 59. No one may enter A level courses after the eighth meeting of the class, Bab or Dab classes after the first meeting, or C or 20 level courses after the sixth meeting.

Catalan

Primarily for Undergraduates

Catalan Ax. Reading Catalan: Culture, History and Literature
Catalog Number: 5084
Bradley S. Epps and staff
Half course (fall term). Tu., 2–3:30, Th., 3:30–5. EXAM GROUP: 16, 17, 18
Intensive introduction to reading in Catalan for undergraduates and graduates. Aims at the rapid development of reading skills with texts that provide an introduction to Catalan history and culture. Since its foundation, the Catalan countries (Catalonia, Valencia, Balears) have played a major role in the process of constructing a more pluralized and decentralized Spain. Catalonia is also a leading voice in the debate on a Europe of nations versus a Europe of states.
Note: May be taken Pass/Fail by undergraduates or Sat/Unsat by GSAS students.
Prerequisite: Some previous knowledge of a Romance language recommended.

Catalan Ba (formerly Catalan Aa). Introduction to Catalan
Catalog Number: 2153
Bradley S. Epps and staff
Half course (spring term). M., W., 3–5. EXAM GROUP: 8, 9
An introductory course in spoken and written Catalan, the language of approximately ten million people in Spain, France, Italy, and Andorra, and the most widely used of minoritized languages

in Europe today. Antonio Gaudí, Salvador Dalí, Joan Miró, Antoni Tàpies, Mercè Rodoreda, and Pau Casals were native Catalan speakers. Emphasizing oral communication, reading, and writing, Catalan Ba will offer students contact with contemporary Catalan culture, particularly that of Barcelona, through the press and Internet.
Note: Conducted in Catalan. Knowledge of another Romance language is useful but not essential. May be taken Pass/Fail by undergraduates or Sat/Unsat by GSAS students.

***Catalan 91r. Supervised Reading and Research**
Catalog Number: 2578
Bradley S. Epps and staff
Half course (fall term; repeated spring term). Hours to be arranged.
Tutorial supervision of research on subjects not treated in regular courses. May be used for further language study after Catalan Ax or Ba.

French

All students with some previous French in secondary school are required to take the placement test if they have not taken the SAT II, AP, or IB examinations in French. The term "placement score" or "placement test" hereafter refers to the French placement test given during Freshman Week for freshmen, and usually on the day preceding Registration Day for returning students.

Students who receive a grade of 5 in the College Board Advanced Placement Examinations in French Literature are admitted directly into French 47b and 48b or 70a and 70b, with permission of instructor, and also into 100-level courses of French literature. Students who receive a grade of 5 in the College Board Advanced Placement Examinations in French Language normally are admitted to French 47b and 48b, or 70a and 70b with permission of the course head. For details of Advanced Placement see the pamphlet *Advanced Standing at Harvard College* or contact the Director of the Program of Advanced Standing.

Primarily for Undergraduates

French A. Beginning French
Catalog Number: 3373
Marlies Mueller and staff
Full course (indivisible). Five meetings a week. Sections M. through F., at 9, 10, 11, 12, and 1.
EXAM GROUP: 10
Complete basic course offering equal emphasis on speaking, listening, reading and writing as well as conveying a taste for the French *savoir-vivre*. Latest technology allows for surround-sound training by native speakers in dorm rooms. By year's end, students will be able to carry on conversations in simple, correct French, and will have been introduced to French culture by such landmark authors as Victor Hugo and Sartre and state-of-the-art movies like *Amélie*.
Note: French A fulfills the language requirement. Open to students with placement scores up to 499 or permission of course head. May not be taken Pass/Fail. Graduate students at GSAS may take the course Sat/Unsat with permission of course head. Section on-line on the French A website.

French Ax. Reading Modern French
Catalog Number: 2763
D. Bradford Marshall and staff
Half course (fall term). Section I: Tu., Th., 10–11:30; Section II: Tu., Th., 11:30–1. EXAM GROUP: 12, 13, 14
An introduction to reading and translating modern French texts for students who require only a basic knowledge of French for research purposes. French Ax presents the principle structures of French grammar in a systematic and coherent manner and, at the same time, makes reading and translation assignments as discipline-specific as possible for each student's needs.
Note: Conducted in English. Not open to students with a score of 500 or above on the Harvard Placement Test or the SAT II French test, to graduate students with more than one year of undergraduate French, or to auditors. May not be used to fulfill the language requirement and may not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Section on-line on the French Ax website.
Prerequisite: Some previous study of a Romance language helpful but not necessary. Fluency in English required.

***French Bab. Intensive Beginning French: Special Course**
Catalog Number: 8780 Enrollment: Limited to 15 students per section.
Judith Frommer and staff
Full course (spring term). Section I: M. through F., at 10 and Tu., Th., at 11. Section II: M., through F., at 1 and Tu., Th., at 2. EXAM GROUP: 3, 5
A complete first-year course for non-requirement students. Provides a solid foundation in French for those with absolutely no prior knowledge of the language. Speaking, listening, reading, and writing are all emphasized, with class time devoted to oral expression. After French Bab, students should be able to engage in everyday conversation with native speakers, and read straightforward texts, both fiction and non-fiction, with relative ease.
Note: May not be used to fulfill the language requirement and may not be taken Pass/Fail or Sat/Unsat. Interested students should fill out the on-line request form on the French Bab website by the end of the fall term examination period.
Prerequisite: An advanced knowledge of at least one foreign language language but NO previous study of French.

French Ca. Intermediate French I
Catalog Number: 1810
Judith Frommer and staff
Half course (fall term). M. through Th., sections at 9, 10, 11, 12, or 1. EXAM GROUP: 10
A beginning intermediate course emphasizing listening, speaking, reading, and writing, and including a study of grammar. Students become familiar with contemporary France through videotapes, feature length films, and multimedia and are introduced to French literature through a variety of texts.
Note: Conducted in French. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Section on-line on the French Ca website.
Prerequisite: 500-599 on the SAT II test or the Harvard Placement Test; 3 years of French in high school; French A; or permission of course head.

French Cb. Intermediate French II: La Francophonie
Catalog Number: 6343
Judith Frommer and staff
Half course (spring term). Three weekly meetings: Sections M., W., F., at 9, 10, 11, 12, or 1. EXAM GROUP: 10
In French Cb, students continue the study of grammar begun in French Ca. and further develop their communicative skills. Students are introduced to the concept of *"la francophonie"* as represented in literature and films from Quebec, the Caribbean, and Africa.
Note: Conducted in French. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Section on-line on the French Cb website.
Prerequisite: 550-599 on the SAT II test or the Harvard Placement test; French Ca; or permission of course head.

French 25. Comprehensive Intermediate French III: L'Etre humain et son univers
Catalog Number: 8781
Marlies Mueller and staff
Half course (fall term; repeated spring term). Fall: Sections M., W., F., at 9, 10, 12, or 1. Spring: Sections M., W., F., at 10, or 12. EXAM GROUP: 2, 3
Introduction to French literature and cinema combined with a comprehensive review of French grammar and intensive vocabulary building. Authors and filmmakers, whose reflections on enduring questions of human experience and the meaning of life are compared and contrasted, include Baudelaire, Camus, Kieslowski, Pagnol, Rimbaud, and Sartre. By the end of the term, students should be able to understand lectures in French and express their thoughts orally and in writing with confidence using correct French.
Note: Conducted in French. A grade of A- in French A or French Bab, a B in French Ca with language requirement completed, a B in French Cb; or 600-659 on the SAT II test or the Harvard Placement test; or permission of course head. May not be taken Pass/Fail. May not be taken for credit by students who have passed French 27. Section on-line on the French 25 website.

French 27. Oral Expression I: Le Français parlé
Catalog Number: 3060
D. Bradford Marshall and staff
Half course (fall term; repeated spring term). Sections M. through F., at 9, 12, or 1. EXAM GROUP: 2, 11
Emphasizing speech strategies, useful vocabulary, idiomatic expressions, and listening comprehension, this course helps students develop oral fluency while learning about contemporary France and Francophone countries. Films, music, news media, and Internet resources offer virtual linguistic and cultural immersion, and provide material for in-class discussions and special activities. After a semester of French 27, students should feel comfortable speaking French and have confidence to handle any situation commonly encountered in a French-speaking environment.
Note: Conducted in French. May not be used to fulfill the language requirement. May not be audited or taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. May not be taken for credit by students who have passed French 25. Section on-line on the French 27 website.
Prerequisite: A grade of A- or better in French A or Bab, or B in French Ca with language

requirement completed; or B in French Cb; or 600-659 on the SAT II test or the Harvard Placement test; or permission of course head.

French 31. Oral Expression II: La France à travers les médias
Catalog Number: 0490
D. Bradford Marshall and staff
Half course (fall term; repeated spring term). Section I: Tu., Th., 10–11:30; Section II: Tu., Th., 11:30–1. EXAM GROUP: 12, 13
Intended for those who have learned how to handle everyday situations in a French-speaking environment, French 31 prepares students for interacting on a more sophisticated level. Students will fine-tune their oral language skills through a more advanced study of pronunciation, grammar and discourse strategies, while discussing and debating topics of current interest as they are presented in the media, including the press, radio, television, cinema, and the Internet.
Note: Conducted in French. May not be audited or taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. May not be taken for credit by students who have passed French 35. Section on-line on the French 31 website.
Prerequisite: French 25 or 27; 660-689 on the SAT II test or the Harvard Placement test; or permission of course head.

French 35. Upper-Level French I: "La quête de soi et le rapport avec autrui"
Catalog Number: 1935
Marlies Mueller and staff
Half course (fall term; repeated spring term). Sections M.,W., F., at 9, 10, 11, or 1. EXAM GROUP: 2, 3
Course in French language, literature, and film designed to enhance facility in all four language skills. Considers representations of self in literature and cinema. How does one arrive at knowledge of self, and what are the consequences of this knowledge for relationships with others? This question will be examined through authors and filmmakers such as Baudelaire, Camus, Duras, Hugo, Leconte, Rouan, Truffaut, Vercors. Complete grammar review, vocabulary building, emphasizing idiomatic subtleties and social etiquette.
Note: Conducted in French. May not be taken Pass/Fail. May not be taken for credit by students who have passed French 31. Section on-line on the French 35 website.
Prerequisite: French 25; 660-689 on the SAT II test or the Harvard Placement test; or permission of course head.

French 36. Upper-Level French II: Liberté et Conscience
Catalog Number: 6963
Marlies Mueller and staff
Half course (spring term). Sections M., W., F., at 10, 11, or 1. EXAM GROUP: 3, 4
Advanced course in French language and literature structured to develop near-native fluency in written and oral expression. Examines the nature and consequences of freedom. How do power, knowledge, and freedom interrelate? Politics, philosophy, art, and literary imagination are considered in their relation to the creation and expansion of individual autonomy. Authors and film directors include Balzac, Beauvoir, Camus, Granier-Deferre, Maupassant, Nuytten, Ophuls, Renoir, Ribowska, and Yourcenar. Consolidating grammatical structures, vocabulary building, intensive stylistic exercises.

Note: Conducted in French. May not be taken Pass/Fail. May not be taken for credit by students who have passed French 37. Section on-line on the French 36 website.
Prerequisite: French 25, 27, 30, or 35; 690-719 on the SAT II test or the Harvard Placement test; or permission of course head.

French 37 (formerly French 41). Les régions de France: hier et aujourd'hui
Catalog Number: 7909
Marie-France Bunting and staff
Half course (fall term). Sections M., W., F., at 11 or 12. EXAM GROUP: 4, 5
A journey through various regions of France surveying the present and past identities of Bretagne, Alsace, and Provence, Dordogne, and Périgord, through history, folklore, gastronomy, art, music, and regional literature. Resources for class discussions include current articles from the French press, historical, sociological and literary writings as well as films and video documents. Emphasis on oral communication. An advanced grammar review is offered along with practice in writing and vocabulary enrichment.
Note: Conducted in French. May not be taken Pass/Fail. May not be taken for credit by students who have passed French 42.
Prerequisite: French 31, 35, or 36; 690 on the SAT II test or the Harvard Placement test; or permission of course head.

French 42. Introduction au monde francophone
Catalog Number: 2581
Marie-France Bunting and staff
Half course (spring term). M., W., F., at 12; M., W., F., at 11. EXAM GROUP: 5
Designed to introduce students to cultural issues expressed in the works of some leading Francophone writers and through art and films while helping them acquire greater skills and confidence in both oral and written expression. Discussions will focus on issues of identity, exile, tradition and modernity, rural/urban culture.
Note: Conducted in French. May not be taken Pass/Fail.
Prerequisite: French 31, 35, 36, or 37; 720 on the SAT II test or the Harvard Placement test; or permission of course head.

French 45. Le Français économique et commercial
Catalog Number: 7122
Judith Frommer and staff
Half course (spring term). Section I: Tu., Th., 10–11:30; Section II: Tu., Th., 1–2:30; Section III: Tu., Th. 2:30–4. EXAM GROUP: 12, 13
Designed for students working or traveling for business in French-speaking countries. Through audiovisual materials, the Internet, and the French press students become familiar with the current business and economic climate in France and find out about practices, customs, and "intangibles" that make French businesses different from their American counterparts. Those enrolled may take the Paris Chamber of Commerce and Industry exams and obtain an official diploma attesting to their proficiency in French.
Note: Conducted in French. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Section on-line on the French 45 website.

Prerequisite: A placement score of 720 on the SAT II test or the Harvard Placement test; or permission of course head.

French 47b. La Société français à travers les âges
Catalog Number: 6222
Marie-France Bunting
Half course (fall term). Sections M., W., F., at 10 or 12. EXAM GROUP: 3, 5
Aims to improve all linguistic skills while providing an historical survey of France from the Middle-Ages to the end of the 19th century. Discussion will focus on prominent figures, social archetypes and major events that contributed to the formation of a national identity. Readings from historical, literary and sociological sources, and films. Active use of the language in class and practice in writing will be emphasized.
Note: Conducted entirely in French. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students.
Prerequisite: French 36, 37, or 42; 750 on the SAT II or the Harvard placement test; or permission of course head.

French 48b. Contemporary French Society
Catalog Number: 8290
Marie-France Bunting and staff
Half course (spring term). Sections M., W., F., at 10, and 12. EXAM GROUP: 3, 5
Designed to develop greater linguistic fluency while introducing students to some major debates in French society today. Themes to be explored include: family, gender, the education system, urban problems and social stratification, immigration, and French politics. Students will participate in discussions based on readings from the French press as well as from sociological and literary sources. Films and video documents closely related to the course material will emphasize the social, cultural and human aspects.
Note: Conducted entirely in French. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students.
Prerequisite: French 37, 42, 45, or 47b; 750 on the SAT II or the Harvard placement test; or permission of course head.

French 50. Translation Workshop
Catalog Number: 2645
Kimberlee Campbell
Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
An introduction to translation. Students work on literary and commercial texts, researching topics, preparing glossaries and practicing analytical skills. Students will also explore the theory and ideology of the practice of translation.
Note: Conducted in French.

French 51. Writing Workshop: Atelier d'écriture
Catalog Number: 0575 Enrollment: Limited to 15 per section.
Marie-France Bunting
Half course (fall term). M., W., 2–3:30. EXAM GROUP: 7, 8
Aims to strengthen and develop competence in written expression. Using short stories, essays

and sample texts drawn from history and philosophy, students learn to practice different styles in creative, argumentative, and analytical writings. Special emphasis is paid to stylistic variations, lexical nuances, and complex grammatical structures. In addition, each student presents several *explications de texte* (close reading of a text).
Note: Conducted in French. May not be taken Pass/Fail.
Prerequisite: French 36, 37, 42, 47b, or 48b; 750 on the SAT II or the Harvard placement test; or permission of course head. Strongly recommended for concentrators and joint concentrators.

French 52. Advanced Oral Expression
Catalog Number: 2610
Marie-France Bunting
Half course (spring term). M., W., 2–3:30. EXAM GROUP: 7, 8
Designed for students interested in working with the specificity of oral French in order to improve their comprehension, fluency, syntactic accuracy, and pronunciation. The aim of the course is: to fine-tune listening comprehension; to develop linguistic skills in presenting oneself, expressing emotions, debating, negotiating, etc.; and to improve pronunciation. Authentic materials on video cassettes will be used as models. In addition to practical and corrective work, students will participate collectively in a theatrical production.
Note: Conducted in French. May not be taken Pass/Fail.
Prerequisite: French 37, 42, 47b, or 48b; 750 on the SAT II or the Harvard placement test; or permission of course head. Recommended for concentrators and joint concentrators.

French 70a. Introduction to French Literature I: From the Middle Ages to Modernity
Catalog Number: 2865
Tom Conley
Half course (fall term). M., W., 1–2:30. EXAM GROUP: 6, 7
Readings and discussion of texts of various genres representative of central trends in French literature from the Middle Ages through the 18th century. Emphasis on developing analytical skills by tracing the transformations of ethical, literary, philosophical and social currents.
Note: Conducted in French.
Prerequisite: 720 on the SAT II test; the Harvard Placement test; equivalent preparation; or permission of course head.

French 70b. Introduction to French Literature II: Representations of Change From the Romantics to the Present
Catalog Number: 6720
Janet Beizer
Half course (spring term). Th., 2–4; W., at 12; F., at 11, plus an hour to be arranged. EXAM GROUP: 16, 17
Significant texts from the nineteenth and twentieth centuries examined in the light of close reading and contemporary criticism.
Note: Conducted in French; third hour devoted to discussion of texts studied.
Prerequisite: 720 on the SAT II test or the Harvard Placement test, equivalent preparation, or permission of course head.

French 70c. Introduction to French Literature III: The Francophone World
Catalog Number: 6432
Francis Abiola Irele (Ohio State University)
Half course (spring term). M., W., 3–4:30. EXAM GROUP: 8, 9
Studies short stories, poetry, film, and drama from Black Africa, Québec, Martinique, Guadeloupe, French Guyana, Vietnam, Algeria, Morocco, Tunisia, Madagascar, Djibouti, and La Réunion.
Note: Conducted in French.
Prerequisite: 720 on the SAT II test or the Harvard Placement test, equivalent preparation, or permission of course head.

***French 91r. Supervised Reading and Research**
Catalog Number: 3954
Marie-France Bunting and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Tutorial supervision of research on subjects not treated in regular courses.

***French 97. Tutorial—Sophomore Year: The Politics of Poetics: An Introduction to Literary and Cultural Analysis**
Catalog Number: 0173
Alice Jardine
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
An introduction to literary and cultural interpretation as it has evolved in French Studies since WWII. Our conversations will be structured around rigorous analysis of key literary works in relation to literary theory, semiotics, psychoanalysis, and politics.
Note: Required of concentrators in their sophomore year. Open to non-concentrators with permission of course head.

***French 98. Tutorial—Junior Year**
Catalog Number: 0879
Marie-France Bunting and members of the Department and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Successful completion of one term of French 98 is required of all honors concentrators.

***French 99. Tutorial—Senior Year**
Catalog Number: 2836
Marie-France Bunting and members of the Department and Tutorial Board
Full course. Hours to be arranged.
Note: For honors seniors writing a thesis. The first term may be counted as a half course only with the permission of the Undergraduate Adviser in French. Students who do not complete a thesis are required to submit a substantial paper in order to receive either half course or full course credit. To enroll, see Marie-France Bunting, Undergraduate Adviser.

Cross-listed Courses

Comparative Literature 165. The Holocaust and Problems of Representation
Foreign Cultures 21. Cinéma et culture française, de 1896 à nos jours
Foreign Cultures 22a. La critique sociale à travers l'humour
Foreign Cultures 22b. La critique sociale à travers l'humour
***Freshman Seminar 36g. The Grail and the Rise of Fiction**
***Freshman Seminar 36z. Utopia and Anti-Utopia**
[Literature and Arts C-25. The Medieval Stage]
Literature and Arts C-43. The Medieval Court
Literature and Arts C-55. Surrealism: Avant-Garde Art and Politics between the Wars

For Undergraduates and Graduates

Open to students with 750 on the Harvard Placement Test or SAT II, a score of 5 on the Advanced Placement Test in language or literature, previous coursework at Harvard of an appropriate level, or by permission of course head.

French 100. History of the French Language
Catalog Number: 4197
Virginie Greene
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Presents the evolution of French from Latin to modern French, introduces basic phonology and morphology, discusses the various policies which attempted to rule the use of French and its dialects from the 9th century to the present.
Note: Conducted in French. Required of all graduate students in French.

[French 102. Introduction to Medieval Literature and Old French]
Catalog Number: 9929
Virginie Greene
Half course (spring term). Hours to be arranged.
Provides students with linguistic, literary and cultural means of exploring French medieval literature. We will study verse and prose works from the 12th to the 15th century, using both editions in Old French and translations in modern French.
Note: Expected to be given in 2005–06. Conducted in French.

[French 108. "Amours et armes:" A Study of Medieval Romances]
Catalog Number: 3495
Virginie Greene
Half course (spring term). Hours to be arranged.
Explores how war and love define romance. Readings will be organized around famous love stories (such as those of Dido and Aeneas, Lancelot and Guenièvre, Tristan and Yseut), and less famous ones, in works from the 12th to the 15th century.
Note: Expected to be given in 2005–06. Conducted in French.

[French 112. From the Troubadour to the "Grand Rhétoriqueur": Lyric Poetry in Medieval France (12th to 15th Century)]
Catalog Number: 5007
Virginie Greene

Half course (fall term). Hours to be arranged.
Medieval poets created both new poetic forms and new figures of poets. Singers, writers, composers, lovers, dreamers, rhetoricians, moralists, and preachers: poets could be all of those. This course studies how their poetry grew from and elaborated upon the impulse "I have to sing" *(chanter m'estuet)* to become a highly self-conscious art.
Note: Expected to be given in 2006–07. Conducted in French.

[French 121. The Text of the Renaissance]
Catalog Number: 4006
Tom Conley
Half course (spring term). Hours to be arranged.
Studies writing of the Renaissance in cultural and political context; includes readings of Rhétoriquers, Marot, Rabelais, *arts poétiques*, Ronsard, Pléiade and Baroque poetry, d'Aubigné, and essays by Montaigne.
Note: Expected to be given in 2005–06. Conducted in French.

[French 125. Crimes and Criminals in the 17th Century]
Catalog Number: 8229
Alexia E. Duc
Half course (spring term). Hours to be arranged.
Explores representations of criminality in 17th-century France. After a short inquiry into the justice system and famous cases of the period, we look at the nature and meaning of "evil-doing" in the early modern period as it is represented, condemned or celebrated in the literature and the arts. Whether against the State, God or nature, these crimes, their judges and their punishments help us understand what it means to be human for early-modern men and women.
Note: Expected to be given in 2006–07. Conducted in French.

[French 126. Literature and Humanism in the 17th Century I: The Courtier, the Hero and the Saint]
Catalog Number: 6971
Alexia E. Duc
Half course (fall term). Hours to be arranged.
An exploration of the relations between ethics and writing in the 17th century. The readings focus on three major figures of the period (the courtier, the hero, and the saint) in order to analyze the humanist legacy of the Renaissance in the times of absolutism and the relationships between literary genres and anthropology. Readings include: d'Urfé, Caussin, Sales, Charron, Corneille, Mairet, Cyrano de Bergerac, Retz, Molière.
Note: Expected to be given in 2005–06. Conducted in French.

[French 127. Literature and Antihumanism in the 17th Century II: The Tyrant, the Sinner and the Wit]
Catalog Number: 8712
Alexia E. Duc
Half course (spring term). Hours to be arranged.
Following the humanist questions of Part I, we will focus on three negative major figures of the period—the tyrant, the sinner and the "mondain,"—around which revolves the moral, political

and aesthetic thought of the century. In a similar fashion, we will analyze the relationships between writing and anthropology and their evolution in the new context of the second part of the century. Readings include: Naudé, Pascal, Nicole, La Rochefoucauld, Racine, Bossuet, La Bruyère, Méré.
Note: Expected to be given in 2005–06. Conducted in French.

[French 130. Literature and Cartography: History and Theory]
Catalog Number: 7252
Tom Conley
Half course (fall term). Hours to be arranged.
Studies groundwork of a new field through comparative analysis of space, language, and locational imaging from late-medieval texts to the computer. Readings will extend into early modern print-culture (Rabelais, Finé, Thevet), the classical age (Descartes, Corneille, Sanson); the Enlightenment (Diderot, Cassini survey, Vaugondy); post-1789 (De Lisle, Balzac, Vidal de la Blache); the age of cinema (Clair, L'Herbier, Godard). Theory includes Certeau, Deleuze, Foucault, Jacob, Lefebvre.
Note: Expected to be given in 2005–06. Conducted in French.

[French 131. From the Study to the Stage: Writing the Self in Early Modern France]
Catalog Number: 7385
Alexia E. Duc
Half course (fall term). Hours to be arranged.
Presents a counter-narrative to conventional histories of the emancipation of the individual from the Renaissance to the Enlightenment. In 17th-century France, the prevailing modes of constructing the self reflect a strong skepticism towards the very possibility of self-knowledge. Explores the work's reflection on the relationship between subjectivity and discourse, society, God. Readings include Montaigne, lyrical poetry (T. de Viau), theater (Corneille, Molière) moralist and epistolary writing (La Rochefoucauld, Mme. de Sévigné, Bussy-Rabutin).
Note: Expected to be given in 2006–07. Conducted in French.

[French 132a. 20th-Century French Fiction I: The Realist Mode]
Catalog Number: 4382
Susan R. Suleiman
Half course (spring term). Hours to be arranged.
How has realism been interpreted by its major modern practitioners in French? Is realism in fiction a style, a genre, an ideology, a way of seeing, a way of reading? What is the relation between realism and history, politics, sexual politics, ethics? Discussions of works by Colette, Gide, Céline, Malraux, Sartre, Camus, Beauvoir, and others, as well as selected critical and theoretical essays.
Note: Expected to be given in 2005–06. Conducted in French.

[French 132b. 20th-Century French Fiction II: The Experimental Mode]
Catalog Number: 1890
Susan R. Suleiman
Half course (fall term). Hours to be arranged.
What are some alternatives to (or subversions of) realism in fiction? We will examine four major

experimental currents or movements in 20th-century imaginative writing: Surrealism, the *nouveau roman*, the Oulipo, and *écriture féminine*. Discussion of works by Breton, Bataille, Robbe-Grillet, Sarraute, Queneau, Perec, Duras, Wittig, Cixous, as well as selected critical essays.
Note: Expected to be given in 2006–07. Conducted in French.

French 134. Seventeenth-Century Prose Narrative
Catalog Number: 8647
Elizabeth C. Goldsmith (Boston University)
Half course (fall term). Th., 4–6. EXAM GROUP: 18
Studies the genres of the historical novel, the literary fairy tale, the familiar letter, and memoirs as they were transformed by changing cultural practices of the seventeenth century. We will consider how literary works represented and created new communities of readers and writers. Authors include Lafayette, Sévigné, Aulnoy, Perrault, Saint-Simon, Villedieu, Choisy.
Note: Conducted in French.

French 136. Feminist Literary Criticisms
Catalog Number: 3845
Alice Jardine
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
Close readings of postwar French fiction and theory with emphasis on what is called "the feminine" in key psychoanalytic, philosophical, and literary writings of the French poststructuralist tradition. What has been the legacy of fifty years of dialogue between French postwar theory and feminist practice in the US? Writers considered include Cixous, Duras, Hyvrard, Irigaray, Kristeva, and Wittig as well as Deleuze, Derrida, and Lacan.
Note: Conducted in English.
Prerequisite: Excellent reading knowledge of French.

French 137. 20th Century French Theater
Catalog Number: 4065
Susan R. Suleiman
Half course (spring term). Tu., 2–4 and a weekly section to be arranged. EXAM GROUP: 16, 17
We explore the richness and variety of French theatrical writing and theory, starting with Jarry's groundbreaking *Ubu Roi* (1896); special emphasis on experimental and avant-garde productions. Discussion of works by Jarry, Apollinaire, Artaud, Sartre, Beckett, Genet, Ionesco, Duras, Cixous, and others.
Note: Conducted in French.

[French 139a. The 18th Century: Self and Society]
Catalog Number: 3637
Christie McDonald
Half course (spring term). Hours to be arranged.
An exploration of how the relationship between self and other, society and utopia, inaugurates a discourse on change from the second half of the 18th-century through the French Revolution: Marivaux, Rousseau, Diderot, d'Aalembert, Voltaire, Sade, Gouges, Beaumarchais, Condorcet.
Note: Expected to be given in 2005–06. Conducted in French.

French 139b. The 18th Century: Ethical Dilemmas
Catalog Number: 2223
Christie McDonald
Half course (spring term). W., 4–6; plus one hour to be arranged. EXAM GROUP: 9
Questions how notions of personhood and otherness inhabit the emergent novel, exploring the way in which events and values are resisted or subsumed in literary discourse and the kind of social and political responsibility that accompanies it. Readings will be taken from the works of Charrière, Gouges, Laclos, Marivaux, Montesquieu, Rousseau, Sade, Voltaire, etc.
Note: Conducted in French.

[French 154. Pain and Suffering in the Nineteenth Century]
Catalog Number: 8190
Janet Beizer
Half course (spring term). Hours to be arranged.
An approach to the nineteenth century from the perspective of its fascination and identification with pathology. We will move from the *mal du siecle* (Chateaubriand, Musset, Sand) through Baudelairian spleen and ennui, to the Goncourts' cultivation of their nerves, to naturalist preoccupations with the body, its functions, and ailments (Zola), to hysteria, also known at the time as *"la maladie du siecle"* (Rachilde). Readings will include novels, short stories, poetry, case histories (Charcot, etc.)
Note: Expected to be given in 2006–07. Conducted in French.

French 157. Engendering the Nineteenth-Century Novel
Catalog Number: 1338
Janet Beizer
Half course (fall term). M., 3–5. EXAM GROUP: 8, 9
During the nineteenth-century, the reputation of the novel evolved from a frivolous, light genre to a weightier, worthier one. In gendered terms, the earlier romantic novel was seen as feminine or effeminate, the realist/naturalist novel as muscular, masculine, others as hermaphroditic. This course explores the rise of the novel and its affiliation with gender. (Readings: texts by Gautier, Balzac, Sand, Flaubert, Zola, Rachilde, etc.)
Note: Conducted in French.

French 161. Rereading Realism
Catalog Number: 1729
Janet Beizer
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Is Realism real? Is Naturalism natural? As we read Realist and Naturalist texts, we will consider how ideological and aesthetic conventions of the "real" and the "natural" interacted with literary movements of the second half of the nineteenth century, focusing particularly on texts that represent representation. Readings will include Balzac, Flaubert, Huysmans, Zola, Rachilde.
Note: Conducted in French.

French 165. Marcel Proust
Catalog Number: 4620
Christie McDonald

Half course (fall term). W., 3–5; M., at 4, plus one hour to be arranged. EXAM GROUP: 8, 9
In Proust's novel, *A la recherche du temps perdu,* questions of time and memory, truth and signification, literature and philosophy converge to ask: who am I? What does it mean to become a writer? Discussion of Proust's novels and essays, as well as a number of critical texts.
Note: Conducted in French.

[French 167. Parisian Cityscapes]
Catalog Number: 7641
Verena A. Conley
Half course (fall term). Hours to be arranged.
Examines the rapid urbanization of Paris from World War II to the present by means of fiction, films and critical essays. Investigates how the Americanization of France, decolonization, immigration, globalization and the European Union continue to restructure the city with repercussions on its social, political, and artistic life (Allouache, Augé, Balibar, Beauvoir, Beyala, Godard, Kassovitz, Maspero, Latour, Ross, and others).
Note: Expected to be given in 2005–06. Conducted in French.

French 170. The City
Catalog Number: 3772
Verena A. Conley
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Focuses on representations of the city in literature (Mercier, Balzac, Baudelaire, Zola, Breton, Aragon) and theory (Benjamin, Lefebvre). Analyzes the evolution of the concept under the impact of industrialization and technological inventions.
Note: Conducted in French.

[French 180. 20th-Century French and Francophone Women Writers]
Catalog Number: 4566
Alice Jardine
Half course (spring term). Hours to be arranged.
A consideration of some of the major novels by women writing in French from Colette to Djebar. Emphasis is added to the literary, critical and political questions raised by the inclusion of women's cultural work into the canon.
Note: Expected to be given in 2005–06. Conducted in French or English; to be decided by professor and students on first day of class.
Prerequisite: Good reading knowledge of French.

French 181. African Orality and the Francophone Novel
Catalog Number: 2586
Samba Diop
Half course (fall term). Tu., Th., at 1. EXAM GROUP: 15
In this comparative course, we will read a selected number of African epics and tales: "Sunjataa," "El Hadj Umar," "Mwindo," "Njaajaan Njaay," as well as *The Tales of Amadou Koumba* by Birago Diop; then, we will read a certain number of novels by Beti, Ndao, Kourouma in order to see how orality informs the written modern African narrative in French.
Note: Conducted in French.

[French 182. Politics and Poetics]
Catalog Number: 1172
Verena A. Conley
Half course (spring term). Hours to be arranged.
Examines how recent political questions in France and in the world (immigration, globalization, transformations of the nation state, citizenship, etc.) are addressed in fiction, theory and film (Derrida, Cixous, Badiou, Balibar, Virilio, and others).
Note: Expected to be given in 2006–07. Conducted in French.

[French 184. Cinema and the *auteur*]
Catalog Number: 0512
Tom Conley
Half course (fall term). Hours to be arranged.
Studies development of *auteur* theory in French film and criticism. Readings include *Cahiers du cinéma*, Bazin, Deleuze, Godard, and Foucault. Viewings include Renoir, American and Italian *auteurs*, and post-new wave cinemas.
Note: Expected to be given in 2006–07. Conducted in French.

French 189. Francophone Poetry and Drama
Catalog Number: 7640
Samba Diop
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Explores the main themes embedded in Francophone poetry and theatre hailing from black Africa, the Caribbean, and Quebec. First, we consider poetry of Senghor, Césaire, Amrouche, Maunick, U'Tamsi, Damas, Birago Diop, Rabemananjara, Gratiant, Rebearivelo, B. Cendrars, M. Haddad. Then, plays by Were-Were Liking, Anta Kâ, Tansi, Tremblay, C.A. Ndao Oyono-Mbia are studied. Themes of Negritude, home and exile, Africanness, identity quest, slavery and emancipation, and culture are examined.
Note: Conducted in French.

[French 192. The Literary and Cultural Renaissance in Haiti, 1920-60]
Catalog Number: 7505
Francis Abiola Irele (Ohio State University)
Half course (spring term). Hours to be arranged.
The literary renewal that began in Haiti in the 1920s, in the wake of the American occupation, will form the theme of this course. We will review the island's colonial history and its political evolution since independence as background to the literature. We will thereafter examine the works of leading writers and intellectuals-Price-Mars, Depestre, Roumain, Alexis, Briere-and consider their significance for the black and francophone literary corpus.
Note: Expected to be given in 2006–07.

French 194. Francophone Film and Literature
Catalog Number: 9392
Samba Diop
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
With a distinct style of expression, Francophone cinema articulates varied themes:

colonization/decolonization; millenarian politics; womanhood; Westernization; the poor; Islam, Christianity and animism; the *griot* and epic traditions; myths; post-colonialism; national languages such as Berber, Wolof, Arabic, and Creole, are used and, because of interferences with French, a diglossia is often seen. Particular emphasis on local African video productions also featured on national television whcih treat mundane daily subjects. Francophone novels read for contrast and comparison.
Note: Conducted in French.

[French 198. Negritude: Literature and Ideology]
Catalog Number: 8367
Francis Abiola Irele (Ohio State University)
Half course (fall term). Hours to be arranged.
Examines the work of the writers and intellectuals associated with the Negritude movement, with a focus on the work of Leopold Senghor. The origins of the movement will be reviewed, followed by an intensive study of the imaginative works and ideological writings. Attention will be paid to the themes of racial protest and cultural reclamation in the literature and to the debate around the concept of Negritude.
Note: Expected to be given in 2005–06. Conducted in English.

Cross-listed Courses

[African and African American Studies 185. The African Novel]
Comparative Literature 165. The Holocaust and Problems of Representation
History of Art and Architecture 159. Image and Text in 16th Century France
History of Art and Architecture 174s. Body Image in French Visual Culture: 18th and 19th Century
[*Literature 140. Colonial and Post-Colonial Spaces: France and North Africa]
Visual and Environmental Studies 190f. Contemporary French Cinema

Primarily for Graduates

[French 213. In Search of a Medieval Subject]
Catalog Number: 0952
Virginie Greene
Half course (fall term). Hours to be arranged.
We will read lyric poetry and Arthurian romances in order to identify a subject through the broodings and wanderings of various (and often dubious) figures such as King Arthur himself, divided knights, elusive ladies, and vocal lovers.
Note: Expected to be given in 2005–06. Conducted in French. Open to qualified undergraduates.

[French 224. Theater and Politics in the Classical Age: Corneille, Racine, Molière]
Catalog Number: 6943
Alexia E. Duc
Half course (fall term). Hours to be arranged.
Focuses on the representation of the relationship between the hero and the state in tragedy and on the reflection that comedy provides on power, force and discourse in times of absolutism.

Political readings included.
Note: Expected to be given in 2006–07. Conducted in French.

[French 238. Failure and Change: Rereading Enlightenment]
Catalog Number: 2066
Christie McDonald
Half course (fall term). Hours to be arranged.
Analysis of crossover between discourses: religious, political, social, philosophical, literary. Topics include authority, freedom, equality, sentiment, reason, libertinism, fanaticism, tolerance. 18th-century readings: Kant, Rousseau, Sade, Voltaire, etc.; 20th-century European and American debates about Enlightenment.
Note: Expected to be given in 2005–06. Conducted in French.

[French 252. Sounds of Silence]
Catalog Number: 2954
Janet Beizer
Half course (spring term). Hours to be arranged.
Silence, feared and revered by literature as its ambiguous dark double (mirror of textual dissolution/sign of textual self-transcendence) is never far from the text. This seminar will explore silence as it haunts nineteenth-century texts.
Note: Expected to be given in 2006–07. Conducted in French.

French 255. Metamorphoses of the Vampire
Catalog Number: 3630
Janet Beizer
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
The vampire myth came of age with literary modernism and shares with it an identity in displacement, fragmentation, and fluidity. Texts may include Baudelaire, Nodier, Balzac, Gautier, Maupassant, Rachilde, Stoker, Coppola, and theory.
Note: Conducted in French or English.

[French 259. The Culture of Hysteria in Nineteenth-Century France]
Catalog Number: 3349
Janet Beizer
Half course (fall term). Hours to be arranged.
Reading medical and literary narratives of hysteria, we will ask why the disease flourished in this time and place, tracing hysteria as symptom of a cultural malaise. Readings in canonical and popular novels, medical encyclopedias and treatises.
Note: Expected to be given in 2006–07. Conducted in French or English, to be determined by class composition. Readings in French.

French 263. French Society in Film and History, 1895-1950
Catalog Number: 8004
Tom Conley and Patrice Higonnet
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Studies the intersections of culture, cinema, and society from Lumière and Méliès to the

threshold of La nouvelle vague. Emphasis on how, from its origins, film portrays and projects history. Close analysis of silent cinema, poetic realism, and film under and after the Occupation.
Note: Conducted in French.

[French 270. War and Memory: Representations of World War II and the Occupation in Postwar French Literature, History, and Film]
Catalog Number: 8472
Susan R. Suleiman
Half course (spring term). Hours to be arranged.
France was the only country in Western Europe that both "lost" and "won" World War II. This course explores the individual and collective consequences of that split. Works by Sartre, Céline, Simon, Perec, Duras, Modiano, Ophuls, and others.
Note: Expected to be given in 2005–06. Conducted in French.

[French 271. Legacies of Poststructuralism: An Introduction]
Catalog Number: 8448
Verena A. Conley
Half course (spring term). Hours to be arranged.
We examine the legacies of poststructuralism, or “high theory” and literary theory today. We study the works of several theoreticians (Badiou, Cixous, Deleuze, Derrida, Foucault, Nancy, et al.) and their effects on various disciplines from literature to the media.
Note: Expected to be given in 2005–06. Conducted in French. Open to qualified undergraduates.

French 273. Globalization and French Culture
Catalog Number: 3765
Verena A. Conley
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
Globalization in French cultural theory, fiction and film. Texts read include Balibar, Deleuze-Guattari, Derrida, Finkelkraut, Latour, Negri, Virilio and others.
Note: Conducted in French.

French 276. Relating to the Real: Surrealism, Ethnography, and Creolisation in Francophone Caribbean Literature
Catalog Number: 3122
J. Michael Dash
Half course (spring term). Tu., 4–6. EXAM GROUP: 18
This course examines unique encounters in the Forties between French artists escaping Europe and a post-Negritude generation of writers in Martinique and Haiti and the influence of these Surrealist refugees on Francophone Caribbean literature after the 1950s.
Note: Conducted in French and English.
Prerequisite: Reading knowledge of French

French 277 (formerly French 195). The African and Caribbean Novel in French: Comparative Perspectives
Catalog Number: 5245
Francis Abiola Irele (Ohio State University)

Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Examines a representative selection of novels by Francophone African and Caribbean novelists, and evaluates the developments they have brought to the French narrative tradition in terms of theme and language.
Note: Conducted in French.
Prerequisite: Solid reading knowledge of French.

[French 279. Spatial Textures of Critical Theory]
Catalog Number: 1811
Tom Conley
Half course (spring term). Hours to be arranged.
Examines space as concept and practice in contemporary theory. Readings selected from Blanchot, Lévi-Strauss, Foucault, de Certeau, Augé, and Deleuze. Secondary literature includes geography of experience: Yi Fu Tuan, Edward Casey, Henri Lefèbvre.
Note: Expected to be given in 2005–06. Language of instruction to be determined.

[French 285r. French Literature: Seminar]
Catalog Number: 7479
Tom Conley
Half course (fall term). Hours to be arranged.
Topic for 2006-07: Montaigne.
Note: Expected to be given in 2006–07. Conducted in French. Open to qualified undergraduate students.

French 289r. French African Literature: Seminar
Catalog Number: 4502
Samba Diop
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Topic for 2004-05: Nation, Identity, and African Literature. Enquiry will revolve around otherness, nativism, metissage, and difference as they are embedded in the Francophone novel. Authors include Kourouma, M. Ba, M. Diabate, Sembene, Beti, Condé, Glissant.
Note: Conducted in French.

Graduate Courses of Reading and Research

Advanced graduate students reading in the field of a proposed doctoral dissertation or working in a field of specific interest not covered by courses may propose individual projects of reading and research to be undertaken under the direction of individual members of the Department.
***French 320. French Literature: Supervised Reading and Research**
Catalog Number: 1798
Janet Beizer 3957, Tom Conley 1908, Verena A. Conley 2250, Samba Diop 3079, Alexia E. Duc 3801 (on leave 2004-05), Judith Frommer 7066, Virginie Greene 1007, Francis Abiola Irele 4354, Alice Jardine 7457, Christie McDonald 1160, and Susan R. Suleiman 7234

***French 330. Direction of Doctoral Dissertations**
Catalog Number: 7843

Janet Beizer 3957, Tom Conley 1908, Verena A. Conley 2250, Samba Diop 3079, Alexia E. Duc 3801 (on leave 2004-05), Virginie Greene 1007, Francis Abiola Irele 4354, Alice Jardine 7457, Christie McDonald 1160, and Susan R. Suleiman 7234

Italian

The term "placement score" or "placement test" below and in the various course descriptions refers to the Italian placement test given during Freshman Week for freshmen and usually on Registration Day for returning students. All students with some previous Italian in secondary school are required to take the Placement Test.

No student may enter Italian A after the eighth meeting of the class, Italian Bab after the third meeting, or a C level course after the sixth meeting. Students should sign up for Italian A through 51 online on the course website before 4:00 pm on the first day of the term.

Primarily for Undergraduates

Italian A. Beginning Italian
Catalog Number: 4309
Elvira G. DiFabio and staff
Full course (indivisible). M. through F., sections at 9, 10, 11, 12, or 1. EXAM GROUP: 10
For students with little or no knowledge of Italian. Aims at achieving basic communication skills and vocabulary. Emphasis on oral expression and listening comprehension in the fall term, with increasing emphasis in the spring term on reading and writing. Introduction to Italian literature through short stories in the spring term. Course materials include complete software program for Italian grammar and vocabulary.
Note: Conducted in Italian. Students whose placement score does not entitle them to enter a more advanced course are assigned to Italian A. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Italian A website.

Italian Ax. Reading Italian
Catalog Number: 4015
Elvira G. DiFabio and staff
Half course (spring term). M., W., 3–5. EXAM GROUP: 8, 9
For students (both undergraduate and graduate) with little or no knowledge of Italian. Aims at the rapid development of reading skills as a tool for research. Selections of materials in accordance with the needs of the participants.
Note: Not open to auditors. May not be used to fulfill the language requirement. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Italian Ax website.

***Italian Bab. Intensive Beginning Italian: Special Course**
Catalog Number: 3065 Enrollment: Limited to 15.
Chiara Frenquellucci and staff
Full course (fall term; repeated spring term). Section I: M., W., F. at 10, Tu., Th., at 10-11:30,

plus one hour to be arranged; Section II: M., W., F. at 12, Tu., Th. 11:30-1, plus one hour to be arranged. EXAM GROUP: 3, 5
A complete first-year course in one term for students with no knowledge of Italian. Speaking, listening, reading, and writing skills are all emphasized with class time focused on developing oral/aural skills. Selected readings from 20th-century authors.
Note: May not be used to fulfill the language requirement and may not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Conducted in Italian. Section on-line on the Italian Bab website.
Prerequisite: An advanced knowledge of at least one foreign language, preferably a modern Romance language, but no previous study of Italian.

Italian Ca. Intermediate Italian I: L'italiano in giallo, rosa e nero
Catalog Number: 3217
Chiara Frenquellucci and staff
Half course (fall term). Section I: M., W., F., at 9, W., at 1; Section II: M., W., F., at 12, W., at 2; Section III: M., W., F., at 1, W., at 3. EXAM GROUP: 2, 5, 6
Refines and expands knowledge of structures and vocabulary that students have acquired in beginning Italian, highlighting the functions of describing and comparing, making recommendations and talking about the past. Students are introduced to contemporary Italian culture through readings that include a mystery (un giallo), a romance (un rosa), and a gothic tale (un nero).
Note: Conducted in Italian. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Italian Ca website.
Prerequisite: Italian A or Bab, or 450-599 on the SAT II test or the Harvard Placement test, or permission of course head.

