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# Introductory Notes

## **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

### **Faculty of Arts and Sciences**

### **Courses of Instruction, 2014–2015**

#### **Introductory Note**

The Faculty of Arts and Sciences offers these courses to students registered in Harvard College, the Graduate School of Arts and Sciences, and the School of Engineering and Applied Sciences. A student in good standing in any other School of the University may be admitted to courses by cross-registration. For information on cross-registration, please visit <https://coursecatalog.harvard.edu> and select "Cross Registration."

Students are admitted to a course only if they have fulfilled all the requirements for that course as stated in this catalog, or by permission of the instructor. Requirements are usually stated as prerequisites in the course descriptions.

Courses numbered in the 300s or 3000s are for graduate students only. Advanced Standing students in their fourth year of residence in Harvard College, who are candidates for the master's degree, may enroll in these courses with the signature of the instructor on their study cards.

Students registered in the Faculty of Arts and Sciences may enroll in most courses given by other faculties of the University. They also may take courses at the Episcopal Divinity School (graduate students only), the Fletcher School of Law and Diplomacy (graduate students only), and the Massachusetts Institute of Technology (including the Harvard-MIT Program in Health Sciences and Technology). For details on cross-registration procedures, undergraduates should consult the [Undergraduate Handbook for Students](#) and graduates should consult [The Graduate School of Arts and Sciences Handbook](#). The Harvard University on-line course catalogs containing course descriptions, faculty information, and general information about classes at each school are available at <https://coursecatalog.harvard.edu>.

Students are able to access the Electronic Enrollment (Study Card) application by selecting the "Academics" tab of <http://my.harvard.edu>. Within this screen, students will see a block called 'Study Card' and to the left of this block will be the 'Course Planner'. The Course Selection Tool is available to add courses to the shopping list at any time. Once the Course Enrollment (Study Card) tool opens, these courses can be added to the study card.



## Explanation of Course

Most courses are numbered with the following general scheme:

100–199 Undergraduates and Graduates

200–299 Primarily for Graduates

300–399 Graduate Courses of Reading and Research

Anthropology, Chemical Biology, Economics, Government, Health Policy, History, Psychology, Religion, and Studies of Women, Gender, and Sexuality courses have four-digit numbers. The following general scheme applies:

910–999 Primarily for Undergraduates

1000–1999 Undergraduates and Graduates

2000–2999 Primarily for Graduates

3000–3999 Graduate Courses of Reading and Research

Unless otherwise specified, Graduate Courses of Reading and Research are half courses offered in both fall and spring terms.

A Capital letters designate elementary courses in language and composition; numerals designate all other courses, with the number 1 (and not zero) as the lowest designation.

hf Half courses extending throughout the two terms of the academic year are designated by hf immediately following the course number.

r Courses that may be repeated for credit are designated by an r immediately following the course number.

\* An asterisk before a course title indicates that the instructor must consent to a student's enrollment by signing the study card.

[ ] A course number and title enclosed in brackets indicate that the course is not being offered during the current year. A note indicates when it will next be offered.

( ) A day enclosed in parentheses indicates that the course meets on that day only at the discretion of the instructor.

Catalog Number: The four- or five-digit number below the course title is a course identification number used for computer processing and on the study card. The following catalog numbers, not listed elsewhere in this catalog, have been assigned for the special study opportunities of TIME (for graduate students) and Independent Study (for undergraduates):

Independent Study 9999

TIME-C 8899



TIME-R      7700  
TIME-T      8811

Instructor Number: In course listings of Graduate Courses of Reading and Research, each instructor's name is followed by a four-digit identification number used for computer processing and on the study card.

Examination Group: Marked by the phrase EXAM GROUP; in most course listings, the numbers indicate the Examination Group to which the course belongs. Examination Groups usually correspond to class meeting times and ordinarily change if the meeting time changes (see About this Catalog below). Tutorials and 300/3000-level courses are not typically assigned to an Examination Group. Exam groups will be assigned by July 31, 2014.

### About this Catalog

The University reserves the right to withdraw or modify courses of instruction at any time. Review of academic, financial, and other considerations leads to changes in the policies, rules, and regulations applicable to students, and the Faculty of Arts and Sciences therefore reserves the right to make changes at any time. These changes may affect such matters as tuition and all other fees, degrees and programs offered (including the modification or possible elimination of degrees and programs), degree and other academic requirements, academic policies, rules pertaining to student conduct and discipline, fields or areas of concentration, and other rules and regulations applicable to students.

While every effort has been made to ensure that this catalog is accurate and up-to-date, it may include typographical or other errors. Changes are regularly made to this online catalog.

If you are unable to access the material contained in the Catalog, contact the Accessible Education Office, 1350 Massachusetts Avenue, Holyoke Center 486, Cambridge, Massachusetts 02138. V: 617-496-8707; V/TTY 617-496-3720; or [aeo@fas.harvard.edu](mailto:aeo@fas.harvard.edu).

## General Education

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

*Faculty of the Committee on General Education*

Edward J. Hall, Professor of Philosophy (*Chair*)  
Florian Engert, Professor of Molecular and Cellular Biology



Jay M. Harris, Harry Austryn Wolfson Professor of Jewish Studies and Dean of Undergraduate Education (*ex officio*)

Eric J. Heller, Abbott and James Lawrence Professor of Chemistry and Professor of Physics

Stephanie H. Kenen, Administrative Director of the Program in General Education and Associate Dean of Undergraduate Education (*ex officio*)

Caroline Light, Lecturer on Studies of Women, Gender, and Sexuality

Robert A. Lue, Professor of the Practice of Molecular and Cellular Biology

Jason P. Mitchell, Professor of Psychology

Parimal G. Patil, Professor of Religion and Indian Philosophy

Tobias Ritter, Professor of Chemistry and Chemical Biology

James Robson, Professor of East Asian Languages and Civilizations

Mary M. Steedly, Professor of Anthropology (*fall term*) (*on leave spring term*)

As part of the Harvard College Curricular Review, the Faculty of Arts and Sciences voted to replace the existing, thirty-year-old Core Curriculum requirements with a new Program in General Education in order to align these requirements with the educational needs of Harvard College students at the dawn of the twenty-first century. In contrast with the Core Curriculum, which required that students be exposed to a number of different "ways of knowing," the new Program seeks explicitly to "connect a student's liberal education - that is, an education conducted in a spirit of free inquiry, rewarding in its own right - to life beyond college." In addition, General Education seeks to provide new opportunities for students to learn - and for faculty to teach - in ways that cut across traditional departmental and intra-University lines.

General Education requires that students pass one letter-graded half-course in each of eight categories: Aesthetic and Interpretive Understanding; Culture and Belief; Empirical and Mathematical Reasoning; Ethical Reasoning; Science of Living Systems; Science of the Physical Universe; Societies of the World; United States in the World. One of the eight courses must also engage significantly with the study of the past (these courses are identified in the "Note" field of each catalog entry).

For more information on the Program in General Education, please visit the website [www.generaleducation.fas.harvard.edu](http://www.generaleducation.fas.harvard.edu).

## *Aesthetic and Interpretive Understanding*

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

Courses in the Aesthetic and Interpretive Understanding category focus on the development of aesthetic responsiveness and the ability to interpret forms of cultural expression through the study of literary or religious texts, paintings, sculpture, architecture, music, film, dance, decorative arts, etc. Students learn to engage intelligently and critically with the world of art, literature, and ideas by analyzing works in a theoretical framework.

#### *Aesthetic and Interpretive Understanding*

##### **Aesthetic and Interpretive Understanding 11. Poetry Without Borders**

Catalog Number: 0416



*Stephanie Sandler (Slavic Languages and Literatures)*

*Half course (fall term). Tu., Th., 2 - 3:30, and a weekly section to be arranged. EXAM GROUP: 14*

Studies contemporary poetry as a cultural practice that requires and perversely challenges visual, linguistic, geographic, and aesthetic borders. Main topics are translation (poems crossing borders), emigration/exile (poets crossing borders), and poetry and other arts (poems with music, film, photography). Texts by Charles Bernstein, Allen Ginsberg, Bei Dao, Joseph Brodsky, Paul Celan, Barbara Guest, Susan Howe, Yang Lian, Valzhyna Mort, Henry Parland, Vladimir Nabokov, W. G. Sebald, César Vallejo, Zafer Şenocak, and C. D. Wright, alongside sound recordings, photographs, films, and poetry performances.

#### **[Aesthetic and Interpretive Understanding 12. Poetry in America]**

Catalog Number: 0748 Enrollment: Limited to 54.

*Elisa New (English)*

*Half course (spring term). M., W., 1-2:30, and a weekly section to be arranged.*

Surveying 300+ years of poetry in America, from the Puritans to the avant-garde poets of this new century, the course covers individual figures (Poe, Whitman, Dickinson, Frost, Williams, Hughes), major poetic movements (Firesides, Modernist, New York, Confessional, L-A-N-G-U-A-G-E) and probes uses of poetry across changing times. Who, and what, are poems for? For poets? Readers? To give vent to the soul? To paint or sculpt with words? Alter consciousness? Raise cultural tone? Students will read, write about and also recite American poems.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **Aesthetic and Interpretive Understanding 13. Cultural Agents**

Catalog Number: 0460 Enrollment: Limited to 126.

*Doris Sommer (Romance Languages and Literatures; African and African American Studies) and Francesco Ersamer (Romance Languages and Literatures)*

*Half course (fall term). M., 3-5, and a weekly section to be arranged. EXAM GROUP: 6*

Explore the arts as social and professional resources! Whether you pursue medicine, law, engineering, business, government, etc., the arts will enhance your work and your citizenship. Active citizens construct opportunities for positive social change. A lecture series by a range of professionals demonstrates that change in practically any field depends on art. Theoretical readings (Schiller, Kant, Dewey, Freire, Gramsci, Rancière, Mockus, Boal, Nussbaum, Pasolini, *inter alia*) are grounded in concrete cases of agency. The final project will be a design for a creative social intervention, including reflections on creating the design.

#### **Aesthetic and Interpretive Understanding 14. Putting Modernism Together**

Catalog Number: 7613

*Daniel Albright (English)*

*Half course (fall term). M., W., at 12, and a weekly section to be arranged. EXAM GROUP: 11*

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:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[Aesthetic and Interpretive Understanding 15. Elements of Rhetoric]**

Catalog Number: 3820 Enrollment: Limited to 108.

*James Engell (English)*

*Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged.*

Rhetorical theory, originating with Aristotle, in contemporary applications. The nature of rhetoric in modern culture; practical examples drawn from American history and literature 1765 to the present; written exercises and attention to public speaking; the history and educational importance of rhetoric in the West; stresses theory and practice as inseparable.

*Note:* Expected to be given in 2015–16.

### **[Aesthetic and Interpretive Understanding 16. Openings: The Illuminated Manuscript]**

Catalog Number: 30214

*Jeffrey F. Hamburger (History of Art and Architecture)*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged.*

In an age of mechanical – and now virtual – reproduction, we have lost sight of the basic visual unit that structures our experience of the book: the opening. Employing old and new technologies, this course focuses on medieval books, their decoration and their readers in the Middle Ages (ca. 300–1500), when the book as we have known it, along with allied institutions, such as the university itself, first came into being.

*Note:* Expected to be given in 2016–17. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Aesthetic and Interpretive Understanding 20. Poems, Poets, Poetry**

Catalog Number: 5808

*Helen Vendler (University Professor; English)*

*Half course (fall term). M., W., (F.), at 1, and a weekly section to be arranged. EXAM GROUP:*

*1*

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 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Aesthetic and Interpretive Understanding 21. Virgil's Poetry and its Reception**

Catalog Number: 1565

*Richard F. Thomas (The Classics)*

*Half course (spring term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 1*

A study the poetry of Virgil, his interaction with Homeric and other Greek poetry, and with attention to the literary, artistic, and musical traditions that flow from his work, throughout the history of western literature. Major focus on the *Aeneid* in its artistic, historical and political



contexts, its reception by Dante, Milton, Eliot, and others. Readings of Virgil's *Eclogues* and *Georgics*, and on their place in the traditions of European pastoral and lyric, from Spenser to Tennyson to Heaney. Aims to provide an understanding of important literary and cultural achievements of the last two millennia. All readings in English.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Aesthetic and Interpretive Understanding 23. Interracial Literature]

Catalog Number: 1086

*Werner Sollors (English; African and African American Studies)*

*Half course (fall term). Tu., Th., 1:30-3, and a weekly section to be arranged.*