Italian Cb. Intermediate Italian II: Raccontiamo storie!
Catalog Number: 6805
Chiara Frenquellucci and staff
Half course (spring term). M., W., F., at 9, W., at 1; M., W., F., at 12, W., at 2; M., W., F., at 1, W., at 3; M., W., F., at 2. EXAM GROUP: 2, 5, 6
A logical continuation of Italian Ca, with a grammar review highlighting the functions of talking about tastes, making hypotheses, and talking about the future. Content includes Calvino folktales and Collodi' *Pinocchio*. Sophisticated written/oral communication through regular writing assignments, and a special project at the end of the term, normally the staging of a class rendition of *Pinocchio*.
Note: Conducted in Italian. Open to students whose placement score indicates a more advanced course, or as a continuation of Italian Ca. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Italian Cb website.

***Italian Dab. Intensive Intermediate Italian: L'italiano delle favole**
Catalog Number: 7258 Enrollment: Limited to 15.
Chiara Frenquellucci and staff
Full course (fall term; repeated spring term). M., W., F., at 12, Tu., Th., 1–3. EXAM GROUP: 5, 15, 16
A complete second-year course in one term for students with a basic knowledge of Italian.

Speaking, listening, reading, and writing skills are all emphasized through seven principal functions of communication. Class time focused on further developing oral/aural skills through the retelling of popular folktales. Writing skills developed through a weekly journal with focused assignments, and an end of semester class writing project.
Note: May not be used to fulfill the language requirement. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Conducted in Italian. Section on-line on the Italian Dab website.
Prerequisite: Italian A or Bab, 450-599 on the SAT II test or the Harvard Placement test, or permission of course head.

Italian 33. Oral Expression: La musica dell'italiano
Catalog Number: 6463
Elvira G. DiFabio and staff
Half course (fall term). M., W., F., at 12. EXAM GROUP: 5
An oral expression course based on Italian Opera, Italian 33 is intended for students with an advanced-intermediate knowledge of Italian but does not require prior knowledge of either music or opera. Content focuses on both the cultural and the linguistic elements of the "musical voice" of Italians as expressed by Rossini, Verdi, Donizetti, Puccini, Leoncavallo, and others.
Note: Conducted in Italian. Monthly screenings to be arranged. May not be taken for credit by students who have passed Italian 35. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Italian 33 website.
Prerequisite: Italian Cb, 600 or above on the SAT II or Harvard Placement test, or permission of course head.

Italian 35. Upper-Level Italian I: Parliamo dell'Italia
Catalog Number: 2659
Elvira G. DiFabio and staff
Half course (fall term). M., W., F., at 12 or 1. EXAM GROUP: 5, 6
Insights into Italian society and culture, especially through Italian newspaper and magazine articles, feature films, and videotapes. For students with a solid grasp of the fundamentals of Italian grammar. Aims at improving command of the language both in speaking and writing, combined with reading strategies. Practice consists of discussions, exercises in diction, and written reports.
Note: Conducted in Italian. May not be taken for credit by students who have passed Italian 33. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Italian 35 website
Prerequisite: Italian Cb, 630 or above on the SAT II test or the Harvard Placement test, or permission of course head.

Italian 36. Upper-Level Italian II: Letteratura e cinema
Catalog Number: 5223
Elvira G. DiFabio and staff
Half course (spring term). M., W., F., at 12 or 1. EXAM GROUP: 5, 6
Aims at advancing students' proficiency in speaking, reading and writing through vocabulary development and extension of control of higher-level syntactical patterns. Students read two complete novels and selections from two others, and view feature films on which they are based,

all related to twentieth-century Italian society. Practice through class presentations, compositions, and discussions.
Note: Conducted in Italian. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Italian 36 website.
Prerequisite: Italian 35 or permission of course head.

Italian 40. Advanced Oral Expression: Teatro dal vivo
Catalog Number: 0804 Enrollment: Limited to 12.
Elvira G. DiFabio and staff
Half course (spring term). Tu., Th., 3–5. EXAM GROUP: 17, 18
Reading, analyzing, enacting plays by Nobel Prize-winners Luigi Pirandello and Dario Fo. Student preparation culminates in the production of a theatrical work at the end of the term.
Note: Conducted in Italian. Open to graduate students with permission of course head. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Italian 40 website.
Prerequisite: Italian 33 or higher, or permission of course head.

[Italian 44. Advanced Italian: Effetto Commedia]
Catalog Number: 5776
Elvira G. DiFabio
Half course (fall term). Hours to be arranged.
Comedy Italian-style in cinema (from Totò to Benigni) and its origins. Presents students with another dimension of Italian culture, while perfecting their language skills. Problems in composition addressed through short weekly assignments; grammar review in context. Weekly video screenings.
Note: Expected to be given in 2005–06. Conducted in Italian. Open to graduate students with permission of course head. May be taken Pass/Fail or Sat/Unsat by GSAS students. Section on-line on the Italian 44 website.
Prerequisite: Italian 35 or higher, or permission of course head. Appropriate for concentrators electing the Italian Studies track.

Italian 48. Advanced Italian: Voices from Italy: Issues of Identity
Catalog Number: 0178
Elvira G. DiFabio
Half course (fall term). M., W., F., at 1. EXAM GROUP: 6
An exploration of various identities of Italy, including that of non–Italians in contemporary Italy and Italians living abroad. Students will investigate these issues from a wide variety of sources, including literary, historical and sociological texts, news reports and feature films. Frequent oral and written assignments. Grammar reviewed in context, with particular emphasis on the functions of describing, summarizing and expressing an opinion.
Note: Conducted in Italian. Open to graduate students with permission of course head. Section on-line on the Italian 48 website.
Prerequisite: Italian 35 or higher, or permission of course head. Appropriate for concentrators selecting the Italian Studies track.

[Italian 50. Literary Translation]
Catalog Number: 5676
Elvira G. DiFabio
Half course (spring term). Hours to be arranged.
Translation from English to Italian, and occasionally from Italian to English, using sample texts from literature, history, and philosophy, as well as texts being considered for publication. Discussion of a variety of styles, literary devices, semantic and cultural distinctions, and structural differences, along with testimony from a number of authors, including Pavese, Eco and Venuti.
Note: Expected to be given in 2005–06. Conducted in Italian. Open to graduate students with permission of course head. May be taken Pass/Fail or Sat/Unsat by GSAS students. Section on-line on the Italian 50 website.
Prerequisite: Italian 44 or higher or permission of course head.

***Italian 91r. Supervised Reading and Research**
Catalog Number: 2287
Elvira G. DiFabio and staff
Half course (fall term; repeated spring term). Hours to be arranged.
Tutorial supervision of research on subjects not treated in regular courses.

***Italian 97. Tutorial - Sophomore Year**
Catalog Number: 1795
Giuliana Minghelli and members of the Department and Tutorial Board
Half course (fall term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
Note: Conducted in Italian. Successful completion of one term of Italian 97 is required of concentrators.

***Italian 98. Tutorial - Junior Year**
Catalog Number: 1167
Elvira G. DiFabio and members of the Department and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Successful completion of one term of Italian 98 is required of all honors concentrators.

***Italian 99. Tutorial — Senior Year**
Catalog Number: 7840
Elvira G. DiFabio and members of the Department and Tutorial Board
Full course. Hours to be arranged.
Note: Successful completion of one term of Italian 99 is required of all honors concentrators.

Cross-listed Courses

Literature and Arts A-26. Dante's *Divine Comedy* and Its World

For Undergraduates and Graduates

[Italian 102. History of the Italian Language]
Catalog Number: 0341

Half course (spring term). Hours to be arranged.
Italian (like French, Spanish, Portuguese, etc.) is, effectively, Modern Latin. How did Italian, and the numerous dialects of Italy, come about? We examine the emergence of the new languages from Spoken Latin, consider the influence of foreign cultures, and the origin of selected words. Introduction to historical Phonetics and Grammar, early literary and "everyday" texts, the development of the Italian language and debates about its form from the Renaissance to the present.
Note: Expected to be given in 2005–06. Conducted in Italian.

Italian 113. On the Road: Geographies of Memory and Childhood in Italian Literature and Film (1942-1992)
Catalog Number: 9482
Giuliana Minghelli
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
An introduction to the student to modern and contemporary Italian literature and film through a study of the representations of place and memory in fiction and film from the Second World War to the near present.
Note: Language of instruction to be determined.

[Italian 120b (formerly Italian 120d). Dante's *Purgatorio* and *Paradiso*]
Catalog Number: 2558
Lino Pertile
Half course (spring term). Hours to be arranged.
Dante's *Divina Commedia.* A continuation of Italian 120a.
Note: Expected to be given in 2006–07. Conducted in English.

[Italian 123. Semantics of Desire: The Erotic Theme in Dante's Poetry]
Catalog Number: 8912
Lino Pertile
Half course (spring term). Hours to be arranged.
Examines Dante's discourse on love, earthly and heavenly, in the context of the literature and culture of his times. In addition to a selection from Dante's *Comedy*, texts will include Book 4 of Virgil's *Aeneid*, Ovid's *Ars amatoria* and Andreas Cappellanus' *De amore*, Saint Bernard's commentary on the *Song of Songs*, Guinizzelli's and Cavalcanti's *Rime* and Iacopone da Todi's *Laude*.
Note: Expected to be given in 2005–06. Conducted in Italian.
Prerequisite: Reading knowledge of Italian.

Italian 141. Renaissance Epic: Power, Imagination and the Making of Modernity
Catalog Number: 5328
Francesco Erspamer (New York University)
Half course (fall term). M., 3–5, W., at 11. EXAM GROUP: 4, 8, 9
The literary masterpieces of the golden century of Italian civilization were two narrative poems,

Ariosto's *Orlando Furioso* and Tasso's *Jerusalem Delivered*, both celebrating the chivalric spirit of a bygone era. The course analyzes their relation with the epic tradition and their significance in the making of the modern conception of the world.
Note: Conducted in Italian.

Italian 167. Svevo e i Triestini
Catalog Number: 5276
Giuliana Minghelli
Half course (spring term). M., at 11, Th., 2–4. EXAM GROUP: 4, 16, 17
Trieste, more than any other Italian city, is identified with its literature. We follow the meanderings of Italo Svevo's restless characters, Scipio Slataper's lyrical visions of geographical and linguistic redemption, and the everyday landscape of Umberto Saba's poetry to investigate how the lived space of fin-de-siècle Trieste informs the emergence of a literature that shaped Italian Modernism and decentered concepts of Italian cultural and national identity.
Note: Conducted in Italian.

Italian 191. Manzoni and Romanticism
Catalog Number: 1019
Franco Fido
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Manzoni's literary career from his early works to the *Storia della colonna infame.*
Note: Conducted in Italian.

Italian 193. Literature and Fascism
Catalog Number: 0981
Lino Pertile
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
To what extent did Italian culture contribute to, and how was it affected by, the rise and consolidation of Fascism? How did Italian writers, artists, and intellectuals react and adapt to the Fascist regime? This course aims at providing an understanding of the culture of the 1920s and 1930s while focusing on some major literary works of the period.
Note: Conducted in English.
Prerequisite: Reading knowledge of Italian.

[Italian 196. The Post-War Novel]
Catalog Number: 7018
Lino Pertile
Half course (spring term). Hours to be arranged.
Aims at providing a critical understanding of some major novels published in Italy since 1945. Authors considered include Cesare Pavese, Italo Calvino, Giuseppe Tomasi di Lampedusa, Leonardo Sciascia, Dacia Maraini. Focus on changing relationship between writer and society in past 60 years of Italian history.
Note: Expected to be given in 2006–07.

Italian 198. Italo Calvino and the Place of Literature
Catalog Number: 0358

Giuliana Minghelli
Half course (spring term). M., 1–3, Th., at 1. EXAM GROUP: 6, 7, 15
From the paths of fairy tale to the Postmodern labyrinth of his later novels, we explore how the works of Italo Calvino insistently map a narrative geography of the world. By focusing on the image of the city, the heroic journey, myth, and cybernetics, we investigate the connection between Calvino's spatial imagination and his ongoing reflection on the value and function of literature.
Note: Conducted in English.

Cross-listed Courses

Linguistics 110. Introduction to Linguistics

Primarily for Graduates

Italian 220. Poesia del '200
Catalog Number: 6181
Lino Pertile
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
Explores the riches and variety of forms, styles, and themes of Italian poetry before Dante from the Sicilian school to the Sweet New Style. The seminar is devoted mainly to reading and discussion of the most important texts of the period.
Note: Conducted in Italian.

[Italian 230. Petrarca and the Divided Self]
Catalog Number: 5548
Lino Pertile
Half course (spring term). Hours to be arranged.
Studies Petrarch's vernacular poetry in the cultural context of Trecento Italy with particular reference to Dante and the *dolce stil nuovo*. Stylistic and linguistic features of Petrarch's *Rime* analyzed in depth while their philosophical aspects are related to some of Petrarch's Latin works, especially the *Secretum.*
Note: Expected to be given in 2005–06. Conducted in Italian.

Italian 262. Time: Rhetoric and Ideology of a Cultural Concept
Catalog Number: 3847
Francesco Erspamer (New York University)
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Studies the development of the concept and metaphor of Time through Italian Literary canon, from Vasari and Galileo to Vico and Leopardi, from Pirandello and the Futurists to contemporary writers such as Carlo Levi, Giuseppe Tomasi di Lampedusa, Italo Calvino, and Elena Ferrante.
Note: Conducted in Italian.

Italian 280r. Italian Literature: Seminar: La "Nuova Letteratura" del Settecento: Parini e Alfieri

Catalog Number: 4251
Franco Fido
Half course (spring term). W., 2:30–5. EXAM GROUP: 7, 8, 9
Major works of Italian Enlightenment studied in their peculiarities vis-à-vis the more radical dispositions of French *philosophes*: moderation, concreteness, fidelity to the classical heritage in the poetry of Giuseppe Parini (*Il Giorno*, the *Odi*); uncompromising longing for freedom and authenticity in Vittorio Alfieri's *Tragedie*, and *Vita*.
Note: Conducted in Italian.
Prerequisite: Reading knowledge of Latin and/or French desirable.

Italian 281r. Italian Literature: Seminar
Catalog Number: 1140
Franco Fido
Half course (fall term). W., 2:30–5. EXAM GROUP: 7, 8
Topic for 2004-05: Goldoni and Gozzi. Studies great theatrical writers of the 18th century.
Note: Conducted in Italian.

[Italian 287ar. Italian Literature: Seminar]
Catalog Number: 0378
Lino Pertile
Half course (fall term). Hours to be arranged.
Topic for 2005-06: Dante's *Inferno*.
Note: Expected to be given in 2005–06. Conducted in Italian.

Italian 287br. Italian Literature: Seminar
Catalog Number: 1103
Lino Pertile
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Topic for 2004-05: Dante's *Purgatorio*. A close reading and discussion of Dante's *Purgatorio* and related critical literature.
Note: Conducted in Italian.

[Italian 287cr. Italian Literature: Seminar]
Catalog Number: 2789
Lino Pertile
Half course (fall term). Hours to be arranged.
Topic for 2006-07: Dante's *Paradiso*. A close reading and discussion of Dante's *Paradiso* and related critical literature.
Note: Expected to be given in 2006–07. Conducted in Italian.

[Italian 288r. Italian Literature Seminar]
Catalog Number: 0613
Lino Pertile
Half course (spring term). Hours to be arranged.
Topic for 2006-07: Leopardi.
Note: Expected to be given in 2006–07. Conducted in Italian.

Graduate Courses of Reading and Research

See Note to Graduate Courses of Reading and Research in French.
***Italian 320. Italian Literature: Supervised Reading and Research**
Catalog Number: 4834
Franco Fido 2446 and Lino Pertile 3416

***Italian 330. Direction of Doctoral Dissertations**
Catalog Number: 3679
Franco Fido 2446 and Lino Pertile 3416

Latin American Studies

Primarily for Undergraduates

Latin American Studies 30. Introduction to Quechua
Catalog Number: 5999
José Antonio Mazzotti and staff
Half course (spring term). Tu., Th., 1–3. EXAM GROUP: 15, 16
Introduction to the language of the Incas, spoken by 12 million people in Colombia, Ecuador, Peru, Bolivia, northern Chile and Argentina. Quechua has simple structures but multiple expressive possibilities, and a longstanding tradition of poetry, music, and drama. This course is ideal for anyone interested in doing research on the Andean area and communicating with indigenous communities in South America. It will cover approximately two-thirds of the material of a first-year Quechua course.
Note: Conducted in Quechua. No knowledge of a Romance language necessary.

[Latin American Studies 70. Introduction to Latin American Studies]
Catalog Number: 3379
José Antonio Mazzotti
Half course (spring term). Hours to be arranged.
Why is Latin America poor and sometimes politically unstable? Why its cultural and human richness? What is its enormous potential for the future? To address these questions, we focus on readings, films and music from the different Latin American regions. We also concentrate on the diversity, coexistence, and divergence of ethnic traditions within national spaces. Through interdisciplinary analysis, students are introduced to the complexity of Latin American societies, their urgent problems, and fascinating cultures.
Note: Expected to be given in 2005–06. Conducted in Spanish, with some readings, lectures, and discussions in English.

[Latin American Studies 71. Latin American Film]
Catalog Number: 6755
José Antonio Mazzotti
Half course (fall term). Hours to be arranged.
Will present and analyze some representative films of the main Latin American schools of cinema: the Brazilian Cinema Novo, the Argentine Tercer Cinema, the Cuban Cinema de la

Revolución and Mexican post-revolutionary film, to familiarize the students with prestigious directors such as Glauber Rocha, Fernando Solanas, Tomás Gutiérrez Alea, Emilio "Indio" Fernández, and others like Jorge Sanjinés, Carlos Diegues, and Armando Robles Godoy, and with the social, political and cultural contexts of their work.
Note: Expected to be given in 2005–06. Conducted in Spanish. Films in Spanish and Portuguese with English subtitles.

Latin American Studies 90a. Latin American Conversational Poetry
Catalog Number: 9291
José Antonio Mazzotti
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
How to write poetry with simple words and direct statements? This course examines this dominant style in Latin America since the 1950s through the oeuvres of Nicanor Parra, Ernesto Cardenal, José Emilio Pacheco, Rodolfo Hinostroza, Antonio Cisneros, the Nicaraguan poetry workshops and the abundant poetry by women since then. Special attention is paid to different Spanish language codes (standard, colloquial, etc.) and to the connections of Latin American conversational poetry with English-speaking Modernism.
Note: Conducted in Spanish.

Latin American Studies 98. Tutorial: Junior Year
Catalog Number: 1224
Luis E. Cárcamo-Huechante and members of the Department and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Successful completion of one term of Latin American Studies 98 is required of all honors concentrators in their junior year.

Latin American Studies 99. Tutorial: Senior Year
Catalog Number: 7959
Luis E. Cárcamo-Huechante and members of the Department and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.
Weekly individual instruction for honors seniors writing a thesis.
Note: Successful completion of one term of Latin American Studies 99 is required of all honors concentrators. To enroll, see the Undergraduate Adviser in Latin American Studies.

Cross-listed Courses

***Freshman Seminar 32n. Renewal of Poetry in the Hispanic World: Vallejo, Huidobro, Neruda, and Paz**

For Undergraduates and Graduates

[Latin American Studies 110. Dictatorship/Postdictatorship: Memory, Media and Market Culture]
Catalog Number: 2642
Luis E. Cárcamo-Huechante
Half course (fall term). Hours to be arranged.

Interdisciplinary course about the cultural changes that occurred during and after the dictatorships of the 1970s and 1980s in Argentina, Chile, and Uruguay. We will analyze the conflicting narratives about the period and the dramatic shift from the political, contestory citizen to the market-oriented individual. Analysis and discussion of literary works, visual arts, cultural criticism, trauma theory, political economy and philosophy of history.
Note: Expected to be given in 2006–07. Conducted in English.
Prerequisite: Reading ability in Spanish.

Latin American Studies 121. Revoluciones: Cultural Views
Catalog Number: 1950
Luis E. Cárcamo-Huechante
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
How does the domain of art and culture engage in, or counterpoint with, historical processes of change? This question will guide our critical examination of the cultural developments related with the experience of three national revolutions in Latin America: the Mexican Revolution, the 1944 Revolution of Guatemala, and the 1952 national Revolution of Bolivia. Literary production, pictorial and audio visual arts, political history, and cultural policy discussions will be included.
Note: Conducted in English. Advanced reading ability in Spanish is required.

[Latin American Studies 160. Advanced Topics in Latin American Film]
Catalog Number: 8429
José Antonio Mazzotti
Half course (fall term). Hours to be arranged.
Explores the complexities of two of the most important film industries in Latin America: the Cuban and the Argentine. This course offers both a theoretical and a practical approach to the Latin American film of the past fifty years, considering its political, cultural and social contexts. Readings include works by Birri, Getino, Solanas, Gutiérrez Alea, and other renowned directors and critics.
Note: Expected to be given in 2005–06. Conducted in Spanish.

Cross-listed Courses

History 1762. Intellectuals, Society and the State in 20th-Century Argentina: Conference Course

Portuguese

Placement: The term “placement score” or “placement test” below and in the various course descriptions refers to the Portuguese placement test given during Freshman Week for freshmen, and usually on Registration Day for returning students.

Primarily for Undergraduates

Portuguese A. Beginning Portuguese
Catalog Number: 7130
Clémence Jouët-Pastré and staff
Full course (indivisible). M., W., F., at 12. EXAM GROUP: 5
Designed to introduce the student with little or no knowledge of the language to the Portuguese-speaking world. Teaches fundamental communication skills—understanding, speaking, reading, and writing—and, at the same time, provides exposure to the culture and civilization of Brazil and Portugal through media broadcasts, literature readings, films, music, and videotapes. By the end of the course, students should be able to communicate easily with native speakers as well as be acquainted with basic elements of Luso-Brazilian culture.
Note: Conducted in Portuguese. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the Portuguese A website.

Portuguese Ac. Beginning Portuguese for Spanish Speakers
Catalog Number: 0430
Clémence Joüet-Pastré and staff
Half course (fall term). M., W., F., at 12 or 1. EXAM GROUP: 5, 6
An introductory language course designed for Spanish-English bilinguals. Along with the fundamental communication skills—understanding, speaking, reading and writing—the course will focus on those features of Portuguese which are most difficult for Spanish speakers: pronunciation, idioms and grammatical structures particular to Portuguese. Students will be introduced to the cultures of the Portuguese-speaking world through readings and authentic materials, including films, music, and videotapes.
Note: Conducted in Portuguese. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Open to Spanish-English bilinguals. Not open to auditors. Section on-line on the Portuguese Ac website.
Prerequisite: 750 on the Spanish SAT II or the Harvard Placement test; 5 on the Spanish AP test; or a 40's level Spanish course.

Portuguese Ad. Beginning Portuguese for Spanish Speakers
Catalog Number: 1315
Clémence Jouët-Pastré and staff
Half course (spring term). M., W., F., at 12 or 1. EXAM GROUP: 5
A continuation of Portuguese Ac. By the end of the second term, students should be able to communicate easily with native speakers and be acquainted with basic elements of Luso-Brazilian culture.
Note: Conducted in Portuguese. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the Portuguese Ad website.
Prerequisite: Portuguese Ac.

Portuguese Ba. Introduction to Portuguese
Catalog Number: 0514
Clémence Jouët-Pastré and staff
Half course (spring term). Section I: M., W., 3–5; Section II: M., W., 5–7; Section III: Tu., Th., 3–5. EXAM GROUP: 8, 9
A basic introductory course for students who can devote only one term to the study of

Portuguese. Teaches fundamental communication skills—understanding, speaking, reading and writing—but does not offer a complete study of grammar.
Note: Conducted in Portuguese. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the Portuguese Ba website.

Portuguese Ca. Intermediate Portuguese I
Catalog Number: 7692
Clémence Jouët-Pastré and staff
Half course (fall term). Section I: M., W., 2–3:30; Section II: Tu., Th., 10–11:30. EXAM GROUP: 7, 8
A beginning intermediate course for students interested in expanding and strengthening their basic Portuguese linguistic skills. Reading, writing, and conversational competency is emphasized through the study of the Luso-African-Brazilian cultures. The course aims to promote cross-cultural understanding through the use of authentic materials such as literary texts, multimedia, film, music, and videotapes.
Note: Conducted in Portuguese. Recommended for students who wish to improve their ability to speak and write Portuguese. May not be taken Pass/Fail. Section on-line on the Portuguese Ca website.
Prerequisite: Portuguese A or permission of course head.

Portuguese Cb. Intermediate Portuguese II
Catalog Number: 2799
Clémence Jouët-Pastré and staff
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Aims to further develop the four communicative skills while expanding students' background knowledge of the history and cultures of the Portuguese-speaking world. Portuguese Cb covers the important grammar points not studied in Portuguese Ca.
Note: Conducted in Portuguese. May not be taken Pass/Fail. Section on-line on the Portuguese Cb website.
Prerequisite: Portuguese Ca or permission of course head.

Portuguese 37. Brasil hoje: Contemporary Brazilian Culture through Media
Catalog Number: 5024
Clémence Jouët-Pastré
Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 16, 17
Students engage in a systematic grammar review, along with practice in writing and vocabulary enrichment, while examining contemporary Brazil as presented in the Portuguese-language press, television, literature, and film. They will analyze the ways Brazilians and non-Brazilians construct different and conflicting images of Brazil and "Brazilness." Issues of race relations, national identity, ethnicity, and gender will be addressed. Discussions will be based on historical and literary tests, advertisements, films, videotapes of Brazilian television, and current issues of newspapers and magazines.
Note: Conducted in Portuguese. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students.
Prerequisite: Portuguese Ca/Cb or permission of course head.

Portuguese 44 (formerly Portuguese 38). Images of Brazil: Contemporary Brazilian Cinema
Catalog Number: 8893
Clémence Jouët-Pastré
Half course (spring term). M., W., 2:30–4. EXAM GROUP: 7, 8
Examines major Brazilian films in their historical, political, and social context. Class discussion also focuses on documentaries, reviews, and critical articles. In-depth textual and grammatical analysis, vocabulary building, reflections on the similarities and differences of the oral and written Portuguese will lead students to achieve a high level of competency.
Note: Conducted in Portuguese. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Section on-line on the Portuguese 44 website.
Prerequisite: Portuguese Ca/Cb or permission of course head.

Portuguese 60 (formerly Portuguese 40). Portuguese and the Community
Catalog Number: 3322
Clémence Jouët-Pastré and staff.
Half course (spring term). Tu., Th., 10–11:30 plus four hours of service per week. EXAM GROUP: 12, 13
An advanced language course examining the Luso-African-Brazilian experience in the US. Promotes community engagement as a vehicle for greater linguistic fluency and cultural understanding. Students will be placed with Boston-area community organizations and agencies. Class work focuses on readings and films by and about Luis-African-Brazilians and specific uses of Portuguese language from these communities. Authors include D. Macedo, Braga Martes, Margolis, Sales, Albues, and Villas Boas.
Note: Section on-line on the Portuguese 60 website.
Prerequisite: Portuguese 37, 38 or a score of 100 on the Harvard Placement Test.

***Portuguese 91r. Supervised Reading and Research**
Catalog Number: 5589
Clémence Jouët-Pastré and members of the Department and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.
Advanced reading in topics not covered in regular courses.
Note: Limited to juniors and seniors.

***Portuguese 97. Tutorial — Sophomore Year**
Catalog Number: 5769
Clémence Jouët-Pastré and members of the Department and Tutorial Board
Half course (spring term). W., 6–8. EXAM GROUP: 9
Successful completion of one term of Portuguese 97 is required of all concentrators in their sophomore year.

***Portuguese 98. Tutorial — Junior Year**
Catalog Number: 8667
Clémence Jouët-Pastré and members of the Department and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.

Successful completion of one term of Portuguese 98r is required of all honors concentrators. To enroll see course head.

***Portuguese 99. Tutorial — Senior Year**
Catalog Number: 8753
Clémence Jouët-Pastré and members of the Department and Tutorial Board
Full course. Hours to be arranged.
For honors seniors writing a thesis. Successful completion of one term of Portuguese 99 is required of all honors concentrators. To enroll, see course head.

For Undergraduates and Graduates

Portuguese 115. Popular Tradition as the Muse of Modern Brazilian Culture
Catalog Number: 5279
Nicolau Sevcenko (Universidade de São Paulo)
Half course (spring term). W., 4–6. EXAM GROUP: 9
Brazilian oral popular culture is a complex sediment, composed of Iberian, African and Native American elements, condensed by the lower strata of the population, during centuries of isolation in the backlands. It was attacked by modernizing elites as an anachronism, a barrier of illiteracy and superstition hindering Brazilian development. Some modern artists and writers, however, took it as an inspirational resource to confront aesthetic dogmatism. We will study/compare 20th century writers, poets and visual artists.
Note: Conducted in Portuguese or English, to be decided jointly by professor and students.

[Portuguese 121a. Introduction to the Literature of Brazil I]
Catalog Number: 5164
Joaquim-Francisco Coelho
Half course (fall term). Hours to be arranged.
A survey of the development of Brazilian literature from colonial times to the present. Emphasis on major authors (Gregório de Matos, Gonçalves Dias, Machado de Assis, Drummond de Andrade, Clarisse Lispector, Cecília Meireles, Guimarães Rosa, Ferreira Gullar). Special attention paid to the social forces that continue to shape literary thought in Brazil.
Note: Expected to be given in 2005–06. Conducted in Portuguese and English.
Prerequisite: Excellent reading knowledge of Portuguese.

[Portuguese 121b. Introduction to the Literature of Brazil II]
Catalog Number: 4363
Joaquim-Francisco Coelho
Half course (spring term). Hours to be arranged.
A continuation of Portuguese 121a.
Note: Expected to be given in 2005–06. Conducted in Portuguese and English.
Prerequisite: Excellent reading knowledge of Portuguese.

Portuguese 122a. Introduction to the Literature of Portugal I
Catalog Number: 2943
Joaquim-Francisco Coelho

Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
The main currents of Portuguese literature. Emphasis on major authors, literary schools, and socio-aesthetic ideas from Gil Vicente and Camões to Eça de Queiroz, Fernando Pessoa, Jorge de Sena and José Saramago. Aims to teach students to read Portuguese texts and to think and write about them in a broad Western European context.
Prerequisite: Excellent reading knowledge of Portuguese.

Portuguese 122b. Introduction to the Literature of Portugal II
Catalog Number: 3654
Joaquim-Francisco Coelho
Half course (spring term). Hours to be arranged.
A continuation of Portuguese 122a.
Prerequisite: Excellent reading knowledge of Portuguese.

Portuguese 141. The Short Stories of Machado de Assis
Catalog Number: 8700
Joaquim-Francisco Coelho
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Analyzes Machado's short stories in chronological order of composition, emphasizing their social content, the idiosyncratic behavior of their characters, and the author's use of language to convey the ambiguities of human nature.
Note: Conducted in Portuguese and English.

Cross-listed courses

Linguistics 110. Introduction to Linguistics

Primarily for Graduates

[Portuguese 219ar. Major Poems of the Portuguese Language I]
Catalog Number: 2192
Joaquim-Francisco Coelho
Half course (fall term). Hours to be arranged.
A study of major lyrical texts of the Portuguese language, from medieval times to the present, with emphasis on poetry written in Portugal and Brazil after 1900. The approach is comparative, focusing on the formal aspects of poetry (meter, rhyme, rhythm).
Note: Expected to be given in 2005–06. Conducted in Portuguese.

[Portuguese 219br. Major Poems of the Portuguese Language II]
Catalog Number: 3242
Joaquim-Francisco Coelho
Half course (spring term). Hours to be arranged.
A continuation of Portuguese 219ar.
Note: Expected to be given in 2005–06. Conducted in Portuguese.

[Portuguese 222. Introduction to Camões]
Catalog Number: 2995
Joaquim-Francisco Coelho
Half course (spring term). Hours to be arranged.
Study of the epic and lyric poetry of Camões in the context of the European Renaissance. Special attention given to the love sonnets and to the lyrical passages of *The Lusiads.*
Note: Expected to be given in 2006–07. Taught in Portuguese.

[Portuguese 225. Modernist Poetry in Brazil: Manuel Bandeira and Carlos Drummond de Andrade]
Catalog Number: 7522
Joaquim-Francisco Coelho
Half course (fall term). Hours to be arranged.
A study of these two major poets, focusing on common themes in their poetry and biographical coincidences (nostalgia for the homeland, discomfort with city life, the cult of the dead, etc.).
Note: Expected to be given in 2006–07. Conducted in Portuguese.

Portuguese 227. Fernando Pessoa
Catalog Number: 7375
Joaquim-Francisco Coelho
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
Study of the works of Portugal's most distinguished literary figure of the 20th century as poet, critic, and prose writer, as well as his relation to the corpus of Portuguese literature.
Note: Conducted in Portuguese and English.

Portuguese 231. Literature and the Plea for Compassionate Modernization in 20th-Century Brazil
Catalog Number: 2102
Nicolau Sevcenko (Universidade de São Paulo)
Half course (spring term). Tu., 4–6. EXAM GROUP: 18
The Republican regime's aim was the modernization of Brazil. It was conceived however as an authoritarian and discriminatory process. Writers of diverse social/ethnic backgrounds fought against it. Readings from the first Republican generation of intellectual/writers.
Note: Conducted in Portuguese or English, to be decided jointly by professor and students.

Graduate Courses of Reading and Research

See Note to Graduate Courses of Reading and Research in French.
***Portuguese 320. Literature of Portugal: Supervised Reading and Research**
Catalog Number: 6733
Joaquim-Francisco Coelho 7715

***Portuguese 321. Literature of Brazil: Supervised Reading and Research**
Catalog Number: 5933
Joaquim-Francisco Coelho 7715

***Portuguese 330. Direction of Doctoral Dissertations**
Catalog Number: 4072
Joaquim-Francisco Coelho 7715, Bradley S. Epps 2880, Luis Fernández-Cifuentes 2091, Mary Malcolm Gaylord 2632 (on leave spring term), and Doris Sommer 2744

Romance Languages

See also courses in Linguistics.

Primarily for Graduates

Romance Languages 200. Second Language Teaching and Learning (formerly Theory and Practice of Language Teaching)
Catalog Number: 2825
Kimberlee Campbell
Half course (fall term). W., 5–7 pm. EXAM GROUP: 9
An overview of second-language teaching and learning. Students are encouraged to think critically about theoretical models, learning objectives, materials design, and classroom practice. Students will evaluate existing textbooks as well as design their own materials.
Note: Offered jointly with the Graduate School of Education as H-750. Open to qualified undergraduates.

Graduate Courses of Reading and Research

***Romance Languages 300. Seminar for Dissertation Writing in the Romance Literatures**
Catalog Number: 9758
Mary Malcolm Gaylord 2632 (on leave spring term)
Half course (fall term; repeated spring term). Bi-weekly meetings: W., 3–5, starting on 9/17.
Addresses prospectus preparation; scope, chapter organization, audience; politics and ethics of critical writing (acknowledgement, quotation, controversy); publishing (conference/job talks, articles, book). Biweekly meetings use readings, discussion, workshopping, guest lectures to focus on practical concerns.
Prerequisite: Completion or imminent completion of PhD general examinations.

Romance Studies

Primarily for Undergraduates

Romance Studies 79. Romance Languages in Comparative Perspective
Catalog Number: 8713
Elvira G. DiFabio, Virginie Greene, Clémence Jouët-Pastré, Johanna Damgaard Liander and members of the Department
Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Highlights of the similarities and differences among the Romance languages, beginning with an overview of the historical development of the Romance languages from Latin, and moving on to

the comparison of linguistic identifiers of French, Italian, Portuguese, and Spanish; may also include a discussion of Catalan. Topics will cover comparative phonology, morphology, and syntax, as well as some cross-cultural experiences such as immigration and translation.
Note: Conducted in English; texts in original and in translation. May not be taken by RLL graduate students to fulfill the history of the language requirement.
Prerequisite: Advanced proficiency in one of the Romance Languages, or permission of the faculty committee.

***Romance Studies 91r. Supervised Reading and Research**
Catalog Number: 8210
Virginie Greene and members of the Department and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.
Tutorial supervision of research on subjects not treated in regular courses.

***Romance Studies 97. Tutorial–Sophomore Year**
Catalog Number: 1994
Virginie Greene and members of the Department and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Successful completion of one term of Romance Studies 97 is required of all concentrators in their sophomore year.

***Romance Studies 98. Tutorial–Junior Year**
Catalog Number: 5203
Virginie Greene and members of the Department and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Successful completion of one term of Romance Studies 98 is required of all honors concentrators in their junior year.

***Romance Studies 99. Tutorial–Senior Year**
Catalog Number: 1067
Virginie Greene and members of the Department and Tutorial Board
Full course. Hours to be arranged.
Note: Weekly individual instruction. Successful completion of one term of Romance Studies 99 is required of all honors concentrators. To enroll, see the Undergraduate Adviser in Romance Studies.

For Undergraduates and Graduates

[Romance Studies 133. How to Behave in Romance]
Catalog Number: 5976
Mary Malcolm Gaylord and Alexia E. Duc
Half course (fall term). Hours to be arranged.
Romance cultures of the early modern period share a common interest in civility. The climate of intense change that marked 16th- and 17th-century Europe produced a flurry of treatises on gender and class roles, manuals of behavior geared to new situations and how-to books for social climbers. Looking for debts to philosophy and religion as well as for the influence of changing

contexts, we read Erasmus, Castiglione, Vives, Luis de León, Gracián, Faret, Courtin, Vaumorières, Bellegarde, and others.
Note: Expected to be given in 2005–06. Conducted in English.

[Romance Studies 171. The Spanish Civil War from Both Sides of the Border]
Catalog Number: 5340
Bradley S. Epps and Susan R. Suleiman
Half course (fall term). Hours to be arranged.
The Spanish Civil War (1936-39) was not just a national but an international event, which mobilized the passions of major artists and writers as well as the public. We examine the impact and the representations of that war and its aftermath in France and Spain, with some reference to England and the US, from the 1930s to the present.
Note: Expected to be given in 2006–07. Conducted in English.
Prerequisite: Good reading knowledge of either French or Spanish.

Romance Studies 172. Modernism, Decadence, and Modernity in Spain, Latin America, and France
Catalog Number: 9141
Bradley S. Epps
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
Examines the development and dissemination of the modernist movement in a contested Hispanic realm, with special emphasis on Latin America and Catalonia and on the influential role of France. Includes work by Darío, Martí, Rusiñol, Català, Maragall, Valle-Inclán, Julián del Casal, Baudelaire, Huysmans, Maeterlinck, Verlaine, Zola, etc. Special attention to questions of (inter)nationality and visual production.
Note: Conducted in English.

Primarily for Graduates

[Romance Studies 201. Approaches to Theory]
Catalog Number: 0934
Members of the Department
Half course (fall term). Hours to be arranged.
Intensive overview of major topics, problems, and questions in theoretical thought as related to critical practices in French, Italian, Spanish, Portuguese, and Catalan. Weekly discussions led by Prof. Epps and different members of the department. Units address philology, formalism, narratology, structuralism, post-structuralism, feminism, deconstruction, psychoanalysis, Marxism, cultural studies, post-colonial studies, and queer theory.
Note: Expected to be given in 2005–06. Conducted in English.

Spanish

All students who have taken Spanish in secondary school are required to take the Placement Test given during Freshman Week for freshmen and usually on Registration Day for returning students.

A grade of 5 in the College Board Advanced Placement Examinations in Spanish allows you to take Spanish courses numbered 40 to 90 or, if recommended, 100-level courses. Language courses from the 20s to the 60s are sequenced to gradually develop skills through a variety of materials, so students normally take one course per level. The length of reading assignments increases by level. All language courses are conducted in Spanish and include weekly writing assignments. For details, see the pamphlet Advanced Standing at Harvard College or apply to the Director of the Program of Advanced Standing.

Primarily for Undergraduates

Spanish A. Beginning Spanish
Catalog Number: 4684
Johanna Damgaard Liander and staff
Full course (indivisible). M. through F., sections at 9, 10, 11, 1, or 2. EXAM GROUP: 10
A complete basic course for students with little or no knowledge of Spanish. Initial emphasis on speaking, and, in the spring term, more emphasis on reading and writing, introducing Hispanic culture through texts by García Lorca, Neruda, and others; and use of computer, video, and film materials. After Spanish A, students should be able to engage in everyday conversation with native speakers, and read straightforward texts, both fiction and non-fiction, with relative ease.
Note: Conducted in Spanish. May not be taken by students who have had more than 3 years of Spanish in high school. May not be taken Pass/Fail. Students whose placement score does not entitle them to enter a more advanced course are assigned to Spanish A. Section on-line on the Spanish A website.

Spanish Ax. Reading Spanish
Catalog Number: 5318
Ernesto E. Guerra
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
For students (both undergraduate and graduate) with little or no knowledge of Spanish. Aims at the rapid development of reading skills as a tool for research.
Note: Not open to auditors. May not be used to fulfill the language requirement. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Conducted in English. Section on-line on the Spanish Ax website.

***Spanish Bab. Intensive Beginning Spanish: Special Course**
Catalog Number: 5577 Enrollment: Limited to 15 students per section.
Johanna Damgaard Liander and staff
Full course (fall term; repeated spring term). Section I: M. through F., at 9 and Tu., Th., at 10; Section II: M. through F., at 11 and Tu., Th., at 12. EXAM GROUP: 2, 4, 11
For students with no previous formal training in Spanish but with competence in at least one foreign language. Emphasis on communication skills. Language instruction supplemented by cultural and literary readings, film, and computer materials.
Note: May not be used to fulfill the language requirement and may not be taken Pass/Fail. Interested students should contact Dr. Liander before registration for fall term and before fall examination period for spring term.

Spanish Ca. Intermediate Spanish I
Catalog Number: 5914
Nina C. de W. Ingrao and staff
Half course (fall term). Sections M., W., F., at 9, 10, 11, 12, and 1. EXAM GROUP: 10
A beginning intermediate course emphasizing listening, speaking, reading and writing, and including a review of grammar. Selected readings and related activities respond to a wide variety of interests: current events and issues, as well as short stories by well-known Spanish and Latin American authors. After Spanish Ca students should be able to communicate in Spanish with native speakers.
Note: Conducted in Spanish. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Spanish Ca website.
Prerequisite: Spanish A, 450-599 on the SAT II test or on the Harvard Placement Test, 3 years of Spanish in high school, or permission of course head.

Spanish Cb. Intermediate Spanish II
Catalog Number: 6874
Nina C. de W. Ingrao and staff
Half course (spring term). Sections M., W., F., at 9, 10, 11, 12, and 1. EXAM GROUP: 10
Emphasis on oral communication, with continued practice in reading and writing. Class discussions focus on Hispanic culture, art, and literature. Special listening materials used for insight into daily life in Spanish-speaking areas. After the Ca-Cb sequence, students should be able to understand lectures in Spanish, converse on everyday topics with a native speaker, read material of average difficulty and mature content, and write with acceptable style and correctness.
Note: Conducted in Spanish. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Spanish Cb website.
Prerequisite: Placement score of 550-599, Spanish Ca or permission of course head.

***Spanish Dab. Intensive Intermediate Spanish: Special Course**
Catalog Number: 4553
Adriana Gutiérrez and staff
Full course (fall term; repeated spring term). M. through F., at 10; Tu., Th., at 11. EXAM GROUP: 3, 12
A complete second-year course in one term. Geared toward motivated students with a beginning knowledge of Spanish who want to accelerate their progress in the language, consolidates and expands oral comprehension, speaking, reading and writing. Class materials include literature, film and media.
Note: Conducted entirely in Spanish. May not be used to fulfill the language requirement . May not be taken Pass/Fail.
Prerequisite: Spanish A, Spanish Bab, 525-599 on the SAT II test or the Harvard Placement test, or permission of course head.

Spanish 25. Intermediate Spanish III: Introduction to Literature
Catalog Number: 4515
José Ignacio Alvarez-Fernández and staff
Half course (fall term; repeated spring term). Fall: M., W., F., at 9, 10, 12 or 1; Spring: M., W.,

F., at 10 or 12. EXAM GROUP: Fall: 2, 3; Spring: 3, 5
Designed to prepare students to enter advanced courses in literature and culture, Spanish 25 offers a comprehensive review of grammar, systematic vocabulary building and intensive practice in oral and written expression. Students will be exposed to different types of texts (poetry, plays, short stories, testimonies) and films which reflect the sociopolitical landscape of the Spanish-speaking world, as well as varieties of individual experience and communities of memory. Authors include Gabriel García Márquez, Antonio Machado, Pablo Neruda and others.
Note: Conducted in Spanish. May not be used to fulfill the language requirement. May not be audited or taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. May not be taken for credit by students who have passed Spanish 27. Section on-line on the Spanish 25 website.
Prerequisite: A- in Spanish A or Spanish Bab, B in Spanish Ca with language requirement completed, or 600-659 on the SAT II test or the Harvard Placement test, or permission of course head.

Spanish 27. Oral Expression I: El español hablado
Catalog Number: 5358
Nina C. de W. Ingrao and staff
Half course (fall term; repeated spring term). Sections M. through F., at 9, 12 and 1. EXAM GROUP: 2, 5, 10
Develops oral fluency in Spanish, while introducing students to attitudes, values, and cultural patterns of contemporary life in Spain and Latin America. Students have continual opportunities to act out situations encountered in a Spanish-speaking environment. Although oral proficiency is not a prerequisite, course is best suited to students with a solid foundation in Spanish.
Note: Conducted in Spanish. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. May not be taken for credit by students who have passed Spanish 25. Section on-line on the Spanish 27 website.
Prerequisite: Spanish Cb, 600-659 on the SAT II test or the Harvard Placement test, or permission of course head.

Spanish 30. Oral Expression II: Temas de actualidad
Catalog Number: 0479
Nina C. de W. Ingrao and staff
Half course (fall term; repeated spring term). M., W., F. at 11, 12, and 1. EXAM GROUP: 4, 5, 6
Intended for students who have learned to handle everyday situations, Spanish 30 prepares students for interacting on a more sophisticated level in a work or study setting. Class discussions and activities as well as the written assignments are based on topics of current interest researched by the students, literary selections, films, and the press. Review of selected grammar topics.
Note: Conducted in Spanish. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. May not be taken for credit by students who have passed Spanish 35. Section on-line on the Spanish 30 website.
Prerequisite: 660-689 on the SAT II test or the Harvard Placement test, Spanish Cb or Spanish 27, or permission of course head.

Spanish 35. Upper-Level Spanish I: Cuatro países latinoamericanos
Catalog Number: 7127

Adriana Gutiérrez and staff
Half course (fall term). Sections M., W., F., at 10, 11, and 1. EXAM GROUP: 3, 4, 6
Designed to expand speaking and writing skills in Spanish, the course introduces students to the cultural expression–in literature, film, and journalism–of four Latin American countries each representing a unique perspective: Argentina, Peru, Colombia, and Mexico. In addition to in-class discussions, course work involves a comprehensive grammar review and practice in writing.
Note: Conducted entirely in Spanish. May not be taken Pass/Fail, but may be taken Sat/Unsat by students at GSAS. May not be taken for credit by students who have passed Spanish 30. Section on-line on the Spanish 35 website.
Prerequisite: Spanish Cb or 27, 660-689 on the SAT II test or the Harvard Placement test or permission of course head.