This course examines a wide variety of literary texts representing black-white couples, interracial families, and biracial identity, from classical antiquity to the present. Works studied include romances, novellas, plays, novels, short stories, poems, and non-fiction, as well as films and examples from the visual arts. Topics for discussion range from interracial genealogies to racial "passing," from representations of racial difference to alternative plot resolutions, and from religious and political to legal and scientific contexts for the changing understanding of race. Focus is on the European tradition and the Harlem Renaissance.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### Aesthetic and Interpretive Understanding 24. First Nights: Five Performance Premieres

Catalog Number: 0144

*Thomas F. Kelly (Music)*

*Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*

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.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding or Culture and Belief, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Aesthetic and Interpretive Understanding 26. Race, Gender, and Performance]

Catalog Number: 8829

*Robin M. Bernstein (Studies of Women, Gender, and Sexuality; African and African American Studies)*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged.*

Introduction to performance studies as it intersects with studies of gender, sexuality, and race. What does it mean to say gender is "performed"? How does performance—both on- and offstage—construct and deconstruct power? Topics include transgressive and normative gender, feminist and queer theatre, athletics, gender in everyday life, drag, AIDS, and weddings. Texts include



Eve Ensler, Ntozake Shange, Judith Butler, Anna Deavere Smith, Cherríe Moraga, David Henry Hwang, Bertolt Brecht, Guillermo Gómez-Peña.

**[Aesthetic and Interpretive Understanding 29. Modern Jewish Literature]**

Catalog Number: 1250

*Faculty to be determined*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged.*

Great works of fiction become universal and remain able to surprise, delight, inform, or otherwise overwhelm current readers. What gives them this power? How do writers become adjectives like Babelian, Bellovian, or Kafkaesque? This course moves through the twentieth century through the literature of a multilingual people, with works in Hebrew, Yiddish, German, Russian, Italian, and English. We see how variously Jewish writers interpret modern history and their own situation within it.

**[Aesthetic and Interpretive Understanding 30. Love In A Dead Language: Classical Indian Literature and Its Theorists]**

Catalog Number: 6240

*Parimal G. Patil (Study of Religion; South Asian Studies)*

*Half course (spring term). M., W., at 11, and a weekly section to be arranged.*

An exploration of love in five genres of classical South Asian literature—epic history, story literature, plays, poetic miniatures, and court poetry. We will pay particular attention to the nature of literary genres and practices and how they were theorized by South Asian intellectuals. Especially relevant are theories of poetic language, aestheticized emotion (especially love), and literary ornamentation.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Aesthetic and Interpretive Understanding 31. American Musicals and American Culture]**

Catalog Number: 2449 Enrollment: Limited to 150.

*Carol J. Oja (Music)*

*Half course (spring term). Tu., Th., at 12, and a weekly section to be arranged.*

During much of the 20th century, the Broadway musical stood at the center of American culture, producing tunes and tales that became the hits of their day. It commented—wittily, satirically, relentlessly—on the ever-shifting social and political landscape, with subjects ranging from new immigrants to poverty, power, westward expansion, and issues of race. This course explores the musical artistry and cultural resonances of a cluster of iconic Broadway musicals on stage and screen, including *Shuffle Along*, *Show Boat*, *Stormy Weather*, *The Cradle Will Rock*, *Oklahoma!*, and *Pacific Overtures*. Readings focus on primary sources drawn from Harvard’s illustrious Theatre Collection.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Aesthetic and Interpretive Understanding 33. Ancient Fictions: The Ancient Novel in Context]**

Catalog Number: 7862

*David F. Elmer (The Classics)*



*Half course (spring term). M., W., at 1, and a weekly section to be arranged.*

The novel is often thought of as a distinctively modern form, but Greco-Roman antiquity had its own version. Fictional prose narratives about adventure and romance in exotic lands were immensely popular in antiquity. We will explore this tradition by reading the five surviving Greek novels, the *Golden Ass* of the Roman Apuleius, and selected other texts, along with works by contemporary theorists and critics. Topics include: definitions of the "novel"; ancient representations of desire; gender and class politics; relationships between secular and religious narratives.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Aesthetic and Interpretive Understanding 36. Buddhism and Japanese Culture]

Catalog Number: 3203

*Ryūichi Abé (East Asian Languages and Civilizations)*

*Half course (spring term). Tu., Th., 10-11:30, and a weekly section to be arranged.*

This course is designed to enable students to analyze a wide range of Japanese cultural creations—including the traditional Noh theater, modern Japanese paintings, and contemporary anime—by illustrating the influence of Buddhism both on their forms and at their depths. The first part of the course is a study of major Buddhist philosophy and its impact on Japanese literature. The second part observes Buddhist ritual practices and their significance for Japanese performing arts. The last part traces the development of Japanese Buddhist art, and considers the influence of Buddhism on diverse contemporary popular Japanese art media.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Aesthetic and Interpretive Understanding 37. Introduction to the Bible in the Humanities and the Arts]

Catalog Number: 92966

*Gordon Teskey (English)*

*Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged.*

A course on the structure of the Bible, which William Blake called “the great code of art.” Major themes include the invention of God, the invention history, and the invention of the city (or rather, of two cities, that of the devil and that of God). About two-thirds of the Authorized Version (King James) of 1611 will be read.

*Note:* Expected to be given in 2015–16. The course does not count for the English concentration "Arrivals" requirement. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Aesthetic and Interpretive Understanding 39. Reinventing Literary China: Old Tales Retold in Modern Times]

Catalog Number: 7777

*David Der-Wei Wang (East Asian Languages and Civilizations) and Wai-yee Li (East Asian Languages and Civilizations)*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged.*

What makes a story prevail through time? We will visit the most beloved, enduring works in the Chinese tradition and discover cultural icons from the Handsome Monkey King to the Nobel



prize-winning novel *Soul Mountain*. We will explore the cultural trends and themes that have been the stuff of popular Chinese novels, TV, cinema, and thought. This course offers a comprehensive, yet unique and unconventional window into Chinese tradition and modernity, past and present.