Spanish 36. Upper-Level Spanish II: Cultura urbana actual
Catalog Number: 7095
Adriana Gutiérrez and staff
Half course (spring term). Section I: M., W., F., at 10; Section II: M., W., F., at 11; Section III: M., W., F., at 1. EXAM GROUP: 3, 4, 6
Consolidates and expands fluency, accuracy and stylistic range in Spanish through an examination of diverse literary and cinematographic works which depict contemporary life in the large cities of Spain, Cuba, Puerto Rico, and Mexico. In addition to in-class discussions, course work involves a comprehensive grammar review and practice in writing.
Note: Conducted entirely in Spanish. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Section on-line on the Spanish 36 website.
Prerequisite: A 20s- or 30s-level course in Spanish, 690-719 on the SAT II test or the Harvard Placement test, or permission of course head.

***Spanish 41. Spanish for Bilinguals**
Catalog Number: 7690
Nina C. de W. Ingrao
Half course (fall term). M., W., F., at 12; and an additional hour to be arranged. EXAM GROUP: 5
For bilingual students with little or no formal study of Spanish. Emphasizes grammar, reading, and writing. Class discussions explore the common cultural threads among people from Spanish-speaking countries, and Hispanics in the United States. Readings and discussions include Hispanic art and literature.
Note: Conducted in Spanish. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students.
Prerequisite: Permission of course head.

[Spanish 42. Advanced Spanish for Bilinguals]
Catalog Number: 1880
Nina C. de W. Ingrao and staff
Half course (spring term). Hours to be arranged.
For bilingual students with some formal training in Spanish grammar and writing. Develops reading, writing, and oral skills in standard Spanish. A continuing review of grammar. Class

discussions and written assignments are based on literary texts, as well as other writings covering relevant cultural issues, and films.
Note: Expected to be given in 2005–06. Conducted in Spanish. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students.
Prerequisite: Spanish 41 or permission of course head.

Spanish 43. Spanish Through Short Fiction
Catalog Number: 6794
Ernesto E. Guerra
Half course (spring term). M., W., F., at 10 or 11. EXAM GROUP: 3, 4
An advanced language and culture course designed to develop oral and written proficiency in Spanish through discussion of Spanish-American short stories. The course offers an in-depth grammar review, and basic tools for reading and writing short fiction in Spanish. Readings include works by distinguished twentieth-century writers such as Jorge Luis Borges, Julio Cortázar, and Gabriel García Márquez. Other textual and audiovisual materials set their work in specific social, cultural, and historical contexts.
Note: Conducted in Spanish. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Spanish 43 website.
Prerequisite: Spanish 35 or 36; or 720 on the SAT II test; or the Harvard Placement test; or permission of course head.

Spanish 44. Contemporary Spanish Film
Catalog Number: 5058 Enrollment: Limited to 35.
Johanna Damgaard Liander
Half course (spring term). M., W., F., at 10 or 11. EXAM GROUP: 3, 4
An advanced language and culture class that develops competence through a grammar review and the study of major films by Luis Buñuel, Carlos Saura, Pedro Almodóvar, and others in historical, political, and social context. Course materials also include interviews, reviews, screenplays, and critical articles.
Note: This course does not section on-line. Please attend the first class to be considered for admission. Conducted in Spanish. May not be taken Pass/Fail.
Prerequisite: Spanish 35 or 36; 720 on the SAT II test or the Harvard Placement test; or permission of course head.

Spanish 45. El español de los negocios
Catalog Number: 3731
José Ignacio Alvarez-Fernández and staff
Half course (fall term; repeated spring term). M., W., 1–2:30, or M., W., 2:30–4. EXAM GROUP: 6, 7, 8
An advanced language course that teaches the linguistic skills necessary for professional communication. Intensive practice in the writing of formal letters and official documents. Discussion of cultural patterns relating to business and society in Hispanic countries and in the United States. Fundamental business concepts are introduced.
Note: Conducted in Spanish. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line on the Spanish 45 website.

Prerequisite: Spanish 36, 41 or 42; 720 on the SAT II test or the Harvard Placement test; or permission of course head.

Spanish 48. Perspectives on Mexico
Catalog Number: 5426 Enrollment: Limited to 35.
Johanna Damgaard Liander
Half course (fall term). M., W., F., at 10 or 11. EXAM GROUP: 3, 4
An advanced language and culture class focusing on 20th-century Mexico as seen through the works of several Mexican women (Antonieta Rivas Mercado, Frida Kahlo, Rosario Castellanos, Elena Poniatowska, María Novaro, and others). Class materials include interviews, selections from the press, films, and paintings, as well as literary and historical readings. Frequent written and oral assignments, and a thorough review of grammar.
Note: This course does not section on-line. Please attend the first day of class to be considered for admission. Conducted in Spanish. May not be taken pass/fail. Not open to native speakers of Spanish.
Prerequisite: Spanish 35 or 36; 720 on the SAT II test or the Harvard Placement test; or permission of course head.

Spanish 49a. Life in Buenos Aires
Catalog Number: 7890 Enrollment: Limited to 30. 15 students per section.
Diana Sorensen and Johanna Damgaard Liander
Half course (fall term). M., W., F., at 10 or 11. EXAM GROUP: 3, 4
An advanced language and culture class that will develop advanced language competency through the study of contemporary life in Buenos Aires. We will examine the Argentine capital, its identity and its mystique, through history, folklore, gastronomy, film, music, art and literature. Frequent written and oral assignments, and a thorough review of grammar.
Note: Conducted in Spanish. This course does not section on-line. Please attend the first day of class to be considered for admission. May not be taken pass/fail. Not open to native speakers of Spanish.
Prerequisite: Spanish 35 or 36; 720 on the SAT II test; the Harvard Placement test; or permission of course head.

Spanish 49b. Arte y nación: la esfera pública latinoamericana
Catalog Number: 4936
Doris Sommer and Adriana Gutiérrez
Half course (spring term). Tu., Th., 11:30–1; Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Artists and intellectuals can use language to change society. To appreciate the agency of linguistic arts, we will read literature and view films that helped to establish political projects, including nation-building, throughout Latin America. At the same time, students develop their own abilities to use Spanish effectively through a sequence of grammar reviews and weekly writing assignments.
Note: Conducted in Spanish.
Prerequisite: Spanish 35 or 36; 720 on the SAT II test; the Harvard Placement test; or permission of course head.

***Spanish 53. Taller de escritura: Writing the Self, Writing Others**
Catalog Number: 2439 Enrollment: Limited to 15.
Ernesto E. Guerra and staff
Half course (fall term). Tu., Th., 2–3:30. EXAM GROUP: 16, 17
An advanced language course designed to strengthen and develop competence in written expression through the study of grammar and stylistics and through close reading and discussion of Spanish and Spanish-American texts. Readings and weekly practice writing in a variety of genres explore ways in which the voice of the self and the image of the other are created through language. Genres studied include biography, personal diaries, letters, poetry, fiction, history, philosophy, and journalism.
Note: Conducted in Spanish. Recommended for concentrators and joint concentrators. Section on-line on the Spanish 53 website.
Prerequisite: 750 on the Harvard Placement Test; a 40- or 50- level course in Spanish; or permission of course head.

Spanish 54. Advanced Oral Expression
Catalog Number: 3964 Enrollment: Limited to 15.
Ernesto E. Guerra
Half course (spring term). M., W., 2–3:30. EXAM GROUP: 7, 8
An advanced language course designed to strengthen oral skills through discussion and representation of Spanish and Spanish-American plays. Intensive practice in listening comprehension, pronunciation, self-presentation, debating, negotiating, counseling, persuading, and expressing emotion will culminate in a class theatrical production.
Note: Conducted in Spanish. Recommended for concentrators and joint concentrators. Section on-line on the Spanish 54 website.
Prerequisite: 750 on the Harvard Placement test; a 40- or 50- level course in Spanish; or permission of course head.

Spanish 60 (formerly Spanish 40). Spanish and the Community
Catalog Number: 8789 Enrollment: Limited to 12.
Johanna Damgaard Liander and staff.
Half course (fall term; repeated spring term). Tu., Th., 10–11:30, and four hours of service a week. EXAM GROUP: 12, 13
An advanced language course which examines the Latin American and Latino experience in the United States, promoting community engagement as a vehicle for greater linguistic fluency and cultural understanding. Students will be placed with community organizations within the Boston area. Classwork focuses on readings and films by and about Latin Americans in the United States and specific uses of Spanish in these communities. Authors include Sandra Cisneros, Ilán Stavans, and Alberto Fuguet.
Note: Interested students must apply in writing *before* registration (fall term) and before Winter Recess (spring term) to Dr. Liander.
Prerequisite: 750 on the Harvard placement test; a 40- or 50- level course in Spanish; or permission of course head.

[Spanish 70a. Hispanic Literature: Spanish Literature from the Origins to 1700]
Catalog Number: 1587

Luis M. Girón Negrón
Half course (fall term). Hours to be arranged.
Major works and critical approaches in the study of medieval and Golden Age literature. Works and authors include: *Cantar de mio Cid*, Alfonso X, Juan Ruiz, Juan Manuel, the Romancero, Jorge Manrique, *La Celestina*, *Lazarillo de Tormes*, Garcilaso de la Vega, San Juan de la Cruz, Cervantes, Quevedo, Calderón, Tirso.
Note: Expected to be given in 2005–06.
Prerequisite: 750 on the Harvard Placement test; a 40- or 50- level course in Spanish; or permission of course head.

Spanish 70c. Documenting Spanish Modernity: A Survey of Spanish Literature and Culture from 1700
Catalog Number: 7713
Luis Fernández-Cifuentes
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
From philosophical essays to newspaper articles, from romantic tragedy to turn-of-the-century films, from early autobiography to dirty realism, from academic landscape painting to comic strips, this course will present a provocatively diverse set of documents that will help understand Spain's equivocal and frequently contested Modernity.
Note: Conducted in Spanish.
Prerequisite: 750 on the Harvard Placement test; a 40- or 50-level course in Spanish; or permission of course head.

[Spanish 71a. Demons, Pirates, and Saints: Survey on Colonial Spanish American Literature]
Catalog Number: 4319
José Antonio Mazzotti
Half course (fall term). Hours to be arranged.
An introduction to the chronicles of discovery and conquest (Bernal Díaz, Las Casas, Cabeza de Vaca) and other colonial classics (Inca Garcilaso, Sor Juana, Miramontes, Acosta). The course also traces the links between colonial writing and some contemporary works of Latin American literature (Carpentier, Asturias), and gives room to the debate on longstanding cultural topics, such as la Malinche, the Virgin of Guadalupe, Santa Rosa de Lima, Lutheran piracy, and la Perricholi.
Note: Expected to be given in 2005–06. Conducted in Spanish. Required for concentrators in Hispanic Literatures and Hispanic Studies (as an alternative to Spanish 71b), and mandatory for concentrators in Latin American Studies.
Prerequisite: 750 on the Harvard Placement test; a 40- or 50- level course in Spanish; or permission of course head.

Spanish 71b. From Modernism On: Survey of Late Nineteenth- and Twentieth-Century Latin American Literature
Catalog Number: 6700
Luis E. Cárcamo-Huechante
Half course (spring term). M., W., F., at 12; F., at 12. EXAM GROUP: 5
Introduces students to Spanish-American literature from the end of the 19th to the late 20th

century, with special emphasis on key notions for literary analysis as well as links between the literary text and broader cultural, economic, social, political and historical processes. Grammar and language support provided. Readings by Rubén Darío, José Martí, Delmira Agustini, Jorge Luis Borges, Gabriel García Márquez, José Lezama Lima, Alejandra Pizarnik, among others.
Note: Conducted in Spanish.
Prerequisite: 750 on the Harvard Placement test; a 40- or 50- level course in Spanish; or permission of course head.

[Spanish 84. Poetry and Grammar; Language and the Making of Poems in Spanish]
Catalog Number: 8578
Mary Malcolm Gaylord
Half course (spring term). Hours to be arranged.
What are poems made of? Meter, versification, and diction are the raw materials considered most proper to poetry. Yet poets have long known that grammatical forms and syntax are indispensable buildings blocks of verse composition. Reading major poets-classical and modern, Spanish and Latin American-we will explore what a focus on grammar suggests about poetic craft and what focus on poems as grammatical structures reveals about the making of meaning in Spanish.
Note: Expected to be given in 2005–06. Conducted in Spanish.
Prerequisite: 750 on the Harvard Placement test; a 40- or 50- level course in Spanish; or permission of course head.

Spanish 90m. Imagining Latin Americas: Neruda, Asturias, and Paz.
Catalog Number: 8609
Luis E. Cárcamo-Huechante
Half course (fall term). M., W., 3–4:30 . EXAM GROUP: 8, 9
Analyzes the work of three major twentieth-century writers: Pablo Neruda, Miguel Angel Asturias, Octavio Paz. Special emphasis on the modern dimension of their literary registers—poetry, novel, short story, and essay—as well as on the construction of the writer as a "public intellectual" and how their writings imagine the (Latin) American space.
Note: Conducted in Spanish.
Prerequisite: 750 on the Harvard Placement test; a 40- or 50- level course in Spanish; or permission of course head.

***Spanish 91r. Supervised Reading and Research**
Catalog Number: 1586
Johanna Damgaard Liander and members of the Department and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.
Tutorial supervision of research on subjects not treated in regular courses.

***Spanish 97. Tutorial—Sophomore Year**
Catalog Number: 2315
Luis Fernández-Cifuentes
Half course (fall term). Tu., Th., at 2, plus an hour to be arranged. EXAM GROUP: 16
Theory in Praxis: Critical Controversies. Reading assignments will expose not only a variety of recent developments in literary criticism (as it has been practiced by prominent scholars, from

Vygotsky to Barbara Johnson, on both prose and poetry) but also significant controversies that have accompanied and stimulated such development (Trilling versus Vendler on Wordsworth, Jakobson versus Riffaterre on Baudelaire, Alonso versus Spitzer on Fray Luis, etc.).
Requirements include short weekly papers and regular participation in class discussions.
Note: Conducted in Spanish. Required for all concentrators in their sophomore year, but open to others.
Prerequisite: 750 on the Harvard Placement test; a 40- or 50- level course in Spanish; or permission of course head.

***Spanish 98. Tutorial—Junior Year**
Catalog Number: 5511
Johanna Damgaard Liander and members of the Department and Tutorial Board
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Successful completion of one term of Spanish 98 is required of all honors concentrators in their junior year.

***Spanish 99. Tutorial—Senior Year**
Catalog Number: 5867
Johanna Damgaard Liander and members of the Department and Tutorial Board
Full course. Hours to be arranged.
Weekly individual instruction for honors seniors writing a thesis.
Note: Successful completion of one term of Spanish 99 is required of all honors concentrators. To enroll, see the Undergraduate Adviser in Spanish.

Cross-listed Courses

Foreign Cultures 37. Madrid, fin-de-siècle
[Italian 196. The Post-War Novel]
Literature and Arts A-57. Bilingual Arts

For Undergraduates and Graduates

Open to students with 750 on the Harvard Placement Test or SAT II, a score of 5 on the Advanced Placement Test in language or literature, previous coursework at Harvard of an appropriate level, or permission of course head. For other related courses, see also Latin American Studies and Romance Studies.
Spanish 114. Genealogy of the Narrative Discourse: From the Middle Ages to Cervantes
Catalog Number: 6890
Isabel Lozano-Renieblas (Dartmouth College)
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
Investigates the generic transformations from epic to novel from the Middle Ages through the Seventeenth century. Epic, novel and short fiction, and the historical contexts from which they emerged, discussed in order to understand the changing concepts of the hero in types that range from the warrior to the rogue of the picaresque novel. Literary works include *Poema de Mio Cid*, *El libro de Apolonio, La doncella Teodor, Lazarillo de Tormes*, Cervantes's *La espaola inglesa*.
Note: Conducted in Spanish.

[Spanish 120. Medieval Spain in the *Poem of the Cid*]
Catalog Number: 1579
Luis M. Girón Negrón
Half course (spring term). Hours to be arranged.
Major themes and critical approaches in the study of the Castilian epic poem *Cantar de mio Cid* and the Cidian tradition (especially in the *Romancero*).
Note: Expected to be given in 2005–06. Conducted in Spanish.

[Spanish 123. The Honor Stage: Identity, Community, Nation in Early Modern Spanish Drama]
Catalog Number: 2080
Mary Malcolm Gaylord
Half course (fall term). Hours to be arranged.
This course studies the powerful but elusive ethos of "Honor" as it informs the literary imagination of Spain during the 16th and 17th centuries. With readings in law, ethics, anthropology and history, we consider the personal and communal risks and benefits the honor code entailed, and ask why the theme demanded dramatic and poetic form. Authors studied include Juan de la Cueva, Lope, Cervantes, Tirso, Alarcón, Calderón.
Note: Expected to be given in 2006–07.

[Spanish 124. Don Quixote]
Catalog Number: 1378
Mary Malcolm Gaylord
Half course (fall term). Hours to be arranged.
Close reading of "the first modern novel." Considers Cervantes' masterpiece as critical response to developments in European literature and aesthetic theory, to religious and political thinking, to 16th-century historiography, and to the discursive practices of imperial Spain.
Note: Expected to be given in 2005–06. Conducted in Spanish.

[Spanish 155. Inventing Cultural and Political Myths in Latin American Culture]
Catalog Number: 7904
Diana Sorensen
Half course (spring term). Hours to be arranged.
We scrutinize the cultural strategies that produce the negotiation between concealment and revelation or invention leading to mythical representations of historical figures who are made to articulate politics and culture. Figures to be studied include Simon Bolívar, la Malinche, Eva Perón, Che Guevara.
Note: Expected to be given in 2005–06. Conducted in Spanish.

Spanish 166. Hedonism and Pragmatism
Catalog Number: 6551
Aurelijus Antanas Mockus
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Hedonism without pragmatism leads to short-cut culture that pursues pleasure at any cost. Lack of responsibility for self and for others ignores, or drastically discounts, the consequences of pleasure seeking. Those consequences seem distant either in time or in social strata. How do

writers, thinkers, and public figures predict and calculate the effects of refusing to delay gratification? We will explore literary, philosophical, and sociological reflections.
Note: Conducted in Spanish.

[Spanish 176. Globalization and Narration in the Americas]
Catalog Number: 9269
Luis E. Cárcamo-Huechante
Half course (fall term). Hours to be arranged.
How can we locate and characterize literary and cultural production under the new conditions of globalization in the late 20th- and early 21st-century? Starting with this question, we will analyze the relationship developed by texts of the contemporary period in relation to technology, market logic, mass culture, and the local, transnational and global articulations of time and space. Some authors under scrutiny: Puig, Belli, Pacheco, Lihn, García Canclini, Monsiváis, Eltit, Bolaños, Vallejo, Fuguet, and Bellatín.
Note: Expected to be given in 2006–07. Conducted in Spanish.

[Spanish 184. Constructing Gender in Spanish America: "Man" and "Woman"]
Catalog Number: 2186
Diana Sorensen
Half course (fall term). Hours to be arranged.
Charting the social and discursive constructions of sexual differences, our study focuses on gender as a category of analysis. We scrutinize it as a system, mapping feminism and masculinity studies as we address questions of identity, authority, and authorship. Readings in fiction and poetry include Mistral, Neruda, Ferré, Castellanos, Molloy, Bellatín, Donoso, Cortázar, Borges, and others.
Note: Expected to be given in 2005–06. Conducted in Spanish.

[Spanish 185. Memory, History, and Fiction in Spanish American Writing]
Catalog Number: 3774
Diana Sorensen
Half course (spring term). Hours to be arranged.
A theoretical study of three categories and their distinctions in the construction of national identities, the past, and traumatic events. Topics include the historical novel, the fictions of autobiography, the writing of history, and works about the desaparecidos.
Note: Expected to be given in 2005–06. Conducted in Spanish.

Spanish 191. Jorge Luis Borges and Julio Cortázar
Catalog Number: 5420
Diana Sorensen
Half course (fall term). M., 1–3. EXAM GROUP: 6, 7
A course devoted to their major writings and to the ways in which they have established productive dialogues with critical theory and with other literary traditions.
Note: Conducted in Spanish.

[Spanish 198 (formerly Spanish 90k). Cultural Spaces: Representations of the Country, the City and the Border in Spanish American Writing]

Catalog Number: 9252
Diana Sorensen
Half course (fall term). Hours to be arranged.
How is space represented in the cultural imagination? What cultural, psychological, ideological, and social forces come into play in its production? How do nations build their notions of place, how do they conceive the negotiations between the country and the city? What does the border mean in today's world of exile and migration? Texts by Virgil, Horace, Sarmiento, José Hernández, Darío, Güiraldes, Borges, Arguedas, Gallegos, Traba, Lihn, Anzaldúa, Poniatowska, and others.
Note: Expected to be given in 2006–07. Conducted in Spanish.

Cross-listed Courses

[Comparative Literature 111. From Type to Self in the Middle Ages]
[Comparative Literature 112. Religion and Literature in the Middle Ages]
History 1762. Intellectuals, Society and the State in 20th-Century Argentina: Conference Course
[Studies of Women, Gender, and Sexuality 1202 (formerly Women's Studies 134). Women's Writing and Film in Latin America and the Caribbean]
Studies of Women, Gender, and Sexuality 1406. Melodrama, Camp, and Beyond: Pedro Almodóvar in Cinematic Context

Primarily for Graduates

[Spanish 201. The History of the Spanish Language]
Catalog Number: 5610
Luis M. Girón Negrón
Half course (spring term). Hours to be arranged.
A general survey of the development of the Spanish language from Latin to the present. Interdisciplinary approach.
Note: Expected to be given in 2005–06. Conducted in Spanish.

[Spanish 204 (formerly Spanish 104). Love and Power in 14th-Century Castille: Juan Ruiz and Juan Manuel]
Catalog Number: 1181
Luis M. Girón Negrón
Half course (spring term). Hours to be arranged.
Love and power as the thematic axes in two classics of premodern Spanish verse and prose, respectively: Juan Ruiz's *Libro de buen amor* and Juan Manuel's *Conde Lucanor*. A close reading of both works with due attention to major critical trends and approaches in the scholarly literature.
Note: Expected to be given in 2006–07. Conducted in Spanish.

Spanish 214. Politics, Eros, and the Grotesque in the Poetry and Prose of Francisco de Quevedo
Catalog Number: 6646

James Iffland (Boston University)
Half course (spring term). F., 1–3:30. EXAM GROUP: 6, 7, 8
Close analysis of Quevedo's philosophical, religious, satirical, and love poetry; his picaresque novel, El buscón; his satirical prose fantasies, Los sueños and La hora de todos; and his major political treatise, Política de Dios.
Note: Conducted in Spanish.

Spanish 243 (formerly Spanish 143). Foundational Fiction and Other Cultural Agents
Catalog Number: 3129
Doris Sommer
Half course (fall term). M., 4–6. EXAM GROUP: 9
Through novels that legitimated nation-states in Latin America, we'll explore modernity as personal and public. Teleconferencing with Bogota updates links between creativity and citizenship: telenovelas, film, performances. Theorists include Gramsci, Anderson, Foucault, Arendt, Certeau, Mockus.
Note: Conducted in Spanish.

[Spanish 247. The Boom and Beyond]
Catalog Number: 5690
Doris Sommer
Half course (fall term). Hours to be arranged.
Explosion of formal experiments, marketing phenomenon, academic opportunity, the "Boom" of 1960-70 still excites literary and historical debate. Women wrote in another voice, and new authors experiment in multiple minor keys.
Note: Expected to be given in 2005–06. Conducted in Spanish. Expected to be given in 2005-06.

[Spanish 256. Modernismo and Vanguardias]
Catalog Number: 5185
Bradley S. Epps and Luis E. Cárcamo-Huechante
Half course (fall term). Hours to be arranged.
Examines the local and global, national and transnational, transatlantic and transcultural developments of Spanish and Spanish-American modernismos and vanguardias. Poetry, narrative, manifestos, pictorial and audiovisual arts, literary and aesthetic theory will be included.
Note: Expected to be given in 2006–07. Conducted in Spanish.

[Spanish 260. Economies of Imagination]
Catalog Number: 3531
Luis E. Cárcamo-Huechante
Half course (spring term). Hours to be arranged.
Examines how narrative texts develop economic fictions critical to modernization and development in twentieth-century Latin America. Readings will include, Marx, Simmel, Azuela, Artl, Asturias, García Márquez, Arguedas, Cabrera Infante, Onetti, García Canclini, Eltit, and Fuguet.
Note: Expected to be given in 2005–06. Conducted in Spanish.

Spanish 261. The Economy of Short Story
Catalog Number: 7187
Luis E. Cárcamo-Huechante
Half course (spring term). M., 2:30–5. EXAM GROUP: 7, 8, 9
Does the issue of brevity make the short story intimately connected to economic imagination? How about the linguistic proximity of cuentos and cuentas? The Spanish-American short story, from the 1920s until today, will be "economically" under scrutiny.
Note: Conducted in Spanish.

[Spanish 267. Postcolonial Intellectuals and the Question of Citizenship in Spanish America]
Catalog Number: 9211
Diana Sorensen
Half course (fall term). Hours to be arranged.
Interrogates postcolonial theory by reflecting on its usefulness and its limitations for working out a critique of nineteenth- and twentieth-century Spanish American intellectuals. Sarmiento, Lugones, Martínez Estrada, Cortázar, Dussel, González Prada, Mariátegui, Arguedas, Ardao, Rivera Cusicanqui, Paz, O'Gorman, Anzaldúa, Cisneros, and García Canclini.
Note: Expected to be given in 2006–07. Conducted in Spanish.

[Spanish 275r. Spanish Literature: Seminar]
Catalog Number: 8942
Mary Malcolm Gaylord
Half course (spring term). Hours to be arranged.
Topic for 2005-07: The Other Cervantes.
Note: Expected to be given in 2005–06. Conducted in Spanish.

[Spanish 280r. Spanish Literature: Seminar]
Catalog Number: 8888
Mary Malcolm Gaylord
Half course (spring term). Hours to be arranged.
Topic for 2006-07: Some Versions of Pastoral (Garcilaso, Fray Luis, San Juan, Montemayor, Gongora, Lope).
Note: Expected to be given in 2006–07. Conducted in Spanish. Expected to be given in 2006?07.

[Spanish 285ar. Spanish Literature: Seminar]
Catalog Number: 4099
Luis Fernández-Cifuentes
Half course (spring term). Hours to be arranged.
Topic for 2005-6: Urban Strategies in the 19th-Century Narrative: Galdós and the city. Galdós's major Novelas Contemporáneas read in light of the analytical discourses on the modern city produced by several generations of cultural critics.
Note: Expected to be given in 2006–07. Conducted in Spanish.

Spanish 285cr. Spanish Literature: Seminar
Catalog Number: 1104

Luis Fernández-Cifuentes
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Topic for 2004-05: Ilustración y Romanticismo
Note: Conducted in Spanish.

Spanish 287r. Spanish Literature: Seminar
Catalog Number: 4779
Bradley S. Epps
Half course (fall term). W., 1–4. EXAM GROUP: 6, 7, 8
Topic for 2004-05: The Ethics of Representation: Modern Spanish Narrative. Examines the relations between "the beautiful" and "the good," aesthetic autonomy and social responsibility, in Unamuno, Baroja, Sagarra, Sánchez Ferlosio, Martín Santos, Martín Gaite, Goytisolo, Valle-Inclán, Benet, Rodoreda, and Millás.
Note: Conducted in Spanish.

Spanish 295r. Spanish American Literature: Seminar
Catalog Number: 1310
José Antonio Mazzotti
Half course (spring term). W., 1:30–4. EXAM GROUP: 6, 7, 8
Topic for 2004-05: Classics of the New World. A study of works by Columbus, las Casas, Bernal Díaz, Cabeza de Vaca, Ercilla, Inca Garcilaso, Guaman Poma, Sor Juana, and other colonial classics and their impact in the formation of Latin American national traditions.
Note: Conducted in Spanish.

Cross-Listed Courses

***Comparative Literature 210. Comparative Themes in the Literatures of Medieval Spain: Seminar**
[*Comparative Literature 211. Mysticism and Literature: Seminar]

Graduate Courses of Reading and Research

See Note to Graduate Courses of Reading and Research in French.
***Spanish 320. Spanish and Hispanic-American Literature: Supervised Reading and Research**
Catalog Number: 5764
Luis E. Cárcamo-Huechante 4053, Joaquim-Francisco Coelho 7715, Bradley S. Epps 2880, Luis Fernández-Cifuentes 2091, Mary Malcolm Gaylord 2632 (on leave spring term), Luis M. Girón Negrón 3060, José Antonio Mazzotti 3083, Doris Sommer 2744, and Diana Sorensen 4214 (on leave spring term)

***Spanish 330. Direction of Doctoral Dissertations**
Catalog Number: 2143
Luis E. Cárcamo-Huechante 4053, Joaquim-Francisco Coelho 7715, Bradley S. Epps 2880, Luis Fernández-Cifuentes 2091, Mary Malcolm Gaylord 2632 (on leave spring term), Luis M. Girón

Harvard University
Faculty of Arts and Sciences
Office of the Registrar

Negrón 3060, Francisco Márquez Villanueva 5064, José Antonio Mazzotti 3083, Doris Sommer 2744, and Diana Sorensen 4214 (on leave spring term)

Russia, Eastern Europe, and Central Asia

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Standing Committee on the Degree of Master of Arts in Regional Studies— Russia, Eastern Europe, and Central Asia

Timothy J. Colton, Morris and Anna Feldberg Professor of Government and Russian Studies *(Chair)*
Julie A. Buckler, Professor of Slavic Languages and Literatures
Patricia R. Chaput, Professor of the Practice of Slavic Languages
Grzegorz Ekiert, Professor of Government
Michael S. Flier, Oleksandr Potebnja Professor of Ukrainian Philology
George G. Grabowicz, Dmytro Cyzevs'kyj Professor of Ukrainian Literature
Yoshiko M. Herrera, Associate Professor of Government
John E. Malmstad, Samuel Hazzard Cross Professor of Slavic Languages and Literatures
Terry D. Martin, John L. Loeb Associate Professor of the Social Sciences
James R. Russell, Mashtots Professor of Armenian Studies *(on leave spring term)*
Stephanie Sandler, Professor of Slavic Languages and Literatures
Roman Szporluk, Mykhailo S. Hrushevs'kyi Professor of Ukrainian History
William Mills Todd III, Harvard College Professor, Harry Tuchman Levin Professor of Literature, and Professor of Comparative Literature

Other Faculty Offering Instruction in Regional Studies— Russia, Eastern Europe, and Central Asia

Rawi Abdelal, Assistant Professor of Business Administration *(Business School)*
Jonathan H. Bolton, Assistant Professor of Slavic Languages and Literatures
Svetlana Boym, Curt Hugo Reisinger Professor of Slavic Languages and Literatures and Professor of Comparative Literature
Bear F. Braumoeller, Associate Professor of Government *(on leave 2004-2005)*
Sue Brown, Associate Professor of Slavic Languages and Literatures
Andrew Harriman Kydd, Associate Professor of Government
Joanna Nizynska, Assistant Professor of Slavic Languages and Literatures
Andrei Shleifer, Whipple V. N. Jones Professor of Economics
Cindy Skach, Assistant Professor of Government
Monica D. Toft, Assistant Professor of Public Policy *(Kennedy School)*

Justin Weir, John L. Loeb Associate Professor of the Humanities

This is a two-year interdisciplinary program leading to the AM degree. For details, see the supplement, "AM in Regional Studies—Russia, Eastern Europe, and Central Asia (REECA)." The program aims to provide students with a firm grounding in the history, culture, language, politics, and economics of Russia, and of other countries of the former Soviet Union and Eastern Europe. Graduates typically enter careers in government service, international trade or finance, journalism, or consulting; some pursue further training in business, law, or academia.

The course of studies takes into account the previous background, as well as the professional needs and interests, of the individual student. In addition to offerings by the Faculty of Arts and Sciences, students may cross-register for courses at other schools of Harvard University, MIT, and the Fletcher School of Law and Diplomacy. Arrangements may be made for students interested in fields not usually represented in course offerings. Faculty may offer specialized seminars specifically for program students. Students who have completed basic program requirements may seek permission for individual research under faculty direction.

Below is a partial list of departments offering courses on Russian, East European, and Central Asian Studies:

Comparative Literature, Economics, Government, History, Near Eastern Languages and Civilizations (for courses on Islamic civilization, as well as languages of Central Asia and the Caucasus), and Slavic Languages and Literatures.

For more information on courses offered, please see individual departmental listings, or visit the REECA web page at http://daviscenter.fas.harvard.edu/student—programs/masters.html

Primarily for Graduates

***Regional Studies — Russia, Eastern Europe, and Central Asia 299a. Master's Thesis Reading and Research**
Catalog Number: 3938 Enrollment: Limited to master's degree candidates in the REECA Program.
Timothy J. Colton and members of the Faculty
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised reading, research, and writing to fulfill the thesis requirement in the master's degree program in Regional Studies—Russia, Eastern Europe, and Central Asia.
Note: Master's degree candidates are required to complete both *RSRA 299a and *299b. Normally, these courses are taken during the second year of graduate studies.

***Regional Studies — Russia, Eastern Europe, and Central Asia 299b. Master's Thesis Reading and Research**
Catalog Number: 1931 Enrollment: Limited to master's degree candidates in the REECA Program.
Timothy J. Colton and members of the Faculty
Half course (fall term; repeated spring term). Hours to be arranged.

A continuation of RSRA 299a.
Note: Master's degree candidates are required to complete both *RSRA 299a and *299b. Normally, these courses are taken during the second year of graduate studies.

Sanskrit and Indian Studies

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Sanskrit and Indian Studies

Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies *(Chair)*
Azhar Abbas, Preceptor in Urdu-Hindi
Ali S. Asani, Professor of the Practice of Indo-Muslim Languages and Cultures *(Director of Graduate Studies and Head Tutor)*
Diana L. Eck, Professor of Comparative Religion and Indian Studies
Naseem A. Hines, Preceptor in Urdu-Hindi
Lawrence J. McCrea, Preceptor in Sanskrit
Parimal G. Patil, Assistant Professor of the Study of Religion and of Sanskrit and Indian Studies
Sreeramula Sarma, Visiting Professor of Sanskrit and Indian Studies
Sunil Sharma, Visiting Lecturer on Sanskrit and Indian Studies
Michael Witzel, Wales Professor of Sanskrit *(on leave 2004-05)*

Other Faculty Offering Instruction in the Department of Sanskrit and Indian Studies

Janet Gyatso, Hershey Professor of Buddhist Studies *(Divinity School)*
Richard H. Meadow, Senior Lecturer on Anthropology

Graduate students in the Faculty of Arts and Sciences may enroll in certain foreign language courses for the grade of Sat/UNS. Students should consult with course heads to determine if a course is offered on that basis.

Indian Studies

Primarily for Undergraduates

***Indian Studies 90r. South Asian Language Tutorials**
Catalog Number: 0317
Ali S. Asani and assistants
Half course (fall term; repeated spring term). Hours to be arranged.
Individualized study of a South Asian language; emphasis on written expression, reading

comprehension and oral fluency. Languages currently offered include Tamil and Bengali though others may be approved upon petition to the Head Tutor/Director of Graduate Studies.
Note: Not open to auditors.

***Indian Studies 91r. Supervised Reading and Research**
Catalog Number: 0247
Ali S. Asani and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised reading leading to a long term paper in a topic or topics not covered by regular courses of instruction.
Note: A graded course. Offered at the discretion of the individual instructors.

***Indian Studies 98r. Tutorial — Junior Year**
Catalog Number: 4757
Ali S. Asani and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Required of concentrators in the South Asian Studies option.

***Indian Studies 99. Tutorial — Senior Year**
Catalog Number: 6111
Ali S. Asani and members of the Department
Full course. Hours to be arranged.
Note: Required of concentrators in the South Asian Studies option.

Cross-Listed Courses

[Foreign Cultures 12. Sources of Indian Civilization]
[Foreign Cultures 70. Understanding Islam and Contemporary Muslim Societies]
***Freshman Seminar 32x. Topics in Indo-Tibetan Buddhism**
***Freshman Seminar 37y. Muslim Voices in Contemporary World Literatures**
***Freshman Seminar 44p. Contemporary India: Fact and Fiction**
Historical Study A-15. Politics and Society in the Making of Modern India
Historical Study A-16. The Making of Modern South Asia
Literature and Arts C-18. Hindu Myth, Image, and Pilgrimage

For Undergraduates and Graduates

Indian Studies 104. Introduction to History of Science in India
Catalog Number: 5721
Sreeramula Sarma
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
The course will discuss the early developments of scientific notions in the realm of mathematics and astronomy and their Sanskrit sources. Emphasis will be laid on the early development of exact science, but a few lectures will be devoted to later developments, and also to other scientific disciplines. Besides an overview, we will use select passages in English translation, to

show the method(s) of scientific exposition.
Note: All readings in English.

Indian Studies 107. Tradition and Modernity in the Urdu-Hindi Short Story
Catalog Number: 5952
Naseem A. Hines
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
A survey of themes of tradition and modernity in Urdu-Hindi short stories. We begin with Premchand and Phanishwarnath Renu's works, proceed to progressive writers like Manto, Chughtai, Bedi, and Krishan Chandar who broke away from social morality to confront taboo topics like urban decay and sex, and examine events leading to the evolution of New Story of Nirmal Varma, Asghar Wazahat, Mridula Garg, and Mannu Bhandari.
Note: All readings in English. Students may access parts in Urdu-Hindi.

[Indian Studies 110. History of South Asia to 1200 CE]
Catalog Number: 7405
Michael Witzel
Half course (spring term). Hours to be arranged.
Examines the various sources available for the understanding of Indian history, from the prehistoric beginnings until c. 1200 CE, including texts, inscriptions, foreign accounts, linguistics, archaeology, anthropology, and genetics. Gives a synopsis of evidence relating to the Indus culture, the Vedic period, the early Maurya, Kushana and Gupta empires, and the regional states of the Medieval period. Takes into account recent discussions on rewriting early South Asian history from a nationalistic point of view.
Note: Expected to be given in 2005–06.

[Indian Studies 117 (formerly *Indian Studies 216). Early History of South Asia]
Catalog Number: 4919
Michael Witzel and Richard H. Meadow
Half course (spring term). Hours to be arranged.
Examines the archaeological and literary sources available for the understanding of the early period of Indian history, until ca. 150 BCE. Gives a synopsis of evidence relating to the Indus culture (2300-1900). The early Sanskrit and Pali literatures are scrutinized for the clues relating to history, state, and society of Northern India. The course takes into account recent discussions on rewriting early South Asian history from a nationalistic point of view.
Note: Expected to be given in 2005–06.

[Indian Studies 118. Indian Philosophy: Advanced Introduction]
Catalog Number: 2709
Parimal G. Patil
Half course (fall term). Hours to be arranged.
Discusses selected topics in Indian epistemology, philosophy of language, philosophy of mind, philosophy of religion, and metaphysics. We pay particular attention to the philosophical content of sectarian debates between Buddhist, Hindu, and Jaina philosophers and attempt to assess their arguments. Readings for the course include translations of primary texts, and some selected

secondary material.
Note: Expected to be given in 2005–06. No knowledge of India or Sanskrit assumed or required.

[Indian Studies 119. South Asian Literature and Its Theorists]
Catalog Number: 2321
Parimal G. Patil
Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.

Cross-listed Courses

East Asian Buddhist Studies 114. The Mahayana in East Asia: Bodhisattvas and Their Cults in Medieval and Early Modern East Asian Buddhism
[History 1897. Nation, Reason and Religion in South Asia]
Music 190r. Topics in World Music: Proseminar
***Music 190rs. Topics in World Music: Proseminar**
Persian 140ar. Selected Readings in Classical Persian Literature
[Religion 1063. South Asian Religious Aesthetics: Seminar]
[Religion 1069. Christianity in India: Seminar]
Religion 1600. Introduction to the Hindu Traditions of India
[Religion 1625. Indian Religions Through Their Narrative Literatures]
[Religion 1631. Hindu Traditions of Devotion]
[Religion 1640. The Study of Hinduism in the Post-Modern, Post-Colonial World: Seminar]
[Religion 1650. Modern Hindu Movements: Seminar]
[Religion 1670. Approaching Hinduism: Theories, Texts, and Practices]
[Religion 1706. South Asian Buddhism: Dharmas, Emptiness, and Idealism]
Religion 1801 (formerly Religion 1551). For the Love of God and His Prophet: Literary and Artistic Expressions of Muslim Devotional Life
[Religion 1802 (formerly Religion 1555). Introduction to Islamic Mysticism: The Sufi Tradition]
[*Religion 1820 (formerly *Religion 1585). Islam in South Asia: Religion, Culture, and Identity in South Asian Muslim Societies]

Primarily for Graduates

[Indian Studies 201. Materials and Methods of Indian Studies: Proseminar]
Catalog Number: 5406
Michael Witzel and members of the Department
Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06. Required for all Sanskrit-track PhD students.

[Indian Studies 205a. South Asia as Understood Through Its Regions I: Seminar]
Catalog Number: 0460
Michael Witzel
Half course (fall term). Hours to be arranged.
The diversity of South Asian civilizations is approached through an in-depth study of a particular

region: its geography, history, religion, language, literature, art, anthropology, society, and politics. Mutual influences within the South Asian subcontinent examined.
Note: Expected to be given in 2005–06.

[Indian Studies 205b. South Asia as Understood Through Its Regions II: Seminar]
Catalog Number: 2317
Michael Witzel
Half course (spring term). Hours to be arranged.
Continuation of Indian Studies 205a.
Note: Expected to be given in 2005–06.

[Indian Studies 206. Old Indian and Eurasian Creation Myths: Seminar]
Catalog Number: 0923
Michael Witzel
Half course (spring term). Hours to be arranged.
An analysis of selected Old Indian cosmogonic myths contrasted with comparable ones from other Indo-European and Asian traditions. The respective mythological systems, possible interpretations, and an emerging framework for their form and structure are investigated.
Note: Expected to be given in 2005–06. Offered jointly with the Divinity School as 3840.

[Indian Studies 211. Archaic Indian Religion: The Vedas. Seminar]
Catalog Number: 6441
Michael Witzel
Half course (fall term). Hours to be arranged.
Overview of the oldest form of Indian religion, in the Vedic texts (c. 1500–500 B.C.E.): the mythological system of the Rgveda, the complex array of solemn srauta and domestic rituals (rites of passage), and the transcendental philosophy of the Upanisads. Stresses the coherent *Weltanschauung* underlying all aspects of Vedic thought.
Note: Expected to be given in 2005–06. Knowledge of Sanskrit not required.

Cross-listed Courses

***Comparative Literature 207. Theory and Methods in Comparative Oral Traditions: Seminar**
[History 2892. Colonial and Post-Colonial Histories of South Asia: Seminar]
[Linguistics 220ar. Advanced Indo-European]
[Religion 2760. Buddhism and its Critics]

Graduate Courses of Reading and Research

***Indian Studies 302. Reading and Research**
Catalog Number: 1405
Ali S. Asani 7739, Diana L. Eck 4514, Parimal G. Patil 4478, and Michael Witzel 1602 (on leave 2004-05)

Sanskrit

Primarily for Undergraduates

***Sanskrit 91r. Supervised Reading and Research**
Catalog Number: 5497
Ali S. Asani and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised reading of texts in Sanskrit not covered by regular courses of instruction.
Note: A graded course. Offered at the discretion of the individual instructors.

***Sanskrit 98r. Tutorial — Junior Year**
Catalog Number: 3117
Ali S. Asani and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Required of concentrators in the Sanskrit Language and Literature option.

***Sanskrit 99. Tutorial - Senior Year**
Catalog Number: 9745
Ali S. Asani and members of the Department
Full course. Hours to be arranged.
Note: Required of students writing a thesis in the Sanskrit Language and Literature track.

For Undergraduates and Graduates

Sanskrit 101a. Elementary Sanskrit
Catalog Number: 8140
Lawrence J. McCrea
Half course (fall term). M., W., F., at 1. EXAM GROUP: 6
An introduction to Sanskrit.

Sanskrit 101b. Elementary Sanskrit
Catalog Number: 6892
Lawrence J. McCrea
Half course (spring term). M., W., F., at 1. EXAM GROUP: 6
Continuation of Sanskrit 101a.

Sanskrit 102a. Intermediate Sanskrit I
Catalog Number: 4843
Lawrence J. McCrea
Half course (fall term). M., W., F., at 12. EXAM GROUP: 5
Selected readings in verse and prose, drawn primarily from the Epics and Classical poetic works.

Sanskrit 102b. Intermediate Sanskrit II
Catalog Number: 4916
Lawrence J. McCrea
Half course (spring term). M., W., F., at 12. EXAM GROUP: 5
Continuation of Sanskrit 102a.

Primarily for Graduates

Sanskrit 200ar. Advanced Poetic Sanskrit
Catalog Number: 3658
Lawrence J. McCrea
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Selected readings from inscriptions and documents.

Sanskrit 200br. Advanced Poetic Sanskrit
Catalog Number: 6510
Sreeramula Sarma
Half course (spring term). Hours to be arranged.
Vikramarkabhyuadayam: A historical Sanskrit Campu by Sri Somesvaradeva of Kalyana. This is a twelfth-century text by the western Calukyan monarch Somesvara III. It is a biography of his father Vikramaditya VI.
Note: All readings in Sanskrit.

[Sanskrit 201ar. Advanced Philosophical Sanskrit]
Catalog Number: 9986
Parimal G. Patil
Half course (fall term). Hours to be arranged.
Topic to be announced.
Note: Expected to be given in 2005–06.

[Sanskrit 201br. Advanced Philosophical Sanskrit]
Catalog Number: 5965
Parimal G. Patil
Half course (spring term). Hours to be arranged.
Topic to be announced.
Note: Expected to be given in 2005–06.

Sanskrit 203. Sanskrit Scientific Literature
Catalog Number: 7821
Sreeramula Sarma
Half course (spring term). Hours to be arranged.
In this course, we will read *Ratnapariksa* by Buddhabhatta, edited and translated into French by Louis Finot in his *Les Lapidaires Indiens*. This is the classical text on gemmology.

[Sanskrit 204ar. Introduction to Vedic Sanskrit and Literature]
Catalog Number: 6123
Michael Witzel
Half course (fall term). Hours to be arranged.
Introduction to Vedic grammar. Selection of Vedic prose texts from the Yajurveda Samhitas, Brahmanas, Aranyakas, and Upanisads. Builds on knowledge of elementary Sanskrit or Old Iranian.
Note: Expected to be given in 2005–06.

[Sanskrit 204br. Introduction to Vedic Sanskrit and Literature]
Catalog Number: 8944
Michael Witzel
Half course (spring term). Hours to be arranged.
Continuation of Sanskrit 204ar.
Note: Expected to be given in 2005–06.