*Note:* Expected to be given in 2015–16. No previous knowledge of Chinese required. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Aesthetic and Interpretive Understanding 40. Monuments of Islamic Architecture**

Catalog Number: 94499

*David J. Roxburgh (History of Art and Architecture) and Gülrü Necipoglu-Kafadar (History of Art and Architecture)*

*Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*  
 An introduction to ten iconic monuments of the Islamic world from the beginning of Islam to the early modern period. The course introduces various types of building-mosques, palaces, multifunctional complexes-and city types and the factors that shaped them, artistic, patronal, socio-political, religio-cultural, and economic. Each case study is divided into two lectures. The first presents the monument or city by "walking" through it. The second is devoted to themes elicited from the example, developed in light of comparative monuments, sites, and/or written sources, and to problems of patronage, production, audience and meaning as they pertain to architectural history.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Aesthetic and Interpretive Understanding 41. How and What Russia Learned to Read: The Rise of Russian Literary Culture**

Catalog Number: 7952

*William Mills Todd III (Slavic Languages and Literatures; Comparative Literature)*

*Half course (spring term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 5*

A study of the emergence of a secular literary tradition in the Russian imperial period. Focus on cultural institutions (religion, art, literature), issues of the aesthetic and social critique, and problems of interpretation for contemporary and modern readers. Analysis of novels by Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky, and Tolstoy.

*Note:* Expected to be omitted in 2015–16. No knowledge of Russian required. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding or Culture and Belief, but not both.

### **[Aesthetic and Interpretive Understanding 42. Literature and Revolution: Great Books in Moments of Cultural Transformation]**

Catalog Number: 88601

*James Simpson (English)*

*Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged.*

What is the function of literary texts in moments, from Plato to the Russian Revolution, that promise total, enlightened societal transformation? Each week, this course will focus on two texts related to selected “revolutionary” moments, one philosophical and one literary. Literary



texts do not participate easily in the revolutionary order. They resist the textual simplicities of philosophy. Which do we trust: philosophy or literature? Texts include many found in traditional "Great Books" courses: Plato, Virgil, Augustine, Dante, Luther, Milton, Swift, Rousseau, Twain, Kant, Marx, and Chekov, among others.

*Note:* Students who have taken Culture and Belief 18 may not take this course for credit. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief or Aesthetic and Interpretive Understanding, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Aesthetic and Interpretive Understanding 43. Visual Culture of the Ottoman Empire Between East and West (15th - 17th Centuries)]**

Catalog Number: 1678

*Gülru Necipoglu-Kafadar (History of Art and Architecture)*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged.*

Examines the visual culture of the Ottoman Empire straddling three continents (Asia, Europe, Africa), together with cross-cultural artistic interactions with Western and Asian Islamic courts (Safavid Iran, Mughal India). Ottoman urbanism, architecture, miniature painting and decorative arts studied in their socio-political contexts that informed their production and reception. The selective fusion of Ottoman-Islamic, Byzantine and Italian Renaissance elements in the codification of a distinctive visual tradition that helped processes of multicultural empire building and identity formation is analyzed. Earliest representations of the East by European artists working in the "Orientalist" mode are also considered.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Aesthetic and Interpretive Understanding 45. Art and Politics in Russia and Eastern Europe]**

Catalog Number: 5581

*Svetlana Boym (Slavic Languages and Literatures; Comparative Literature)*

*Half course (fall term). Tu., 2-4, and a weekly section to be arranged.*

The course examines the relationship between art and politics in twentieth century Russia and Eastern Europe through visual culture, literature, and film. We move chronologically from the Russian revolution and the period of artistic experimentation to the art of Stalin's era, Gulag and the Cold War, examining writer's trials and dissent in Russia and Eastern Europe as well as the non-conformist art of the late twentieth century. Emphasis is placed on close analysis and aesthetic interpretation in a broader political and historical context. We read works by Malevich, Chagall, Eisenstein, Babel, Brodsky, Mandelstam, Mayakovsky, Havel, Kundera, Arendt, Vajda and Nabokov.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Aesthetic and Interpretive Understanding 47. Forbidden Romance in Modern China]**

Catalog Number: 7766

*David Der-Wei Wang (East Asian Languages and Civilizations)*

*Half course (spring term). M., W., at 11, and a weekly section to be arranged.*



This course introduces a unique dimension of Chinese modernity: amorous engagement in fiction and lived experience, its discursive and visual representations, and its institutional implementation (gender, marriage, family, law, nation/state, etc.), censorship, and transgression. It examines how the modern lure of free will and emancipated subjectivity drove Chinese to redefine terms of affect, such as love, feeling, desire, passion, sexuality, loyalty, dedication, revolution and sacrifice. It also looks into how the moral, legal and political consequences of affect were evoked in such a way as to traverse or fortify consensual boundaries and their manifestations.

*Note:* Expected to be given in 2015–16.

### **[Aesthetic and Interpretive Understanding 49. The Medieval Imagination: Visions, Dreams, and Prophecies]**

Catalog Number: 3080

*Nicholas Watson (English)*

*Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged.*

The medieval imagination was the ambiguous mediator between the world and the mind: a mental space in which either prophetic truths or dreams and diabolic deceptions might be experienced, in which material and spiritual realities were reflected as in a mirror, and in which those complex constructs we call "fictions" found their source. This course investigates dream poetry and visionary writing in the context of medieval psychological theory. Texts to be read include Boethius's *Consolation of Philosophy*, *The Romance of the Rose*, Dante's *Divine Comedy*, John of Morigny's *Book of Flowers*, and works by Augustine, Julian of Norwich, and others.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Aesthetic and Interpretive Understanding 50. Literature and Medicine**

Catalog Number: 25702

*Karen Thornber (Comparative Literature)*

*Half course (spring term). Tu., 1-3, and a weekly section to be arranged. EXAM GROUP: I*  
 Examines the relationship between literature and medicine through creative texts that question understandings, shatter binaries, and reconceptualize notions of normality/disability, health/disease, and life/death. Pays particular attention to the work of physician-writers and narratives by patients.

### **Aesthetic and Interpretive Understanding 51 (formerly Italian 131). The Cosmos of the Comedy**

Catalog Number: 49715

*Jeffrey Schnapp (Romance Languages and Literatures)*

*Half course (fall term). W., 1-3, and a weekly section to be arranged. EXAM GROUP: I*

This course provides an in-depth exploration of Dante Alighieri's 14th-century masterpiece, the *Divine Comedy*, from the standpoint of the history of Western poetry, language, religious belief, geography and science. Particular attention is paid to Dante's dialogue with ancient authors such as Plato, Aristotle, Virgil and Ovid, as well as to imaginative mappings of Hell, Purgatory and Paradise. One of the course's highlights is a multimedia web-based competition in which all enrolled students compete for the annual Bedeviled Harvard prize.



*Note:* Conducted in English. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Aesthetic and Interpretive Understanding 52. Repression and Expression: Sexuality, Gender, and Language in Fin-de-siècle Literature and Art**

Catalog Number: 13153

*Peter J. Burgard (Germanic Languages and Literatures)*

*Half course (spring term). M., W., at 12, and a weekly section to be arranged. EXAM GROUP: 7*  
 Examines German and Austrian art and literature of the Turn-of-the-Century (c. 1880-1920) with a focus on the dominant topics of sexuality, gender, and language that are articulated theoretically in the work of Nietzsche and Freud and insistently exemplified thematically and formally in both the art and literature of the age. The examination of this period, these theories, this art, and this literature serves the primary purpose of developing skills in the interpretation of literary texts and the plastic arts, as well as exploring the possibilities and productivity of bringing these arts and the interpretation of them to bear on one another.

*Note:* Expected to be omitted in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[Aesthetic and Interpretive Understanding 54 (formerly Culture and Belief 12). For the Love of God and His Prophet: Religion, Literature, and the Arts in Muslim Cultures]**

Catalog Number: 7027

*Ali S. Asani (Study of Religion; Near Eastern Languages and Civilizations)*

*Half course (spring term). Tu., Th., 11:30-1, and a weekly section to be arranged.*

The course surveys the literary and artistic dimensions of the devotional life of the world's Muslim communities, focusing on the role of literature and the arts (poetry, music, architecture, calligraphy, etc.) as expressions of piety and socio-political critique. An important aim of the course is to explore the relationships between religion, literature, and the arts in a variety of historical and cultural contexts in the Middle East, sub-Saharan Africa, South Asia, Europe, and America.

*Note:* Expected to be given in 2015–16. No prior knowledge of Islam required. You do not need to be "artistically" talented to do well in this course -- just willing to think "out of the box." Offered jointly with the Divinity School as 3627. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding or Culture and Belief, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Aesthetic and Interpretive Understanding 55. Shakespeare, The Early Plays**

Catalog Number: 45945

*Marjorie Garber (English; Visual and Environmental Studies)*

*Half course (spring term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 14*

The early comedies, tragedies, and histories, considered in the context of the origins of the English stage and the conventions of Elizabethan drama. Particular attention paid to Shakespeare's development as a dramatist, and to poetic expression, thematic design, stagecraft, and character portrayal in plays.



*Note:* This course, when taken for letter grade, meets the Department of English Shakespeare requirement.

**[Aesthetic and Interpretive Understanding 56. Shakespeare, The Later Plays]**

Catalog Number: 44278

*Marjorie Garber (English; Visual and Environmental Studies)*

*Half course (fall term). M., W., (F.), at 11, and a weekly section to be arranged.*

The late comedies, tragedies, and romances, with some attention to the prevailing literary traditions of the Jacobean period. Particular attention paid to Shakespeare's development as a dramatist, and to poetic expression, thematic design, stagecraft, and character portrayal in the plays.

*Note:* Expected to be given in 2015–16. This course, when taken for letter grade, meets the Department of English Shakespeare requirement.

**[Aesthetic and Interpretive Understanding 57. American Dreams from *Scarface* to *Easy Rider*]**

Catalog Number: 85078

*Eric Rentschler (Germanic Languages and Literatures)*

*Half course (fall term). Tu., Th., at 10; film screenings Tu., 3-6; and a weekly section to be arranged.*

This class familiarizes students with popular films produced during crucial junctures in the modern history of the United States, from the Great Depression and World War II through the Cold War, McCarthy era, and the 1960s. More specifically, we will study how Hollywood's dream factory responded to dramatic challenges that states of crisis and emergency posed to the founding ideals of our democracy. We will look at the wide range of functions that commercial fantasy productions assumed, how they at times legitimated and bolstered the status quo, but at others also interrogated, exposed, and even indicted social inequity. Course films provide a representative sampling of classical American features from 1932 to 1969, including *Scarface*, *It Happened One Night*, *The Wizard of Oz*, *Gone with the Wind*, *Citizen Kane*, *Casablanca*, *High Noon*, *The Invasion of the Body Snatchers*, *The Manchurian Candidate*, and *Easy Rider*.

*Note:* Expected to be given in 2015–16. Alternate weekly film screenings will be held on Sunday afternoons. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding or Culture and Belief, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**Aesthetic and Interpretive Understanding 58. Modern Art and Modernity**

Catalog Number: 99586

*Ewa Lajer-Burcharth (History of Art and Architecture), Maria Elizabeth Gough (History of Art and Architecture), and Benjamin Buchloh (History of Art and Architecture)*

*Half course (fall term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 13*

The course examines the defining moments in the development of modern European and American art from the eighteenth- through to the twentieth-century. Anchored by a significant date, each lecture focuses on the relationship between a major artistic event and the social, political, cultural, and technological conditions of its emergence. A wide range of media, from painting, sculpture, and print-making to photography, photomontage, video, installation, and



performance art, will be considered. Situating the key aesthetic transformations that defined art's modernity in a broader historical context, the course explores the fundamental role of advanced forms of artistic practice in the formation of modern culture and society.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**Aesthetic and Interpretive Understanding 59 (formerly Culture and Belief 54). Nazi Cinema: The Art and Politics of Illusion**

Catalog Number: 3396 Enrollment: Limited to 216.

*Eric Rentschler (Germanic Languages and Literatures)*

*Half course (fall term). Tu., Th., at 10; film screenings W., 4-6 (optional); and a weekly section to be arranged. EXAM GROUP: 12*

As thinking beings we consider the limits of human potential and wonder what is the worst. The Nazis obsess us because they were masters of extremity who brought to the world unprecedented violence, destruction, and murder. They were also masters of propaganda who engineered sophisticated techniques of mass manipulation; in this endeavor cinema and modern media assumed a seminal role. This course considers why films proved to be so essential to the Hitler regime and so captivating to German audiences of the Third Reich. It also reflects on the continuing allure of Nazi sights and sounds for contemporary mass culture.

*Note:* Expected to be omitted in 2015–16. No knowledge of German required. An additional film screening will be held on Sundays, 1–3. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding or Culture and Belief, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Aesthetic and Interpretive Understanding 60 (formerly Literature 164 and Slavic 190). Literature and Art in an Era of Crisis and Oppression: Modernism in Eastern Europe]**

Catalog Number: 7762

*George G. Grabowicz (Slavic Languages and Literatures; Comparative Literature)*

*Half course (spring term). M., 1–3, and a weekly section to be arranged.*

The course will examine seminal literary works (with forays into film and art) from Eastern Europe in the first half of the 20th century with special attention to their response to convention, censorship and totalitarian strictures as well as "high modernist" experimentation and a "low modernist" focus on popular genres and a new poetics of trash. Focus on Kafka, Zamiatin, Bulgakov, Čapek, Nabokov, Platonov, Witkacy, Schulz, Gombrowicz, Vertov, Dovzhenko and others.