Sanskrit 212br. Advanced Literary Sanskrit
Catalog Number: 3526
Parimal G. Patil
Half course (spring term). Tu., 11:30–1, Th., 4–5:30. EXAM GROUP: 13, 14, 18

[Sanskrit 215ar. Dharmasastra and Arthasastra]
Catalog Number: 6599
Michael Witzel
Half course (fall term). Hours to be arranged.
Readings in legal and political texts.
Note: Expected to be given in 2005–06.

Graduate Courses of Reading and Research

***Sanskrit 301. Reading and Research**
Catalog Number: 2158
Diana L. Eck 4514, Parimal G. Patil 4478, and Michael Witzel 1602 (on leave 2004-05)

***Sanskrit 310. Direction of Doctoral Dissertations**
Catalog Number: 4371
Diana L. Eck 4514, Parimal G. Patil 4478, and Michael Witzel 1602 (on leave 2004-05)

Pali

For Undergraduates and Graduates

Pali 101a. Introductory Pali
Catalog Number: 4129
Parimal G. Patil and members of the Department
Half course (fall term). Hours to be arranged.
Note: Given in alternate years.
Prerequisite: One year of Sanskrit.

Pali 101b. Introductory Pali
Catalog Number: 7320
Parimal G. Patil and members of the Department
Half course (spring term). Hours to be arranged.
Continuation of Pali 101a.

Note: Given in alternate years.
Prerequisite: One year of Sanskrit.

Pali 102a. Intermediate Pali
Catalog Number: 8376
Parimal G. Patil and members of the Department
Half course (fall term). Hours to be arranged.
Note: Given in alternate years.

***Pali 102b. Intermediate Pali**
Catalog Number: 7748
Parimal G. Patil and members of the Department
Half course (spring term). Hours to be arranged.
Continuation of Pali 102a.
Note: Given in alternate years.
Prerequisite: Pali 102a or equivalent.

Pali 103r. Readings in Pali
Catalog Number: 6985
Parimal G. Patil and members of the Department
Half course (fall term). Hours to be arranged.

Graduate Courses of Reading and Research

Nepali

For Undergraduates and Graduates

Nepali 101a. Introductory Nepali
Catalog Number: 8974
Ali S. Asani and assistant
Half course (fall term). Hours to be arranged.

Nepali 101b. Introductory Nepali
Catalog Number: 3039
Ali S. Asani and assistant
Half course (spring term). Hours to be arranged.

Urdu and Hindi

For Undergraduates and Graduates

Urdu 101. Introductory Urdu-Hindi
Catalog Number: 4078
Ali S. Asani, Azhar Abbas, and assistants
Full course (indivisible). M. through Th., (F.), at 12, or 3 and a weekly section to be arranged.

EXAM GROUP: 5, 14
An introduction to the lingua franca of the subcontinent in its "Hindustani" form. Students are introduced to both the Perso-Arabic and the Devanagari script systems. Conventional teaching materials are supplemented by popular songs and clips from contemporary Indian cinema.
Note: Not open to auditors.

Urdu 102. Intermediate Urdu-Hindi
Catalog Number: 2941
Naseem A. Hines
Full course (indivisible). Fall: Th., 3:30–5:00 with section on Tu., 3:30–5 or W., 4–5:30; Spring: Th., 3:30–5 and a section to be arranged. EXAM GROUP: Fall: 18; Spring: 17, 18
Continuation of Urdu 101. Emphasis on written expression and texts in both Perso-Arabic and Devanagari script systems. Students are introduced to Urdu/Hindi fables, short stories, and various other genres of literature, including poetry.
Note: Not open to auditors.
Prerequisite: Urdu 101 or equivalent.

Urdu 103a. Advanced Urdu-Hindi
Catalog Number: 0700
Naseem A. Hines
Half course (fall term). Hours to be arranged.
Continuation of Urdu 102; covers topics in advanced grammar; designed to improve proficiency in speaking, listening, reading, and writing.
Prerequisite: Urdu 102 or equivalent.

Urdu 103b. Advanced Urdu-Hindi
Catalog Number: 4615
Naseem A. Hines
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
Continuation of Urdu 103a.

[Urdu 104. The Classical Urdu Ghazal and Its Symbolism]
Catalog Number: 0927
Naseem A. Hines
Half course (spring term). Tu., 7–9 p.m. EXAM GROUP: 18
A survey of the popular literary genre including selections from poets such as Wali Dakkani, Siraj Aurangabadi, Mir Dard, Haidar Ali Atish, Mirza Ghalib, and others. Special attention to religious and mystical symbolism.
Note: Expected to be given in 2005–06.
Prerequisite: Urdu 102 or equivalent.

Urdu 105r. Topics in Urdu-Hindi Literature
Catalog Number: 5963
Ali S. Asani and Sunil Sharma
Half course (fall term; repeated spring term). Hours to be arranged.

A course for students with native or near-native proficiency with readings in a variety of genres from Urdu and/or Hindi literature based on student interest.

Urdu 106r. Advanced Oral Proficiency in Urdu-Hindi
Catalog Number: 3945
Naseem A. Hines
Half course (fall term). Hours to be arranged.
A course intended to raise levels of oral proficiency for advanced students and consolidate command over complex grammatical structures. By the end of the term, students will be expected to converse in a clearly participatory fashion, initiate, sustain and bring to closure a wide variety of communicative tasks using diverse language strategies.
Prerequisite: Urdu 103 or equivalent or instructor's permission.

Graduate Courses of Reading and Research

***Urdu 300. Reading and Research**
Catalog Number: 2131
Ali S. Asani 7739

Tibetan and Himalayan Studies

Primarily for Undergraduates

Tibetan 91r. Supervised Reading and Research
Catalog Number: 2288
Leonard W. J. van der Kuijp and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Supervised reading of texts in Tibetan not covered by regular courses of instruction.

Tibetan 98r. Tutorial-Junior Year
Catalog Number: 1895
Leonard W. J. van der Kuijp and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.

Tibetan 99. Tutorial-Senior Year
Catalog Number: 5349
Leonard W. J. van der Kuijp and members of the Department
Full course. Hours to be arranged.

For Undergraduates and Graduates

Tibetan 101a. Elementary Classical Tibetan
Catalog Number: 4132
Leonard W. J. van der Kuijp and assistant
Half course (fall term). Hours to be arranged.

Tibetan 101b. Elementary Classical Tibetan
Catalog Number: 5299
Leonard W. J. van der Kuijp and assistant
Half course (spring term). Hours to be arranged.
Prerequisite: Tibetan 101a.

[Tibetan 103r. Introduction to Pre-Classical Tibetan]
Catalog Number: 7031
Leonard W. J. van der Kuijp
Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.
Prerequisite: Tibetan 101a and 101b.

[Tibetan 104ar. Elementary Colloquial Tibetan]
Catalog Number: 4158
Leonard W. J. van der Kuijp and assistant
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2006–07.

[Tibetan 104br. Elementary Colloquial Tibetan]
Catalog Number: 7026
Leonard W. J. van der Kuijp and assistant
Half course (spring term). Hours to be arranged.
Continuation of Tibetan 104a.
Note: Expected to be given in 2006–07.

Tibetan 105ar. Intermediate Colloquial Tibetan
Catalog Number: 1314
Leonard W. J. van der Kuijp and assistant
Half course (fall term). Hours to be arranged.

Tibetan 105br. Intermediate Colloquial Tibetan
Catalog Number: 1151
Leonard W. J. van der Kuijp and assistant
Half course (spring term). Hours to be arranged.

[Tibetan 106ar. Advanced Colloquial Tibetan]
Catalog Number: 7094
Leonard W. J. van der Kuijp and assistant
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06.
Prerequisite: Tibetan 101 and 102, or equivalent.

[Tibetan 106br. Advanced Colloquial Tibetan]
Catalog Number: 5352
Leonard W. J. van der Kuijp and assistant

Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.
Prerequisite: Tibetan 101 and 102, or equivalent.

[Tibetan 109r. Old Tibetan Historical and Medical Writings]
Catalog Number: 9624
Leonard W. J. van der Kuijp
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06.

Cross-Listed Courses

Religion 1700. Introduction to Buddhism, in Theory and Practice
[Religion 1708. Issues in Buddhist Philosophy: Conference Course]

Primarily for Graduates

[Tibetan 200ar. Classical Poetic Tibetan]
Catalog Number: 7360
Leonard W. J. van der Kuijp
Half course (spring term). Hours to be arranged.
Readings in Tibetan texts on poetic theory based on Indian models, together with illustrations of a number of poetic figures. The main text will be the Tibetan translation of the Kavyadarsa and passages from Tibetan commentaries.
Note: Expected to be given in 2005–06.

***Tibetan 200r. Tibetan History: Proseminar**
Catalog Number: 4237
Leonard W. J. van der Kuijp
Half course (fall term). Th., 1–3 with section Th., at 12. EXAM GROUP: 15, 16

[*Tibetan 201r. Introduction to Philosophical Tibetan]
Catalog Number: 7507
Leonard W. J. van der Kuijp
Half course (fall term). Hours to be arranged.
Topic to be arranged.
Note: Expected to be given in 2005–06.

[Tibetan 202r. Readings in Advanced Philosophical Tibetan]
Catalog Number: 7601
Leonard W. J. van der Kuijp
Half course (spring term). Hours to be arranged.
We focus on the analyses of conceptual knowledge in early Tibetan philosophical texts (1100-1250).
Note: Expected to be given in 2005–06.

[Tibetan 211. Readings in Tibetan Biographical and Autobiographical Literature: The life of Urgyanpa (1230-1309).]
Catalog Number: 9415
Leonard W. J. van der Kuijp
Half course (fall term). Hours to be arranged.
Note: Expected to be given in 2005–06.

***Tibetan 217. Reading the Madhyamakalamkara and Indo-Tibetan Commentaries**
Catalog Number: 7060
Leonard W. J. van der Kuijp
Half course (spring term). Th., 1–4. EXAM GROUP: 15, 16, 17

Tibetan 219. Tibetan Religious Literature
Catalog Number: 9500
Janet Gyatso (Divinity School)
Half course (fall term). Tu., Th., 9–10:30. EXAM GROUP: 11, 12
A seminar in the reading of Tibetan primary sources for the study of Tibetan religion and cultural history. In fall 2004, the readings will cover texts on ritual and narrative from monastic and other sources.
Note: Offered jointly with the Divinity School as 3892.
Prerequisite: Reading knowledge of Tibetan.

Tibetan 220. Introduction to the Tibetan Buddhist Scholars: The Sakya and Kagyu Tradition
Catalog Number: 0367
Leonard W. J. van der Kuijp
Half course (spring term). Th., 4–7 pm. EXAM GROUP: 18
Note: Readings in Tibetan.

Graduate Courses of Reading and Research

***Tibetan 300. Reading and Research**
Catalog Number: 0666
Leonard W. J. van der Kuijp 1556

***Tibetan 302. Direction of AM Theses**
Catalog Number: 6927
Leonard W. J. van der Kuijp 1556

***Tibetan 305. Tibetan and Himalayan Studies: Reading and Research**
Catalog Number: 4377
Leonard W. J. van der Kuijp 1556

Thai

For Undergraduates and Graduates

Thai 101a. Introductory Thai I
Catalog Number: 5395
Ali S. Asani and assistant
Half course (fall term). Hours to be arranged.
Note: Given in alternate years.

Thai 101b. Introductory Thai II
Catalog Number: 6557
Ali S. Asani and assistant
Half course (spring term). Hours to be arranged.
Note: Given in alternate years.

Thai 102a. Intermediate Thai I
Catalog Number: 8582
Ali S. Asani and assistant
Half course (fall term). Hours to be arranged.
A two-term continuation of the study of Thai at the intermediate level. Students build on acquired proficiency at the elementary level (or its equivalent) towards achieving more fluency in reading, speaking, writing, and listening comprehension of standard Thai, as well as in cultural-social skills. Introduces new vocabulary and grammar through communicative tasks and text readings, mainly using the situational-communicative methodology.
Prerequisite: Successful completion of Elementary Thai (or equivalent) is required. Continuing students who did not take Introductory Thai, as well as new students, are encouraged to talk to the instructor prior to registration.

Thai 102b. Intermediate Thai II
Catalog Number: 3751
Ali S. Asani and assistant
Half course (spring term). Hours to be arranged.
Prerequisite: Thai 102a.

Graduate Courses of Reading and Research

***Thai 300. Reading and Research**
Catalog Number: 5368
Ali S. Asani 7739 and assistant
Half course (fall term; repeated spring term). Tu., 4–6.

Slavic Languages and Literatures

Faculty of the Department of Slavic Languages and Literatures

Michael S. Flier, Oleksandr Potebnja Professor of Ukrainian Philology *(Chair)*
Anna Baranczak, Preceptor in Slavic Languages and Literatures
Stanislaw Baranczak, Alfred Jurzykowski Professor of Polish Language and Literature *(on leave 2004-2005)*
Jonathan H. Bolton, Assistant Professor of Slavic Languages and Literatures
Svetlana Boym, Curt Hugo Reisinger Professor of Slavic Languages and Literatures and Professor of Comparative Literature
Sue Brown, Associate Professor of Slavic Languages and Literatures
Julie A. Buckler, Professor of Slavic Languages and Literatures *(Director of Graduate Studies)*
Patricia R. Chaput, Professor of the Practice of Slavic Languages *(Director of the Language Program)*
Natalia Chirkov, Preceptor in Slavic Languages and Literatures
Volodymyr Dibrova, Preceptor in Slavic Languages and Literatures
Ellen Elias-Bursac, Preceptor in Slavic Languages and Literatures
Vladimir Y. Gitin, Senior Preceptor in Slavic Languages and Literatures
George G. Grabowicz, Dmytro Cyzevs'kyj Professor of Ukrainian Literature
Nora Hampl, Preceptor in Slavic Languages and Literatures
John E. Malmstad, Samuel Hazzard Cross Professor of Slavic Languages and Literatures
Joanna Nizynska, Assistant Professor of Slavic Languages and Literatures
Natalia Pokrovsky, Preceptor in Slavic Languages and Literatures
Alfia A. Rakova, Preceptor in Slavic Languages and Literatures
Natalia Reed, Preceptor in Slavic Languages and Literatures
Stephanie Sandler, Professor of Slavic Languages and Literatures
William Mills Todd III, Harvard College Professor, Harry Tuchman Levin Professor of Literature, and Professor of Comparative Literature
Justin Weir, John L. Loeb Associate Professor of the Humanities *(Director of Undergraduate Studies)*
Curt F. Woolhiser, Preceptor in Slavic Languages and Literatures

Language Courses

For Undergraduates and Graduates

Sectioning Note: Sectioning in multisectioned language courses is determined by attendance in class during the first week and through subsequent adjustments to maintain uniform section size. There is no separate sectioning meeting for language courses. Beginning on the first day of class, sections fill on a first-come basis, so that some sections may close on the first day. Students should attend the section of their choice and must continue to attend throughout the first week (or make special arrangements) to retain their places in sections. Students who miss classes may enter only those sections where space is available. Please note that under-enrolled sections may be canceled or rescheduled. No section times are guaranteed. As a general rule, no auditors are permitted in language courses. If fellowship terms or other circumstances prohibit registration,

students must speak with the Director of the Language Program to request permission to audit. Language courses may not be taken Pass/Fail. Some courses permit graduate students to register on a Pass/Fail basis, but only by permission of the instructor.

Slavic A. Beginning Russian
Catalog Number: 8014
Patricia R. Chaput and others
Full course. Spring: Section I: M., Tu., W., F., at 9; Section II: M., Tu., W., F., at 10; with a fifth hour of speaking practice to be arranged on Thursdays (either 9, 10, 11, or 1). EXAM GROUP: 2, 3, 4, 11
Introduction to the essentials of the Russian language, designed for students without previous knowledge of Russian. Intensive speaking practice in grammar structures using naturally occurring conversational patterns. Introduction to the speech etiquette of social exchanges. Reading and discussion of stories, biography, and poetry.
Note: See sectioning note above.

Slavic Aab. Beginning Russian (Intensive)
Catalog Number: 4441
Natalia Reed and others
Full course (fall term; repeated spring term). Fall: M.–F., at 9; Speaking Practice: M., W., F., at 10 or 11. Spring: M.–Th., at 9; Speaking Practice: M., W., F., at 10 or 11. EXAM GROUP: 2, 11
Covers the same material as Slavic A but in one term.
Note: See sectioning note above.

Slavic Ac. Intermediate Grammar and Vocabulary Review I
Catalog Number: 0496
Alfia A. Rakova
Half course (fall term). M., W., F., at 10, and an additional hour for speaking practice Tu., at 10 or 11. EXAM GROUP: 3
For students who would benefit from additional work on grammar before continuing on to more advanced courses. Oral and written exercises focus on speaking and writing accurately and on developing confidence with vocabulary.
Note: See sectioning note above.
Prerequisite: One or more years of college-level Russian or equivalent and consultation with the instructor.

Slavic B. Intermediate Russian
Catalog Number: 3262
Natalia Reed and others
Full course. Fall: M., W., F., at 9 or 10 with two additional hours of speaking practice: Tu., Th., at 10, 11, or 1. Spring: M., W., F., at 9 with two additional hours of speaking practice: Tu., Th., at 9 or 10. EXAM GROUP: Fall: 2, 3; Spring: 2
Major emphasis on the development of vocabulary and oral expression with continuing work on difficult grammar topics. Vocabulary thematically organized to include such topics as self and family, education, work, human relationships, politics, and national attitudes. Includes practice in the etiquette of common social situations. Vocabulary reinforced through film and the reading of classical and contemporary fiction and history. Computer exercises on selected topics.

Note: See sectioning note above.
Prerequisite: Slavic A, Aab, Ac, or placement at the intermediate level. Familiarity with fundamentals of Russian grammar, particularly case endings of the noun, pronoun, and adjective. One year's practice in spoken Russian.

Slavic Ba. Intermediate Russian: First Term
Catalog Number: 0638
Alfia A. Rakova and others
Half course (spring term). M., W., F., at 11, with two additional hours of speaking practice to be arranged. EXAM GROUP: 4
Covers the material of the first term of Slavic B.
Note: See sectioning note above.
Prerequisite: Slavic A, Aab, Ac, or placement at the intermediate level. One year's practice in spoken Russian.

Slavic Bab. Intermediate Russian (Intensive)
Catalog Number: 1657
Vladimir Y. Gitin and others
Full course (fall term; repeated spring term). Meets eight hours per week. M.-F., at 9, with three additional hours of speaking practice M., W., F., at 1. EXAM GROUP: 2, 11
Covers essentially the same material as Slavic B, but in one term. Readings may vary.
Note: See sectioning note above.
Prerequisite: Slavic A, Aab, Ac, or placement at the intermediate level.

Slavic Bb. Intermediate Russian: Second Term
Catalog Number: 1165
Natalia Pokrovsky and others
Half course (fall term). Th., 2:30–4. EXAM GROUP: 16, 17
Covers the material of the second semester of Slavic Ba.
Note: See sectioning note above. No auditors permitted. May not be taken Pass/Fail.
Prerequisite: Slavic Ba, or placement at this level.

Slavic Ca. Beginning Czech I
Catalog Number: 2173
Nora Hampl
Half course (fall term). M., W., F., at 9; and an additional hour for speaking practice to be arranged. EXAM GROUP: 2
An introductory course in modern Czech for students with no previous knowledge of the language. Emphasis on the development of oral proficiency as well as on reading and listening comprehension skills. Written work for practice and reinforcement. Reading of simple poetry and prose.

Slavic Cb. Beginning Czech II
Catalog Number: 7117
Nora Hampl
Half course (spring term). M., W., F., at 10, and an additional hour for speaking practice to be

arranged. EXAM GROUP: 3
Continuation of modern Czech grammar and the further development of reading, writing, and oral skills. Reading and discussion of simple literary texts by Hasek, Capek, Havel, and Kundera.

***Slavic Cr. Supervised Readings in Intermediate/Advanced Czech**
Catalog Number: 0847
Natalia Reed and Nora Hampl
Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 5
Emphasis on reading with some practice in speaking and writing. Conducted as a tutorial based on student course proposals.
Note: Department application required. No applications accepted after the third day of classes. Interested students should contact Dr. Reed or before the first day of class to apply.

Slavic Da. Beginning Polish I
Catalog Number: 8158
Anna Baranczak
Half course (fall term). M., W., F., at 9 or 12 and an additional hour for speaking practice to be arranged. EXAM GROUP: 2
Introduction to the fundamentals of Polish designed for students with no previous knowledge of the language. Emphasis on oral practice of essential grammar structures in naturally occurring conversational patterns. Reading and discussion of simple prose and/or poetry.

Slavic Db. Beginning Polish II
Catalog Number: 6907
Anna Baranczak
Half course (spring term). M., W., F., at 9, and an additional hour of speaking practice to be arranged. EXAM GROUP: 2
Continuation of Slavic Da. Continued work on Polish grammar with increasing emphasis on reading. Continued oral work and writing for practice and reinforcement.

***Slavic Dr. Supervised Readings in Intermediate/Advanced Polish**
Catalog Number: 1096
Natalia Reed and Anna Baranczak
Half course (fall term; repeated spring term). Fall: M., W., at 1; Spring: M., W., F., at 12. EXAM GROUP: Fall: 6; Spring: 5
Emphasis on reading with some practice in speaking and writing. Conducted as a tutorial based on student course proposals.
Note: Department application required. Interested students should contact Dr. Reed before the first day of class to apply. No applications accepted after the third day of classes.

Slavic Ea. Beginning Croatian and Serbian I
Catalog Number: 3163
Ellen Elias-Bursac
Half course (fall term). M., W., F., at 10, and an additional hour for speaking practice to be arranged. EXAM GROUP: 3
Formerly called Serbo-Croatian. An introductory course for students with no prior knowledge of

these languages. Fundamentals of grammar; work on listening and reading comprehension. Students will choose either Serbian or Croatian for their oral and written work; listening and reading comprehension will include both variants.

Slavic Eb. Beginning Croatian and Serbian II
Catalog Number: 2683
Ellen Elias-Bursac
Half course (spring term). M., W., F., at 10; M., at 11, and an additional hour for speaking practice to be arranged. EXAM GROUP: 3
Continuation of Slavic Ea. Continued work on vocabulary expansion with further development of written and oral skills. Readings and discussion of simple or adapted poetry and prose.

***Slavic Er. Supervised Readings in Intermediate/Advanced Croatian and Serbian**
Catalog Number: 7413
Natalia Reed and Ellen Elias-Bursac
Half course (fall term; repeated spring term). Hours to be arranged.
Emphasis on reading with some practice in speaking and writing. Conducted as a tutorial based on student course proposals.
Note: Department application required. No applications accepted after the third day of classes. Interested students should contact Dr. Reed before the first day of class to apply.

Slavic Ga. Beginning Ukrainian I
Catalog Number: 5536
Volodymyr Dibrova
Half course (fall term). M., W., F., at 9; and an additional hour for speaking practice to be arranged. EXAM GROUP: 2
Introduction to the fundamentals of Ukrainian designed for students with no previous knowledge of the language. Emphasis on oral practice of essential grammar structures in naturally occurring conversational patterns. Reading and discussion of simple prose and/or poetry. Writing for practice and reinforcement.

Slavic Gb. Beginning Ukrainian II
Catalog Number: 7126
Volodymyr Dibrova
Half course (spring term). M., W., F., at 9, and an additional hour for speaking practice to be arranged. EXAM GROUP: 2
Continuation of Slavic Ga. Continued work on Ukrainian grammar with further development of vocabulary, oral expression and comprehension. Readings of short stories and poems with discussion of texts in Ukrainian.

***Slavic Gr. Supervised Readings in Intermediate/Advanced Ukrainian**
Catalog Number: 1260
Natalia Reed and Volodymyr Dibrova
Half course (fall term; repeated spring term). Hours to be arranged.
Emphasis on reading with some practice in speaking and writing. Conducted as a tutorial based on student course proposals.

Note: Department application required. No applications accepted after the third day of classes. Interested students should contact Dr. Reed before the first day of class to apply.

Slavic 101. Advanced Intermediate Russian: Reading, Grammar Review, and Conversation
Catalog Number: 7234
Alfia A. Rakova (spring term) and Curt F. Woolhiser (fall term)
Half course (fall term; repeated spring term). Fall: M., W., F., at 1; speaking section: Tu., Th., at 10 or 11; Spring: M., W., F., at 1 with two hours of speaking practice to be arranged. EXAM GROUP: 6
Continuing development of speaking and reading proficiency. Vocabulary work emphasizes verbs and verb government as essential to effective communication. Work on word formation to increase reading vocabulary. Texts for reading and discussion include works in prose, poetry, and film.
Note: See sectioning note above.
Prerequisite: Slavic B, Bab, Bb, or placement at this level.

Slavic 102. Advanced Russian: Introduction to the Russian Press and Historical Writing
Catalog Number: 3280
Curt F. Woolhiser
Half course (fall term). M., W., F., at 9; and a fourth hour to be arranged. EXAM GROUP: 2
Introduction to the language of Russian newspapers, journals, historical writing, and TV programming. Basic vocabulary for areas of current interest, including politics, history, economics, political philosophy, and popular culture. Intended for students who desire a professional level of reading proficiency in the topic areas listed. Supplementary work on oral comprehension. One hour per week devoted to discussion of television and reading.
Note: See sectioning note above. Conducted largely in English.
Prerequisite: Slavic 101, 103, 104, or Slavic B, Bb, or Bab with permission of instructor.

Slavic 103. Advanced Russian: Reading, Composition, and Conversation
Catalog Number: 8638
Alfia A. Rakova (fall term) and Curt F. Woolhiser (spring term)
Half course (fall term; repeated spring term). Fall: M., W., F., at 1; with two additional hours of speaking practice Tu., Th., at 1 or 2; Spring: M., W., F., at 1; with two additional hours of speaking practice Tu., Th., at 10 or 11. EXAM GROUP: 6
Continuing work on vocabulary and grammar centering on verbs and verb government. Readings (a satirical tale by Shvartz, poetry of Akhmatova) and film (Bykov's *Scarecrow*) address personal and social aspects of Soviet totalitarianism.
Note: See sectioning note above. Strongly recommended for students who plan to continue in Russian.
Prerequisite: Slavic 101 or placement at the 103 level.

[Slavic 104. Advanced Russian: Topics in Russian Culture]
Catalog Number: 0795
Natalia Pokrovsky
Half course (spring term). Hours to be arranged.
Through readings and film, we explore Russian cultural attitudes, including the individual in

society, gender roles, prestige and success, truth and falsehood, and justice and the law. Emphasis on vocabulary building and fluency through speaking practice and written compositions. Topics to take student interests into account.
Note: Expected to be given in 2005–06.
Prerequisite: Slavic 103, 113 or permission of instructor.

Slavic 109. Theater Workshop
Catalog Number: 1221
Natalia Chirkov
Half course (fall term). M., W., 2–4. EXAM GROUP: 7, 8
Intensive work on pronunciation, intonation, syntax, and vocabulary of spoken Russian using short plays of the 19th and 20th centuries as a vehicle for practice. Students prepare readings of plays and may stage one short piece. Written work to reinforce vocabulary and composition skills.
Note: See sectioning note above.
Prerequisite: Slavic 101 or permission of instructor.

Slavic 110. Russian for Business
Catalog Number: 6212
Curt F. Woolhiser
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
Introduction to the language of business, both oral and written, and to the etiquette of business situations. Development of vocabulary in the areas of management, economics, and politics. Discussion of cultural attitudes to business, both unofficial and official. Reading and discussion of articles from current periodicals in the areas of business, economics, and politics.
Note: See sectioning note above.
Prerequisite: Slavic 101, 102, or 103, or permission of instructor.

***Slavic 111. Advanced Russian: Readings in Russian/Post-Soviet Studies**
Catalog Number: 1594
Natalia Pokrovsky
Half course (fall term). M., W., F., at 11. EXAM GROUP: 4
Reading and discussion of topics in the areas of history, economics, politics, and current events. Continued work on grammar and vocabulary with written exercises and compositions. TV viewing for comprehension development.
Note: See sectioning note above.
Prerequisite: Slavic 101 and 102, Slavic 103, or placement at the level of Slavic 111/113.

***Slavic 112. Advanced Russian: Russian Press and Television**
Catalog Number: 3290
Natalia Pokrovsky
Half course (spring term). M., W., F., at 1, with an additional hour of TV viewing to be arranged. EXAM GROUP: 6
For students who already have experience reading Russian periodicals. Readings in and analysis of current topics and their presentation in the Russian press. Examination of the history of selected periodicals. Viewing of Russian news programs and analysis of language and content.

Class conducted largely in Russian.
Note: See sectioning note above.
Prerequisite: Slavic 102 plus an additional course at the level of Slavic 101 or above, or Slavic 111.

Slavic 113. Advanced Russian: Readings in Russian Literature I
Catalog Number: 0955
Natalia Pokrovsky
Half course (fall term). M., W., F., at 1, and an additional hour to be arranged. EXAM GROUP: 6
Reading and discussion of classic and contemporary Russian literature. Continued work on vocabulary expansion and composition. Written exercises for reinforcement. Readings from authors such as Gogol, Chekhov, Bulgakov, Pasternak, Brodsky, and Bitov.
Note: See sectioning note above.
Prerequisite: Slavic 103 or 104 or placement at this level or above.

Slavic 114. Advanced Russian: Readings in Russian Literature II
Catalog Number: 1317
Natalia Reed
Half course (spring term). M., W., F., at 2. EXAM GROUP: 7
Readings in Russian 19th- and 20th-century prose, works to be chosen in consultation with students. Continuing work on reading comprehension and discussion. Emphasis on vocabulary building and fluency through speaking practice and written compositions.
Prerequisite: Slavic104, 111, 113, or permission of the instructor.

Slavic 116. Stylistics
Catalog Number: 3480
Vladimir Y. Gitin
Half course (spring term). M., W., F., at 1. EXAM GROUP: 6
Examines different styles, identifies features in texts of different kinds, and interprets passages in literary texts used for stylistic effect. Writing exercises will focus on neutral style, vocabulary development, and phrasing. Intended for students who need a practical command of style and register in reading, speaking, and writing.
Note: Expected to be omitted in 2005–06.
Prerequisite: Slavic 121.

[*Slavic 117r. Advanced Russian: Special Topics]
Catalog Number: 4671

Half course (fall term). Hours to be arranged.
Russian/post-Soviet studies, including current issues in foreign policy and domestic affairs (including environmental policy), religions, human rights problems, the new social structure of society.
Note: Expected to be given in 2005–06. See sectioning note above.
Prerequisite: Slavic 111, 119, or permission of instructor.

[Slavic 118. Readings in Russian Poetry]
Catalog Number: 5356
Vladimir Y. Gitin
Half course (spring term). Hours to be arranged.
Analysis of selections from Russian poetry from the point of view of language, poetic context, and literary tradition. Selections take interests of students into account.
Note: Expected to be given in 2005–06. See sectioning note above.
Prerequisite: Slavic 121.

[*Slavic 119. Contemporary Issues: Nationalities of the Former Soviet Union]
Catalog Number: 0636
Curt F. Woolhiser
Half course (spring term). Hours to be arranged.
The former Soviet Union as a multinational state, seen in its historical development and in the light of recent events. Questions of national identity and their political and academic consequences. Introduction to related demographic issues. Reading, discussion, composition, and supplementary written work, as needed.
Note: Expected to be given in 2005–06. See sectioning note above.
Prerequisite: Slavic 104, 111, 112, or 117, or permission of the instructor.

***Slavic 120r. Supervised Readings in Advanced Russian**
Catalog Number: 7121
Patricia R. Chaput and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Reading, discussion, and writing on special topics not addressed in other courses. Conducted as a tutorial with topics determined by student interest. Requires a course proposal to apply; acceptance is not automatic.
Note: See sectioning note above. Interested students should contact Professor Patricia Chaput before the first day of class to apply. No applications accepted after the third day of classes.

[Slavic 121. Advanced Russian: Reading Literary Texts]
Catalog Number: 4812
Vladimir Y. Gitin
Half course (fall term). Hours to be arranged.
A course designed to further develop students' sensitivity to the reading of literary texts. Topics include the nature of lexical meaning including meaning associations, syntactic meaning, aspects of morphology, word order and intonation, and colloquial language. Texts include both prose and poetry.
Note: Expected to be given in 2005–06. Primarily for graduate students in the Slavic Department. See sectioning note above.
Prerequisite: Slavic 103 or placement at this level or above.

Slavic Literature, Culture, and Philology

Primarily for Undergraduates

***Slavic 91r. Supervised Reading and Research**
Catalog Number: 2713
Justin Weir and members of the Department
Half course (fall term; repeated spring term). Spring: M., at 1.
Note: A graded course. Permission must be obtained from the Director of Undergraduate Studies and the instructor under whom the student wishes to study.

***Slavic 96. Tutorial — Sophomore Year**
Catalog Number: 4728
Justin Weir and others
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Note: For concentrators in Russian Literature and Culture.

***Slavic 97. Tutorial — Sophomore Year**
Catalog Number: 7595
Justin Weir and others
Full course. W., 2–4. EXAM GROUP: 7, 8
Note: For concentrators in Russian Studies.

***Slavic 98. Tutorial—Junior Year**
Catalog Number: 1684
John E. Malmstad (fall term) and Justin Weir (spring term)
Full course. Fall: W., 2–4; Spring: Tu., 1–3. EXAM GROUP: Fall: 7, 8; Spring: 15, 16
Note: Required of junior concentrators in Russian Literature and Culture. Other students may enroll for one or both terms.

***Slavic 99r. Tutorial — Senior Year**
Catalog Number: 5592
Justin Weir and members of the Department
Full course. Hours to be arranged.
Note: May be divided upon petition. Students who wish to enroll must obtain the signature of the Director of Undergraduate Studies. If, for any reason, students do not submit an honors thesis, they must hand in a special course paper in order to receive credit for Slavic 99 in the spring term.

Cross-listed Courses

***Freshman Seminar 35w. Language, Sex, and Culture**
Freshman Seminar 37p. Reading Tolstoy's *War and Peace
***Freshman Seminar 37s. Jews in Central European Literature in the 20th Century**
***Freshman Seminar 37t. Poems, Films, States of Mind**
***Freshman Seminar 38s. What Are Poets For? Poetry and Its Function**

For Undergraduates and Graduates

Slavic 125. Modern Russian in Historical Perspective
Catalog Number: 5646
Sue Brown
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Analysis of the irregularities of modern Russian orthography, phonology, morphology, and syntax in light of historical development.
Prerequisite: Slavic B, Bab, or placement at the third-year level.

Slavic 126a. Structure of Modern Russian: Phonology and Morphology
Catalog Number: 3083
Sue Brown
Half course (fall term). M., W., F., at 10. EXAM GROUP: 3
Introduction to Russian phonetics, phonemics, morphophonemics, and inflectional and derivational morphology. Course goal is to give a deeper understanding and appreciation of the regularities and complexities of Russian through a close study of its sounds and words.
Prerequisite: Slavic B, Bab or placement at the third-year level. No knowledge of linguistics required.

[Slavic 130 (formerly Slavic 130a). Culture and Society in Medieval and Early Modern Bohemia]
Catalog Number: 1484
Jonathan H. Bolton
Half course (fall term). Hours to be arranged.
Explores the culture of Medieval and early-modern Bohemia as a crossroad of Western and Eastern European cultural tendencies. Examines changing functions of literature in Bohemia as power center and as province. Readings from the OCS Life of Constantine, OCS and Latin legends of St. Wenceslaus, Kosmos, the so-called Dalimil chronicle, the Life of St. Catherine, Hussite chronicles, P. Chelcický, J. A. Komenský.
Note: Expected to be given in 2006–07. All readings in English.

Slavic 137. Prague Between Two Empires: Czech Culture from 1914 to 1948
Catalog Number: 9805
Jonathan H. Bolton
Half course (fall term). M., W., (F.), at 11, and a third hour for those wishing to consider the texts in the original. EXAM GROUP: 4
Introduction to Czech literature and culture, focusing on interwar renaissance and Nazi occupation from 1939 to 1945. Includes works by Hasek, Kafka, Capek, Ladislav Klima, Olbracht, Seifert, Nezval, Jiri Langer, and others who negotiated between the demands of aesthetics and politics, articulating a Czechoslovak identity while participating in the main currents of European modernism (from dadaism and expressionism through surrealism and existentialism).
Note: Readings in English. Prior knowledge of Czech literature or history not necessary.

Slavic 139 (formerly *Freshman Seminar 34s). Literature and Politics in Prague: Czech Culture from 1948 to the Present
Catalog Number: 9695

Jonathan H. Bolton
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Introduction to Czech literature, film, and culture since the Communist coup in 1948, focusing on the complicated negotiations between artists and the regimes trying to control them. Readings from Kundera, Havel, Hrabal, Skvorecky, Kanturkova, Fischerova, Bouckova, and others. Topics include legal and illegal literary institutions (censorship, writers' unions, literary magazines, samizdat); official, underground, and exile writers; the dissidents and the Velvet Revolution; and the ways writers have understood the experience of political freedom after 1989.
Note: All readings in English. No prior knowledge of Czech literature or history is necessary. Students who wish to read Czech texts in the original may arrange a special section with the instructor.

Slavic 140. 18th-Century Russian Literature: Conference Course
Catalog Number: 6495
Julie A. Buckler
Half course (spring term). Tu., 2–4. EXAM GROUP: 16, 17
Survey of period literature emphasizing generic diversity and cultural context. Discussion of major intellectual and literary movements, cultural practices, court life, urban landscape, public and private spheres, and European models for Russian literary production.
Prerequisite: Good reading knowledge of Russian.

[Slavic 142. Authorship and the Post-Revolutionary Russian Novel]
Catalog Number: 5524
Justin Weir
Half course (fall term). Hours to be arranged.
Considers theories of authorship, literary tradition, and the novel in the context of 1920-1950 Russian prose literature, and examines in particular how modernist creations of literary tradition functioned as a means of self-presentation. Essays by Bakhtin, de Man, Foucault, Gadamer, Tynianov, and others. Novels by Bulgakov, Pasternak, and Nabokov.
Note: Expected to be given in 2005–06. All readings in English.

Slavic 145b. Russian Literature and Revolution
Catalog Number: 6663
Justin Weir
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
Examines the 20th-century Russian literary tradition and its attempts alternately to inspire, record, and undermine the great social upheaval of October 1917. Considers a broad range of modernist literary genres and movements and the official aesthetics of socialist realism. Works by Babel, Bely, Blok, Bulgakov, Gorky, Kataev, Kharms, Mandelshtam, Mayakovsky, Nabokov, Olesha, Pasternak, Platonov, and Solzhenitsyn.
Note: All readings in English.

Slavic 148. Strange Russian Writers
Catalog Number: 7101
Stephanie Sandler
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17

Studies tales of rebels, deviants, dissidents, loners, and losers. Mostly fictional texts, with some memoir and poetry, by writers who whose projected self-image is self-consciously idiosyncratic, if not bizarre. Includes works by Gogol, Dostoevsky, Leskov, Kharms, Platonov, Nabokov, Sinyavsky, Petrushevskaya, Brodsky. The goal is less to construct a canon of strangeness than to consider how estranged women, men, animals, and objects become the center of narrative or poetic attention.
Note: All readings in English.

Slavic 150. One Writer
Catalog Number: 7644
John E. Malmstad
Half course (spring term). W., 4–6. EXAM GROUP: 9
Topic for 2004-05: The Short Prose Fiction of Nikolai Gogol. Primary emphasis on close reading with some attention to the development of the critical legacy.
Note: Readings in Russian, discussion in English.
Prerequisite: Slavic 101 or its equivalent, and above.

[Slavic 151. Gogol]
Catalog Number: 7272
William Mills Todd III
Half course (fall term). Hours to be arranged.
Fiction, drama, and essays by Russia's first great prose writer. Examines Gogol's techniques of narration, description, and argumentation and his construction of history and identity, national and personal.
Note: Expected to be given in 2007–08. All readings in Russian.

[Slavic 152. Pushkin]
Catalog Number: 8023
William Mills Todd III
Half course (spring term). Hours to be arranged.
A survey of the lyrics, narrative poems, fiction, and critical prose of Russia's "national poet." Close reading of the texts; attention to contemporary cultural issues. Lecture and discussion.
Note: Expected to be given in 2005–06.
Prerequisite: Good reading knowledge of Russian.

[Slavic 155. Dostoevsky]
Catalog Number: 6850 Enrollment: Limited to 20.
William Mills Todd III
Half course (fall term). Hours to be arranged.
Reading of Dostoevsky's major works, with a view to showing how the problems they contain (social, psychological, political, metaphysical) are inseparable not only from his time but from the distinctive novelistic form he created.
Note: Expected to be given in 2006–07. No knowledge of Russian required.

[Slavic 156. Vladimir Nabokov: A Cross-Cultural Perspective]
Catalog Number: 8650

Svetlana Boym
Half course (spring term). Hours to be arranged.
Examines Nabokov's poetry, fiction, film scripts, and essays from Russian, European and American periods. Attention to issues of literary modernism, cultural translation and memory. Additional readings from Chekhov, Proust, Bergson, Borges, and others.
Note: Expected to be given in 2005–06.

[Slavic 157. Tolstoy]
Catalog Number: 2005
Julie A. Buckler
Half course (fall term). Hours to be arranged.
Tolstoy's development as a writer and thinker, beginning with his early diaries and progressing through the great novels, *War and Peace* and *Anna Karenina,* to the late stories and plays. Examines Tolstoy's work in light of recent critical approaches to authorship, artistic biography, literary canon, 19th-century notions of sexuality and morality. How has Tolstoy been variously interpreted in Russian, Soviet, and Western-humanistic contexts? How did Tolstoy view his own work at various points in his life?
Note: Expected to be given in 2005–06. No knowledge of Russian required.

[Slavic 162r. Readings in Polish Literature: From the Golden Age of the Renaissance to the Masterpieces of Our Time]
Catalog Number: 8395
Anna Baranczak
Half course (spring term). Hours to be arranged.
Close reading of selected masterpieces in the original, from the birth of Humanism in the 16th-century to 19th-century Romanticism to the modern and postmodern periods. Analyzes the works of Jan Kochanowski (16th c.), Adam Mickiewicz, Juliusz Slowacki, Cyprian Norwid, Boleslaw Prus (19th c.), Witold Gombrowicz, Bruno Schulz, Czeslaw Milosz, Wislawa Szymborska, Zbigniew Herbert and others, emphasizing their artistic structure and role in the historical process.
Note: Expected to be given in 2005–06.
Prerequisite: Reading knowledge of Polish.

[Slavic 164. Survey of Polish Literature, 1795-1918]
Catalog Number: 5262
George G. Grabowicz
Half course (fall term). Hours to be arranged.
Introductory course to examine the major writers and movements from Romanticism to Positivism and Modernism (Mloda Polska).
Note: Expected to be given in 2005–06. No knowledge of Polish required.

[Slavic 165. Survey of 19th-Century Ukrainian Literature]
Catalog Number: 0410
George G. Grabowicz
Half course (fall term). Hours to be arranged.
An introduction to Ukrainian literary and intellectual culture, from pre-Romanticism to

Modernism. Readings from Kotljarevs'kyj, Shevchenko, Kulish, Drahomanov, Franko, Lesja Ukrajinka, Kociubyns'kyj, and Stefanyk.
Note: Expected to be given in 2005–06. No knowledge of Ukrainian required.

[Slavic 167. Slavic Romanticism]
Catalog Number: 2241
George G. Grabowicz
Half course (fall term). Hours to be arranged.
An overview of Russian, Polish, and Ukrainian Romantic literature and its social, political, and cultural impact on the respective societies. Topics discussed will include Romantic historicism and individualism, Western influences and the response of Slavophilism and Pan-Slavism, Romantic political messianism, the apotheosis of the folk and folklore, populism, and millenarian and mythopoeic visions.
Note: Expected to be given in 2005–06. All readings in English.

[Slavic 168. Survey of 20th-Century Ukrainian Literature]
Catalog Number: 2079
George G. Grabowicz
Half course (spring term). Hours to be arranged.
An introduction to the major writers and developments in pre-Soviet, Soviet, émigré and post-Soviet Ukrainian literature. Special focus on representative works from Mynnychenko, Tychyna, and Xvyl'ovyj, to the émigré avant-garde and the post-modernists.
Note: Expected to be given in 2005–06. No knowledge of Ukrainian required.

Slavic 170. Survey of Polish Culture from 1945 to Present
Catalog Number: 5555
Joanna Nizynska
Half course (fall term). M., W., (F.), at 11. EXAM GROUP: 4
Introductory course to Polish literature and culture during the Communist and post-Communist period. Topics include private and public objects,"private homelands," the configuration of material and consumerist culture,and nostalgia. Readings from Konwicki, Rozewicz, Milosz, Bialoszewski, Mrozek, Tokarczuk, Huelle, Tryzna, Podsiadlo, and others.
Note: Readings in English. Students who wish to read Polish texts in original may arrange a special section with the instructor.

Slavic 175. Romantic Anxieties: Legacy of Romanticism in Polish Poetry
Catalog Number: 6172
Joanna Nizynska
Half course (spring term). M., W., (F.), at 11. EXAM GROUP: 4
Traces the Romantic impluses in Polish intellectual and cultural life by focusing on the main trajectories of 20th-century poetry and their complex relationship with the Romantic tradition. The legacy of 19th-century romanticism in modern works—whether embraced, transformed, or rebelled against—will be analyzed by referring to the works by Mickiewicz, Slowacki, Krasinski, and Norwid. Modern poetry, essays, and literary criticism include Milosz, Herbert, Rozewicz, Baranczak, Zagajewski, Janion, and others.

Note: Readings in English. Students who wish to read Polish texts in the original may arrange a special section with the instructor.

Slavic 178. Trauma and its Representation in Polish Literature: Conference Course
Catalog Number: 9125
Joanna Nizynska
Half course (spring term). F., 1–3. EXAM GROUP: 6, 7
Explores the complexities of trauma and its representation in twentieth-century Polish literature focusing on writers' strategies for transposing traumatic memories into the narrative memory and the ethical function of the text. Themes include the effect of traumatic particularities (e.g. the positions as victim or bystander) upon memory and representation of the event. Primary texts by Borowski, Nalkowska, Bialoszweski, Herling-Grudzinski, Wojdowski, and others.
Note: Readings in English. Students who wish to read Polish texts in the original may arrange a special section with the instructor.

Slavic 180. Russian Symbolist Poetry
Catalog Number: 6333
John E. Malmstad
Half course (fall term). M., 3–5. EXAM GROUP: 8, 9
A survey of the history of the Symbolist movement in Russia with emphasis on close reading of poetry by its major figures.
Prerequisite: Slavic 101 or an equivalent acceptable to instructor.