*Note:* Expected to be given in 2015–16. All texts can be read in English translation.

**Aesthetic and Interpretive Understanding 61 (formerly Culture and Belief 37). The Romance: From Jane Austen to Chick Lit**

Catalog Number: 8181

*Linda Schlossberg (Studies of Women, Gender, and Sexuality)*

*Half course (spring term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 9*

A critical investigation of the genre's enduring popularity, beginning with Austen's satirical *Northanger Abbey* and three novels credited with providing narrative templates for contemporary



romances (*Pride and Prejudice*, *Jane Eyre*, *Wuthering Heights*). We will then read twentieth-century revisions of these works (*Rebecca*, *Wide Sargasso Sea*, *Bridget Jones's Diary*). Topics: the female writer and reader/consumer of literature; moral warnings against romance, "sensation," and titillation; the commodification of desire; Harlequins; the relationship between high culture and low.

**[Aesthetic and Interpretive Understanding 62. California in the 60's] - (New Course)**

Catalog Number: 98653

*Kate van Orden*

*Half course (fall term). M., W., at 12, and a weekly section to be arranged.*

This course examines American youth culture in the "long" 1960s through the lens of music in California. Both "popular" and "art" music will be considered, including early minimalism, songs from L.A. and the Laurel Canyon crowd, and San Francisco psychedelia. In addition to understanding musical forms, performance styles, and the effects of technology (radio, recording, electric instruments), the class will delve into the politics of race, gender, resistance, and the draft.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding or Culture and Belief, but not both.

**Aesthetic and Interpretive Understanding 63 (formerly East Asian Film and Media Studies 151). East Asian Cinema**

Catalog Number: 54461

*Jie Li*

*Half course (spring term). W. 1 -3; film screenings M. 6-9; and an additional weekly section to be arranged. EXAM GROUP: 8*

This course introduces major works, genres, and waves of East Asian cinema from the silent era to the present, including films from Mainland China, Japan, Korea, Taiwan, and Hong Kong. We will discuss issues ranging from formal aesthetics to historical representation, from local film industries to transnational audience reception. This course does not assume prior knowledge of East Asian culture or of film studies, but rather seeks to provide students with a basic understanding of modern East Asian cultural history through cinema, and with an essential toolkit for analyzing film and media, including narrative, cinematography, editing and sound. In addition to critical approaches, students are strongly encouraged to creatively respond to course materials by collaborating on their own short films, beginning with the illustration of film terms in the first two weeks and culminating in the Oscar-like "Golden Monkey Awards."

*Note:* All films subtitled in English. No prior knowledge of East Asian history or film studies necessary.

*Cross-listed courses that satisfy the Aesthetic and Interpretive Understanding requirement. Some of these courses may have prerequisites or assume familiarity with the subject matter.*

**African and African American Studies 179. Jazz, Freedom, and Culture**

**[African and African American Studies 182. From R & B to Neo Soul: Black Popular Music and Cultural Transformation]**

**[Culture and Belief 28. Hindu Worlds of Art and Culture]**



[\[Culture and Belief 40. Popular Culture and Modern China\]](#)

[\[Culture and Belief 45. The History of the English Language\]](#)

[\[Culture and Belief 46. Music, Debate, and Islam\]](#)

[\[East Asian Film and Media Studies 140 \(formerly Aesthetic and Interpretive Understanding 53\). Anime as Global Popular Culture\]](#)

[\[English 111. Epic: From Homer to Star Wars\]](#)

[\[English 115b. Chaucer: \*The Canterbury Tales\*\]](#)

[\[English 154. Literature and Sexuality\]](#)

[\[English 157. The Classic Phase of the Novel\]](#)

[\[English 158a. A History of Western Drama\]](#)

[\[English 178x. The American Novel: Dreiser to the Present\]](#)

[\[English 192. Political Theatre and the Structure of Drama\]](#)

[\[Ethical Reasoning 37 \(formerly History of Art and Architecture 50g\). Adam & Eve\]](#)

[\[\\*Folklore and Mythology 128. Fairy Tale, Myth, and Fantasy Literature\]](#)

[\[History of Art and Architecture 10. The Western Tradition: Art Since the Renaissance\]](#)

[\[History of Art and Architecture 11. Landmarks of World Architecture\]](#)

[\[History of Art and Architecture 161v. Rome: Eternal City\]](#)

[\[Humanities 10a. The Humanities Colloquium: Essential Works 1 - \(New Course\)\]](#)

[\[Humanities 10b. The Humanities Colloquium: Essential Works 2 - \(New Course\)\]](#)

[\[Humanities 12 \(formerly Humanities 114\). Masterpieces of World Literature - \(New Course\)\]](#)

[\[Humanities: Frameworks 11a. Frameworks: The Art of Looking\]](#)

[\[Humanities: Frameworks 11b. Frameworks: The Art of Listening\]](#)

[\[Humanities: Frameworks 11c. Frameworks: The Art of Reading\]](#)

[\[Literature 113. Existential Fictions: From Saint Augustine to Jean-Paul Sartre and Beyond\]](#)

[\[Literature 133. Shakespeare Shakes the Globe\]](#)

[\[Literature 147. "Why the Jews?": The Modern Jewish Experience in Literature - \(New Course\)\]](#)

[\[Medieval Studies 107. Authority and Invention: Medieval Art and Architecture\]](#)

[\[Music 1. 1000 Years of Listening - \(New Course\)\]](#)

[\[Music 1a. Introduction to Western Music from the Middle Ages to Mozart\]](#)

[\[Music 1b. Introduction to Western Music from Beethoven to the Present\]](#)

[\[Music 2. Foundations of Tonal Music I\]](#)

[\[\\*Music 51a. Theory Ia\]](#)

[\[\\*Music 51b. Theory Ib\]](#)

[\[Music 157gew. South Indian Music Theory & Practice\]](#)

[\[Music 190gew. Music in Islamic Contexts - \(New Course\)\]](#)

[\[Music 190gw. South Indian Music\]](#)

[\[Scandinavian 150r \(formerly Scandinavian 150.\). The Vikings and the Nordic Heroic Tradition\]](#)

[\[Slavic 148. Strange Russian Writers\]](#)

[\[\\*Studies of Women, Gender, and Sexuality 1237. LGBT Literature\]](#)

[\[Visual and Environmental Studies 70. The Art of Film\]](#)

*Culture and Belief*



## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

The aim of courses in the Culture and Belief category is to develop an understanding of and appreciation for the ways that social, political, religious, economic, and historical conditions shape the production and reception of ideas and works of art, either within or across cultural boundaries. Students in these courses examine how cultures and beliefs affect the identities of individuals and communities. Courses in this category draw connections between the material covered in the course and cultural issues of current concern or interest.