[Slavic 181. Russian Poetry of the 19th Century]
Catalog Number: 3307
John E. Malmstad
Half course (fall term). Hours to be arranged.
The major themes and modes of Russian poetry from pre-Romanticism to "pure art." Selections from Zhukovsky, Batiushkov, Baratynsky, Yazykov, Lermontov, Tiutchev, Nekrasov, Fet, and others.
Note: Expected to be given in 2005–06.
Prerequisite: Slavic 101 or an equivalent acceptable to instructor.

Slavic 182. Problems in 20th-Century Poetry: Conference Course
Catalog Number: 3489
John E. Malmstad
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
An examination of the poetry and poetics of three writers—Annensky, Kuzmin, and Khodasevich—whose works raise questions about the validity and usefulness of the ways in which scholarship categorizes early 20th-century poetry in terms of "isms" like Symbolism and Acmeism.
Prerequisite: Slavic 101 or an equivalent acceptable to the instructor.

Slavic 192 (formerly Slavic 179). Literature as Institutions: Conference Course
Catalog Number: 6120 Enrollment: Limited to 15.
William Mills Todd III

Half course (fall term). Tu., 1–3. EXAM GROUP: 15, 16
A study of literary production, dissemination, and reception in selected periods of Russian literature from the Middle Ages to the present. Readings in social theory, cultural studies, literary criticism, and imaginative literature.
Note: Open to advanced undergraduates and graduates. Students must pick up a syllabus in Barker 374 before the term begins, as there will be a brief assignment for the first class meeting.

Slavic 195. Myths of Central Europe after World War II: Conference Course
Catalog Number: 4701
Jonathan H. Bolton
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
For Milan Kundera, Central Europe was the kidnapped conscience of the West, for Gyorgy Konrad it was "a subversive dream," for Josef Kroutvor a "melancholy grotesque." Considers classic authors (Kundera, Kis, Milosz, Konwicki, Canetti, Manea) and studies key motifs and situations (war, Nazi and Soviet occupations, uprising, arrest, interrogation, dissidents, nostalgia for Austria-Hungary) that have defined a "Central European" literature and identity in Austria, Czechoslovakia, Poland, Hungary, Romania, and Yugoslavia since World War II.

Cross-listed Courses

[Comparative Literature 160. Literary Forgeries and Mystifications]
[Comparative Literature 164. The 20th-Century Post-Realist Novel in Eastern Europe: Conference Course]
[Foreign Cultures 72. Russian Culture from Revolution to Perestroika]
Linguistics 110. Introduction to Linguistics
[*Literature 128. Performing Texts]
Literature and Arts A-45. Theories of Authorship: Russian Case Studies
[Literature and Arts C-28. Icon-Ritual-Text: Reading the Culture of Medieval Rus']
Literature and Arts C-30. How and What Russia Learned to Read: The Rise of Russian Literary Culture
Literature and Arts C-50. Russian Imperial Masterworks and Their Post-Histories
[Literature and Arts C-51. Revolution and Reaction: The Rise and Fall of the Russian Avant-Garde]

Primarily for Graduates

[Slavic 201. Introduction to East Slavic Languages]
Catalog Number: 5134
Michael S. Flier
Half course (spring term). Hours to be arranged.
Introduction to the structure and history of Russian, Ukrainian, and Belarusian.
Note: Expected to be given in 2005–06.

[Slavic 202. Introduction to West Slavic Languages]
Catalog Number: 6877
Michael S. Flier

Half course (fall term). Hours to be arranged.
Introduction to the structure and history of Czech, Polish, Slovak, and Sorbian.
Note: Expected to be given in 2005–06.
Prerequisite: Linguistics 250. Reading knowledge of a West Slavic language desirable.

[Slavic 203. Introduction to South Slavic Languages]
Catalog Number: 1665

Half course (spring term). Hours to be arranged.
Introduction to the structure and history of Slovene, Croatian, Serbian, Macedonian, and Bulgarian.
Note: Expected to be given in 2005–06. Reading knowledge of a South Slavic language desirable.
Prerequisite: Linguistics 250.

Slavic 269. Structure of Russian for Instructors
Catalog Number: 7807
Patricia R. Chaput
Half course (fall term). Tu., 2–5. EXAM GROUP: 16, 17
Survey of the structures and rules of Russian from the viewpoint of the instructor. Linguistic description, translation into pedagogical form, formulation at different levels of study, questions of usage, changing norms. Includes practice in difficult constructions.

[Slavic 280r. Slavic Culture: Seminar]
Catalog Number: 1909
Michael S. Flier
Half course (spring term). Hours to be arranged.
Topic for 2005-06: The Culture of Medieval Rus': Art, architecture, ritual, literature.
Note: Expected to be given in 2005–06.

Slavic 281. Literature, Film, and Visual Arts in Russia, 1920-1930
Catalog Number: 1058
Svetlana Boym
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Examines poetry, prose and visual arts together with cultural theory. Explores issues of innovation and cultural memory, art and politics, bilingualism and exile. Works by Mayakovsky, Malevich, Mandelshtam, Tsvetaeva, Babel, Shklovsky, Nabokov, Vertov, and Eisenstein.
Note: Most texts available in English. Open to qualified undergraduates.
Prerequisite: Reading knowledge of Russian.

Slavic 282 (formerly Slavic 141). Literature, Film, and Visual Art in Contemporary Russia
Catalog Number: 1286
Svetlana Boym
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Examines the culture of the post-Stalin period from Socialist realism to the art of glasnost' and post-communism. Literary texts, films, works of conceptual art, songs, and television programs

are discussed and supplemented by readings in cultural theory. Special topics include the rewriting of history in literature and film, utopia and kitsch, art and mass culture, sexuality, and national identity.
Note: Most materials also available in English. Open to qualified undergraduates.
Prerequisite: Reading knowledge of Russian.

[Slavic 285r. Modern Russian Literature: Seminar]
Catalog Number: 5182
John E. Malmstad
Half course (spring term). Hours to be arranged.
Topic to be announced.
Note: Expected to be given in 2005–06.
Prerequisite: Slavic 101 or an equivalent acceptable to the instructor.

[Slavic 287. Poetic Self-Creation in 20th-Century Russia: Seminar]
Catalog Number: 8028
Stephanie Sandler
Half course (spring term). Hours to be arranged.
Examines how poems create self-images for poets working in and after Russian modernism, including Khlebnikov, Mandel'shtam, Tsvetaeva, Zabolotskii, Petrovykh, Brodsky, Sedakova, Shvarts, Iskrenko, Zhdanov, and Dragomoshchenko. Relies on literary and psychoanalytic theories of identity.
Note: Expected to be given in 2005–06. Open to qualified undergraduates with permission of instructor.
Prerequisite: Reading knowledge of Russian required.

Slavic 288. Sex, Self, and Russia: Conference Course
Catalog Number: 0106
Stephanie Sandler
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Explores ideas of sexuality, identity, and desire in the cultural debates and creative psyches of modern Russian literary figures and filmmakers. Also serves as an introduction to feminist and psychoanalytic approaches to culture.
Note: Open to qualified undergraduates.
Prerequisite: Slavic 101 or its equivalent.

Slavic 291. Problems in the History of Early Ukrainian Literature
Catalog Number: 0643
George G. Grabowicz
Half course (spring term). M., 1–3. EXAM GROUP: 6, 7
Examines Kievan and early Ukrainian literature. Topics include the system of genres of Kievan literature, the Renaissance and interaction with Polish literature, the confraternities, Vyshens'kyj, the Baroque, the Mohyla Academy, Skovoroda.
Prerequisite: Reading knowledge of Ukrainian.

Slavic 292. 20th-Century Ukrainian Prose
Catalog Number: 5733
George G. Grabowicz
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
A survey of Ukrainian prose focusing on the avant-garde of the 1920s-1940s (Khvyl'ovyj, Johansen, Domontovych, Kosach) and the most recent period (Andijevs'ka, Andrukhovych, Izdryk and others).
Prerequisite: Reading knowledge of Ukrainian.

Slavic 296r. Slavic Linguistics: Seminar
Catalog Number: 5196
Sue Brown
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
Topic for 2004-05: Comparative Slavic Morphosyntax. Covers important issues in Slavic morphosyntax, including case, word order, interpretive effects, negation, interrogativity, indefiniteness, WH-movement, anaphora, null subjects, predication, and voice. Compares Slavic behavior to behavior of non-Slavic languages.
Note: Students are expected to choose a Slavic language and present data relating to the given topic.
Prerequisite: Linguistics 112a or its equivalent (112b preferred) or permission of instructor. Knowledge of a Slavic language helpful but not required.

***Slavic 299. Proseminar**
Catalog Number: 7972
Stephanie Sandler
Half course (fall term). Th., 2–4. EXAM GROUP: 16, 17
Introduction to graduate study in Slavic. Selected topics in literary analysis, history, and theory.
Note: Open to qualified undergraduates with permission of the instructor.

Cross-listed Courses

***Comparative Literature 261. Memory and Modernity: Seminar**
[*Comparative Literature 262. Aesthetics and Freedom]
[Comparative Literature 275. Theory of Narrative: Conference Course]
Linguistics 250. Old Church Slavonic
Linguistics 252. Comparative Slavic Linguistics

Graduate Courses of Reading and Research

***Slavic 300. Direction of Doctoral Dissertations**
Catalog Number: 4477
Jonathan H. Bolton 4892, Svetlana Boym 1926, Sue Brown 2926, Julie A. Buckler 2960, Patricia R. Chaput 6222, Michael S. Flier 2878, George G. Grabowicz 4511, John E. Malmstad 1219, Joanna Nizynska 4891, Stephanie Sandler 1343, William Mills Todd III 1634, and Justin Weir 3407

***Slavic 301. Reading and Research**
Catalog Number: 3385
Jonathan H. Bolton 4892, Svetlana Boym 1926, Sue Brown 2926, Julie A. Buckler 2960, Patricia R. Chaput 6222, Michael S. Flier 2878, George G. Grabowicz 4511, John E. Malmstad 1219, Joanna Nizynska 4891, Natalia Reed 3911, Stephanie Sandler 1343, William Mills Todd III 1634, and Justin Weir 3407

***Slavic 302. Language Teaching: Content and Conduct**
Catalog Number: 5961
Patricia R. Chaput 6222
Half course (spring term). Hours to be arranged.
Required in the first year of language teaching. Includes orientation, discussion of topics in teaching language at the college level, and supervised teaching.

Social Policy

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Higher Degrees in Social Policy

Christopher Jencks, Malcolm Wiener Professor of Social Policy *(Kennedy School) (Acting Chair)*
David T. Ellwood, Lucius N. Littauer Professor of Political Economy *(Kennedy School)*
Jennifer L. Hochschild, Henry LaBarre Jayne Professor of Government and Professor of African and African American Studies
Torben Iversen, Professor of Government *(on leave spring term)*
Theda Skocpol, Victor S. Thomas Professor of Government and Sociology
William Julius Wilson, Lewis F. and Linda L. Geyser University Professor
Christopher Winship, Professor of Sociology

Other Faculty Offering Instruction in Social Policy

Mary C. Waters, Professor of Sociology

This program awards two different degrees: the PhD in Government and Social Policy and the PhD in Sociology and Social Policy. Both of these programs are joint degrees that provide students a thorough grounding in one of these two traditional disciplines and then move them into a series of interdisciplinary seminars on social policy based at the Kennedy School of Government. Students submit applications for admission to the Committee on Higher Degrees in Social Policy, which must be accepted as well by the admissions committee of either the

Department of Government or the Department of Sociology. From the very beginning of their graduate careers, then, students are taught and supervised by faculty from government, sociology and the Malcolm Wiener Center for Social Policy in the Kennedy School.

This degree is intended for students who have central interests in problems of economic inequality; segregation; poverty; changing family structure; immigration, race, and labor market segmentation; educational inequality; and historical and comparative studies of inequality in the US and abroad (especially Western Europe). It will be of particular interest for students who wish to combine solid training in the fundamental theoretical perspectives and methodological traditions of either government or sociology with advanced study of policy responses to these social problems. Students who would like the flexibility to pursue careers in departments of sociology or government, in schools of public policy, and in policy and other non-profit organizations may find these joint degrees especially suitable.

Students in the joint degree programs are eligible to apply for the Multidisciplinary Program on Inequality and Social Policy at the end of their first year of study. This training and fellowship program provides for summer institutes, research apprenticeships, and a variety of other opportunities. Please see the website www.ksg.harvard.edu/inequality for more details.

Applications for admission to the PhD programs in Social Policy may be obtained from the Graduate School of Arts and Sciences, Admissions Office, Byerly Hall, 2nd Floor, 8 Garden Street, Cambridge, MA 02138. Further information about the joint degree programs may be obtained from the program website *(www.ksg.harvard.edu/socialpol)*. Questions or requests for additional printed materials should directed to Pamela Metz, Director, via e-mail (socialpolicy@harvard.edu) or correspondence addressed to her attention at the Kennedy School of Government, 79 John F. Kennedy Street, Cambridge, MA 02138.

Graduate Courses of Reading and Research

***Social Policy 300. Reading and Research**
Catalog Number: 6290
Members of the Committee

***Social Policy 301. Research and Social Policy**
Catalog Number: 3704
Christopher Jencks (Kennedy School) 2160
Presentation of dissertation prospectus or chapters-in-progress in a seminar/workshop format. Required of doctoral candidates in Social Policy.

***Social Policy 302. Doctoral Dissertation Research**
Catalog Number: 9707
Members of the Committee

Cross-listed Courses

Harvard University
Faculty of Arts and Sciences
Office of the Registrar

***Government 2340. Proseminar on Inequality and Social Policy ll**
***Sociology 296a. Proseminar on Inequality and Social Policy I**
***Sociology 307. Workshop on Inequality and Social Policy III**

Social Studies

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Degrees in Social Studies

Grzegorz Ekiert, Professor of Government *(Chair)*
David R. Armitage, Professor of History
Anya Bernstein, Lecturer in Social Studies *(Director of Studies)*
Mariko Chang, Associate Professor of Sociology and of Social Studies *(on leave 2004-05)*
John H. Coatsworth, Monroe Gutman Professor of Latin American Affairs
Richard N. Cooper, Maurits C. Boas Professor of International Economics *(on leave spring term)*
Kimberly McClain DaCosta, Assistant Professor of African and African American Studies and of Social Studies *(on leave 2004-05)*
Michael C. Dawson, Professor of Government *(on leave 2004-05)*
Elizabeth Doherty, Senior Lecturer on Social Studies and Associate Dean for Academic Programs
Peter E. Gordon, John and Ruth Hazel Associate Professor of the Social Sciences
Peter A. Hall, Harvard College Professor and Krupp Foundation Professor of European Studies
Michael Herzfeld, Professor of Anthropology *(on leave spring term)*
Michael J. Hiscox, John L. Loeb Associate Professor of the Social Sciences
Engseng Ho, Associate Professor of Anthropology and of Social Studies, Post-Doctoral Fellow in the Weatherhead Center for International Affairs *(on leave 2004-05)*
Stanley Hoffmann, Paul and Catherine Buttenwieser University Professor
James T. Kloppenberg, Harvard College Professor and David Woods Kemper ‘41 Professor of American History
Michael R. Kremer, Gates Professor of Developing Societies
Michèle Lamont, Professor of Sociology *(on leave spring term)*
Steven R. Levitsky, John L. Loeb Associate Professor of the Social Sciences *(on leave spring term)*
Charles S. Maier, Leverett Saltonstall Professor of History
Peter V. Marsden, Professor of Sociology *(on leave fall term)*
Glyn Morgan, Associate Professor of Government and of Social Studies *(on leave spring term)*
Elizabeth J. Perry, Henry Rosovsky Professor of Government
Nancy Lipton Rosenblum, Senator Joseph S. Clark Professorship of Ethics in Politics and Government

Michael J. Sandel, Anne T. and Robert M. Bass Professor of Government
Matthias Maria Schuendeln, Assistant Professor of Economics and of Social Studies
Tommie Shelby, John L. Loeb Associate Professor of the Social Sciences
Mary M. Steedly, Professor of Anthropology *(on leave 2004-05)*
Ajantha Subramanian, Assistant Professor of Anthropology and of Social Studies *(on leave fall term)*
Christina Tarnopolsky, Assistant Professor of Government and of Social Studies
Christopher Winship, Professor of Sociology
Daniel F. Ziblatt, Assistant Professor of Government and of Social Studies

Other Faculty Offering Instruction in Social Studies

Kiku Adatto, Lecturer on Social Studies
Terry K. Aladjem, Lecturer on Social Studies
Sadhana Bery, Lecturer on Social Studies
Audrey H. Budding, Lecturer on Social Studies
Oona Britt Ceder, Lecturer on Social Studies
Sarah Dix, Lecturer on Social Studies
Jonathan R. Eastwood, Lecturer on Social Studies
Jan L. Feldman, Visiting Associate Professor of Social Studies *(University of Vermont)*
Marshall L. Ganz, Lecturer on Social Studies
Lynne B. Layton, Assistant Clinical Professor of Psychology in the Department of Psychiatry *(Medical School)*
Theodore Macdonald, Lecturer on Social Studies
Stephen A. Marglin, Walter S. Barker Professor of Economics
David J. Meskill, Lecturer on Social Studies
Daniel N. Moses, Lecturer on Social Studies
Vasiliki Neofotistos, Lecturer on Social Studies
Nicole Dejong Newendorp, Lecturer on Social Studies
Amelie Rorty, Visiting Professor of Social Studies *(Yale University)*
Austin D. Sarat, Visiting Professor of Social Studies *(Amherst College)*
Christopher J. Sturr, Lecturer on Social Studies
Maureen E. Sullivan, Visiting Assistant Professor of Social Studies *(Northern Illinois University)*
Wendy E. F. Torrance, Lecturer on Social Studies
Farzin Vahdat, Lecturer on Social Studies
Adam Webb, Lecturer on Social Studies
David M. Woodruff, Visiting Associate Professor of Social Studies, Senior Fellow in the Kathryn W. and Shelby Cullom Davis Center for Russian Studies *(Massachusetts Institute of Technology)*

Primarily for Undergraduates

***Social Studies 10. Introduction to Social Studies**
Catalog Number: 5278
Tommie Shelby and staff

Full course. Tu., 2–4, and section hours to be arranged. EXAM GROUP: 16, 17
An intensive introduction to classic texts in modern social theory. Through these foundational texts, we examine different models of social explanation, methodological debates in the social sciences, competing accounts of the origin and nature of modern society, and some of the normative questions that arise when we reflect systematically on the consequences of modernity. Readings will come from Smith, Marx, Tocqueville, Mill, Weber, Durkheim, Freud, Beauvoir, Foucault, and Habermas.
Note: Lectures and sections limited to and required of first-year concentrators in Social Studies.

[*Social Studies 20. Statistics for Social Studies]
Catalog Number: 3643
Mariko Chang
Half course (spring term). Hours to be arranged, and section hours to be arranged.
An introduction to basic research methods and statistics designed primarily for concentrators in Social Studies. No previous background in statistics is required. Assists students in developing the skills to understand statistical methods used in social science research and to conduct quantitative analyses that address research questions. Also prepares students to do quantitative research for projects such as senior honors essays.
Note: Expected to be given in 2005–06.

***Social Studies 30. Methods of Social Science Inquiry**
Catalog Number: 1054 Enrollment: Limited to 40.
Daniel F. Ziblatt
Half course (spring term). W., 2–4, and section hours to be arranged. EXAM GROUP: 7, 8
This course introduces students to research as practiced across the social sciences and is especially designed for juniors who plan to write senior theses. Students will learn to formulate research questions, develop research designs, and bring evidence to bear on their own research questions. Students will write-up a research prospectus for their senior thesis, complete with preliminary findings and avenues for future research.

***Social Studies 91r. Supervised Reading and Research**
Catalog Number: 9855
Anya Bernstein and members of the Committee.
Half course (fall term; repeated spring term). Hours to be arranged.
Individual work in Social Studies on a topic not covered by regular courses of instruction. Permission of the Director of Studies required.

***Social Studies 99. Tutorial — Senior Year**
Catalog Number: 7501
Anya Bernstein and staff
Full course. Hours to be arranged.
Writing of senior honors essay.
Note: Required for concentrators.

Note: Concentrators must take one fall and one spring tutorial. Admission is based on student

preferences and a lottery system. Undergraduate non-concentrators may enroll in these tutorials if space is available.

Social Studies 98 — Junior Tutorials: Fall Term

***Social Studies 98ax. Development and Modernization: A Critical Perspective**
Catalog Number: 5504
Stephen A. Marglin
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
What assumptions about human beings underlie the conviction that development and modernization constitute progress, that the developed West points the way for the rest of the world? Does economic growth involve a package that necessarily changes the society, the polity, and the culture along with the economy? This tutorial provides a framework for thinking about these questions, both in the context of the West, and in the context of the Third World.

[*Social Studies 98bq. Popular Culture: Theories and Practices]
Catalog Number: 2209
Lynne B. Layton (Medical School)
Half course (fall term). Hours to be arranged.
Examines the many theoretical perspectives on popular culture currently debated in academia—Marxist, feminist, psychoanalytic, semiotic. Focusing on one or two popular media as case studies, we draw on the theories to inform textual analysis and to investigate issues of production and reception.
Note: Expected to be given in 2005–06.

***Social Studies 98cd. American Social Policy**
Catalog Number: 8657
Anya Bernstein
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
Examines social policy in the US and considers competing approaches to developing policy for the 21st century. Compares different perspectives on the nature and purposes of American social policy and explores how American institutions and political culture have shaped the development of social policy throughout the 20th century. Case studies include welfare, marriage and divorce, health care, education, child care, and Social Security.

***Social Studies 98dp. Childhood, Culture, and Social Reform**
Catalog Number: 6204
Kiku Adatto
Half course (fall term). M., 2–4. EXAM GROUP: 7, 8
How has the culture of childhood changed, and in what ways have the boundaries between childhood and adult life shifted? Framing these questions within a historical perspective, this seminar traces the role of children in public discourse from the Progressive era to the present with a particular emphasis on civic and reform movements, the influence of the consumer and popular culture, and the powerful role of visual images in shaping and defining childhood.

***Social Studies 98dx. Feminist Theory: Equality, Identity, Difference**
Catalog Number: 3055
Oona Britt Ceder
Half course (fall term). M., 3–5. EXAM GROUP: 8, 9
Course examines main currents of feminist thought. Readings include theories from the Western tradition (e.g., Wollstonecraft, Mill, de Beauvoir), and works by writers who reject the methods of canonical thought and develop oppositional forms of theorizing (e.g., Audre Lorde, Mary Daly, Gloria Anzaldua). Both modernist and poststructuralist approaches considered. Through analysis, students acquire an understanding of the relationship between feminist theories and activism and major traditions of social and political critique.

***Social Studies 98ea. Conflict and Cooperation in International Politics**
Catalog Number: 0554
Michael J. Hiscox
Half course (fall term). Tu., 5–7 p.m. EXAM GROUP: 18
Examines sources of conflict and cooperation among nations in the current international system. Issues covered include the origins and effects of alliances, deterrence, the impact of democratization, the effects of economic interdependence, environmental problems, ethnic conflict, and cultural divisions in world politics.

[*Social Studies 98fd. Interracial Intimacy]
Catalog Number: 9552
Kimberly McClain DaCosta
Half course (fall term). Hours to be arranged.
Explores interracial intimacy as a concept and social fact that helps us better understand how both races and family work. We explore the ways that scholars have avoided and/or used interracial intimacy as a marker of racial, cultural, and religious assimilation and interrogate the possibilities and problems of doing so today.
Note: Expected to be given in 2005–06.

[*Social Studies 98fe. Topics of Economic Sociology]
Catalog Number: 9709
Mariko Chang
Half course (fall term). Hours to be arranged.
Focuses on three sub-topics within the field of economic sociology: economic inequality, markets, and culture. An examination of the causes and consequences of wealth inequality along race, class, and gender lines provides the backdrop for these three sub-topics. Some guiding questions include: What are the sociological explanations for economic inequality? What roles do markets and culture play in economic inequality? How do race, class, and gender shape opportunities to acquire different types of wealth?
Note: Expected to be given in 2005–06.

[*Social Studies 98fi. Religion and Society in South Asia]
Catalog Number: 4729
Ajantha Subramanian
Half course (fall term). Hours to be arranged.

The politics of religion in the modern world is commonly understood as a reactionary influence that reverses processes of modernization and democratization. The history of religion in South Asia challenges this orthodox perspective. Our study considers the making of religious identity in colonial and postcolonial South Asia as a process that informed and was informed by modern state formation, capitalist development, nationalism, and the constitution of the public sphere and civil liberties.
Note: Expected to be given in 2005–06.

***Social Studies 98fo. French Political Thought**
Catalog Number: 9092
Stanley Hoffmann
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
French thought about the state and society from the 16th century to the present. Pascal, Montaigne, Richelieu, Montesquieu, Rousseau, de Maistre, Constant, Tocqueville, Proudhon, Maurras, Jaures, Alain, Camus and Aron are the main authors discussed. Their influence on and legacy to comtemporary France is examined. Comparisons with British and American thought made.

***Social Studies 98fp. Theories of Citizenship**
Catalog Number: 7910
Jan L. Feldman (University of Vermont)
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
Citizenship is one of the few devices for countering the centrifugal forces of pluralism. Can it succeed in the face of competing demands on our loyalty and competing sources of identity? What kind of citizens does a democracy require? This seminar explores the concept of citizenship, traces its historical evolution, and discusses the special challenges to citizenship posed by multiculturalism, ethnicity, race, gender, religion, and globalization.

***Social Studies 98fq. Psychoanalysis and Culture**
Catalog Number: 3431
Lynne B. Layton (Medical School)
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
A broad range of psychoanalytic theories (Kleinian, Relational, Lacanian, Self Psychology) have been applied to the study of social and cultural problems. Looks at the cultural forces at work in individual identity formation and the psychic forces at work in social formations. Readings include clinical studies, theories of character and culture, psychoanalytic studies of popular culture, and psychoanalytic views of gender, race, class, and sexuality.

***Social Studies 98fu. Practicing Democracy: Leadership, Community, Power**
Catalog Number: 7432
Marshall L. Ganz
Half course (fall term). Th., 7–9 pm. EXAM GROUP: 18
Making democracy work requires an “organized” citizenry with power to assert its interests effectively. Yet US political participation declines, growing more unequal, as new democracies struggle to make citizen participation possible. Students learn to address public problems by organizing: developing leadership, building community and mobilizing power. Our pedagogy

links sociological, political science, and social psychology theory with democratic practice.
Note: Ten hours a week for field work required.

[*Social Studies 98fw. The Origins and Future of the Nation-State in Europe]
Catalog Number: 7555
Daniel F. Ziblatt
Half course (fall term). Hours to be arranged.
Is the European nation-state disappearing? To understand where the nation-state is going in Europe, we need to understand its origins. We explore two questions: 1) What factors contributed to the rise of the state in Europe, and 2) How is the contemporary state being transformed by new external forces including globalization and the European Union? We examine these questions in light of an eclectic mix of sociological theory, political theory, and economic and political history.
Note: Expected to be given in 2005–06.

***Social Studies 98gb. Art and Society**
Catalog Number: 8234
Members of the Committee
Half course (fall term). W., at 2. EXAM GROUP: 7, 8
How does art shape society? How does society shape art? This course explores how social formations encourage, restrict and debate art and culture. It examines art and cultural policy under different political regimes worldwide. It considers art support, and privatization of public culture. We look at the globalization of culture, changes in public funding, corporate buy-up of art (Microsoft) and cultural tourism (Disney). We also explore cases of art controversies and cultural conflict.

***Social Studies 98gd. Human Rights: Current Issues in Theory and Practice**
Catalog Number: 6313
Theodore Macdonald
Half course (fall term). W., 2–4. EXAM GROUP: 7, 8
Course combines human rights practice and social theory by focusing on groups--ethnic minorities and indigenous. Case studies analyze conflicts in Bosnia, Rwanda but primarily from Latin America, drawing on the instructor's practitioner experiences and observations. Aim is to: 1) deomonstrate that human rights practice must work within formal structures of international law and, 2) encourage creative use of social science theory and methods to contextualize interpretations and applications of laws and norms

***Social Studies 98ge. Violence and the Nation State**
Catalog Number: 8164
Vasiliki Neofotistos
Half course (fall term). M., 3–5. EXAM GROUP: 8, 9
How can we make sense of violence? Does the nation-state play a role in fomenting it? Examines violence as usual and "daily routine" that is embedded in the normative fabric of daily life and passes unnoticed. Considers the intricate connections among everyday violence, collective violence and the nation-state. Explores the conditions that have made collective violence possible in Rwanda, Cambodia, the Gaza Strip, India, Sri Lanka, the Balkans, and the US.

***Social Studies 98gf. Modernity and Social Change in East Asia**
Catalog Number: 5553
Nicole Newendorp
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Examines the interconnections between modernity and social change in contemporary China, Japan, and Korea. Explores how modernity is conceptualized by both state and society actors and how these visions fuel change at local and national levels. Particular attention will be paid to issues of social protest, migration, consumption, gender, ethnicity, and family life in both rural and urban locations. Readings focus on ethnographic case studies and the effects of modernity on everyday life experience.

***Social Studies 98gg. Punishment, Politics, and Culture**
Catalog Number: 3780
Austin D. Sarat (Amherst College)
Half course (fall term). F., 1–3. EXAM GROUP: 6, 7
Other than war, punishment is the most dramatic manifestation of state power. Whom a society punishes and how it punishes are key political questions as well as indicators of its character. This course considers connections between punishment and politics in the contemporary US. Throughout we will try to understand the meaning of punishment by examining the way it is represented in politics and popular culture.

***Social Studies 98gh. Economic Development in Africa**
Catalog Number: 4564
Matthias Schundeln
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
In this course we study topics related to the process of economic development in Africa, focusing on Sub-Saharan Africa. We start with a broad economic history and discuss stylized facts about economic development in Africa. Using specific case studies, we then analyze selected current economic structures, institutions and policy challenges. Topics include poverty and inequality, health, migration, financial markets, agricultural and industrial sector development, and development policy.

***Social Studies 98gi. The Post-Socialist Political Economy**
Catalog Number: 4781
David M. Woodruff (Massachusetts Institute of Technology)
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Examines the institutional foundations of capitalism through study of political economy issues confronting post-socialist countries in Europe. Surveys the state and legal system, insertion into the international economy, the role of international institutions, financial reform and macroeconomic stabilization, privatization, and disruptive adaptations to the new order. Considers implications for theories of economic institutions and the politics of economic transformation. Many readings focus on Russia, with some coverage of Poland and the Czech Republic.

Social Studies 98 — Junior Tutorials: Spring Term

***Social Studies 98cl. Law and American Society**
Catalog Number: 7389
Terry K. Aladjem
Half course (spring term). Th., 3–5. EXAM GROUP: 17, 18
Examines law as a defining force in American culture and society in four dimensions—as it establishes individual rights, liberties, and limits of toleration; as it attempts to resolve differences among competing constituencies; as it sets out terms of punishment and social control, and as a source of informing images and ideological consistency.
Note: A prison trip is planned, subject to approval.

[*Social Studies 98cv. Authoritarianism and Democracy in Latin America]
Catalog Number: 5595
Steven R. Levitsky
Half course (spring term). Hours to be arranged.
Examines regimes and regime change in Latin America, particularly Argentina, Brazil, Chile, Mexico, Peru, Venezuela. Compares modernization, Marxist, cultural, choice-centered, and institutionalist approaches to explaining the military coups of the 1960s/1970s and democratic transitions of the 1980s/1990s. Examines problems facing contemporary Latin American democracies, including civil-military relations, economic crisis and reform, and how institutions such as states, electoral and party systems, and executive-legislative arrangements affect the stability and quality of new democracies.
Note: Expected to be given in 2005–06.

***Social Studies 98eb. The Politics of International Trade**
Catalog Number: 9198
Michael J. Hiscox
Half course (spring term). Tu., 6–8 pm. EXAM GROUP: 18
Examines political conflict over international trade. Major issues covered include the relationship between trade and national security, and the effects of trade on different classes and groups within nations. The seminar addresses debates about strategic trade policy and competition between industrial states, the particular difficulties faced by developing economies, regional trade agreements, the role of the WTO, and the use of economic sanctions.

[*Social Studies 98ei. The Construction of Race in Society and History]
Catalog Number: 5960
Kimberly McClain DaCosta
Half course (spring term). Hours to be arranged.
Offers a comparative sociohistorical analysis of “race”. Using a range of empirical and theoretical materials from several societies, we problematize what is too often considered settled, namely, what constitutes “race”. We explore historical and cross-national variations in the bases of racial division, as well as the mechanisms through which racial domination is reproduced, including prejudice, discrimination, segregation, ghettoization, and violence.
Note: Expected to be given in 2005–06.

***Social Studies 98eo. Culture and Society**
Catalog Number: 2114

Kiku Adatto
Half course (spring term). M., 2–4. EXAM GROUP: 7, 8
In what sense is art a mirror of society? How do literature, advertisements, and film document cultural change? How is culture tied to power, domination, and resistance? Using a wide range of sources and case studies, this seminar examines the interplay of culture and society (drawing on anthropology, history, sociology, literature, and philosophy). Among the topics explored are memory making and memorials, culture domination and resistance, media and popular culture, and the culture of everyday life.

***Social Studies 98fj. Asians in the United States**
Catalog Number: 7947
Ajantha Subramanian
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Examines the dynamics of Asian migration to the US against the backdrop of the social and political transformations in American society from the mid-19th century to the present. Considers how Asian-Americans have been constituted by world-historical processes and have constituted themselves as social and political actors. Attends to how race, class, gender, ethnicity, and generational difference mediate relationships among Asian-Americans, and with Anglo-Americans and other US minorities.

***Social Studies 98ft. International Environmental Issues**
Catalog Number: 3501
Wendy E. F. Torrance
Half course (spring term). Th., 2:30–4:30. EXAM GROUP: 16, 17, 18
Examines international environmental issues from theoretical and empirical perspectives. Explores the characteristics of international environmental problems, determines how states and other actors identify such problems, and explains the nature of international efforts to address them. Considers the roles of science, international institutions, domestic policies, and transnational organizations and movements. Analyzes case studies and current debates.

[*Social Studies 98fx. The New Politics of Europe]
Catalog Number: 5447
Daniel F. Ziblatt
Half course (spring term). Hours to be arranged.
In the post-Cold War era, Europe's map is being redrawn. The rise to power of new political parties (Green and far-right parties), the onset of fiscal crises, and the deepening and widening of the European Union all have transformed what is meant by the term "Europe." We explore these transformations by focusing on three areas in particular: (1) national party systems change, (2) shifting national models of political economy, and (3) European Union integration and expansion.
Note: Expected to be given in 2005–06.

***Social Studies 98gj. Protest and Social Change in Latin America**
Catalog Number: 5246
Sarah Dix
Half course (spring term). W., 4–6. EXAM GROUP: 9

This course analyzes popular protest and social movements in Latin America. Specific themes include the role of civil society in democracy today; how the poor have fared by engaging in mass defiance and disruption; how rapid urbanization has affected squatters and organized labor; circumstances under which guerrillas acquire military strength and peasant support; and the state's responses, including counter-movements and repression.

***Social Studies 98gk. Social Stratification and Literature**
Catalog Number: 6325
Jonathan R. Eastwood
Half course (spring term). W., 2–4. EXAM GROUP: 7, 8
Examines the relationship between modern literature and the rise of modern societies characterized by open systems of stratification, focusing especially on the modern novel as a form of social analysis. Readings include prominent works of social theory as well as selected novels by authors ranging from Cervantes to Wharton.

***Social Studies 98gl. Memory and Power**
Catalog Number: 6481
Audrey H. Budding
Half course (spring term). F., 2–4. EXAM GROUP: 7, 8
This tutorial explores how societies produce and transmit competing versions of the past. How does a construct called "historical memory" emerge? How have different societies processed memories of trauma, and how have political elites created and exploited particular versions of the past? We will examine legacies of the Second World War in Europe, manipulation of the past in the post-Yugoslav wars, memory and forgetting in China's Cultural Revolution, and a case drawn from post-colonial Africa.

***Social Studies 98gm. Liberty, Freedom, and Choice**
Catalog Number: 5051
Amelie Rorty (Yale University)
Half course (spring term). W., 1–3. EXAM GROUP: 6, 7
Philosophic conceptions of political liberty, individual free will and autonomous choice. Aristotle and Thucydides, Augustine and Jonathan Edwards, Rousseau and Kant, Jefferson and Mill, Dostoyevsky, Marx, Williams James, Isaiah Berlin, G.A. Cohen. What abilities and capacities do ideals of freedom presuppose? Is there a tension between ideals of equality and those of freedom? How do political, moral, and economic theories influence one another? What political and economic agendas do the various ideals of freedom mandate?

***Social Studies 98gn. Poverty, Inequality, and Economic Policy**
Catalog Number: 4035
Matthias Maria Schuendeln
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
We study the extent as well as the causes and consequences of poverty and inequality, and economic policies that deal with poverty and inequality. We focus on developing countries, but also compare to and draw conclusions from the experience of developed countries. Among the specific issues addressed are measurement issues, the relationship between poverty, inequality

and growth, geographic aspects of poverty and inequality, poverty dynamics, and the effects of poverty alleviation programs.

***Social Studies 98go. Education and Social Reproduction**
Catalog Number: 9075
Christopher J. Sturr
Half course (spring term). Hours to be arranged.
Examines education as a social institution, from the point of view of major traditions of social and political theory, including liberalism, Marxism and critical social theory, feminism, and anti-racist theory. Central themes will be: (1) education as a democratic institution that prepares students for citizenship and promotes liberty and equality of opportunity, and (2) education as an essentially reproductive institution that functions to reproduce social relations—including social, political, and economic divisions—from generation to generation.

***Social Studies 98gp. America and Its Critics**
Catalog Number: 4973
Members of the Committee
Half course (spring term). M., 5-7 pm.
America's transformation from a small republic into an industrial society has produced a robust opposition. This tutorial will consider the literature of dissent on its periphery, in terms of affinities between radicals and conservatives. Beginning with Thoreau's Walden, we look for common values between left and right in the cultural criticism of Christian conservatives, anarchists in the Pacific Northwest, Yankee republicans, Texas populists, and Plains Indians. Readings include novels, manifestos, and autobiographies.

***Social Studies 98gq. The Global Culture Clash**
Catalog Number: 3028
Adam Webb
Half course (spring term). W., 4–6. EXAM GROUP: 9
Explores pivotal themes in twentieth century world social thought, with a focus on responses to modernity. Compares how the major traditions, both Western and non-Western, have adapted to or reacted against a nascent global society based on liberal individualism, technocratic management, and cultural hybridity. Traces the fault line that everywhere divides the defenders and the critics of liberal modernity. Readings will reflect a range of liberal, high-culture, populist, and fundamentalist viewpoints.

***Social Studies 98gs. The European Union**
Catalog Number: 9524
Members of the Committee
Half course (spring term). M., 1–3.
With the completion of the Single Market and the European Monetary Union, economic integration is nearly a finished process. Yet, also accelerated by the enlargement process, the EU and its new and old member states is facing several new challenges. We explore contemporary economic, social and cultural issues in the integration process, including social policies such as employment, welfare, the promotion of gender and ethnic equality, and issues of cultural identities and immigration.

***Social Studies 98gt. Science, Knowledge, and Power**
Catalog Number: 0537
Maria J. Trumpler
Half course (spring term). Th., 2–4. EXAM GROUP: 16, 17
Examines how scientific knowledge has become powerful culturally and politically over the past three centuries. Starting in early modern Europe, explores how early articulations of the methodology and usefulness of experimental natural philosophy reached those with political power and became institutionalized. Then considers several twentieth century case studies (psychiatry, clinical trials, primatology, and molecular biology) in which claims to being "scientific" have been central to gaining greater political and social power for that knowledge.

***Social Studies 98gu. The Contemporary American Metropolis**
Catalog Number: 6584
Members of the Committee
Half course (spring term). W., 4–6. EXAM GROUP: 9
Is meaningful urban democracy possible? This seminar uses democratic theory to assess and critique urban politics in the US and to evaluate prospects for strengthening effective democratic governance in contemporary metropolitan areas. Readings draw from normative political theory, urban planning, urban sociology, and legal scholarship, as well as political science. Specific topics discussed include: governing political coalitions in contemporary American cities; local economic development; suburban sprawl; and proposals for structural reform.

Sociology

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Sociology

Mary C. Waters, Professor of Sociology *(Chair)*
Dennis Altman, Visiting Professor of Australian Studies *(La Trobe University) (spring term only)*
Lawrence D. Bobo, Norman Tishman and Charles M. Diker Professor of Sociology and of African and African American Studies *(fall term only)*
Mary C. Brinton, Reischauer Institute Professor of Sociology *(on leave spring term)*
Prudence L. Carter, Assistant Professor of Sociology *(Head Tutor)*
Mariko Chang, Associate Professor of Sociology and of Social Studies *(on leave 2004-05)*
Frank Dobbin, Professor of Sociology
David R. Gibson, Assistant Professor of Sociology
Neil Gross, Assistant Professor of Sociology
Jason A. Kaufman, John L. Loeb Associate Professor of the Social Sciences *(on leave 2004-05)*

Michèle Lamont, Professor of Sociology *(on leave spring term)*
Stanley Lieberson, Abbott Lawrence Lowell Professor of Sociology *(on leave spring term)*
Peter V. Marsden, Professor of Sociology *(on leave fall term)*
Orlando Patterson, John Cowles Professor of Sociology *(on leave spring term)*
Joel Podolny, Professor of Sociology *(FAS)* and Professor of Business Administration *(Business School)*
Robert J. Sampson, Henry Ford II Professor of the Social Sciences
Theda Skocpol, Victor S. Thomas Professor of Government and Sociology
Annemette Sorensen, Lecturer on Sociology
Martin K. Whyte, Professor of Sociology *(Director of Graduate Studies)*
William Julius Wilson, Lewis F. and Linda L. Geyser University Professor
Christopher Winship, Professor of Sociology

Other Faculty Offering Instruction in the Department of Sociology

David Laurence Ager, Lecturer on Sociology
Nicholas A. Christakis, Professor of Medical Sociology *(Medical School)*
Mary-Jo Del Vecchio Good, Professor of Social Medicine *(Medical School)*
Christopher Jencks, Malcolm Wiener Professor of Social Policy *(Kennedy School)*
Gesemia Nelson, Lecturer on Sociology
Mary Ruggie, Adjunct Professor of Public Policy *(Kennedy School)*

Introductory Courses

Sociology 10. Introduction to Sociology
Catalog Number: 4814
Neil Gross
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Course aims to inculcate in students the capacity to view the human condition through a sociological lens. To this end we will read eight exemplary sociological monographs, each examining a different aspect of contemporary American society, ranging from the nature of work to the problem of homelessness, from gender relations to crime. We will attempt to integrate these empirical explorations with a consideration of some of the leading theoretical understandings of modernity and late modernity.
Note: Counts for introductory concentration requirement.

Sociology 22. Gender Stratification
Catalog Number: 7997
Mary C. Brinton
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Familiarizes students with central issues and theoretical perspectives regarding gender inequality in the workplace. Focuses first on long-term changes in women's economic participation and in the gendered division of labor as societies undergo processes of industrialization and post-industrialization, then more specifically on the US and on recent changes in workplace inequality and in the family-work interface.
Note: Counts for introductory concentration requirement.

Sociology 24. Introduction to Social Inequality
Catalog Number: 9417
Annemette Sorensen
Half course (fall term). M., W., (F.), at 12. EXAM GROUP: 5
Examines individual and structural explanations for the generation and maintenance of inequality in the United States with comparisons to other societies. The consequences of inequality for individuals and groups are studied.
Note: Counts for introductory concentration requirement.

Sociology 25. Introduction to the Sociology of Organizations
Catalog Number: 3609
Frank Dobbin
Half course (fall term). M., W., (F.), at 11. EXAM GROUP: 4
Introduces the sociological study of formal organizations. Surveys basic concepts, emphases, and approaches. Attention given to processes within organizations, as well as to relationships between organizations and their environments. Topics include bureaucracy, leadership and power in organizations, interorganizational networks, and coordination among organizations.
Note: Counts for introductory concentration requirement.

Sociology 60. Race and Ethnic Relations
Catalog Number: 4114
Prudence L. Carter
Half course (spring term). M., W., (F.), at 1. EXAM GROUP: 6
Examines race and ethnic relations in the US from a theoretical, historical, and comparative perspective. Explores the emergence of racial and ethnic minorities through such historical processes as colonialism, slavery, and immigration. Studies the current relations among racial and ethnic groups in the US.
Note: Counts for introductory concentration requirement.

Sociology 83. Introduction to Small Groups
Catalog Number: 9907
David R. Gibson
Half course (spring term). Hours to be arranged. EXAM GROUP: 15
Introduces students to sociological research on primary groups, small-group decision-making, face-to-face interaction, identity, emotions, and social networks.
Note: Counts for introductory concentration requirement.

Cross-listed Courses

Foreign Cultures 46. Caribbean Societies: Socioeconomic Change and Cultural Adaptations
[Foreign Cultures 63. China's Two Social Revolutions]
***Freshman Seminar 46s. The Idea of Crime**
***Freshman Seminar 46w. Affirmative Action at Work**
Psychology 15. Social Psychology
Quantitative Reasoning 36. Statistics and Public Policy

Social Analysis 54. American Society and Public Policy
[*Social Studies 98fe. Topics of Economic Sociology]

Tutorials

***Sociology 91r. Supervised Reading and Research**
Catalog Number: 4449
Prudence L. Carter and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Individual work in sociology under the supervision of teaching staff in the department. A graded supervised course of reading and research on a topic not covered by regular courses of instruction.
Note: Students negotiate topics on their own. A final paper must be filed in the Sociology undergraduate office.

***Sociology 96. Individual Community Research Internship**
Catalog Number: 7425
Christopher Winship
Half course (fall term; repeated spring term). Fall: W., 3–5; Spring: Tu., 2–4. EXAM GROUP: Fall: 8, 9; Spring: 16, 17
Community research internships give students the opportunity to use the methods and ideas of sociology in the process of learning about and trying to deal with practical problems faced by communities and other social actors in society at large. Students are individually placed with community organizations and agencies where they carry out research on topics of concern to those organizations and agencies. Classwork focuses on instruction in the methods and philosophy of fieldwork.
Note: Specific positions and projects vary from term to term, and are available largely on a first-come, first-served basis to students. Both concentrators and non-concentrators are welcome to apply.

***Sociology 97. Sophomore Tutorial**
Catalog Number: 5079
Neil Gross
Half course (spring term). Hours to be arranged. EXAM GROUP: 16, 17
Introduction to sociological theory. Aims to give a critical understanding of selected classic and contemporary theories and explore the relative merits of these theories from an empirical standpoint. Students first read influential statements about sociological theory and its relationship to research, and learn how researchers construct, evaluate, and modify theory. Readings focus on the classical theories of Marx, Weber, and Durkheim. Also, students read theoretical pieces by contemporary sociologists. Focuses on the theoretical concerns of the earlier classic thinkers.
Note: Required of and limited to concentrators, ordinarily sophomores. First Meeting required.

***Sociology 98. Junior Tutorial**
Catalog Number: 5943
Prudence L. Carter and Stanley Lieberson (fall term), and David Laurence Ager, Gesemia Nelson, and Annemette Sorensen (spring term)

Half course (fall term; repeated spring term). Fall: Section 98C: Tu., 1–3; Section 98L: W., 10–12; Spring: Section 98A: W., 3–5; Section 98N: Tu., 10–12; Section 98S: Tu., 1-3.
Small group research projects centered on common topics that vary by seminar and year. In the fall, Carter will offer Social Differences and Inequality in Schools in the US and South Africa, and Lieberson will offer Imagery and Tastes Among Social Classes. In the spring Sorensen will offer Using Family Histories to Study Social Mobility and Gesemia Nelson and David Ager will each offer one on a topic to be determined.
Note: Required of and limited to concentrators, ordinarily juniors.

***Sociology 99. Senior Tutorial**
Catalog Number: 6237
Prudence L. Carter and members of the Department
Full course. Hours to be arranged.
Supervision of theses or other honors projects.
Note: Limited to concentrators, ordinarily seniors. In addition, students of Sociology 99 may also participate in a fall term only, optional, regularly scheduled weekly group seminar for consultation and discussion about choice of problems, possible data, and research procedures.

For Undergraduates and Graduates

Sociology 107. The American Family
Catalog Number: 9124
Martin K. Whyte
Half course (fall term). M., W., (F.), at 1. EXAM GROUP: 6
The American family is often thought to be changing in ways considered unfortunate for children and society. At the same time, the family continues to occupy a central place in people's lives. We examine how and why American families have changed and explore the consequences of these changes.
Note: Discussion section required.

[Sociology 108. The Sociology of Work and Family]
Catalog Number: 9487
Martin K. Whyte
Half course (fall term). Hours to be arranged.
Surveys research and theory in the growing area of work-family studies. Explores how work and family life interconnect and influence each other and the implications of these linkages for women, men, children, employers, the community and society. Examines how gender, social class, family structure and race and ethnicity affect individuals' ability to manage work and family. Topics will include work-family conflict, childcare and eldercare issues, and changing attitudes towards work-life integration. Private and public policy initiatives will be reviewed.
Note: Expected to be given in 2005–06.

Sociology 109. Leadership and Organizations
Catalog Number: 8260
David Laurence Ager
Half course (spring term). M., W., (F.), at 10; F., 3–6; Su., 2–5. EXAM GROUP: 3

Investigates the sociological processes that guide leadership behavior in the context of organizations. More generally, will consider major theories, issues, and empirical literature in the sociology of work. Topics include the nature and experience of work, occupations and professions, international comparisons, and contemporary developments.

[*Sociology 110. Sociological Approaches to Income and Wealth: Conference Course]
Catalog Number: 2404
Mariko Chang
Half course (spring term). Hours to be arranged.
Explores causes and consequences of income and wealth inequality in the US, focusing on the following questions: What are the sociological explanations for the distribution of income and wealth in society? Is economic inequality growing or shrinking over time? (How) do race and gender influence income and wealth attainment? Is financial knowledge a form of cultural capital that is passed from parents to children? Why is wealth inequality so much greater than income inequality?
Note: Expected to be given in 2005–06.

Sociology 119. Learning from Social Settings: Observing and Talking to People: Conference Course
Catalog Number: 2570
David Laurence Ager
Half course (fall term). Tu., 2–4. EXAM GROUP: 16, 17
Examines the practice of conducting qualitative research: collecting, analyzing, and interpreting original observational and interview data. Emphasis will be on the development of skills that are employed by academics and practitioners (e.g. consultants, teachers, medical professionals, organizational leaders) to conduct qualitative field research in organizations and other social settings. Specifically the course will focus on negotiating entry, observation and note taking, interviewing, data analysis, and reporting of data.

***Sociology 128. Paradigms of Social Inquiry**
Catalog Number: 5979
David R. Gibson
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Reviews sociological methods and the questions to which each is best suited. Readings exemplify statistical, ethnographic, and historical approaches. Stresses logic and reasoning, not particular statistical methods.
Note: Required of concentrators.

Sociology 136. Research for Nonprofits: Seminar (formerly Pathways to Public Service)
Catalog Number: 9739
Christopher Winship
Half course (spring term). M., 2:30–5. EXAM GROUP: 7, 8, 9
Supports students in carrying out a research project for a nonprofit organization that they are currently working in or with. Examines how research is used in the nonprofit sector.
Note: Current involvement in public service is required.

Sociology 141. Social Institutions of Contemporary China
Catalog Number: 9333
Martin K. Whyte
Half course (spring term). M., W., (F.), 1–2:30. EXAM GROUP: 6, 7
Introduction to the patterns of social life in China and how these have changed since the revolution in 1949. Topics covered include political institutions, work organizations, village life, cities, family life, schooling, and inequality.

[Sociology 149. Ethnicity: Comparative and Historical Perspectives: Conference Course]
Catalog Number: 8242
Orlando Patterson
Half course (spring term). Hours to be arranged.
Ethnicity has emerged as one of the most important forces in the modern world. It is the source of collective identity, communal solidarity, and nation building as well as the inspiration for resistance to colonial domination and dictatorial regimes. It has also been a major source of political, social, and economic conflicts throughout the world, in some cases resulting in genocidal wars between groups. Explores the nature of ethnicity, main theoretical approaches to the subject, and case studies of ethnic formation and conflict, paying special attention to the relationship between ethnicity and religion, language, racism, and modernization.
Note: Expected to be given in 2005–06.

[*Sociology 150. The Social Underpinnings of Taste]
Catalog Number: 4638
Stanley Lieberson
Half course (spring term). Hours to be arranged.
Examines current empirical and theoretical information about the social factors influencing our tastes. This includes work on naming practices, fashion, art, and pop culture. Considers how tastes are molded and changed by social class, political and social events, age cohorts, and education, as well as internal processes.
Note: Expected to be given in 2005–06.

Sociology 151. Globalization, Sex, and Gender
Catalog Number: 6102
Dennis Altman (La Trobe University)
Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12
Globalization occurs simultaneously at economic, political and cultural levels, and impacts on virtually all levels of social life. This course looks at how globalization affects the ways in which sexuality and gender are imagined, regulated and experienced, and major political debates around issues such as HIV/AIDS and sexual rights in both the poor and rich worlds. Australian experiences will be used to explore the assertion that globalization is equivalent to 'americanization'.

[Sociology 153. Media and the American Mind]
Catalog Number: 8867
Jason A. Kaufman
Half course (spring term). Hours to be arranged.

Explores American society through the lens of its various media, including but not restricted to television, theatre, literature, and music. Topics include class and cultural consumption, the business dynamics of the art world, the co-optation and subversion of dominant art forms, the impact of information networks on social structure and social development, and the power of advertising and mass media. Designed to be both fun and informative. Appropriate for sociology concentrators and non-concentrators alike.
Note: Expected to be given in 2005–06.

Sociology 154. Culture, Power, and Inequality
Catalog Number: 5713
Michèle Lamont
Half course (fall term). M., W., (F.), at 11. EXAM GROUP: 4
What is the role played by culture in shaping the distribution of power and resources in contemporary societies? This course provides tools and frameworks of understanding to analyze topics such as identity, symbolic boundaries, race, class, and gender cultures, culture and urban poverty, consumption and popular culture, resistant subcultures, media, politics, and the making of public opinion, and American cultural hegemony. values? This course provides simpler and more complex tools and frameworks of understanding to answer these questions.
Note: Open to graduate and undergraduate students

***Sociology 156. Quantitative Methods in Sociology**
Catalog Number: 8958
Peter V. Marsden
Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 3
Introduces quantitative analysis in social research, including principles of research design and the use of empirical evidence, particularly from social surveys. Descriptive and inferential statistics, contingency table analysis, and regression analysis. Emphasis on analysis of data and presentation of results in research reports.
Note: Required of and limited to Sociology concentrators, ordinarily sophomores.
Prerequisite: Sociology 128.

Sociology 157. Gender and Social Policy: The US in Comparative Perspective: Conference Course
Catalog Number: 3030
Mary Ruggie (Kennedy School)
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Examines the role of various actors and venues (including governments, courts, interest groups, employers) on the development and implementation of policies on health, labor market, family, welfare and violence. Policies in the US are compared with those in selected European countries. Theoretical perspectives are drawn from the literature on the welfare state and feminist legal theory.

Sociology 158. Gender Stratification. Career and family in women's and men's lives
Catalog Number: 1956
Annemette Sorensen
Half course (spring term). M., W., (F.), at 12. EXAM GROUP: 5

Examines changes in women's and men's career opportunities and involvement in family life. How have women's and men's career opportunities changed and why? Do women and men share more equally in the care of children, partners and aging parents? Examines how careers and family obligations mutually affect each other and asks why men and women often experience the intersection between work and family differently. Comparisons between the United States and other countries are explored.

[Sociology 160. Medicine, Health Policy and Ethics in Comparative Perspective: Conference Course]
Catalog Number: 3456 Enrollment: Limited to 20.
Mary-Jo Del Vecchio Good (Medical School)
Half course (spring term). Th., 1–3. EXAM GROUP: 15, 16
Complements Sociology 162, providing opportunities for students to examine the culture and political economy of biomedicine and health care institutions in the United States and internationally. Current debates on medical education and training; cultural diversity, disparities and inequalities in medical and mental health care; medical error and quality of care; societal resources; and bioethical dilemmas in clinical practice, research and health policy, will be analyzed through comparative, global, and local perspectives. Readings will emphasize diverse theoretical and methodological approaches.
Note: Expected to be given in 2005–06.

Sociology 162. Medical Sociology
Catalog Number: 5801
Mary-Jo Del Vecchio Good (Medical School)
Half course (spring term). Tu., Th., at 11. EXAM GROUP: 13
Explores current topics in medical sociology organized around the theme of global and local environments of risk and trust in medicine and health care. Examines how medical education, knowledge, practice, research, technology, and health policies are culturally shaped and institutionally organized. Analyzes the culture and political economy of American medicine through comparative and global perspectives, utilizing country specific illustrations and global health examples.

Sociology 166. Poverty, Public Policy, and Controversy
Catalog Number: 8460
Gesemia Nelson
Half course (fall term). M., W., (F.), at 11. EXAM GROUP: 4
Explores American poverty, changing social attitudes toward "the poor" and the transformation of government's role in addressing the conditions and affecting the "behavior" of people in poor and near-poor families. Emphasis on integrating quantitative descriptions of poverty (rates, trends, etc), shifting policy debates, and exploring texts regarding how low-income people understand and respond to the conditions of living poor in a wealthy society. Race, ethnicity, gender and stigma addressed. Recent research on low-income working mothers/parents and children.

Sociology 176. Immigration and the Transformation of American Society
Catalog Number: 5953

Mary C. Waters
Half course (fall term). M., W., (F.), at 10. EXAM GROUP: 3
How are new immigrants and their children being incorporated into the US? How is American society changing as a result of immigration? Examines social, cultural, economic, political and linguistic trends. Focuses on the US, with comparisons to other immigrant receiving countries.
Note: Appropriate for concentrators and nonconcentrators alike.

[Sociology 180. Social Change in Japan: Conference Course]
Catalog Number: 4844 Enrollment: Limited to 25.
Mary C. Brinton
Half course (spring term). Hours to be arranged.
Examines several areas of social and economic life in Japanese society and the nature of change within them. Considered in particular: how people's experience of the family, education, work, and social class is structured in contemporary Japan; how analytical comparisons can be made to other societies; and how change has occurred in recent decades. No Japan-specific knowledge is necessary, but an interest in social science concepts and methods is important.
Note: Expected to be given in 2005–06.

[Sociology 182. Race & Ethnic Relations: Conference Course]
Catalog Number: 7793

Half course (fall term). Hours to be arranged.
An overview of the role of race and its impact on everyday life in America. We begin with a brief historical overview of race in America, and examine the connection of racial heritage and identity with topics topics such as violence, the media, sports, education, and economic well-being.
Note: Expected to be given in 2005–06.

[Sociology 184. Freedom in America: An Historical Sociology: Conference Course]
Catalog Number: 9740
Orlando Patterson
Half course (fall term). Hours to be arranged.
Examines the social construction and practice of freedom in America from early colonial times to the present. Freedom explored not simply as an idea, but as a cultural system that both shapes and is shaped by changing socio-economic contexts. Special attention paid to the ways in which constructions of freedom vary by class, gender and ethnicity, and the role of slavery, the revolution, the civil war, and the Civil Rights movement in the development of this ideal.
Note: Expected to be given in 2005–06.

Sociology 185. Race and Crime in America: Seminar
Catalog Number: 4244
Lawrence D. Bobo
Half course (fall term). M., 3–5. EXAM GROUP: 8, 9
Examines sociological thinking and research on race and crime. General theories of involvement in crime and deviance will be discussed with special attention to issues of youth gangs, to impact of poverty and of racial residential segregation on involvement in crime, and the impact of high

rates of incarceration on minority communities. The course will address the tightly interconnected politics of race and crime as well the role the media plays in fostering fear of crime and racial stereotypes. Finally, the course will engage the major public policy questions raised by the now historic high rates of incarceration of minority youth.

Sociology 188. The Lines That Divide: Ethnographies of Race, Class, and Gender
Catalog Number: 8063
Gesemia Nelson
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Introduces students to classic and contemporary ethnographies that are influential in current sociological debates. The unique advantages (and disadvantages) of ethnographic work in understanding social phenomena will be discussed. Explores the challenges social scientists face when conducting research of this kind. We will read works that cover a diverse range of topics such as sex roles in the household, social custom among young Black males, and low-wage work in the inner city.

Sociology 198. Crime & Disorder in the City: Conference Course
Catalog Number: 5382 Enrollment: Limited to 20.
Robert J. Sampson
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
The concepts of disorder and disorganization have long been the subject of sharp intellectual disagreement, especially in accounts of crime in the city. After touching on classic approaches to these notions, we will focus on contemporary debates and research, including the social ecology of crime and urban inequality, community social (dis)organization, broken-windows theory, street life and violence in the inner city, symbolic meanings of disorder, and competing visions for order in public spaces.

Cross-listed Courses

Psychology 15. Social Psychology
Studies of Women, Gender, and Sexuality 1125 (formerly Women's Studies 125). Gender and Health

Primarily for Graduates

Sociology 202. Intermediate Quantitative Research Methods
Catalog Number: 4117
Peter V. Marsden
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Research designs and measurement techniques used in quantitative sociological research. Regression methods for continuous and binaryresponse variables, including categorical predictors, nonlinearity,interactions, diagnostics, criticism. Emphasis on applications andimplementation.
Note: Required of, and ordinarily limited to, first-year graduate students in Sociology
Prerequisite: Familiarity with basic statistics.

[*Sociology 203a. Advanced Quantitative Research Methods]
Catalog Number: 3315
Christopher Winship
Half course (spring term). Hours to be arranged.
Matrix approach to regression analysis with an emphasis on the assumptions behind OLS. Instrumental variables, generalized least squares, probit and logit models, survival analysis, hierarchical linear models, and systems of equations are studied.
Note: Expected to be given in 2005–06. Required of first-year graduate students in Sociology.
Prerequisite: Sociology 202 or basic course in regression analysis.

[*Sociology 203b. Analysis of Longitudinal Data]
Catalog Number: 1860
Peter V. Marsden
Half course (fall term). Hours to be arranged.
Treats longitudinal design and methods for the statistical analysis of longitudinal data with an emphasis on the analysis of change in discrete variables. Includes introduction to time series analysis. Statistical theory and practical applications covered.
Note: Expected to be given in 2005–06. Primarily for graduate students in sociology.
Prerequisite: Sociology 203a.

Sociology 204. Sociological Theory: Seminar
Catalog Number: 6189
Neil Gross
Half course (fall term). Th., 9–11. EXAM GROUP: 11, 12
Introduction to the ideas of and socio-intellectual contexts that were formative for Comte, Durkheim, Marx, Weber, Spencer, Simmel, and Mead. Consideration of their significance for contemporary sociological theory.
Note: Required of first-year graduate students in Sociology.

Sociology 206. The Sociology of Development: Seminar
Catalog Number: 9026
Martin K. Whyte
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Examines debates surrounding the nature of the process of economic development. Major attention is devoted to rival theories of where and why development occurs and to a variety of social consequences of economic development.

***Sociology 208. Contemporary Theory and Research: Seminar**
Catalog Number: 6080
David R. Gibson
Half course (spring term). W., 10–12. EXAM GROUP: 3, 4
Develops tools for the construction of sociological theory. Compares major contemporary sociological theories and their applications to the study of social organization. Emphasis is placed on adjudicating among competing explanations based on evidence and critical assessment of a theory's logic.
Note: Required of and limited to first-year graduate students in Sociology.

***Sociology 209. Qualitative Social Analysis: Seminar**
Catalog Number: 1198
Michèle Lamont
Half course (fall term). W., 1–3. EXAM GROUP: 6, 7
Examines methodological approaches to non-numerical data used by social scientists to obtain valid, reliable, and meaningful insight into the social world through the analysis of ethnographic field notes, interview transcripts, archival and other interpretative data.
Note: Required of and limited to first-year graduate students in Sociology.

***Sociology 210. Issues in the Interpretation of Empirical Evidence: Seminar**
Catalog Number: 2882
Stanley Lieberson
Half course (fall term). W., 3–5. EXAM GROUP: 8, 9
Special problems occur in the interpretation of results based on non-experimental data — whether they are from surveys, historical research, field work, or other sources. These issues apply to both quantitative and qualitative studies, and are different from those resolved through statistical solutions. We consider the assumptions employed, their appropriateness, and various solutions.

[Sociology 217. Sociology of Families and Kinship: Seminar]
Catalog Number: 8522
Martin K. Whyte
Half course (spring term). Hours to be arranged.
Examines research on family patterns, combining a focus on how family patterns vary and change over time and how individuals differ in their experience of life course transitions, such as marriage, divorce, and retirement.
Note: Expected to be given in 2005–06.

[*Sociology 221. Immigration, Identity and Assimilation: Seminar]
Catalog Number: 9699 Enrollment: Limited to 15.
Mary C. Waters
Half course (fall term). Hours to be arranged.
Examines the experiences of recent immigrants and their children — the second generation. Review of Economic, political, and social assimilation, and ethnic identity formation. Discussion of recent theories and research on the link between identity and economic assimilation.
Note: Expected to be given in 2005–06.

Sociology 224. Organizational Analysis: Seminar
Catalog Number: 8202
Frank Dobbin
Half course (fall term). M., 3–5. EXAM GROUP: 8, 9
Reviews classical and contemporary theories of organizations, including ecological, institutional, resource dependence, transaction-cost, agency theory, learning theory, and organizational culture. Examines phenomena at multiple levels from the establishment to the organizational network or field.

Sociology 225. Historical Sociology: Studying Continuity and Change: Seminar
Catalog Number: 8750
Orlando Patterson
Half course (fall term). Th., 1–3. EXAM GROUP: 15, 16
Examines the main approaches to the interface of history and sociology. Major theoretical traditions and methodological strategies (both quantitative and qualitative) are appraised mainly through the exploration of exemplary studies.

[Sociology 231. Neighborhood Effects & Community-Level Social Processes]
Catalog Number: 6611
Robert J. Sampson
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9
Examines contemporary research on the role of neighborhoods in modern city life. Topics include segregation and neighborhood social isolation; social networks and trust; spatial forms of racial inequality; and the role of institutions in generating collective action.
Note: Expected to be given in 2005–06.

[Sociology 237. Contemporary Chinese Society: Seminar]
Catalog Number: 4320
Martin K. Whyte
Half course (spring term). Hours to be arranged.
A seminar devoted to the intensive analysis of a particular aspect of contemporary Chinese society. This year the focus will be on trends in inequality and stratification in China.
Note: Expected to be given in 2005–06.

[Sociology 243. Economic Sociology]
Catalog Number: 2022

Half course (spring term). Hours to be arranged.
Economic sociology has been revived of late, with studies of corporate strategy, national business systems, and pricing decisions. We survey institutional, network, power, and cognitive theories of economic behavior.
Note: Expected to be given in 2005–06.

Sociology 244. Topics in Economic Sociology
Catalog Number: 8692
Mary C. Brinton
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Introduction to the field of economic sociology at the graduate level. Structured around 3-5 “sub-topics” within the literature, permitting a balance between breadth and depth, while enabling students to explore material in greater detail than would be feasible in most graduate level introductory courses.

[Sociology 248. Race, Politics, and Social Inequality: Seminar]
Catalog Number: 8035
Lawrence D. Bobo

Half course (spring term). Hours to be arranged.
Examines intersection of race, public will, and policy-making. Reviews theories of race-making and racial inequality, dynamics of public opinion, and effects of a racialized public sphere on social policy. Focuses on the welfare state, the criminal justice system, and the dynamics of a multiethnic society.
Note: Expected to be given in 2005–06.

[*Sociology 249. "Race," Culture and Social Structure: Seminar]
Catalog Number: 5727
Orlando Patterson
Half course (spring term). Hours to be arranged.
Examines socio-economic and cultural dimensions of racial inequality in the US. External and institutional factors accounting for inequality and internal problems will be examined. Political and economic consequences of various policies aimed at reducing inequality such as affirmative action will be explored, giving attention to family structure and gender relations and policies relating to them. and to the policies relating to them.
Note: Expected to be given in 2005–06.

[*Sociology 250. Culture: Current Issues in the Study of Taste: Seminar]
Catalog Number: 4641
Stanley Lieberson
Half course (spring term). Hours to be arranged.
Reviews and evaluates both theoretical and empirical efforts to understand the social context in which tastes operate in daily life. Focus is on existing debates and new directions in this area.
Note: Expected to be given in 2005–06.

***Sociology 255. Social Stratification: Seminar**
Catalog Number: 3839
Annemette Sorensen
Half course (fall term). Tu., 3–5. EXAM GROUP: 17, 18
Examines theoretical and empirical approaches to understanding the sources, structure and consequences of persistent social inequalities. The possible rise of postmodern forms of inequality, including claims of the classless society, also discussed.

Sociology 256. Sociology of Education: Seminar
Catalog Number: 7794
Prudence L. Carter
Half course (spring term). M., 3–5. EXAM GROUP: 8, 9
Examines current theory and research about education's role in contemporary society, including its connections to communities, the economy, social stratification and cultural reproduction; and the role of organizational and internal school processes on student achievement.

Sociology 258. Social Organization of the Modern City: Seminar
Catalog Number: 2373
Robert J. Sampson
Half course (spring term). W., 3–5. EXAM GROUP: 8, 9

Examines the social organization of modern cities, highlighting the role of social networks in the following domains: personal ties, sexual marketplaces, technology-mediated connections, community power, civic engagement, and social movements.

[Sociology 261. Studying Life Histories]
Catalog Number: 9845
Annemette Sorensen
Half course (spring term). Hours to be arranged.
Life histories and their use in the study of the life course, human development, careers, causal effects and social change. Examines research traditions, including biographical studies, retrospective life history studies, and prospective studies.
Note: Expected to be given in 2005–06.

[*Sociology 271. Sociology of Culture: Seminar]
Catalog Number: 5401
Jason A. Kaufman
Half course (fall term). Hours to be arranged.
Reviews contemporary themes and approaches in the sociology of culture. Topics will include media and mass society; class, culture, and power; the production of culture; neo-institutionalism; culture and cognition; macro-theories of social change; and methodology.
Note: Expected to be given in 2005–06.

Sociology 273. Models of Social Dynamics
Catalog Number: 9525
David R. Gibson
Half course (fall term). Th., 12–2. EXAM GROUP: 14, 15
Explores mathematical (and especially simulation) models of social dynamics, in order to evaluate their usefulness as instruments of sociological insight. Students may devise and implement models of their own (if the technical background can be assumed or imparted).

[*Sociology 275. Social Network Analysis: Seminar]
Catalog Number: 6899
Peter V. Marsden
Half course (fall term). Hours to be arranged.
Concepts and methods for studying social structure using social networks. Approaches to collecting network data; data quality; graph-theoretic, statistical, and visual approachesto analyzing network data, including blockmodels and multidimensional scaling.
Note: Expected to be given in 2005–06.

Sociology 276. The New Causal Analysis: Seminar
Catalog Number: 4001
Christopher Winship
Half course (spring term). Th., 9–11. EXAM GROUP: 11, 12
Considers new methods of causal analysis based on the so-called counterfactual or potential outcomes model. Focuses on sociological applications with an emphasis on situations where the new methods give new insights and/or results.

[Sociology 278. Time and Social Action: Seminar]
Catalog Number: 6328
David R. Gibson
Half course (fall term). Hours to be arranged.
Review of research on action sequences and interdependencies, with topics including synchronization, periodicity, scheduling, interruption, and network activation and suppression. Various methodological approaches, including ethnographic and computational, will also be explored.
Note: Expected to be given in 2005–06.

***Sociology 296a. Proseminar on Inequality and Social Policy I**
Catalog Number: 6231 Enrollment: Limited to 18.
Christopher Jencks (Kennedy School)
Half course (fall term). Th., 3–5. EXAM GROUP: 17, 18
Deals with the causes of economic inequality, including demand for various kinds of skills, the supply of such skills, cultural differences, political attitudes, political institutions, and living arrangements.
Note: Offered jointly with the Kennedy School as HLE-511.

Cross-listed Courses

***Government 2326. American Political Development and Contemporary Politics**
***Government 2340. Proseminar on Inequality and Social Policy ll**
[*Psychology 2630. Social Behavior in Organizations: Seminar]

Graduate Courses of Reading and Research

[*Sociology 300. Workshop on Race/Ethnicity, Culture and Social Structure]
Catalog Number: 6654
Orlando Patterson 1091 (on leave spring term)
A venue for graduate students and other advanced scholars working on all aspects of minority-majority relations, the condition of Afro-Americans and other disadvantaged ethnic groups, and the evaluation of related public policies and programs.
Note: Expected to be given in 2005–06.

***Sociology 301. Special Reading and Research**
Catalog Number: 4017
David Laurence Ager 5142, Dennis Altman (La Trobe University) 5040 (spring term only) (spring term only), Lawrence D. Bobo 2919 (fall term only), Mary C. Brinton 4567 (on leave spring term), Prudence L. Carter 3973, Mariko Chang 1563 (on leave 2004-05), Nicholas A. Christakis (Medical School) 4459, Frank Dobbin 4622, David R. Gibson 3976, Mary-Jo Del Vecchio Good (Medical School) 7721, Neil Gross 4975, Christopher Jencks (Kennedy School) 2160, Jason A. Kaufman 2147 (on leave 2004-05), Michèle Lamont 4634 (on leave spring term), Stanley Lieberson 1937 (on leave spring term), Peter V. Marsden 1797 (on leave fall term), Gesemia Nelson 5107, Katherine Newman (Kennedy School) 2651 (spring term only), Orlando Patterson 1091 (on leave spring term), Joel Podolny (Business School) 4483, Robert J. Sampson

4546, Theda Skocpol 1387, Annemette Sorensen 4159, Mary C. Waters 1498, Martin K. Whyte 3737, William Julius Wilson 2401, and Christopher Winship 3189

***Sociology 302. Direction of Doctoral Dissertations**
Catalog Number: 5021
Members and Associates of the Department listed under Sociology 301.

***Sociology 303a. Advanced Topics in Quantitative Research**
Catalog Number: 5636
Christopher Winship 3189
Half course (fall term; repeated spring term). Hours to be arranged.
Examines current methodological scholarship in the social sciences with an eye to assessing its quality and potential for advancing quantitative methods. Recently published and unpublished work by local scholars examined.

***Sociology 304. Culture and Social Analysis Workshop**
Catalog Number: 2809
Neil Gross 4975, Jason A. Kaufman 2147 (on leave 2004-05), and Michèle Lamont 4634 (on leave spring term)
Half course (fall term; repeated spring term). F., 12–2.
A venue for those working on topics such as meaning-making, identity, collective memory, symbolic boundaries, cultural capital, class cultures, popular culture, media, disciplinary cultures, and the impact of culture on inequality.

***Sociology 305. Teaching Practicum**
Catalog Number: 0259
Prudence L. Carter 3973 and staff
Half course (fall term). F., 2–4.
Note: Required of graduate students in Sociology. Attendance at first meeting is required.

***Sociology 306r. Colloquium in Sociology**
Catalog Number: 4818
Robert J. Sampson 4546 (fall term only) and Frank Dobbin 4622 (spring term only)
Half course (fall term; repeated spring term). Fall: Tu., 12–2; Spring: W., 12–2.
Provides a forum for advanced graduate students for presentation of their research. Only graduate students in sociology may register for credit. Students registered for credit must make a seminar presentation during the term.

***Sociology 307. Workshop on Inequality and Social Policy III**
Catalog Number: 0137
William Julius Wilson 2401
Half course (fall term). M., 2:10–4.
Students develop previously completed papers from Sociology 296a or 296b into professional presentations and publishable articles, critique peerpapers across disciplines, and discuss presentations of national experts.
Note: Offered jointly with the Kennedy School as HLE-513.

Prerequisite: Sociology 296a or 296b (or HLE-511 or HLE-512 at the Kennedy School) or by permission of Instructor.

[*Sociology 310r. Colloquium in Social Movements, Politics, and Religion]
Catalog Number: 1316
Jason A. Kaufman 2147 (on leave 2004-05)
Bi-weekly colloquium for graduate students that examines social movements, politics, and religion. Students participate in meetings and present original research.
Note: Expected to be given in 2005–06.

Cross-listed Courses

***Social Policy 301. Research and Social Policy**

South Asian Studies

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on South Asian Studies

Sugata Bose, Gardiner Professor of Oceanic History and Affairs *(Chair)*
Ali S. Asani, Professor of the Practice of Indo-Muslim Languages and Cultures
Homi K. Bhabha, Anne F. Rothenberg Professor of English and American Literature and Language *(on leave 2004-05)*
Lincoln C. Chen, Taro Takemi Professor of International Health *(Public Health)*
Diana L. Eck, Professor of Comparative Religion and Indian Studies
Rena Fonseca, Lecturer on History and Literature
William A. Graham, Jr., Murray A. Albertson Professor of Middle Eastern Studies and John Lord O'Brian Professor of Divinity
Engseng Ho, Associate Professor of Anthropology and of Social Studies, Post-Doctoral Fellow in the Weatherhead Center for International Affairs *(on leave 2004-05)*
Devesh Kapur, Frederick S. Danziger Associate Professor of Government
Smita Lahiri, Assistant Professor of Anthropology *(on leave 2004-05)*
Roderick MacFarquhar, Leroy B. Williams Professor of History and Political Science *(on leave 2004-2005)*
Parimal G. Patil, Assistant Professor of the Study of Religion and of Sanskrit and Indian Studies
Amartya Sen, Lamont University Professor
Sharmila Sen, Assistant Professor of English and American Literature and Language *(on leave spring term)*
Ajantha Subramanian, Assistant Professor of Anthropology and of Social Studies *(on leave fall*

term)
T. Robert Travers, Assistant Professor of History
Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies
Richard K. Wolf, Harris K. Weston Associate Professor of the Humanities *(on leave 2004-05)*
Nur Yalman, Professor of Social Anthropology and of Middle Eastern Studies

The Committee on South Asian Studies is a multi-disciplinary group of scholars appointed to coordinate teaching and research on South Asia (the nation-states of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan, the Maldives and their neighboring areas) among Harvard's departments and schools and is concerned with the planned development of South Asian studies in the University as a whole. It works in close collaboration with the Asia Center, especially its South Asia Initiative, to promote the study of South Asia in a comparative and global context. In association with the Asia Center, it sponsors lectures, seminars, conferences, films and exhibitions on South Asia. There are currently three FAS seminar series wholly focused on South Asia: South Asia without Borders, the South Asia Politics Seminar and the South Asia Humanities Seminar.

The Committee is working to expand the range of curricular options open to undergraduates. An undergraduate concentration is currently offered in the Department of Sanskrit and Indian Studies. Graduate degrees with a South Asian focus can be sought in the Departments of History, Religion, Sanskrit and Indian Studies and other departments. A PhD degree can be pursued in the Department of History in South Asian and Indian Ocean history. South Asian religions can be studied towards a PhD degree under the Committee on the Study of Religion. The Department of Near Eastern Languages and Civilizations offers a PhD track in Indo-Islamic culture. The Asia Center awards several South Asia-related undergraduate and graduate research and travel grants and fellowships.

At present, Harvard offers more than 100 non-language courses in South Asian Studies in various departments of the Faculty of Arts and Sciences and Professional Schools on a regular basis, with many offered every year and all offered at least once every three years. Of these, over 60 consist of 100 percent South Asian content. Courses with at least 25 percent South Asian content number nearly 40. More than 30 language courses are offered with at least three-year sequences in Hindi-Urdu and Sanskrit. Reciprocal cross-registration agreements are in place with the Massachusetts Institute of Technology and for graduate students at the Fletcher School of Law and Diplomacy at Tufts University.

Core Courses of Interest

[Foreign Cultures 12. Sources of Indian Civilization]
[Foreign Cultures 70. Understanding Islam and Contemporary Muslim Societies]
Historical Study A-15. Politics and Society in the Making of Modern India
Historical Study A-16. The Making of Modern South Asia
Literature and Arts C-18. Hindu Myth, Image, and Pilgrimage
Social Analysis 36. Religion and Modernization: Cultural Revolutions and Secularism

Freshman Seminars of Interest

***Freshman Seminar 32x. Topics in Indo-Tibetan Buddhism**
***Freshman Seminar 44p. Contemporary India: Fact and Fiction**

Courses of Interest

Anthropology 1120. Comparative Analysis of Ancient Civilizations
[Anthropology 1630 (formerly Anthropology 132). Anthropology of Religion]
[Anthropology 1690 (formerly Anthropology 178). Consuming Passions: Cultures of Materialism in Asia]
[Anthropology 1840 (formerly Anthropology 183). Comparative Liberation Theologies]
***Anthropology 2650a (formerly *Anthropology 205a). History and Theory of Social Anthropology: Proseminar**
Anthropology 2650b (formerly Anthropology 205b). History and Theory of Social Anthropology: Proseminar
[Anthropology 2730 (formerly Anthropology 234). Postcoloniality and Ethnography]
Anthropology 2780 (formerly Anthropology 283). Culture and Citizenship
[Anthropology 2830 (formerly Anthropology 223). Mobility]
[Anthropology 2985. Sociocultural Space and Time: Seminar]
***Anthropology 3100 (formerly *Anthropology 3023). Old World Archaeology (Europe, Asia, and Africa)**
***Anthropology 3111 (formerly *Anthropology 3024). Asiatic Archaeology and Ethnography**
***Anthropology 3140 (formerly *Anthropology 3110). Methods and Theory in Archaeology**
***Comparative Literature 207. Theory and Methods in Comparative Oral Traditions: Seminar**
Economics 2325. World Development
Economics 2390b. Development Economics I: Microeconomic Issues
Economics 2390d. The Economic Growth and Development Workshop
English 167p. Postcolonial Narratives
Government 90hh. International Migration and the Political Economy of Development
***History 90g. Major Themes in World History: Colonialism, Imperialism, and Post-Colonialism**
[History 1439. India and the British Empire in the 18th Century: Conference Course]
History 1895. The Indian Ocean in Comparative Perspective: Conference Course
[History 1897. Nation, Reason and Religion in South Asia]
[History 2892. Colonial and Post-Colonial Histories of South Asia: Seminar]
History of Art and Architecture 12y. Introduction to Islamic Art: Visual and Portable Arts in Context
[History of Art and Architecture 124z. Architecture and Dynastic Legitimacy: The Early Modern Islamic Empires (1450-1650)]
***Indian Studies 91r. Supervised Reading and Research**
***Indian Studies 98r. Tutorial — Junior Year**
***Indian Studies 99. Tutorial — Senior Year**
Indian Studies 107. Tradition and Modernity in the Urdu-Hindi Short Story
[Indian Studies 110. History of South Asia to 1200 CE]
[Indian Studies 117 (formerly *Indian Studies 216). Early History of South Asia]

[Indian Studies 118. Indian Philosophy: Advanced Introduction]
[Indian Studies 201. Materials and Methods of Indian Studies: Proseminar]
[Indian Studies 205a. South Asia as Understood Through Its Regions I: Seminar]
[Indian Studies 205b. South Asia as Understood Through Its Regions II: Seminar]
[Indian Studies 206. Old Indian and Eurasian Creation Myths: Seminar]
[Indian Studies 211. Archaic Indian Religion: The Vedas. Seminar]
***Indian Studies 302. Reading and Research**
***Islamic Civilizations 241r. Approaches to Studying Indo-Muslim Culture and South Asian Islam**
Linguistics 122. Introduction to Indo-European
[Linguistics 220ar. Advanced Indo-European]
Linguistics 221r. Workshop in Indo-European
Literature and Arts C-18. Hindu Myth, Image, and Pilgrimage
[*Music 178r. Performing Music]
Music 190r. Topics in World Music: Proseminar
***Music 190rs. Topics in World Music: Proseminar**
Music 207r. Ethnomusicology: Seminar
Nepali 101a. Introductory Nepali
Nepali 101b. Introductory Nepali
Pali 101a. Introductory Pali
Pali 101b. Introductory Pali
Pali 102a. Intermediate Pali
***Pali 102b. Intermediate Pali**
Pali 103r. Readings in Pali
Persian A. Elementary Persian
Persian 120a. Intermediate Persian I
Persian 120b. Intermediate Persian II
Persian 140ar. Selected Readings in Classical Persian Literature
Persian 140br. Selected Readings in Classical Persian Literature
[Persian 150r. Readings in Persian Historians, Geographers and Biographers]
***Persian 300. Persian Language and Literature**
Religion 11. World Religions: Diversity and Dialogue
[Religion 1069. Christianity in India: Seminar]
Religion 1600. Introduction to the Hindu Traditions of India
[Religion 1625. Indian Religions Through Their Narrative Literatures]
Religion 1627. Hindu Ethics: Seminar
[Religion 1631. Hindu Traditions of Devotion]
[Religion 1640. The Study of Hinduism in the Post-Modern, Post-Colonial World: Seminar]
[Religion 1650. Modern Hindu Movements: Seminar]
[Religion 1670. Approaching Hinduism: Theories, Texts, and Practices]
Religion 1700. Introduction to Buddhism, in Theory and Practice
[Religion 1704. South Asian Buddhism: Studies in Indian Buddhism]
[Religion 1706. South Asian Buddhism: Dharmas, Emptiness, and Idealism]
[Religion 1708. Issues in Buddhist Philosophy: Conference Course]
Religion 1801 (formerly Religion 1551). For the Love of God and His Prophet: Literary and Artistic Expressions of Muslim Devotional Life

[Religion 1802 (formerly Religion 1555). Introduction to Islamic Mysticism: The Sufi Tradition]
[*Religion 1820 (formerly *Religion 1585). Islam in South Asia: Religion, Culture, and Identity in South Asian Muslim Societies]
[Religion 2760. Buddhism and its Critics]
***Religion 3601. Readings in Hindu Myth, Image, and Pilgrimage: Seminar**
***Sanskrit 91r. Supervised Reading and Research**
***Sanskrit 98r. Tutorial — Junior Year**
***Sanskrit 99. Tutorial - Senior Year**
Sanskrit 101a. Elementary Sanskrit
Sanskrit 101b. Elementary Sanskrit
Sanskrit 102a. Intermediate Sanskrit I
Sanskrit 102b. Intermediate Sanskrit II
Sanskrit 200ar. Advanced Poetic Sanskrit
Sanskrit 200br. Advanced Poetic Sanskrit
[Sanskrit 201ar. Advanced Philosophical Sanskrit]
[Sanskrit 201br. Advanced Philosophical Sanskrit]
[Sanskrit 204ar. Introduction to Vedic Sanskrit and Literature]
[Sanskrit 204br. Introduction to Vedic Sanskrit and Literature]
[Sanskrit 215ar. Dharmasastra and Arthasastra]
***Sanskrit 301. Reading and Research**
***Sanskrit 310. Direction of Doctoral Dissertations**
Social Analysis 36. Religion and Modernization: Cultural Revolutions and Secularism
Urdu 101. Introductory Urdu-Hindi
Urdu 102. Intermediate Urdu-Hindi
Urdu 103a. Advanced Urdu-Hindi
Urdu 103b. Advanced Urdu-Hindi
[Urdu 104. The Classical Urdu Ghazal and Its Symbolism]
Urdu 105r. Topics in Urdu-Hindi Literature
Urdu 106r. Advanced Oral Proficiency in Urdu-Hindi
***Urdu 300. Reading and Research**

Special Concentrations

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Degrees in Special Concentrations

Julie A. Buckler, Professor of Slavic Languages and Literatures *(Chair)*
Allan M. Brandt, Professor of the History of Science *(FAS)* and Amalie Moses Kass Professor of

the History of Medicine *(Medical School)*
Peter Buck, Senior Lecturer on the History of Science
Deborah D. Foster, Senior Lecturer on Folklore and Mythology *(Director of Undergraduate Studies)*
Jason A. Kaufman, John L. Loeb Associate Professor of the Social Sciences *(on leave 2004-05)*
Stephen M. Kosslyn, John Lindsley Professor of Psychology *(on leave 2004-2005)*
Karel F. Liem, Henry Bryant Bigelow Professor of Ichthyology
Elizabeth D. Lyman, Assistant Professor of English and American Literature and Languages
Robb Moss, Rudolf Arnheim Lecturer on Filmmaking
Sandra Naddaff, Senior Lecturer on Literature
Peter P. Rogers, Gordon McKay Professor of Environmental Engineering
Philip Stone, Professor of Psychology
Richard K. Wolf, Harris K. Weston Associate Professor of the Humanities *(on leave 2004-05)*

Application forms and information on completing petitions for Special Concentrations may be obtained from the Committee's office, University Hall, First Floor North.

Primarily for Undergraduates

***Special Concentrations 91r. Supervised Reading and Research**
Catalog Number: 2815
Deborah D. Foster and members of the Committee
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Open to Special Concentrations concentrators who wish to pursue supervised study for graded credit in an area not covered by courses currently offered by regular Departments and Committees. Students must secure the written approval of the faculty member with whom they wish to study and the signature of the Faculty Adviser and the Director of Undergraduate Studies of Special Concentrations.

***Special Concentrations 96r. Senior Projects**
Catalog Number: 0829
Deborah D. Foster and members of the Committee
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Designed for seniors in their final term completing their senior project to meet the Basic (rather than Honors) requirements for concentration. May be repeated with the permission of the Director of Undergraduate Studies and the Faculty Adviser. Students must secure the written approval of the faculty member with whom they wish to study and the signature of the Faculty Adviser and the Director of Undergraduate Studies of Special Concentrations.

***Special Concentrations 97r. Tutorial — Sophomore Year**
Catalog Number: 2660
Deborah D. Foster and members of the Committee
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Ordinarily taken by honors sophomores.

***Special Concentrations 98r. Tutorial — Junior Year**
Catalog Number: 2497
Deborah D. Foster and members of the Committee
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Successful completion two terms of *Special Concentrations 98r are ordinarily required of all honors concentrators in their junior year. Exceptions to this can only be granted with the consent of the Faculty Adviser and the Director of Undergraduate Studies of Special Concentrations.

***Special Concentrations 99. Tutorial — Senior Year**
Catalog Number: 3294
Deborah D. Foster and members of the Committee
Full course. Hours to be arranged.
Note: Ordinarily taken by honors seniors as a full course. Either half year may be taken as a half course only with the consent of the Faculty Adviser and the Director of Undergraduate Studies of Special Concentrations. Graded Sat/Unsat.

Statistics

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Statistics

Xiao-Li Meng, Professor of Statistics *(Chair and Co-Head Tutor)*
Jose Blanchet, Assistant Professor of Statistics
Arthur P. Dempster, Professor of Theoretical Statistics *(on leave spring term)*
Mark E. Irwin, Lecturer on Statistics, Research Associate in Statistics
Rima Izem, Assistant Professor of Statistics
Eric Kolaczyk, Visiting Associate Professor of Statistics *(Boston University) (spring term only)*
S.C. Samuel Kou, Assistant Professor of Statistics *(Co-Head Tutor)*
Jun S. Liu, Professor of Statistics *(on leave fall term)*
Carl N. Morris, Professor of Statistics *(Director of Graduate Studies)*
Donald B. Rubin, John L. Loeb Professor of Statistics *(on leave spring term)*

Other Faculty Offering Instruction in the Department of Statistics

David P. Harrington, Professor of Biostatistics *(Public Health)*
Bernard Rosner, Professor of Medicine *(Medical School)*
Louise Marie Ryan, Professor of Biostatistics *(Public Health)*
Kenneth E. Stanley, Lecturer on Statistics (*FAS*) and Lecturer on Biostatistics *(Public Health)*

Alan Zaslavsky, Professor of Health Care Policy *(Medical School)*

The Statistics Department offers four courses at the introductory level (below Statistics 110). Statistics 100 and 101 are essentially equivalent in terms of their quantitative requirements, but differ in the amount of emphasis placed on different techniques and applications. Statistics 100 emphasizes regression, including multiple regression, which is essential in economics and related fields. Statistics 101 emphasizes analysis of variance, which is widely used in experimentally oriented subjects such as psychology and biology. Statistics 104 combines the content of Statistics 100 and 101, and moves somewhat faster than these courses, assuming a stronger quantitative orientation. Statistics 102 is comparable to Statistics 104 in its technical level, but is specifically oriented toward biomedical applications and techniques.

Generally, Statistics 104 and 101 will be accepted as fulfilling any requirement or prerequisite which is fulfilled by Statistics 100. Consult the Statistics Department or your tutorial office for more information about which courses satisfy your concentration requirements, and for guidance on selecting a course. More detailed information can be accessed through the network at the Statistics Department home page at www.harvard.edu/~stats/.

Primarily for Undergraduates

***Statistics 91r. Supervised Reading and Research**
Catalog Number: 6641
S.C. Samuel Kou, Xiao-Li Meng, and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Normally may not be taken more than twice; may be counted for concentration in Statistics if taken for graded credit; may be taken in either term; for further information consult with head tutor.

***Statistics 99hf. Tutorial — Senior Year**
Catalog Number: 4381
S.C. Samuel Kou, Xiao-Li Meng, and members of the Department
Half course (throughout the year). Hours to be arranged.
The systematic application of statistical ideas to a problem area.
Note: In exceptional circumstances, may be taken alternatively as a half course in the spring term only.