### ***Culture and Belief***

#### **[Culture and Belief 11. Medicine and the Body in East Asia and in Europe]**

Catalog Number: 8736

*Shigehisa Kuriyama (East Asian Languages and Civilizations)*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged.*

Comparative historical exploration of the striking differences and unexpected similarities between traditional conceptions of the body in East Asian and European medicine; the evolution of beliefs within medical traditions; the relationship between traditional medicine and contemporary experience.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **[Culture and Belief 13. The Contested Bible: The Sacred-Secular Dance]**

Catalog Number: 9458

*Jay M. Harris (Near Eastern Languages and Civilizations)*

*Half course (spring term). M., W., F., at 10, and a weekly section to be arranged.*

A short history of the Bible. Questions addressed include how the Bible became a book, and how that book became sacred; the advantages and burdens of a sacred text; Jewish-Christian disputations; how interpretive efforts helped create and reinforce powerful elites; how that text became the object of criticism; and how the Bible fared after the rise of criticism.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **[Culture and Belief 14. Human Being and the Sacred in the History of the West]**

Catalog Number: 4605

*Sean D. Kelly (Philosophy)*

*Half course (fall term). M., W., (F.), at 11, and a weekly section to be arranged.*

A culture's understanding of what it is to be human interacts with its understanding of what is sacred. Great works of art in the culture typically reflect or articulate these notions. This course will explore the themes of human being and the sacred as they are manifested in some of the greatest works in the history of the West. Readings chosen from among Homer, Aeschylus, Virgil, the New Testament, Augustine, Dante, Luther, Pascal, Kant, Melville, and others.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **Culture and Belief 16. Performance, Tradition and Cultural Studies: An Introduction to Folklore and Mythology**



Catalog Number: 6753

*Stephen A. Mitchell (Germanic Languages and Literatures; Folklore and Mythology)*

*Half course (fall term). M., W., (F.), at 11 and a weekly section to be arranged. EXAM GROUP: 18*

Examines major forms of folklore (e.g., myths, legends, epics, beliefs, rituals, festivals) and the theoretical approaches used in their study. Analyzes how folklore shapes national, regional, and ethnic identities, as well as daily life; considers the function of folklore within the groups that perform and use it, employing materials drawn from a wide range of areas (e.g., South Slavic oral epics, American occupational lore, Northern European ballads, witchcraft in Africa and America, Cajun Mardi Gras).

*Note:* Required of Concentrators and for the Secondary Field in Folklore and Mythology. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 17. Institutional Violence and Public Spectacle: The Case of the Roman Games**

Catalog Number: 2603

*Kathleen M. Coleman (The Classics)*

*Half course (fall term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

Gladiatorial combat, beast fights, staged hunts, mock naval battles, and exposure of criminals to wild animals were defining features of the culture of ancient Rome. Examining texts and images from across the Roman world, this course seeks to identify and probe the values, attitudes, and social, political, and economic factors that contributed to the popularity of institutionalized violence as public entertainment for six hundred years from the Punic Wars until the Christianization of the Empire.

*Note:* Expected to be omitted in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 19. Understanding Islam and Contemporary Muslim Societies**

Catalog Number: 1065

*Ali S. Asani (Study of Religion; Near Eastern Languages and Civilizations)*

*Half course (spring term). Tu., 7:40-9:40 p.m., and a weekly section to be arranged. EXAM GROUP: 6*

The course is an introduction to the fundamental concepts of Islam and the role that religious ideas and institutions play in Muslim communities around the world. Its main concern is to develop an understanding of the manner in which diverse notions of religious and political authority have influenced Muslim societies politically, socially and culturally. Through specific case studies of countries such as Saudi Arabia, Iran, Turkey, Egypt, Pakistan, and Afghanistan, the course considers the role played by ideologies such as jihad, colonialism, nationalism, secularism, and globalization in shaping the ways in which Muslims interpret and practice their faith today. The course briefly considers the contemporary situation of Muslim minorities in Europe and the United States. The course, through on-campus and on-line options, allows those enrolled to engage with students from all over the world.

*Note:* Expected to be omitted in 2015–16. Offered jointly with the Divinity School as 3628. This



course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[Culture and Belief 20. Reason and Faith in the West]**

Catalog Number: 8149

*Ann M. Blair (History)*

*Half course (spring term). M., W., (F.), at 11, and a weekly section to be arranged.*

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 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 21. Pathways through the Andes—Culture, History, and Beliefs in Andean South America**

Catalog Number: 2073

*Thomas B. F. Cummins (History of Art and Architecture)*

*Half course (spring term). Tu., Th., 1:00–2:30, and a weekly section to be arranged. EXAM GROUP: 1*

This course explores the arts and cultures of Andean South America from the Pre-Columbian through Colonial periods. Emphasis is on the place of objects—textiles, ceramics, sculptures, and books—in the construction of meanings, identities and values as these changed over time.

Readings are drawn from archaeology, ethnohistory, ethnology, art history and original sources. Students will work with Pre-Columbian and Colonial Andean artifacts in the collections of the Peabody Museum.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief or Societies of the World, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 22. The Ancient Greek Hero**

Catalog Number: 3915

*Gregory Nagy (The Classics; Comparative Literature)*

*Half course (fall term). M., W., at 12, and a weekly section to be arranged. EXAM GROUP: 11*

This course takes a close look at the human condition, as viewed through the lens of classical Greek civilization (and some modern comparanda). The readings, all in English translation, are the Homeric Iliad and Odyssey, seven tragedies (Aeschylus' Oresteia Trilogy, Sophocles' two Oedipus dramas, and Euripides' Hippolytus and The Bacchic Women), and two dialogues of Plato (the Apology and the Phaedo, both centering on the last days of Socrates); also, selections from the dialogue On Heroes by an eminent thinker in the "second sophistic" movement, Philostratus.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.