For Undergraduates and Graduates

Statistics 100. Introduction to Quantitative Methods
Catalog Number: 3808
Louise Marie Ryan (Public Health) (fall term) and David P. Harrington (Public Health) (spring term)
Half course (fall term; repeated spring term). M., W., F., at 11, and a section to be arranged.
EXAM GROUP: 4
Introduces the key ideas underlying statistical and quantitative reasoning, including fundamentals of probability. Topics may include elements of sample surveys, experimental

design and observational studies, descriptive and summary statistics for both measured and counted variables, and statistical inference including estimation and tests of hypotheses as applied to one- and two-sample problems, regression with one or more predictors, correlation, and analysis of variance. Emphasizes simple and multiple regression and applications in nonexperimental fields including, but not limited to, economics.
Note: Only one of the following courses may be taken for credit: Statistics 100, 101, 104. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.

Statistics 101. Introduction to Quantitative Methods
Catalog Number: 5128
Kenneth E. Stanley (Public Health)
Half course (fall term). M., W., F., at 11 and a section to be arranged. EXAM GROUP: 4
Covers the same topics as Statistics 100. Emphasizes the analysis of variance, applied in experimental fields such as psychology and other behavioral sciences.
Note: Only one of the following courses may be taken for credit: Statistics 100, 101, 104. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.

Statistics 102. Fundamentals of Biostatistics
Catalog Number: 0266
Bernard Rosner (Medical School)
Half course (spring term). M., W., F., at 11, and section meeting to be arranged. EXAM GROUP: 4
An introduction to statistical methods used in biological and medical research. Elementary probability theory, basic concepts of statistical inference, sampling theory, regression and correlation methods, analysis of variance, study design. Emphasis on applications to medical problems.
Note: Primarily for undergraduates with medical or biological interests. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.

Statistics 104. Introduction to Quantitative Methods
Catalog Number: 4582
Mark E. Irwin
Half course (fall term). M., W., F., at 11, and a section to be arranged. EXAM GROUP: 4
Covers the same topics as 100 and 101 combined, at a slightly higher level. Applications will be drawn from fields such as economics, behavioral and health sciences, policy analysis, and law.
Note: Only one of the following courses may be taken for credit: Statistics 100, 101, 104. This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.

Statistics 110. Introduction to Probability
Catalog Number: 0147
Jose Blanchet
Half course (fall term). M., W., F., at 12, and a section to be arranged. EXAM GROUP: 5
A comprehensive introduction to probability. Basics: sample space, conditional probability,

Bayes Theorem. Univariate distributions: mass functions and density, expectation and variance, binomial, Poisson, normal, and gamma distributions. Multivariate distributions: joint and conditional distribution, independence, transformation, multivariate normal and related distributions. Limit laws: probability inequalities, law of large numbers, central limit theorem. Markov chains: transition probability, stationary distribution and convergence.
Note: This course, when taken for a letter grade, meets the Core area requirement for Quantitative Reasoning.
Prerequisite: Mathematics 21a or equivalent required, concurrent Mathematics 21b or equivalent recommended.

Statistics 111. Introduction to Theoretical Statistics
Catalog Number: 1836
S.C. Samuel Kou
Half course (spring term). M., W., F., at 12, and a section to be arranged. EXAM GROUP: 5
Basic concepts of statistical inference from frequentist and Bayesian perspectives. Topics include maximum likelihood methods, confidence and Bayesian interval estimation, hypothesis testing, least squares methods, and categorical data analysis.
Prerequisite: Statistics 110 and Mathematics 21a and 21b (may be taken concurrently) or equivalent.

Statistics 131. Times Series Analysis and Forecasting
Catalog Number: 8291
Jose Blanchet
Half course (spring term). M., W., F., at 1. EXAM GROUP: 6
An introduction to time series models and associated methods of data analysis and inference. Auto regressive (AR), moving average (MA), ARMA, and ARIMA processes, stationary and non-stationary processes, seasonal processes, auto-correlation and partial auto-correlation functions, identification of models, estimation of parameters, diagnostic checking of fitted models, forecasting, time domain regression approach including Box-Jenkins method, and spectral analysis.
Prerequisite: Statistics 111 and 139 or equivalent.

Statistics 139. Statistical Sleuthing Through Linear Models
Catalog Number: 1450
Xiao-Li Meng
Half course (spring term). Tu., Th., 1–2:30, and a section to be arranged. EXAM GROUP: 15, 16
Formerly “Regression Analysis”, now a serious introduction to statistical inference when linear models and related methods are used. Topics include the pros and cons of t-tools and their alternatives, multiple-group comparisons, linear regressions, model checking and refinement. The emphasis is on statistical thinking and tools for real-life problems, including current events whenever relevant.
Prerequisite: Statistics 100 or equivalent and Mathematics 21a and 21b or equivalent.

Statistics 140. Design of Experiments
Catalog Number: 7112

Rima Izem
Half course (fall term). M., W., 2–3:30. EXAM GROUP: 7, 8
Statistical designs for the estimation of the effects of treatments in randomized experiments. Topics include brief review of some basic structural inference procedures, analysis of variance, randomized block and Latin square designs, balanced incomplete block designs, factorial designs, nested factorial designs, confounding in blocks, and fractional replications.
Prerequisite: Statistics 100 and 139, or equivalent.

[Statistics 149. Generalized Linear Models]
Catalog Number: 6617

Half course (spring term). Hours to be arranged.
An introduction to methods for analyzing categorical data. Emphasis will be on understanding models and applying them to datasets. Topics include visualizing categorical data, analysis of contingency tables, odds ratios, log-linear models, generalized linear models, logistic regression, Poisson regression and model diagnostics. Examples drawn from many fields, including biology, medicine and the social sciences.
Note: Expected to be given in 2005–06.
Prerequisite: Statistics 139 or equivalent.

[Statistics 160. Survey Methods]
Catalog Number: 2993
Alan Zaslavsky (Medical School)
Half course (fall term). Hours to be arranged.
Methods for design and analysis of sample surveys. The toolkit of sample design features, their use in optimal sample design strategies, and sampling weights) and variance estimation methods (including resampling methods). Brief overview of nonstatistical aspects of survey methodology such as questionnaire design and validation. Additional topics include variance estimation for complex surveys and estimators, nonresponse, missing data, hierarchical models for survey data, and small-area estimation.
Note: Expected to be given in 2005–06.
Prerequisite: Statistics 111 or 139, or permission of instructor.

Statistics 171. Introduction to Stochastic Processes
Catalog Number: 4180
Jun S. Liu
Half course (spring term). Tu., Th., 11:30–1, and a section to be arranged. EXAM GROUP: 13, 14
An introductory course in stochastic processes. Topics include Markov chains, branching processes, Poisson processes, birth and death processes, renewal theory, queuing theory, Brownian motion, and Martingales.
Prerequisite: Statistics 110 or equivalent.

Primarily for Graduates

Statistics 210. Probability Theory and Mathematical Statistics
Catalog Number: 2487
Carl N. Morris
Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 15, 16
Random variables, their distributions and densities. Families of distributions. Expectation. Independence, product spaces, and joint distributions. Types of convergence. Limit theorems (weak and strong laws, central limit problem). Conditional probability and expectation, multivariate Normal distribution, particular examples of conjugate, marginal, and conditional distributions. Inequalities, approximations, and stochastic simulation. Sampling distributions, likelihood function, sufficiency, and information.
Prerequisite: Courses in probability and statistics at least at the level of Statistics 110, 111.

Statistics 211. Probability Theory and Mathematical Statistics II
Catalog Number: 1946
S.C. Samuel Kou
Half course (spring term). M., W., F., at 10. EXAM GROUP: 3
Introduction to statistical inference. Frequency, Bayesian, and decision-theoretic approaches. Likelihood, sufficiency, and exponential families. Testing hypotheses and estimation. Maximum likelihood estimation, likelihood ratio tests, Bayes Factor, models for frequency data, large and moderate sample approximations, including the delta method.
Prerequisite: Advanced calculus, Statistics 210, or equivalent.

Statistics 214. Causal Inference in Statistics and the Social and Biomedical Sciences
Catalog Number: 4042
Donald B. Rubin
Half course (fall term). Th., 2:30–5. EXAM GROUP: 16, 17, 18
Approaches to causal inference. Covers randomized experiments with and without noncompliance, observational studies with and without ignorable treatment assignment, instrumental variables and sensitivity analysis. A number of applications from economics, medicine, education, etc., are discussed.

[Statistics 215. Fundamentals of Computational Biology]
Catalog Number: 3304

Half course (fall term). Hours to be arranged.
Covers developments in bioinformatics/computational biology in the past 30 years, with emphasis on topics of recent interest. Topics include the basics of statistical estimation, BLAST methods and theory, cDNA sequence analysis, clustering and classification methods, data resources, hidden Markov models, Gibbs sampler, microarray analysis, gene regulatory motif discoveries, phylogenetic inference, protein structures, comparative genomics.
Note: Expected to be given in 2005–06.

Statistics 220. Bayesian Data Analysis
Catalog Number: 6270
Mark E. Irwin
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13

Begins with basic Bayesian models, whose answers often appear similar to classical answers, followed by more complicated hierarchical and mixture models with nonstandard solutions. Includes methods for monitoring adequacy of models and examining sensitivity of conclusions to change in models. Throughout, emphasis on drawing inferences via computer simulation rather than mathematical analysis.
Prerequisite: Statistics 110 and 111.

[Statistics 221. Statistical Computing Methods]
Catalog Number: 5959

Half course (fall term). Hours to be arranged.
A study of computing methods commonly used in statistics. Topics include generation of random numbers, Monte Carlo methods, optimization methods, numerical integration, and advanced Bayesian computational tools such as the Gibbs sampler, Metropolis Hastings, the method of auxiliary variables, marginal and conditional data augmentation, slice sampling, exact sampling, and reversible jump MCMC. Computer programming exercises apply the methods discussed in class.
Note: Expected to be given in 2005–06.
Prerequisite: Linear algebra, Statistics 111, and knowledge of a computer programming language. Statistics 220 is recommended.

Statistics 225. Spatial Statistics
Catalog Number: 6499
Rima Izem
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Introduction of three types of spatial data: point pattern, geospatial, and lattice. For each type of data, presentation and application of statistical and computational methods for description, modeling, and analysis.

Statistics 230. Multivariate Statistical Analysis
Catalog Number: 5206
Carl N. Morris
Half course (spring term). M., W., 2–3:30. EXAM GROUP: 7, 8
Probability theory and inference for multivariate distributions, especially the normal and offpring distributions and those arising via multi-level modeling. Includes advanced matrix theory, principal components, and other topics in the theory.
Prerequisite: Statistics 210 and 211 or equivalent.

Cross-listed Courses

***Government 3009. Research Workshop in Applied Statistics**

Graduate Courses of Reading and Research

***Statistics 301. Special Reading and Research**
Catalog Number: 4474

Jose Blanchet 5017, Arthur P. Dempster 2345 (on leave spring term), Rima Izem 4944, S.C. Samuel Kou 4054, Jun S. Liu 3760 (on leave fall term), Xiao-Li Meng 4023, Carl N. Morris 2178, Bernard Rosner (Medical School) 4018, Donald B. Rubin 7966 (on leave spring term), and Alan Zaslavsky (Medical School) 1927

***Statistics 302. Direction of Doctoral Dissertations**
Catalog Number: 3382
Arthur P. Dempster 2345 (on leave spring term), Rima Izem 4944 (fall term only), S.C. Samuel Kou 4054, Jun S. Liu 3760 (on leave fall term), Xiao-Li Meng 4023, Carl N. Morris 2178, Bernard Rosner (Medical School) 4018, Donald B. Rubin 7966 (on leave spring term), and Alan Zaslavsky (Medical School) 1927

***Statistics 310hfr. Astrostatistics Seminar**
Catalog Number: 2105
Xiao-Li Meng 4023
Half course (throughout the year). Hours to be arranged.

***Statistics 315. Computational Biology and Bioinformatics**
Catalog Number: 0553
Jun S. Liu
Half course (spring term). Hours to be arranged.

***Statistics 317 (formerly Statistics 217). Statistical Inference as Probabilistic Reasoning**
Catalog Number: 6678
Arthur P. Dempster 2345 (on leave spring term)
Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
Active modeling and computational developments within the Dempster-Shafer paradigm for mixed probabilistic and logical reasoning. Modes of uncertain inference, emphasizing the roots of D-S methods in Bayesian, Boolean, and Fisherian thinking.
Prerequisite: Statistics 210 or equivalent.

***Statistics 321. Stochastic Modeling and Bayesian Inference**
Catalog Number: 4060
S.C. Samuel Kou
Half course (fall term). Hours to be arranged.
Stochastic processes and their applications in scientific, economic, and financial modeling. Bayesian inference about stochastic models based on the Monte Carlo sampling approach.

***Statistics 323. Computational and Statistical Methods in Finance**
Catalog Number: 4328
Jose Blanchet
Half course (spring term). Hours to be arranged.
Briefly reviews basic concepts and models in multi-period asset pricing theory. Emphasis then on parameter estimation and calibration as well as computational and statistical issues arising in pricing, hedging, credit risk, and insurance risk modeling.

Prerequisite: Statistics 111 and 171 or equivalent (some exposure to time series analysis at the level of Statistics 131 can be useful but not necessary).

***Statistics 325. Functional Data Analysis**
Catalog Number: 7747
Rima Izem
Half course (spring term). Hours to be arranged.
Statistical methods for exploration and analysis of Functional Data (sets of curves, images, or shapes) with applications in biology.

***Statistics 327. Statistical Analysis in Complex Networks**
Catalog Number: 6297
Eric Kolaczyk (Boston University)
Half course (spring term). Hours to be arranged.
We will study some of the foundational topics in the emerging area of complex networks, particularly as they relate to problems in a handful of application areas, with an emphasis on current statistical challenges.

[*Statistics 332. Topics in Missing Data]
Catalog Number: 9483
Xiao-Li Meng and Donald B. Rubin
Half course (spring term). Hours to be arranged.
Note: Expected to be given in 2005–06.

[*Statistics 392 (formerly *Statistics 392hfr). Topics in Statistics]
Catalog Number: 0925
Donald B. Rubin
Half course (fall term). Hours to be arranged.
A range of currently active projects. All involve real applications and require mathematical statistical development. Applications include education, census, political science, biomedical research. Techniques include design of experiments, Bayesian modelling, multiple imputation.
Note: Expected to be given in 2005–06.

Ukrainian Studies

Faculty of the Committee on Ukrainian Studies

Michael S. Flier, Oleksandr Potebnja Professor of Ukrainian Philology *(Chair)*
Patricia R. Chaput, Professor of the Practice of Slavic Languages
Timothy J. Colton, Morris and Anna Feldberg Professor of Government and Russian Studies
Grzegorz Ekiert, Professor of Government
George G. Grabowicz, Dmytro Cyzevs'kyj Professor of Ukrainian Literature
Terry D. Martin, John L. Loeb Associate Professor of the Social Sciences

The Standing Committee on Ukrainian Studies was created by vote of the Faculty on October 29, 1974, to facilitate the systematic study of and coordinate work on Ukrainian subjects throughout the departments of the University. No degree specifically in Ukrainian Studies is offered on either the undergraduate or the graduate level. Students wishing to obtain a higher degree in a particular discipline of Ukrainian Studies, such as language, literature, politics, or history, should first fulfill all the requirements of the department of their scholarly discipline (departments of Government, History, Linguistics, or Slavic Languages and Literatures). Only then should they proceed to the fulfillment of specific qualifications in the Ukrainian aspect of their disciplines under the supervision of the Committee's faculty. The weekly, interdisciplinary Seminar in Ukrainian Studies serves to introduce the methodology, analysis, and specific aspects of Ukrainian disciplines. Attendance at the seminar, therefore, is a prerequisite for any further study.

Working in cooperation with the graduate students and faculty of the Ukrainian Research Institute, founded in June 1973, the Committee sponsors events and activities of interest to specialists in Ukrainian studies. The Institute also maintains a research library and publications office. Specific questions concerning Ukrainian Studies and requests for the pamphlet describing Ukrainian Studies at Harvard should be addressed to the Director of the Institute, at 1583 Massachusetts Avenue, Cambridge, MA 02138.

Primarily for Graduates

***Ukrainian 200. Ukrainian Studies: Seminar**
Catalog Number: 7927
Roman Szporluk, Michael S. Flier, George G. Grabowicz and staff
Full course. M., 4–6. EXAM GROUP: 9
Interdisciplinary seminar concentrating on methodological aspects of the Ukrainian disciplines. Seminar members and guests from other departments of the University and other universities discuss specific topics from analytical and comparative perspectives. Covers history, philology, linguistics, literature, Orientalism, art, sociology, economics, and political science.

Courses of Interest

[Comparative Literature 164. The 20th-Century Post-Realist Novel in Eastern Europe: Conference Course]
***Government 1203. Political Transitions in East Central Europe**
History 1512. 20th-Century Ukraine
History 1516. Nation Formation in East Europe, 1795-1921: Poland, Russia, Ukraine
Linguistics 250. Old Church Slavonic

Harvard University
Faculty of Arts and Sciences
Office of the Registrar

Slavic Ga. Beginning Ukrainian I
Slavic Gb. Beginning Ukrainian II
***Slavic Gr. Supervised Readings in Intermediate/Advanced Ukrainian**
Slavic 125. Modern Russian in Historical Perspective
[Slavic 165. Survey of 19th-Century Ukrainian Literature]
[Slavic 201. Introduction to East Slavic Languages]
Slavic 292. 20th-Century Ukrainian Prose

Visual and Environmental Studies

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Department of Visual and Environmental Studies

Marjorie Garber, William R. Kenan, Jr. Professor of English and American Literature and Language and of Visual and Environmental Studies *(Chair)*
Lelia Amalfitano, Visiting Lecturer on Visual and Environmental Studies
Judie Bamber, Visiting Lecturer on Visual and Environmental Studies *(fall term only)*
Dominique Bluher, Lecturer on Visual and Environmental Studies
Giuliana Bruno, Professor of Visual and Environmental Studies
J. D. Connor, Assistant Professor of Visual and Environmental Studies and of English and American Literature and Language
Piotr Dumala, Visiting Lecturer on Visual and Environmental Studies *(spring term only)*
Carson Fox, Visiting Lecturer on Visual and Environmental Studies *(fall term only)*
Benjamin Fry, Visiting Lecturer on Visual and Environmental Studies *(spring term only)*
Frank Gohlke, Visiting Lecturer on Visual and Environmental Studies *(spring term only)*
Alfred F. Guzzetti, Osgood Hooker Professor of Visual Arts
Jacqueline Hassink, Visiting Lecturer on Visual and Environmental Studies *(fall term only)*
Sue Johnson, Visiting Lecturer on Visual and Environmental Studies *(spring term only)*
Despina Kakoudaki, Assistant Professor of Visual and Environmental Studies and of Comparative Literature
Chris Killip, Professor of Visual and Environmental Studies
Gina Kim, Visiting Lecturer on Visual and Environmental Studies
Annette Lemieux, Professor of the Practice of Visual and Environmental Studies
Malerie Marder, Visiting Lecturer on Visual and Environmental Studies *(fall term only)*
Ross McElwee, Professor of the Practice of Filmmaking
Elvis Mitchell, Visiting Lecturer on African and African American Studies and on Visual and Environmental Studies *(spring term only)*
Nancy Mitchnick, Rudolf Arnheim Lecturer on Studio Arts

Robb Moss, Rudolf Arnheim Lecturer on Filmmaking
Stephen Mueller, Visiting Lecturer on Visual and Environmental Studies *(spring term only)*
Lorelei M. Pepi, Visiting Assistant Professor of Visual and Environmental Studies
Stephen Prina, Professor of Visual and Environmental Studies
D. N. Rodowick, Professor of Visual and Environmental Studies
Katy Schimert, Visiting Lecturer on Visual and Environmental Studies
John R. Stilgoe, Robert and Lois Orchard Professor in the History of Landscape Development
Paul Stopforth, Lecturer on Visual and Environmental Studies *(Director of Undergraduate Studies)*
Elisabeth Subrin, Visiting Lecturer on Visual and Environmental Studies
Muriel Waldvogel, Visiting Lecturer on Visual and Environmental Studies *(fall term only)*

Other Faculty Offering Instruction in the Department of Visual and Environmental Studies

John Beardsley, Senior Lecturer in Landscape Architecture *(Design School) (spring term only)*
Miroslava M. Benes, Senior Lecturer in the History of Landscape Architecture *(Design School) (fall term only)*
Eve Marion Blau, Adjunct Professor of Architectural History *(Design School) (spring term only)*
K. Michael Hays, Professor of Architectural Theory *(Design School)*
Jeffrey Huang, Associate Professor of Architecture *(Design School) (fall term only)*
Antoine Picon, Professor of the History of Architecture and Technology *(Design School)*
Christine Smith, Robert C. and Marian K. Weinberg Professor of Architectural History *(Design School)*

The Department of Visual and Environmental Studies offers two broad kinds of instruction: studio courses (including drawing, painting, sculpture, printmaking, mixed media, photography, film, video, and animation) and lecture and discussion courses in the history, theory and criticism of the arts, film, visuality, space and the built environment. *Studio courses* are normally limited to ten or twelve students and ordinarily do not hold final examinations. Some seminars and lectures are also limited in enrollment and may or may not hold final examinations.

VES concentrators are expected to attend Carpenter Center Thursday evening lectures.

While the department offers some courses jointly with the Graduate School of Design, attention is also called to courses listed in the *Official Register* of the Design School as well as the MIT Institute for Advanced Visual Studies.

Primarily for Undergraduates

***Visual and Environmental Studies 10. Drawing: Materials and Methods: Introductory Studio Course**
Catalog Number: 6945 Enrollment: Limited to 15.
Paul Stopforth
Half course (fall term; repeated spring term). Fall: M., W., 1–4; Spring: Tu., Th., 1–4.
Using a wide variety of graphic media, we explore possibilities and develop responses in the process of drawing. A diverse range of sources and objects function as the basis for much of our

work, in which observation, structural principles, and expressive procedures are formulated in the making of drawings.

***Visual and Environmental Studies 11. Drawing the Body: Introductory Studio Course**
Catalog Number: 6625 Enrollment: Limited to 12.
Nancy Mitchnick
Half course (fall term). M., W., 1–4.
Using traditional drawing materials, this class will work on developing keen observational skills as well as inventing episodic figural sequences. Drawing from life, and using some material from art, the Internet, imagination, and popular culture, students will work within the traditions of figure drawing, which will include specific anatomical, medical, and historical study. Students will also develop investigations concerning the interior space of bodies with a view toward metaphor, allegory, and narrative.
Note: Expected to be omitted in 2005–06.

[*Visual and Environmental Studies 12r. Drawing for Painting: Materials and Methods: Introductory Studio Course]
Catalog Number: 2792 Enrollment: Limited to 12.

Half course (fall term). Hours to be arranged.
This drawing course is designed to develop a conscious use of space in drawing with the objective of preparing students to perceive and control the structures of painting. The subjects are bodies, cities, objects, and memory, among others. Studio work, slide talks, lectures, and critique form our basis. The materials used include charcoal, ink washes, pencil, pastels, acrylic paints; and the support will always be paper.
Note: Expected to be given in 2005–06.

***Visual and Environmental Studies 15r. In Response To: The Print as Reaction, Commentary, or Critique: Introductory Studio Course**
Catalog Number: 6847 Enrollment: Limited to 12.
Carson Fox
Half course (fall term). M., 6–9 pm and Tu., 1-4.
In printmaking there has been a long tradition of using the medium as a vehicle for commentary and critique of social and political conditions, as well as other works of art. We will investigate these themes as they continue to function in contemporary art, while exploring the printmaking techniques of etching, monoprint, and silkscreen. There will be thorough, hands-on demonstrations and workshops of all techniques in addition to museum visits, slide discussions and class critiques.

[*Visual and Environmental Studies 17r. Computer-Assisted Printmaking: Introductory Studio Course]
Catalog Number: 4460 Enrollment: Limited to 12.

Half course (spring term). Hours to be arranged.
An exploration of digital concepts using printmaking. The computer is used as a tool to collage ideas from various sources. Using a scanner and the computer, methods of painting, drawing, and

video can be translated onto film and exposed onto printing plates. The term is devoted to demonstrations on the computer, lectures, and lab class time to developing images and learning how to print.
Note: Expected to be given in 2005–06. No previous printmaking experience is required but some knowledge of *Adobe Photoshop* preferred.

***Visual and Environmental Studies 20r. Painting: Materials and Methods: Introductory Studio Course**
Catalog Number: 3732 Enrollment: Limited to 12.
Nancy Mitchnick
Half course (fall term; repeated spring term). Tu., 1–4 and 6–9 pm.
This is a hands-on oil painting course, with the use of water-based materials for exercises and studies. The course is based on a sequence of painting investigations with specific assignments. Work in the studio, slide talks, lectures, demonstrations, class presentations and critique form the operating structure of this course. Fall term will focus on *color* and the spring term will focus on *space*.

***Visual and Environmental Studies 30r. Sculpture: Materials and Methods: Introductory Studio Course**
Catalog Number: 4896 Enrollment: Limited to 12.
Katy Schimert
Half course (fall term; repeated spring term). W., 1–4 and 6–9 pm.
Students will make sculpture using a variety of traditional and non-traditional methods and materials. The focus will be on developing basic technical skills and visual awareness that allows the sculptural process to take place through creative impulse. Discussions about sculpture and gallery visits will be included to provide a broader understanding of the medium.

***Visual and Environmental Studies 40a. Fundamentals of Still Photography: Studio Course**
Catalog Number: 2010 Enrollment: Limited to 72.
Chris Killip
Half course (fall term). W., at 11, with three hours lab and three hours section each week to be arranged.
Introduction to still photography through individual and group exercises, with an emphasis on the medium as a vehicle for expression, documentation, and personal vision. Covers necessary technical, historical, and aesthetic aspects of the medium.

***Visual and Environmental Studies 40b. Photography: Intermediate Studio Course**
Catalog Number: 6256 Enrollment: Limited to 24.
Chris Killip
Half course (spring term). M., W., 1–4; or Tu., Th., 1–4.
Designed to extend the student's understanding of the process through which meaning is produced in photography. Examines differing approaches to format, context, and presentation through a series of set projects.
Prerequisite: VES 40a or equivalent preparation (portfolio presentation).

***Visual and Environmental Studies 45. The Web as a Photographer's Medium: Studio Course**
Catalog Number: 7110 Enrollment: Limited to 12.
Sue Johnson
Half course (spring term). Tu., 6–9 pm and W., 1-4.
The web has opened up countless options for photographers to publish their work, but it also demands new strategies in conceptualizing and producing photographic narratives. Students will learn the basics of HTML, Photoshop, and multimedia production for the web during class workshops. Weekly class discussions and assignments will explore non-linear editing design strategies, and multimedia storytelling techniques for the web.
Note: Students should have their own laptop and some basic photographic/digital skills.

***Visual and Environmental Studies 50. Fundamentals of Filmmaking: Studio Course**
Catalog Number: 4907 Enrollment: Limited to 20.
Robb Moss and Alfred F. Guzzetti
Full course. M., 1–5, W., 1–4; or Tu., 1–4, Th., 1–5.
Introductory exercises in live-action filmmaking culminating in the production of a nonfiction film as a group project in the spring term.

***Visual and Environmental Studies 51a. Fundamentals of Video: Studio Course**
Catalog Number: 7526 Enrollment: Limited to 10.
Alfred F. Guzzetti (fall term) and Ross McElwee (spring term)
Half course (fall term; repeated spring term). M., W., 1–4, with a one hour lab to be arranged.
A series of nonfiction projects, both individual and collaborative, designed to introduce and explore the range of expressive possibilities in small-format video.

***Visual and Environmental Studies 51br. Nonfiction Video Projects: Intermediate Studio Course**
Catalog Number: 3838 Enrollment: Limited to 10.
Ross McElwee
Half course (fall term). Tu., Th., 1–4.
Continuation of VES 51a but may be taken separately with permission of the instructor. Each student plans, shoots, and edits a documentary video of his or her design. Working from a proposal approved in advance by the instructor, shooting should take place over the summer. Editing of the documentaries will take place during the fall term. Readings and screenings augment individual work.
Note: In exceptional cases, a student will be permitted to take the course without having filmed over the summer, but the student must have a specific proposal for a documentary that can be both shot and edited during the term.
Prerequisite: VES 51a, or another course in live-action film or video.

***Visual and Environmental Studies 52r. Experimental Strategies in Video: Studio Course**
Catalog Number: 0574 Enrollment: Limited to 10.
Elisabeth Subrin
Half course (fall term). M., 6–9 pm, Tu., 8:30–11:30.
An introduction to small-format video production. Experimentation and process emphasized in

collaborative exercises, workshops, and individual projects. Through close examinations of contemporary video art and practices, we work across and beyond "documentary," "narrative," and "experimental" categories towards hybrid forms and strategies.
Note: No previous experience in film or video required.

***Visual and Environmental Studies 53a. Fundamentals of Animation: Studio Course**
Catalog Number: 1360 Enrollment: Limited to 10.
Lorelei M. Pepi
Half course (fall term; repeated spring term). M., 1–5, Screenings: F., 1-3.
An introduction to the art of animation. Students will gain an understanding of animation aesthetics, concepts and history through a series of exercises, discussions and screenings. Students will complete a variety of short guided projects designed to acquaint them with the main elements of animation. Screenings and discussions will provide a conceptual and historical framework for the exercises.
Note: Freshmen are strongly encouraged to apply.

***Visual and Environmental Studies 53d. Fundamentals of Animation: Studio Course**
Catalog Number: 7599 Enrollment: Limited to 10.
Piotr Dumala
Half course (spring term). Tu., 1–5, Screenings: F., 1–3.
An introduction to the art of animation. Students will gain an understanding of animation aesthetics, concepts and history through a series of exercises, discussions and screenings. Students will complete a variety of short guided projects designed to acquaint them with the main elements of animation. Screenings and discussions will provide a conceptual and historical framework for the exercises.
Note: Freshmen are strongly encouraged to apply. Drawing skills are helpful for this course.

[*Visual and Environmental Studies 54r. Life Stories: Introductory Studio Course]
Catalog Number: 6487 Enrollment: Limited to 10.
Alfred F. Guzzetti
Half course (fall term). Hours to be arranged.
Explores the opportunities offered by moving pictures and sound to present nonfiction life stories—biography, autobiography, and diary. Introductory exercises in small-format video lead to a final project of the student's own design. Production work is supplemented by study and discussion of selected films and videotapes.
Note: Expected to be given in 2005–06.

***Visual and Environmental Studies 55r. Personal Documentary: Introductory Studio Course**
Catalog Number: 0647 Enrollment: Limited to 10.
Gina Kim
Half course (fall term). Tu., Th., 1–4.
Students, in search of original and innovative ways of self-representation, create confessional and/or performative portraits of the self, using digital video. Classes include screening of selected videotapes and personal documentaries as well as discussions and critiques of each participant's work.

***Visual and Environmental Studies 58r. 2D Digital Animation: Introductory Studio Course**
Catalog Number: 0562 Enrollment: Limited to 10.
Lorelei M. Pepi
Half course (spring term). W., 1–5, Screenings: F., 1–3.
Introduces basic software interfaces, generation of 2D digital artwork, and non-linear approaches to animation through a series of exercises. Emphasis is placed on concept and application as the student explores a variety of approaches to the 2D digital animation process. Demonstrations and book tutorials will be used for instruction, as well as guided lab exercises for in-class learning. Aside from general exercises, students will be assigned one final project.
Note: Freshmen are strongly encouraged to apply. Prior knowledge in the basics of Photoshop is necessary. Knowledge of Illustrator is helpful but not required. No experience is necessary in After Effects or Flash.

***Visual and Environmental Studies 60r. Digital Expression: Studio Course**
Catalog Number: 7926 Enrollment: Limited to 12.
Jeffrey Huang (Design School) and Muriel Waldvogel
Half course (fall term). Th., at 11 and 1–4.
Introduces the student to digital media principles, techniques and concepts through a series of expressive exercises. With a strong emphasis on the interactive character of digital media, we construct a basic vocabulary for future projects in digital media. The course culminates in the development of an interactive installation as a final project.
Prerequisite: At least one VES half-course or permission of the instructor.

***Visual and Environmental Studies 61r. Physical Computing: Studio Course**
Catalog Number: 4096 Enrollment: Limited to 12.
Benjamin Fry
Half course (spring term). Th., at 11 and 1–4.
This studio course provides students with an applied and theoretical understanding of the making of interactive sculptures and environments. The course will look into the various dimensions of interactive experiencing, the use of the senses of the body in digital media, and the articulation of ideas through spatial instruments, sensors and actuators embedded in physical matter.
Prerequisite: At least one VES half-course or permission of the instructor.

***Visual and Environmental Studies 96r. Directed Research: Studio Course**
Catalog Number: 7299 Enrollment: Limited to 12.
Stephen Prina
Half course (fall term; repeated spring term). W., 1–4 and 6–9 pm.
This course is intended for students who have developed the beginnings of a practice that they are prepared to pursue. The motive is to assemble a group of disparate makers who come together to exchange thoughts across disciplines: painting next to photography next to writing next to filmmaking, and so on.
Note: Recommended for VES concentrators in their junior and senior year but also open to sophmores with permission of the instructor.

Seminars for Studio Concentrators

***Visual and Environmental Studies 90a. Context and Critique: Linkup**
Catalog Number: 0780 Enrollment: Limited to 12.
Annette Lemieux
Half course (fall term). Th., 6–9 pm. EXAM GROUP: 18
Through group critiques this class will focus on the student's independent studio work. Current contemporary art being produced in today's art world will be presented with slides, videos, related writings, and informal discussions.
Note: Primarily intended for junior and senior VES concentrators but others admitted with permission of the instructor. It is strongly suggested that VES concentrators take a seminar in the Junior year.

***Visual and Environmental Studies 90b. Context and Critique: 1977**
Catalog Number: 8161 Enrollment: Limited to 12.
Stephen Prina
Half course (spring term). Th., 6–9 pm. EXAM GROUP: 18
The year 1977 offers two exhibitions for our review: *Europe in the 70s: Aspects of Recent Art* and *Pictures,* both central to an understanding of current art practices. One is an historical survey, the other, an assessment of then current art made in New York City. Documentation of the work in the respective exhibitions, in addition to the discursive forms that surround them, will be the material that this seminar will process.
Note: Primarily intended for junior and senior VES concentrators but others admitted with permission of the instructor. It is strongly suggested that VES concentrators take a seminar in the Junior year.

Tutorials, Projects, and Research

Tutorial proposals will be considered by the Director of Undergraduate Studies only upon written permission of the project adviser and if the material to be covered is substantially different from other departmental offerings.
***Visual and Environmental Studies 91r. Supervised Studio Work, Special Projects, Reading and Research**
Catalog Number: 9183
Paul Stopforth and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Individual instruction in subjects of special interest that cannot be studied in regular courses. Students wishing to enroll in VES 91r must petition the Director of Undergraduate Studies for approval, stating the proposed project and must have the permission of the proposed project tutor. Not to be taken with visiting faculty in residence for one term.
Note: Letter-graded only.

***Visual and Environmental Studies 97r. Tutorial — Sophomore Year**
Catalog Number: 0450
Paul Stopforth and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Individual instruction in subjects of special interest that cannot be studied in regular courses. Students wishing to take a tutorial in their Sophomore year must petition the Director of

Undergraduate Studies for approval stating the proposed project and must have the permission of the proposed project tutor. Not to be taken with visiting faculty in residence for one term.
Note: Optional for sophmore concentrators. Letter-graded only.

***Visual and Environmental Studies 98r. Tutorial — Junior Year**
Catalog Number: 1411
Paul Stopforth and members of the Department
Half course (fall term; repeated spring term). Hours to be arranged.
Individual instruction in subjects of special interest that cannot be studied in regular courses. Students wishing to take a tutorial in their Junior year must petition the Director of Undergraduate Studies for approval stating the proposed project and must have the permission of the proposed project tutor. Not to be taken with visiting faculty in residence for one term.
Note: Optional for junior concentrators. Letter-graded only.

***Visual and Environmental Studies 99. Tutorial — Senior Year**
Catalog Number: 5141
Paul Stopforth and members of the Department
Full course. Hours to be arranged.
The Director of Undergraduate Studies must approve all VES 99 projects and must have permission of the proposed project tutor before being considered.
Note: Optional for senior concentrators. Letter-graded only. Students must be enrolled in VES 99 to do a thesis.

For Undergraduates and Graduates

Visual and Environmental Studies 100. Currents: Contemporary Art from 1960 to Yesterday
Catalog Number: 0683
Lelia Amalfitano
Half course (fall term). Tu., 4–6 and sections to be arranged. EXAM GROUP: 18
An overview of the visual arts from 1960, and resulting ideological and pragmatic implications shaping artistic expression today. Slide lectures, readings and discussions will demonstrate the evolution of visual syntax, the variety of contemporary art practices, and conceptual frameworks. Attention is also given to ephemeral, less documented forms of art. Intended to introduce students to recent contemporary thought and process for application in their own investigations.

***Visual and Environmental Studies 102. Examining the Artistic Process: Seminar**
Catalog Number: 6210 Enrollment: Limited to 12.
Lelia Amalfitano
Half course (spring term). Tu., 4–6. EXAM GROUP: 18
Covering contemporary theoretical concerns together with the practices of art, students will engage what is topical in today's art world. Students will be expected to develop a clear understanding of their own practice and to develop the focus necessary to pursue independent work. Topics for discussion will include the relationship of artistic process to the mode of presentation, the shifting boundaries of new media, and the location of audience.
Note: Critiques of current student work will be an integral part of this course.

Visual and Environmental Studies 106. Architecture, Science, and Technology: 18th Century to the Present
Catalog Number: 6986
Antoine Picon (Design School)
Half course (fall term). Tu., Th., 11–12:30. EXAM GROUP: 13, 14
Since the first industrial revolution, science and technology have constantly challenged architecture. Technology in particular has represented a powerful source of change for architecture. New materials and structural types have emerged, inducing dramatic changes in the definition of the architectural discipline. From iron construction to digital architecture, the course will study important episodes in this two-century history, for science and technology have not only fostered changes in building techniques, they have shaped architectural culture.
Note: Offered jointly with the School of Design as 4355.

***Visual and Environmental Studies 107. Studies of the Built North American Environment since 1580**
Catalog Number: 7883 Enrollment: Limited to 20.
John R. Stilgoe
Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
North America as an evolving visual environment is analyzed as a systems concatenation involving such constituent elements as farms, small towns, shopping malls, highways, suburbs, and as depicted in fiction, poetry, cartography, television, cinema, and advertising and cybernetic simulation.
Note: Offered jointly with the Graduate School of Design as 4105.

Visual and Environmental Studies 108ab. Alternative Constructions: Introduction to the History and Theory of Architecture
Catalog Number: 1588
K. Michael Hays (Design School) and Christine Smith (Design School)
Half course (fall term). Tu., Th., 11–12:30. EXAM GROUP: 13, 14
An in-depth consideration of selected topics of enduring relevance for the history, theory, and practice of architecture. The first half of the course introduces foundational ideas in the Western European intellectual tradition from Plato to Palladio, examining concepts such as wonder, knowledge, authority and originality, fabrication, and beauty. The second half treats the intellectual traditions of Kant, Hegel, Marx, and Freud up to Derrida and Deleuze.
Note: Offered jointly with the Graduate School of Design as 4201-M1/4202-M2. Ideally followed with VES 108cd.

Visual and Environmental Studies 108cd (formerly Visual and Environmental Studies 108). Architectural History: Romanticism through Modernism
Catalog Number: 5930
Antoine Picon (Design School) and Eve Marion Blau (Design School)
Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 13, 14
The first half of the term charts the emergence of rationalism and neo-classicism, as well as the impact of the industrialization, professionalization, and institutionalization of architecture and urbanism. The second half focuses on modernism—its codification, representation, and dissemination—and emphasizes its multiple political, social, and cultural dimensions.

Note: Offered jointly with the Graduate School of Design as 4203-M3/4204-M4. Ideally followed with VES 108ef.

Visual and Environmental Studies 108ef. Contemporary Architecture Since 1945
Catalog Number: 5140
K. Michael Hays (Design School)
Half course (fall term). M., 11–2:30 for first half of term; Tu., Th., 11-12:30 for second half of term. EXAM GROUP: 4, 5
The first half of this course examines the transformations in architectural design and theory since World War II, with particular attention to the period 1968 to the present. The second half introduces the primarily textual material that has constituted the discourse of architectural theory since World War II.
Note: Offered jointly with the Graduate School of Design as 4205-M1/4206-M2

***Visual and Environmental Studies 110r. Independent Directions in Drawing: Studio Course**
Catalog Number: 1012 Enrollment: Limited to 12.
Katy Schimert
Half course (spring term). Th., 1–5.
This course examines alternative methods and traditions for making drawings, focusing on the activity of drawing as a thinking tool. The class is intended for students working in all media and will specifically engage practices that are not traditionally associated with drawing such as photography, video, sculpture, performance, and installation. Projects will include drawing within a camera, as a series of notes, in space, on the wall, as well as the traditional mediums on paper.
Prerequisite: At least one VES half-course in drawing or permission of the instructor.

***Visual and Environmental Studies 113r. Altered Landscapes: Studio Course**
Catalog Number: 7020 Enrollment: Limited to 12.
Paul Stopforth
Half course (fall term). Tu., 1–4 and 6–9 pm.
Traveling to a selected site off campus, students will explore an area with a view to altering the space using a variety of means, none of which will be harmful to the environment. Drawings, photographs, films, or videos of the altered landscapes will be made, and along with additional materials gathered at the site, will function as sources and points of departure for a series of extended drawings in a wide variety of graphic media.
Prerequisite: At least one VES half-course in drawing, or permission of the instructor.

***Visual and Environmental Studies 121r. Eye of the Beholder: Studio Course**
Catalog Number: 2478 Enrollment: Limited to 12.
Judie Bamber
Half course (fall term). Th., 1–4 and 6–9 pm.
This course focuses on developing technical skills and conceptual ideas as they relate to the practice of painting from observation. Through a series of assignments, weekly readings, slide shows, and group discussions, the class will consider what it means to be making paintings from observation at the beginning of the 21st century. At the same time, working from still-life set-ups

and photographs, students learn to develop their existing painting skills to realize more convincing representations.
Note: Attendance at Thursday evening Carpenter Center Lecture Series is required.
Prerequisite: At least one VES half-course in painting or permission of the instructor.

***Visual and Environmental Studies 122r. Different Light, Different Space: Studio Course**
Catalog Number: 6915 Enrollment: Limited to 12.
Stephen Mueller
Half course (spring term). M., 1–4 and 6–9 pm.
Though the ethos of painting in the 21st century is one of "anything goes," the fundamental tools of the craft remain constant. It is the intention of the class to expand the scope of possibilities of working with paint. Properties of good design will be discussed as well as encouraging and discouraging the qualities of paint (i.e. opacity, transparency, and surface qualities) in order to arrive at a technique appropriate for and related to meaning.
Note: In addition to all of the assignments, students will be expected to keep a sketch book journal of visual ideas, thoughts and observations.
Prerequisite: At least one VES studio half-course.

***Visual and Environmental Studies 123r. Post Brush: Studio Course**
Catalog Number: 7463 Enrollment: Limited to 12.
Annette Lemieux
Half course (spring term). M., W., 1–4.
Using the silkscreen printing process and other mechanical methods, students will create paintings that incorporate images, text, and objects found in popular culture. Through slides, videos, related readings, and informal discussions, students will be introduced to the Pop artists of the 20th century as well as contemporary painters (Johns, Kusama, Lichtenstein, Marison, Rauschenberg, Riley, Wesselmann, Warhol).
Prerequisite: At least one VES studio half-course or permission of the instructor.

[*Visual and Environmental Studies 125r. Painting Memory: Studio Course]
Catalog Number: 1170 Enrollment: Limited to 12.

Half course (spring term). Hours to be arranged.
We focus on the concept of memory to develop a spontaneous approach to painting. We examine the individual student's needs through hands-on studio experience. This includes sketching, drawing, preparatory and finished canvases. In order to complete a number of paintings, students will focus on memory as the basis for subject matter. Analysis of stylistic, compositional, and aesthetic issues related to the individual painting's potential context in contemporary art are discussed.
Note: Expected to be given in 2005–06.
Prerequisite: At least two half-courses in painting, or permission of the instructor.

***Visual and Environmental Studies 130r. Making Sculpture Through Intimate Understanding: Studio Course**
Catalog Number: 7882 Enrollment: Limited to 12.
Katy Schimert

Half course (fall term). Th., 1–5:30.
This class provides an opportunity for students to develop a set of interests and impulses associated with making sculpture. Through a series of projects we will focus on the nature of sculpture and its evolution in the late 20th century. The course will include projects about the body, the object, light, space, color, and time and will present methods for developing an intimate relationship with the activity of making art and an understanding of why it is being made.
Prerequisite: At least one VES studio half-course in three-dimensional artmaking or sculpture or equivalent, or permission of the instructor.

[*Visual and Environmental Studies 135r. Building Thought: Studio Course]
Catalog Number: 3398 Enrollment: Limited to 12.
Annette Lemieux
Half course (fall term). Hours to be arranged.
Using a variety of materials and methods, students will build and create art-works that reflect their ideas, with an emphasis and understanding of the language of images, materials, forms, actions, and presentation. Via slides, videos, related readings, and informal discussions students will be introduced to the concerns of conceptual artists of the 20th century to the present.
Note: Expected to be given in 2005–06.
Prerequisite: At least one VES studio half-course or permission of the instructor.

***Visual and Environmental Studies 137. Lay of the Land: Studio Course**
Catalog Number: 3090 Enrollment: Limited to 12.
Stephen Prina
Half course (fall term). Tu., Th., 1–4.
The pursuit of and response to the horizontal in art will be the focus of this studio class. To cite a few examples, abstract expressionist painting, cartography, earthworks, landscape photography, 19th—century German Romantic landscape painting, and Rayograms will provide models of the horizontal that will be points of departure for studio projects, the forms of which will be determined by what the investigation provides. Students will shift medium from project to project.
Note: Expected to be omitted in 2005–06.
Prerequisite: At least one VES studio half-course or permission of the instructor.

[*Visual and Environmental Studies 138. Take It Public: Studio Course]
Catalog Number: 3695 Enrollment: Limited to 12.
Stephen Prina
Half course (spring term). Hours to be arranged.
Poster work done on the street, interventionist spectacles, speeches at dinner, the intellectual journal are all considered viable forms for the distribution of art, in addition to the clean, well-lighted space where a different set of conventions is engaged. What is entailed in the mounting of an exhibition? What about the politics of lighting? A press release? All epiphenomenal, as well as so-called central, conditions are within the range of possible debate for this class.
Note: Expected to be given in 2005–06.
Prerequisite: At least one VES studio half-course or permission of the instructor.

[*Visual and Environmental Studies 140r. Color Photography: Studio Course]
Catalog Number: 0842 Enrollment: Limited to 12.

Half course (fall term). Hours to be arranged.
A comprehensive introduction to photographing in color. The emphasis of the course will be on producing a body of photographic work using color, negative, and print technology. Attention will also be paid to color transparency materials, color theory, and the history of color photography over the last 25 years. A brief introduction to digital photography will also be included.
Note: Expected to be given in 2005–06.
Prerequisite: VES 40a or VES 40b or equivalent preparation (portfolio presentation).

***Visual and Environmental Studies 142r. Photography and the Landscape: Studio Course**
Catalog Number: 4374 Enrollment: Limited to 12.
Frank Gohlke
Half course (spring term). Tu., Th., 8:30–11:30.
An exploration of the relationship between photography and our perceptions of our surroundings. In addition to individual and group assignments, there will be field sessions: a survey of the history of landscape photography; discussions of contemporary issues; class visits from working artists, scholars, and naturalists; and regular critiques of students' photographs. Culminates in the creation of a portfolio that embodies a potent and informed response to a place.
Prerequisite: VES 40a or VES 40b or equivalent preparation (portfolio presentation).

[*Visual and Environmental Studies 143r. The Photographer as Auteur: Studio Course]
Catalog Number: 2835 Enrollment: Limited to 12.

Half course (spring term). Hours to be arranged.
Explores the way in which some photographic practitioners have questioned accepted photographic conventions and are rejecting the historical orthodoxy in favor of a more subjective statement. Each student is expected to complete a major photographic project that reveals his or her own personal photographic style and preoccupations while still retaining a direct and discernable relationship to the subject.
Note: Expected to be given in 2005–06.
Prerequisite: VES 40a or VES 40b or equivalent preparation (portfolio presentation).

***Visual and Environmental Studies 146r. The Photographic Portrait: Studio Course**
Catalog Number: 5743 Enrollment: Limited to 12.
Malerie Marder
Half course (fall term). Tu., 6–9 pm; W., 1–4.
An examination of the practical, sociological, historical, and aesthetic issues surrounding portrait photography in parallel with the active participation of each student in his/her own photographic project.
Prerequisite: VES 40a or VES 40b or equivalent preparation (portfolio presentation).

***Visual and Environmental Studies 147r. Conceptual Strategies in Photography: Studio Course**

Catalog Number: 2011 Enrollment: Limited to 12.
Jacqueline Hassink
Half course (fall term). W., 6–9 pm; Th., 1-4.
There has been a shift from the traditional notion of art work to the idea of art project. The art project could be understood as a concept structured in a constellation of different but independent elements, in which the author is able to master not only the implicit creative aspects but also a certain social dimension. We deal with the sequential steps of a photography project: creative conception, documentation, practical realization, and critical evaluation.
Prerequisite: VES 40a or VES 40b or equivalent preparation (portfolio presentation).

[*Visual and Environmental Studies 148r. Photofictions: Seminar/Workshop]
Catalog Number: 2429 Enrollment: Limited to 12.

Half course (fall term). Hours to be arranged.
Debates the notion of truth in photography and the discredit of hegemonic documentary models. Issues such as credibility, veracity, and authenticity related to visual information examined from the points of view of ethics and semiotics. Surveys historic and contemporary photographers whose work has questioned documentary approaches from epistemological or political perspectives. Special focus on “mockumentary” as ironical attitude in both film and still photography, and on the impact of digital media onto collective consciences.
Note: Expected to be given in 2005–06.
Prerequisite: VES 40a or VES 40b or equivalent preparation (portfolio presentation).

***Visual and Environmental Studies 150ar. Film Production: Intermediate Studio Course**
Catalog Number: 4692 Enrollment: Limited to 12.
Gina Kim
Half course (fall term). M., W., 1–4.
Technical training in 16mm film production and sound recording, including editing and preparation for sound mix. Students will write scripts for their spring term film.
Prerequisite: VES 50.

***Visual and Environmental Studies 150br. Film Production: Intermediate Studio Course**
Catalog Number: 3934 Enrollment: Limited to 12.
Gina Kim
Half course (spring term). M., W., 1–4.
Students will prepare, shoot, and edit a short film (8 to 10 minutes) based on a script developed in the fall term.
Prerequisite: VES 150ar.

[*Visual and Environmental Studies 151r. Intermediate Video Workshop: Studio Course]
Catalog Number: 2633 Enrollment: Limited to 10.

Half course (fall term). Hours to be arranged.
Experiments and exercises designed to explore the nature and capabilities of small-format videotape, leading to the realization of an extended individual or collaborative project.

Note: Expected to be given in 2005–06.
Prerequisite: One VES half-course in video production.

***Visual and Environmental Studies 152r. Intermediate Video Workshop: Studio Course**
Catalog Number: 8012 Enrollment: Limited to 10.
Alfred F. Guzzetti
Half course (spring term). F., 1–5:30.
An extended nonfiction or experimental video project of the student's design, supplemented by brief exercises aimed at exploring the capabilities of the medium.
Note: Students seeking to enroll should come to the first class meeting with a proposal for a video project to be completed in the course.
Prerequisite: One VES half-course in video production.

***Visual and Environmental Studies 153ar (formerly *Visual and Environmental Studies 156ar). Intermediate Animation: Studio Course**
Catalog Number: 5211 Enrollment: Limited to 10.
Lorelei M. Pepi
Half course (fall term). W., 1–5, Screenings: F., 1–3.
Building on basic knowledge gained in VES 53a, each student will produce a single animation project. Our study also includes more advanced animation techniques and exercises with emphasis on storyboarding, timing, and sound design. Screenings and discussions play an important role.
Note: First meeting on Tuesday, September 21, 6–9 pm in Sever 404–Animation Studio.
Prerequisite: At least one VES half-course in animation.

***Visual and Environmental Studies 154r (formerly *Visual and Environmental Studies 156cr). Animation Workshop: Studio Course**
Catalog Number: 5240 Enrollment: Limited to 10.
Piotr Dumala
Half course (spring term). Th., 1–5, Screenings: F., 1–3.
An investigation of frame-by-frame filmmaking through a series of exercises which will culminate in the production of a short animation project. Screenings and discussions will play an important role.
Prerequisite: At least one VES half-course in animation; drawing skills are necessary.

[*Visual and Environmental Studies 159. Film Theory/Film Practice]
Catalog Number: 2551 Enrollment: Limited to 12.
Despina Kakoudaki and Robb Moss
Half course (spring term). Hours to be arranged.
Alternating between analysis and production, this course will explore the ways in which the theoretical and the practical influence each other in the thinking about and the making of motion pictures.
Note: Expected to be given in 2005–06.

***Visual and Environmental Studies 160. Modernization in the Visual United States Environment, 1890-2035**

Catalog Number: 6668 Enrollment: Limited to 20.
John R. Stilgoe
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
Modernization of the US visual environment as directed by a nobility creating new images and perceptions of such themes as wilderness, flight, privacy, clothing, photography, feminism, status symbolism, and futurist manipulation as illustrated in print-media and other advertising enterprise.
Note: Offered jointly with the Graduate School of Design as 4303.
Prerequisite: VES 107 or permission of the instructor.

Visual and Environmental Studies 164. History of Landscape Architecture: Antiquity to 1800
Catalog Number: 0960
Miroslava M. Benes (Design School)
Half course (fall term). M., W., 10:30–12. EXAM GROUP: 3, 4
Surveys the history of gardens and landscape design primarily in the Western world and the beginning of the modern profession of landscape architecture. For each society and culture considered, the course seeks to set forth the relations found among designed forms, the determining political and economic structures, and parallel artifacts and activities such as cartography, landscape painting, and urbanism. Particular attention is paid to changes in territorial organization around urban centers, from feudal to capitalist societies.
Note: Offered jointly with the Graduate School of Design as 4109.

***Visual and Environmental Studies 166. North American Seacoasts and Landscapes, Discovery to Present: Seminar**
Catalog Number: 5873
John R. Stilgoe
Half course (fall term). Tu., 1–3 and an hour to be arranged. EXAM GROUP: 15, 16
Selected topics in the history of the North American coastal zone, including the seashore as wilderness, as industrial site, as area of recreation, and as artistic subject; the shape of coastal landscape for conflicting uses over time; and the perception of the seashore as marginal zone in literature, photography, painting, film, television, and advertising.
Note: Offered jointly with the Graduate School of Design as 4304.
Prerequisite: VES 107 and VES 160, or permission of the instructor.

***Visual and Environmental Studies 167. Adventure and Fantasy Simulation, 1871-2036: Seminar**
Catalog Number: 4902
John R. Stilgoe
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
Visual constituents of high adventure since the late Victorian era, emphasizing wandering woods, rogues, tomboys, women adventurers, faerie antecedents, halflings, crypto-cartography, Third-Path turning, martial arts, and post-1937 fantasy writing as integrated into contemporary advertising, video, computer-generated simulation, and private and public policy.
Note: Offered jointly with the Graduate School of Design as 4305.
Prerequisite: VES 107, VES 160, and VES 166, or permission of the instructor.

Visual and Environmental Studies 168 (formerly Visual and Environmental Studies 171). Theories and Practices of Contemporary Landscape Architecture: 1950 to the Present
Catalog Number: 3978
John Beardsley (Design School)
Half course (spring term). Tu., 11:30–1, W., 11:30–2. EXAM GROUP: 4, 5, 6, 13, 14
Practice, according to Garrett Eckbo, is "knowing how to do something; theory is knowing why." We explore the "know why" of landscape architecture since the Second World War, juxtaposing both the built works and the writings of landscape architects with texts that address the discipline's larger theoretical cultural contexts. Within this broad framework, we examine a series of topics, including, the quest for a modern language for landscape architecture in the 1950s and 1960s.
Note: Offered jointly with the Graduate School of Design as 3102.

Visual and Environmental Studies 170a. Introduction to Visual Studies and Film Analysis
Catalog Number: 4249
D. N. Rodowick
Half course (fall term). Tu., Th., at 12, Screenings: W., 4–6; Weekly sections to be arranged. EXAM GROUP: 14
An introduction to the study of film with a focus on developing critical and formal analytical skills. Through readings and screenings of a broad range of films, the class examines the primary visual, aural, and narrative conventions by which motion pictures create and comment upon significant social experience. Issues of mise-en-scène, framing, image composition, photographic space, editing, sound, narrative structure, and point of view will be discussed as components of cinematic style and meaning.
Note: Required for all students concentrating in Film Studies.

Visual and Environmental Studies 171h. Histories of Cinema I: Moving Pictures from the 1890s to the 1930s
Catalog Number: 1971
Despina Kakoudaki
Half course (fall term). M., W., at 11, Screenings: Tu., 4–6; Weekly sections to be arranged. EXAM GROUP: 4
An introductory course in the history of the first decades of cinema. Focuses on the relationship of early moving pictures to other visual technologies, representational and narrative experiments and traditions, the development of venues and audiences for this new art form, and the work of major early studios and filmmakers.
Note: No background in film history or theory required. Required for all students concentrating in Film Studies.

Visual and Environmental Studies 172h (formerly Visual and Environmental Studies 171x). Histories of Cinema II: Sound, Space, and Image to 1960
Catalog Number: 6997
J. D. Connor
Half course (spring term). M., W., at 11, Screenings: Tu., 4-6; Weekly sections to be arranged. EXAM GROUP: 4
An introductory course in the history of the sound film covering major transformations

(technological, industrial, social, narrative, political, and identitarian) and landmark films from the advent of synchronized dialogue to the end of the classical studio era.
Note: No background in film history or theory required. Required for all students concentrating in Film Studies.

Visual and Environmental Studies 173x. American Film Criticism
Catalog Number: 3785
Elvis Mitchell
Half course (spring term). Th., 1–4. EXAM GROUP: 15, 16, 17
Designed to acquaint those daring enough to immerse themselves in the discipline of film criticism with the rigorous thinkers—Manny Farber, Pauline Kael, Parker Tyler, Andrew Sarris—who fashioned the field as we've come to know it. And also a generous soaking of those writers who toiled briefly, but memorably, in criticism—James Agee, James Baldwin and Graham Green—and made an impact not quite as well recognized but certainly noteworthy.

***Visual and Environmental Studies 175a. Autobiography and Film: Seminar**
Catalog Number: 3084
Dominique Bluher
Half course (spring term). Th., 1–3, Screenings: W., 4–6. EXAM GROUP: 15, 16
Cinema offers many ways of telling one's own story which range from fictional features to essay films and works that use found footage. This seminar examines film history's various modes of autobiographical discourse in the context of philosophical and psychoanalytic considerations of the self as well as of experiments in literary and pictorial self-representation.

[*Visual and Environmental Studies 176x (formerly *Literature 117). Studies in Film Genre: Melodrama]
Catalog Number: 8770 Enrollment: Limited to 40.
Despina Kakoudaki
Half course (spring term). Hours to be arranged.
In this class we will develop a historical and theoretical framework for studying melodrama. We will start from the evolution of early film melodrama and its relationship to popular theater, and trace the generic conventions of the mode as they change through the century: in silent melodramas, classical Hollywood formulas and "women's movies," and contemporary revisions—often in surprising places (for example in action and disaster films).
Note: Expected to be given in 2005–06. No background in film history or theory required.

Visual and Environmental Studies 177 (formerly Comparative Literature 183). Film and the Human Body
Catalog Number: 8403
Despina Kakoudaki
Half course (spring term). Th., 4–6, Screenings: M., 3–6. EXAM GROUP: 18
This class explores the challenges of representing the human body on film. Working through a variety of traditions and theoretical models, we will study the cinematic body as a presence and as a surface, and think about how it reflects our assumptions about interiority, potentiality, emotional content, transformability, and resilience. We will address issues of gender, race, and

sexuality through feminist, phenomenological, and post-structuralist film theory.
Note: No background in film history or theory required.

Visual and Environmental Studies 180 (formerly *Visual and Environmental Studies 154ar). The Moving Image: Film, Modernity, and Visual Representation
Catalog Number: 2874
Giuliana Bruno
Half course (fall term). Th., 10–11:30, Screenings: W., 7-9 pm; Weekly sections to be arranged. EXAM GROUP: 12, 13
This survey of film history looks at major 20th century ideas on film, art, and perception. It looks at "motion" pictures as a product of modernity, born of specific motion studies, as well as aesthetic and cultural mobility. It relates film to changes in our experience of visual space and follows the evolution of cinema as a technique of observation. The selected films engage aspects of cultural movement including home(land), cityscape, voyage, and socio-sexual space.
Note: Recommended as preparation for VES 182 and VES 183 or 185.

Visual and Environmental Studies 181 (formerly *Visual and Environmental Studies 154br). Frames of Mind: Approaches to Film Theory
Catalog Number: 0648
Giuliana Bruno
Half course (spring term). Th., 10–11:30, Screenings: W., 7-9 pm; Weekly sections to be arranged. EXAM GROUP: 12, 13
Introduction to the language of film theory, aimed at developing analytic skills to interpret films. A historical survey that spans turn-of-the-century scientific motion studies to the emotion studies of Hugo Münsterberg, and reaches the virtual movements of our new millennium. Considers Eisenstein's theory of montage, the cultural history of the cinematic apparatus, and the body of physical existence, going from Kracauer to gender studies. Different theoretical positions open up our understanding of films, and guide us in reading them.
Note: Recommended as preparation for VES 182 and VES 183 or 185. Offered jointly with the Graduate School of Design as 4132.

***Visual and Environmental Studies 182 (formerly *Visual and Environmental Studies 155ar). Film Architectures: Seminar**
Catalog Number: 6864 Enrollment: Limited to 12.
Giuliana Bruno
Half course (fall term). W., 2–4, Screenings: Tu., 7–9 pm. EXAM GROUP: 7, 8
What is our experience of architecture in cinema? Considering the relation of these two arts of space, we look at how film and architecture are linked in history on the "screen" of the modern age. Highlighting the interaction of modernity, urban culture, and cinema, we explore the architecture of film in relation to the architectures of transit and the culture of travel. Emphasis on readings and case study analysis to pursue research projects and make presentations.
Note: Active participation in seminarial endeavors is required. Ideally followed with VES 183 or VES 185. Offered jointly with the Graduate School of Design as 4351.
Prerequisite: A course in film studies or the equivalent course in cultural studies.

[*Visual and Environmental Studies 183 (formerly *Visual and Environmental Studies 155br). A Cultural Study of Film: Mapping and Fashioning Space: Seminar]
Catalog Number: 7760 Enrollment: Limited to 12.
Giuliana Bruno
Half course (spring term). Hours to be arranged.
The impulse to map (ourselves) is a major drive of contemporary visual culture. Since Fredric Jameson's call for "cognitive mapping", and artists' return to the art of mapping, cultural studies regard mapping as a critical navigational route. Our cultural history of film looks at this moving field. How does the moving image participate in the shifting architectonics of visuality, space, and the body? How is the body "fashioned" in inner and outer space?
Note: Expected to be given in 2005–06. Active participation in seminarial endeavors is required. May be taken as a continuation of VES 182. Offered jointly with the Graduate School of Design as 4352.
Prerequisite: A course in film studies or the equivalent course in cultural studies.

[*Visual and Environmental Studies 184. Imagining the City: Literature, Film, and the Arts]
Catalog Number: 5736
Giuliana Bruno and Svetlana Boym
Half course (spring term). Hours to be arranged.
How do visual representation and narrative figuration contribute to construct urban identity? Explores the urban imagination in different artforms: architecture, cinema, literature, photography, and painting. Topics to be mapped out include: cities and modernity, metrophilia and metrophobia, the museum and cultural archaeology, the ruin and the construction site, interior space and public sphere, technology and virtual cities. The montage of imaginary cities traverses aspects of Paris, Tokyo, Berlin, Moscow, Rome, St. Petersburg, New York, Naples, Shanghai, and Hong Kong.
Note: Expected to be given in 2005–06.

***Visual and Environmental Studies 185x. Texture Analysis: Film, Fashion, and Material Culture: Seminar**
Catalog Number: 1575 Enrollment: Limited to 12.
Giuliana Bruno
Half course (spring term). W., 2–4, Screenings: Tu., 7–9 pm. EXAM GROUP: 7, 8
Film and fashion are most powerful image-makers. They are prime agents of visual expression and objects of material culture. They share a role in conveying identity, commanding identification, creating narratives, and shaping visual trends. Seminar explores their common language. Looks at the culture of fashion and considers both fashion and film as cultural "fabric." Explores, in particular, the current intersection of fashion with contemporary visual arts.
Note: Reading in history and theory of the media will be accompanied by film analysis. Seminar will conduct a close text(ur)al analysis of *In the Mood for Love*, a film by Wong Kar-Wai.
Prerequisite: A course in film studies or the equivalent course in cultural studies.

[Visual and Environmental Studies 187x. New German Cinema: Oppositional Energies and Utopian Designs]

Catalog Number: 1196
Eric Rentschler
Half course (fall term). Hours to be arranged.
In 1962 twenty young German directors announced their resolve to revive a moribund national film culture. “New German Cinema” would gain acclaim in the 1970s for interventions marked by subversive narrative strategies and unique formal approaches. We will examine features, shorts, and documentaries by Fassbinder, Herzog, Kluge, Schlöndorf, Straub/Huillet, von Trotta, and Wenders, probing these films’ aesthetic shapes as well as their socio-political and theoretical implications.
Note: Expected to be given in 2005–06. No knowledge of German required. Readings, films, and discussions in English.

Visual and Environmental Studies 188k. Korean Cinema
Catalog Number: 1547
Gina Kim
Half course (spring term). M., W., at 10, Screenings: M., 7–9 pm: Weekly section to be arranged. EXAM GROUP: 3
An introduction to the world of Korean cinema focusing on the diverse aesthetic strategies of prominent Korean filmmakers. The class will draw examples from neo-realistic representations of turbulent Korean society after the Korean war (1950-1953) by Yu Hyon-mok, horror films by Kim Ki-yong that allegorize the disintegration of masculinity and patriarchy in the 1970s, emotional exploitations of human relationships by Jang Sun-woo in the 80s, and brutally painful portraits of degraded intellectuals by Hong Sang-soo in the 90s.
Note: No knowledge of Korean required.

[Visual and Environmental Studies 189r. (Trans)Cultural Cinema: Aesthetics, Ideology, and Cultural Difference in Nonfiction Filmmaking]
Catalog Number: 9619
Lucien G. Taylor
Half course (fall term). Hours to be arranged.
Analyzes ways that nonfiction filmmakers have sought to represent and evoke culture from the turn of the 20th century to the present. Film screenings illuminate the relationship between individual subjectivity, human existence, and cultural difference. Considers problems and prospects of different modalities and traditions of filmmaking, including “ethnographic,” “indigenous,” and “diasporic.” Students will research and undertake pre-production archival research, interviews, participant observation, and even preliminary videography, sound recording, or still photography (as projects require).
Note: Expected to be given in 2005–06.

Visual and Environmental Studies 190f. Contemporary French Cinema
Catalog Number: 7722
Dominique Bluher
Half course (fall term). Tu., 1–3, Screenings: M., 4–6. EXAM GROUP: 15, 16
Since the 1980s a new generation of independent filmmakers has emerged in France. After examining the cultural and economic contexts for film production in France today, we will study works by a variety of individual directors who have been instrumental in creating new

approaches to cinematic narrative, form, and style.
Note: No knowledge of French required.

***Visual and Environmental Studies 191. From Cinematic to Digital Culture: Seminar**
Catalog Number: 4983 Enrollment: Limited to 12.
D. N. Rodowick
Half course (spring term). M., 1–3, Screenings: Hours to be arranged. EXAM GROUP: 6, 7
Visual culture in the 20th century has been dominated by cinema as a "cultural interface"—a technological organization of space and perception, of structuring time and narrating stories—whose basis, many have argued, is a photographic ontology. In the past 20 years, however, digital technologies have begun to replace the photographic in the creation of film images. We investigate the complex and variegate relationship between cinema and new media as "cultural interfaces."
Prerequisite: Introduction to Visual Studies and Film Analysis or equivalent, or permission of the instructor.

***Visual and Environmental Studies 192r (formerly *Visual and Environmental Studies 192). Philosophy and Film: Seminar**
Catalog Number: 5659 Enrollment: Limited to 12.
D. N. Rodowick
Half course (spring term). Tu., 1–3, Screenings: Hours to be arranged. EXAM GROUP: 15, 16
Devoted to close readings of writings on film by the philosopher Gilles Deleuze in the context of his other philosophical works. The primary focus will be Deleuze's two volume work, *Cinema 1: the Movement-Image* and *Cinema 2: the Time-Image*, along with his occasional texts and interviews on film. We may also examine related texts by Henri Bergson and other philosophers.
Prerequisite: Introduction to Visual Studies and Film Analysis or equivalent, or permission of the instructor.

Visual and Environmental Studies 193. History of Video Art
Catalog Number: 0569
Elisabeth Subrin
Half course (spring term). M., 7–10 pm; Tu., 10–11:30; Weekly sections to be arranged. EXAM GROUP: 9, 12, 13
Survey of the past thirty years of artist and filmmaker explorations into electronic media art. Examining cultural and theoretical influences and visual strategies, the course will trace the history of video art through selected screenings, critical writing, visiting artists/critics/performers. We will also look at relationships between video and television, video and the art world, and the impact of new media.

Visual and Environmental Studies 195. The Contemporary Hollywood Cinema
Catalog Number: 5982
J. D. Connor
Half course (fall term). M., W., at 12, Screenings: M., 7-9 pm; Weekly sections to be arranged. EXAM GROUP: 5
After surveying the landscape of dead Hollywood (the early sixties), the course examines several potential industrial saviors—auteurism, blaxploitation, pornography, allegory, television, the

blockbuster, agents, studios, videotape, the international market—and concludes with a look at the reintegrated mediascape of the present.

Cross-listed Courses Recommended for Students in Studio

[African and African American Studies 168. Visual Culture of Latina and African-American Women]
Dramatic Arts 30. Design for the Theatre: History and Practice
***Dramatic Arts 31 (formerly *Visual and Environmental Studies 131). Designing for the Stage**
***Freshman Seminar 38y. Painting and Painters**
[History of Art and Architecture 19x. Introduction to African American Art History]
History of Art and Architecture 170y. Post-war American Art: the Work of Art in the Age of Infinite Technical Diversity.
History of Art and Architecture 174s. Body Image in French Visual Culture: 18th and 19th Century
History of Art and Architecture 175w. Pop Art
History of Art and Architecture 178w. Contemporary Photography as History
History of Science 281. Flat Science: Picturing Knowledge through Print, Photography and Cinematography
[Literature and Arts B-16. The Meanings of Abstraction in 20th-Century Art]
Literature and Arts B-24. Constructing Reality: Photography as Fact and Fiction

Cross-listed Courses Recommended for Students in Film and Film Studies

[Anthropology 1720 (formerly Anthropology 120). Anthropology, Cultural Studies, and Film]
[Chinese Literature 130. Screening Modern China: Chinese Film and Culture]
Comparative Literature 158. Turning the Century: Culture, Technology, and Representation, 1870-1910
English 164c. Literature and Visuality in America
Foreign Cultures 21. Cinéma et culture française, de 1896 à nos jours
[Foreign Cultures 76. Nazi Cinema: Fantasy Production in the Third Reich]
[French 184. Cinema and the *auteur*]
French 194. Francophone Film and Literature
***Freshman Seminar 36p. Film and Autobiography**
German 178. Rescreening the Holocaust
German 189. Postwall German Cinema
History of Science 152. Filming Science
History of Science 281. Flat Science: Picturing Knowledge through Print, Photography and Cinematography

Cross-listed Courses Recommended for Students in Environmental Studies

History 1687. Building Boston in the 19th and 20th Centuries: Conference Course
History of Art and Architecture 170s. Frank Lloyd Wright and the Modern City and

Harvard University
Faculty of Arts and Sciences
Office of the Registrar

Suburb
Literature and Arts B-20. Designing the American City: Civic Aspirations and Urban Form

Women, Gender, and Sexuality

AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

Faculty of the Committee on Degrees in Studies of Women, Gender, and Sexuality

Afsaneh Najmabadi, Professor of History and of Studies of Women, Gender, and Sexuality *(Chair)*
Bridie Andrews, Associate Professor of the History of Science *(on leave fall term)*
Janet Beizer, Professor of Romance Languages and Literature
Giuliana Bruno, Professor of Visual and Environmental Studies
Glenda R. Carpio, Assistant Professor of African and African American Studies and English and American Literature and Language *(on leave spring term)*
Bradley S. Epps, Professor of Romance Languages and Literatures and of Studies of Women, Gender, and Sexuality
Drew Gilpin Faust, Lincoln Professor of History
Lynn Mary Festa, Assistant Professor of English and American Literature and Language
Evelynn M. Hammonds, Professor of the History of Science and of African and African American Studies
Alice Jardine, Professor of Romance Languages and Literatures and of Studies of Women, Gender, and Sexuality
Despina Kakoudaki, Assistant Professor of Visual and Environmental Studies and of Comparative Literature
Ewa Lajer-Burcharth, Harvard College Professor and Professor of History of Art and Architecture
Katharine Park, Samuel Zemurray, Jr. and Doris Zemurray Stone Radcliffe Professor of the History of Science and of Studies of Women, Gender, and Sexuality
Ann Wierda Rowland, Assistant Professor of English and American Literature and Language
Sharmila Sen, Assistant Professor of English and American Literature and Language *(on leave spring term)*
Diana Sorensen, Professor of Romance Languages and Literatures and of Comparative Literature *(on leave spring term)*
Mary M. Steedly, Professor of Anthropology *(on leave 2004-05)*
Judith Surkis, Assistant Professor of History and of History and Literature
Laurel Thatcher Ulrich, Harvard College Professor and the James Duncan Phillips Professor of Early American History

Kath Weston, Senior Lecturer on Studies of Women, Gender, and Sexuality *(Director of Studies) (on leave 2004-05)*

Affiliated Members of the Committee on Degrees in Studies of Women, Gender, and Sexuality

Leila Ahmed, Victor S. Thomas Professor of Divinity *(Divinity School)*
Daniel V. Botsman, Associate Professor of History *(on leave 2004-05)*
Julie A. Buckler, Professor of Slavic Languages and Literatures
Peter J. Burgard, Professor of German
Eileen Cheng-yin Chow, Assistant Professor of Chinese Literary and Cultural Studies
Ruth Feldstein, Associate Professor of History and of History and Literature *(on leave 2004-05)*
Janet E. Halley, Professor of Law *(Law School)*
Christie McDonald, Smith Professor of French Language and Literature
Susan R. Suleiman, C. Douglas Dillon Professor of the Civilization of France and Professor of Comparative Literature

Other Faculty Offering Instruction in Studies of Women, Gender, and Sexuality

Claudia A. Castañeda, Lecturer on Studies of Women, Gender, and Sexuality
Kathleen M. Coll, Lecturer on Studies of Women, Gender, and Sexuality *(Acting Director of Studies)*
Andrew C. Parker, Visiting Professor of Studies of Women, Gender, and Sexuality *(Amherst College)*
Mary Ruggie, Adjunct Professor of Public Policy *(Kennedy School)*
Rebecca H. Wingfield, Lecturer on Studies of Women, Gender, and Sexuality

Primarily for Undergraduates

***Studies of Women, Gender, and Sexuality 91r. Supervised Reading and Research**
Catalog Number: 6225
Kathleen M. Coll and staff
Half course (fall term; repeated spring term). Hours to be arranged.
The study of selected topics in studies of women, gender, and sexuality.

***Studies of Women, Gender, and Sexuality 97. Tutorial-Sophomore Year: Transnational Feminist Thought**
Catalog Number: 7217 Enrollment: Limited to concentrators.
Assistant Director of Studies
Half course (fall term). Tu., 3–5 or W., 4–6. EXAM GROUP: 17, 18
An introduction to both transnational feminist thought and interdisciplinary skills needed to read the multiple genres in which this thought manifests. We examine the ways in which diverse people have theorized gender, sexuality, race, and nationhood as categories of knowledge. Activism as a form of theory and a key element of feminist intellectual history is considered. We also analyze the human body as a text through which people theorize sexuality, gender, and race. *Note:* Required of, and limited to, Women, Gender, and Sexuality concentrators in the fall of

their sophomore year. For the first class meeting of the term, all students should attend the 3pm section only.

***Studies of Women, Gender, and Sexuality 98r. Tutorial — Junior Year**
Catalog Number: 8094
Kathleen M. Coll and staff
Half course (fall term; repeated spring term). Hours to be arranged.
Note: Ordinarily taken by concentrators for one term in the second term of the junior year. Concentrators planning to study abroad in the second term should take WGS 98r in the first term of the junior year.

***Studies of Women, Gender, and Sexuality 99a. Tutorial — Senior Year**
Catalog Number: 6763
Rebecca Wingfield
Half course (fall term). Hours to be arranged.
Note: Both WGS 99a and 99b are required of all concentrators in their senior year.

***Studies of Women, Gender, and Sexuality 99b. Tutorial — Senior Year**
Catalog Number: 5847
Rebecca Wingfield
Half course (spring term). Hours to be arranged.
Note: Both WGS 99a and 99b are required of all concentrators in their senior year.

For Undergraduates and Graduates

Studies of Women, Gender, and Sexuality 1000. The Gender Mystique: An Interdisciplinary Introduction to Fifty Years of Studies on Women, Gender, and Sexuality
Catalog Number: 5688
Alice Jardine
Half course (fall term). M., 2–4, and a one hour section to be arranged. EXAM GROUP: 7, 8
Intensive overview of major topics, problems, and questions raised by the interdisciplinary study of women, gender, and sexuality and the epistemological challenges thus raised to traditional divisions of knowledge. Weekly discussions will be led by Prof. Jardine with the participation of other faculty from across the university. Our approach will be contemporary and our subjects will range across history, science, literature, economics, law, and the mass media, while crossing through feminist, postcolonial, and queer theories.

Studies of Women, Gender, and Sexuality 1001 (formerly Women's Studies 110b). Feminist Theory: Conference Course
Catalog Number: 5590
Claudia A. Castañeda
Half course (spring term). M., 1–3; W., at 1 and a one hour section to be arranged. EXAM GROUP: 6, 7
This course considers feminist approaches to a variety of contemporary issues and concerns, including: the body; identity; space; technoscience; and hierarchies of race, class, gender, and

sexuality in transnational contexts. Space will be made available in the second half of the course to follow student interests as they emerge.

Studies of Women, Gender, and Sexuality 1002 (formerly Women's Studies 162). Against the Grain: Critical Approaches to Gender and Sexuality: Seminar
Catalog Number: 4429 Enrollment: Limited to 15.
Kathleen M. Coll
Half course (spring term). Tu., 1–3. EXAM GROUP: 15, 16
What does it mean to do feminist research? How do gender-centered and sexuality-centered epistemologies produce different kinds of knowledge claims? From theory to practice, students train in methodological, philosophical, and ethical approaches to conducting research on gender and sexuality, including fieldwork, narrative analysis, archival work, interview techniques, and background research for creative writing. Individual research projects offer an opportunity to implement the methodological approaches examined in class.
Note: Juniors planning for senior thesis research are particularly encouraged to take this seminar.

Studies of Women, Gender, and Sexuality 1003. Theories of Sexuality: Conference Course
Catalog Number: 1386 Enrollment: Limited to 35.
Bradley S. Epps
Half course (fall term). M., W., F., at 10 and a one hour section to be arranged. EXAM GROUP: 3
A critical overview of some of the major psychoanalytical, ethical, historical, anthropological, and cultural inquiries into sexuality, gender, and desire, with special emphasis on the modern period. Topics of study include normativity and its critique; masculinity, femininity, and binary logic; heterosexuality, homosexuality, and bisexuality; transsexualism and transgenderism; family and nation; reproduction and pleasure; performativity, constructivism, and essentialism; economics and ideology; racial and ethnic difference.

[Studies of Women, Gender, and Sexuality 1101 (formerly Women's Studies 110c). Borders and Betrayals: Engendering Cultural Identities]
Catalog Number: 7763
Kath Weston
Half course (spring term). Hours to be arranged.
Gender takes different forms as it combines with race/ethnicity, class, nation, sexuality, religion, and other sorts of belonging. Explores how to "think" gender in the context of its many renditions. Topics include the constitution of cultural identities, analytic tools for conceptualizing difference, feminist and nationalist appeals to the figure of the border, identity politics, imagined communities, and conflicts generated when people appear to "cross the line."
Note: Expected to be given in 2006–07.

[Studies of Women, Gender, and Sexuality 1102 (formerly Women's Studies 101r). Money Changes Everything: Gender and Globalization]
Catalog Number: 2174
Kath Weston
Half course (fall term). Hours to be arranged.
Uses text and film to examine the relationship between gender and globalization. Topics include

the transformation of women's work, sex tourism, surveillance technologies, gender and migration, global music and media, the gendering of commodities, water politics, health impacts, the feminization of poverty, gender and capital flows, women's activism on a global stage. Attention also given to earlier periods of colonization, conquest, and trade.
Note: Expected to be given in 2005–06.

Studies of Women, Gender, and Sexuality 1125 (formerly Women's Studies 125). Gender and Health
Catalog Number: 4563
Mary Ruggie (Kennedy School)
Half course (fall term). M., W., at 2, and an hour section to be arranged. EXAM GROUP: 7
Based on theoretical debates between feminism and science and different understandings of health, illness, and healing, we explore the role of women, the medical profession, and various social institutions in constructing knowledge about gender and health. Among the issues we discuss are health behaviors, reproductive health, STDs, mental health, cancer, and aging. Throughout, we identify differences among women and men of different class, race, and ethnic groups.

Studies of Women, Gender, and Sexuality 1132. Making Differences: Nature, Culture, and Reproductive Technologies
Catalog Number: 8387
Claudia A. Castañeda
Half course (spring term). Th., 1–3 and a one hour section to be arranged. EXAM GROUP: 15, 16
Beginning from the premise that "all technologies are reproductive," this course examines how specific technologies are intertwined with the reproduction of natural and cultural hierarchies of difference in time and place. Attention will be given to bio-medical (in vitro fertilization, artificial insemination), as well as visual (photography, film, television), and agricultural technologies (high yield, variety seeds, water pumps), and to their significance in trans-national contexts.

Studies of Women, Gender, and Sexuality 1154 (formerly Women's Studies 154). I Like Ike, But I Love Lucy: Women, Popular Culture, and the 1950s: Conference Course
Catalog Number: 6855 Enrollment: Limited to 35.
Alice Jardine
Half course (spring term). Tu., 2–4, and an hour section to be arranged. EXAM GROUP: 16, 17
A diagnosis and analysis of this formative decade for the US babyboomer. Taught from a cultural studies perspective, the course focuses on gender politics in print media, film, television, and rock of the early cold war era. Topics include: the bomb and TV, the Rosenberg trial, early civil rights movement, beat generation, Hollywood dreams of true love, Elvis Presley, Marilyn Monroe, Lucille Ball, Jack Kerouac, Joe McCarthy, Rosa Parks, and others.

Studies of Women, Gender, and Sexuality 1201 (formerly Women's Studies 110a). Bodies and Boundaries: Conference Course
Catalog Number: 1730 Enrollment: Limited to 25.
Katharine Park

Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
History of the body, with particular attention to gender, from the late Middle Ages to present. Focusing on Europe and the US, course examines ways in which the body has been used to construct boundaries between: male/female, human/non-human, races, the "normal" and the "abnormal," the healthy and the sick. It considers techniques used to enforce those boundaries, from social discipline to surgery to eugenics, and ways in which those boundaries were continually challenged.

[Studies of Women, Gender, and Sexuality 1202 (formerly Women's Studies 134). Women's Writing and Film in Latin America and the Caribbean]
Catalog Number: 9230
Bradley S. Epps
Half course (spring term). Hours to be arranged, and an optional hour section to be arranged.
Focuses on 20th-century narrative fiction, testimony, and film by women from a variety of linguistic cultures (French, Spanish, Creole, Maya-Quiché, English, Portuguese), paying special attention to the ties and tensions between feminism and post-colonialism. Other topics include gender and genre; sexuality and the state; social engagement and artistic autonomy; nationality, nationalism, and internationalism; class conflict and the "global market"; family formations and kinship; ritual, and religion; lesbianism, heterosexuality, and bisexuality; authoritarianism and democracy.
Note: Expected to be given in 2005–06.

Studies of Women, Gender, and Sexuality 1203. Gender and the Cultures of US Imperialism: Conference Course
Catalog Number: 4313 Enrollment: Limited to 30.
Assistant Director of Studies
Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12, 13
This course investigates the cultural components of imperialism. We consider the gendered experience of imperialism (from the perspective of both the colonizers and the colonized) and the role of gender ideologies within ideologies of imperialism. In our effort to understand the ways in which gender structures imperialist ventures, we examine several specific sites of US intervention and expansion. These sites may include New England, Cuba, Mexico, Hawaii, Puerto Rico, the Philippines, and Iraq.

Studies of Women, Gender, and Sexuality 1264 (formerly Women's Studies 164). Is Another World Possible?: Gender, Sexuality, and Citizenship
Catalog Number: 7278
Kathleen M. Coll
Half course (fall term). Tu., 1–3 and a one hour section to be arranged. EXAM GROUP: 15, 16
This course explores politics from feminist, grassroots, and transnational standpoints that provide resources for hope in the face of entrenched notions about social change. How do diverse kinds of political participation affect people's sense of belonging, identity, rights, and entitlements? Can theories of citizenship contribute to this endeavor? How do the very people who are excluded from "full citizenship" (women, immigrants, people of color, gays and lesbians, the poor) reframe politics in important, transformative ways?
Note: Optional service learning field research projects may count towards course work.

[Studies of Women, Gender, and Sexuality 1401. Liquid Assets and Water Wars: Gender and the Global Water Crisis: Seminar]
Catalog Number: 2280 Enrollment: Limited to 12.
Kath Weston
Half course (fall term). Hours to be arranged.
In many countries women collectively walk more than the distance to the moon just to supply their households with water. This seminar brings readings on the global water crisis into dialogue with gendered critiques of globalization, labor, and rights discourse. Topics include water privatization, commodification of "the commons," women's work securing water, masculinities and watershed restoration, growth of deserts and gendered migration, pollution, water-related inequalities, dam projects, and women's leadership in the water wars.
Note: Expected to be given in 2005–06.

[Studies of Women, Gender, and Sexuality 1403 (formerly Women's Studies 163). Nations, Genders, and Sexualities in Comparative Perspective]
Catalog Number: 4054 Enrollment: Limited to 15.
Afsaneh Najmabadi
Half course (spring term). Hours to be arranged.
This seminar begins by considering several classical texts on modern nation- and state-formations, and their intersection with issues of gender and sexuality, including works by Anderson, Moss, and Foucault. We then study feminist, queer, and post-colonial critiques of these ideas using specific historical and anthropological works on the Middle East, South Asia and East Asia. Focuses on the formation of modern subjectivities in the context of reconfigurations of sex, gender, and nationality.
Note: Expected to be given in 2005–06.

[Studies of Women, Gender, and Sexuality 1404 (formerly Women's Studies 166). Women, Technology, and the Body]
Catalog Number: 3401 Enrollment: Limited to 15.
Verena A. Conley
Half course (spring term). Hours to be arranged.
Focuses on the relation between technologies, women, and the body. Special attention given to the effects of evolving technologies on representations of women's bodies in fiction, film, and theory. Readings include Hoffmann, Villiers de l'Isle Adam, Burroughs, Cixous, Deleuze, Haraway, Sadie Plant, Wittig, and others.
Note: Expected to be given in 2005–06.

[Studies of Women, Gender, and Sexuality 1405. Sex and the City: Gender, Architecture, and Space: Seminar]
Catalog Number: 3215 Enrollment: Limited to 12.
Despina Stratigakos
Half course (fall term). Hours to be arranged.
What role does gender play in the theoretical understanding and concrete experience of architecture and urban space? We investigate the significance of gender in the production, use, and representation of architectural and urban spaces, and within the historiography of architectural and urban history. Adopting an interdisciplinary approach, ranging from

architectural history to queer theory, the course encourages new ways of thinking about the interrelationships among architecture, urban space, the body, and gendered identities.
Note: Expected to be given in 2005–06.

Studies of Women, Gender, and Sexuality 1406. Melodrama, Camp, and Beyond: Pedro Almodóvar in Cinematic Context
Catalog Number: 3799 Enrollment: Limited to 20.
Bradley S. Epps
Half course (spring term). W., 1–4 and film screenings to be scheduled. EXAM GROUP: 6, 7, 8
An intensive critical examination of Spain's most "successful" director and the Hollywood"women's pictures" of the 1940s-60s that have so marked his craft. Special attention will be paid to melodrama, camp, and the representation of gender and sexuality and to the specifically Spanish turns of postmodernism, democracy, and consumer culture. Theoretical essays include Bazin, Buñuel, Metz, Heath, Wollen, Doane, Silverman, Kinder, Smith, Williams; films include Almodóvar, Buñuel, Saura, Segura, Vidor, Kazan, Rapper, Ray, Mankiewicz.

***Studies of Women, Gender, and Sexuality 1450. Poetics of Sexual Harm**
Catalog Number: 9331 Enrollment: Limited to 16.
Janet E. Halley (Law School) and Andrew Parker (Amherst College)
Half course (fall term). W., 4:30–6:30. EXAM GROUP: 9
This cross-disciplinary seminar explores the hypothesis that legal actors on one hand, and the producers of cultural, literary, and artistic artifacts on the other, engage in practices of representing sexual harm—rape, sexual harassment, domestic violence, incest, child sexual abuse, etc. — and that the legal and the artifactual dimensions of these practices can be studied together. Readings will range from explicitly legal materials to political theory to fiction, poetry, drama, and film.
Note: Offered jointly with the Law School as 97950-11. Submit a one-page statement of interest to Terry Cyr, tcyr@law.harvard.edu, by September 15 for fall term enrollment.

Of Primary Interest

Courses in the studies of women, gender, and sexuality offered by other departments are cross-listed below. Those listed first focus centrally on the study of women and/or gender. Courses listed as "Of Related Interest" devote at least one specific segment to such questions. Many of the courses may be taken for graduate credit. Courses numbered in the 200s are primarily for graduate students. Students should also investigate offerings in other faculties in which they may cross-register, such as the Graduate School of Education, the Law School, the Medical School, and the Women's Studies program at the Divinity School.
Anthropology 1380 (formerly Anthropology 138). The Behavioral Biology of Women
[Celtic 113. Gaelic Women's Poetry]
French 70b. Introduction to French Literature II: Representations of Change From the Romantics to the Present
French 136. Feminist Literary Criticisms
[French 180. 20th-Century French and Francophone Women Writers]
***Freshman Seminar 48p. Harem Fictions from Montesquieu to Mernissi**
Historical Study A-67. Gendered Communities: Women, Islam, and Nationalism in the

Middle East and North Africa
[History 1854. Gender and Japanese History: Conference Course]
History 2905. Gender and Sexuality: Comparative Historical Studies of Islamic Middle East, North Africa and South Asia
History of Art and Architecture 174s. Body Image in French Visual Culture: 18th and 19th Century
[Spanish 184. Constructing Gender in Spanish America: "Man" and "Woman"]

Of Related Interest

African and African American Studies 118. African-American History from the Slave Trade to 1900
African and African American Studies 191. The Civil Rights Movement: Seminar
Economics 1815. Social Problems of the American Economy
*English 90hv. Sexing Victorian Fiction
[Foreign Cultures 60. Individual, Community, and Nation in Vietnam]
French 48b. Contemporary French Society
[French 132a. 20th-Century French Fiction I: The Realist Mode]
[German 148. Freud]
[Historical Study B-35. The French Revolution: Causes, Processes, and Consequences]
Historical Study B-40. Pursuits of Happiness: Ordinary Lives in Revolutionary America
[History of Art and Architecture 70. Introduction to Modern Art and Visual Culture, 1700–1990s]
History of Art and Architecture 249. Visual Culture of Female Monasticism
[History of Science 175. Madness and Medicine: Themes in the History of Psychiatry]
[Literature and Arts A-16. Lives Ruined by Literature: The Theme of Reading in the Novel]
Literature and Arts C-14. Concepts of the Hero in Greek Civilization
Literature and Arts C-43. The Medieval Court
[Moral Reasoning 22. Justice]
Portuguese 44 (formerly Portuguese 38). Images of Brazil: Contemporary Brazilian Cinema
Religion 1725. Buddhism and Social Change: Seminar
Spanish 48. Perspectives on Mexico
Visual and Environmental Studies 180 (formerly *Visual and Environmental Studies 154ar). The Moving Image: Film, Modernity, and Visual Representation
Visual and Environmental Studies 181 (formerly *Visual and Environmental Studies 154br). Frames of Mind: Approaches to Film Theory
[*Visual and Environmental Studies 183 (formerly *Visual and Environmental Studies 155br). A Cultural Study of Film: Mapping and Fashioning Space: Seminar]
*Visual and Environmental Studies 185x. Texture Analysis: Film, Fashion, and Material Culture: Seminar

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