### **Culture and Belief 23. From the Hebrew Bible to Judaism, From the Old Testament to Christianity**

Catalog Number: 5275

*Shaye J.D. Cohen (Near Eastern Languages and Civilizations)*

*Half course (spring term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 6*

The Hebrew Scriptures, what Christians call the “Old Testament” and Jews call the “Bible,” are the basis of both Judaism and Christianity. In this course we shall survey how this work of literature, through interpretation and re-interpretation, spawned two different cultural systems. Topics to be surveyed include: canon and prophecy; exegesis and *Midrash*; Shabbat and Sunday; temple, synagogue, church; the Oral Torah and the Logos; sin and righteousness; messiah and redemption.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 25. Studying Buddhism, Across Place and Time**

Catalog Number: 1316

*Janet Gyatso (Harvard Divinity School)*

*Half course (fall term). Tu., Th., 11:30-1, and a weekly section to be arranged. EXAM GROUP: 15*

This class studies the basic elements of Buddhist thought, practice, and historical communities, and their vision of human flourishing. We will study Buddhist classic writings as well as later works from South, Central and East Asia on meditation, discipline, and creativity. Key themes of our readings are the relationship between self and other, the education of the emotions, paths of self-cultivation, and the (im)possibility of perfection. We will be especially attentive to how the approach to such things has shifted as Buddhism spread through Asia, and more recently to the rest of the world, as received by the 19th century Transcendentalists, the Beat poets, and socially engaged religion. Throughout the course we will consider the relevance of this material to our own views of the world and how we should lead our lives.

*Note:* Offered jointly with the Divinity School as 3830. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 27. Among the Nations: Jewish History in Pagan, Christian and Muslim Context**

Catalog Number: 2338

*Jay M. Harris (Near Eastern Languages and Civilizations)*

*Half course (spring term). M., W., (F.), at 12, and a weekly section to be arranged. . EXAM GROUP: 7*

Can we trace an “authentic” Jewish identity through history, as distinct from many “cultures” of Jews in the multitude of times and places in which they have lived? This course provides an overview of major trends in Jewish civilization from biblical times through the early modern era (to approximately the 17th century), with this and related questions in mind, by engaging in close readings of traditional Jewish sources on the one hand and seeking contextual understandings of Jews and Judaism within various non-Jewish settings on the other.

*Note:* Required of all secondary concentrators in Jewish Studies, unless excused by the DUS.



This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Culture and Belief 28. Hindu Worlds of Art and Culture]**

Catalog Number: 24091

*Diana L. Eck (South Asian Studies; Study of Religion)*

*Half course (fall term). Tu., Th., 11:30-1, and a weekly section to be arranged.*

An exploration of the narratives and arts of the Hindu tradition focusing on the great gods—Vishnu, Krishna, Shiva, and Devi—the images through which the gods are envisioned, the temples and pilgrimage places where they are worshipped, and the ways in which they give expression to a profound vision of the world. Readings include the Ramayana, the Bhagavad Gita, the Gita Govinda, the Shiva Purana, and the Devi Mahatmya

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3412. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief or Aesthetic and Interpretive Understanding, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Culture and Belief 30. Seeing is Believing: A History of Photography]**

Catalog Number: 5649

*Robin E. Kelsey (History of Art and Architecture)*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged.*

Modern society is unthinkable without the photograph, and yet we rarely have occasion to ponder what photographs are, what they do, and how they do it. In this course, we will consider photography from its origins to the digital era, paying particular attention to its role as an engine of belief in various cultural domains. Our goal will be to understand more incisively how photographs define and shape relations between their subjects and their viewers.

*Note:* Students who have taken Literature and Arts B-24 may not take this course for credit. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**Culture and Belief 31. Saints, Heretics, and Atheists: An Historical Introduction to the Philosophy of Religion**

Catalog Number: 6837

*Jeffrey K. McDonough (Philosophy)*

*Half course (spring term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 7*

This course offers an introduction to perennial themes in the philosophy of Western religion while situating those themes in a broad historical context. Students read central works by Plato, Augustine, Anselm, Ibn Sina, al-Ghazali, Aquinas, Pascal, Spinoza, Hume and Nietzsche. Topics include piety, evil, free will, sin, devils, angels, the soul, immortality, mysticism, faith, reason, and God's nature and existence.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.



### **[Culture and Belief 32. Back Roads to Far Places: Literature of Journey and Quest]**

Catalog Number: 39198

*William A. Graham (Near Eastern Languages and Civilizations; The Study of Religion) and Stephanie A. Paulsell (Harvard Divinity School)*

*Half course (spring term). M., W., at 10, and a weekly section to be arranged.*

Explores themes of journey and quest in world literature and the interplay between their literary and religious dimensions. Considers the relationship between physical and interior journeys, home and exile, quest and peregrination. Emphasis will be on careful reading of, and thoughtful essays on, texts such as Gilgamesh, the Bible, Quest of the Holy Grail, Walden, and works by Tolkien, Dante, Teresa of Avila, Ashvaghosha, Hesse, Basho, Shusako Endo, Charles Johnson, Virginia Woolfe, and Cormac McCarthy.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2490. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 33. Introduction to the Study of East Asian Religions**

Catalog Number: 34911

*James Robson (East Asian Languages and Civilizations)*

*Half course (spring term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

This course provides an introduction to the study of East Asian religions. It covers the development of Buddhism, Daoism, Confucianism and Shinto. It is not a comprehensive survey, but is designed around major conceptual themes, such as ritual, image veneration, mysticism, meditation, death, and category formation in the study of religion. The emphasis throughout the course is on the hermeneutic difficulties attendant upon the study of religion in general, and East Asian religions in particular.

*Note:* Offered jointly with the Divinity School as 3010. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief or Societies of the World, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 34. Madness and Medicine: Themes in the History of Psychiatry**

Catalog Number: 6692

*Anne Harrington (History of Science)*

*Half course (fall term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 5*

Psychiatry is one of the most intellectually and socially complex and fraught fields of medicine today, and history offers one powerful strategy for better understanding why. Topics covered in this course include the invention of the mental asylum, early efforts to understand mental disorders as disorders of the brain or biochemistry, the rise of psychoanalysis, psychiatry and war, the rise of psychopharmacology, the making of the DSM, anti-psychiatry, and more.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 35. Classical Mythology**

Catalog Number: 69871



*Brigitte A. B. Libby*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 16*

Incest and parricide, cannibalism and self-blinding: classical mythology has fascinated artists, writers, and thinkers throughout western civilization, and this course will serve as an introduction to this strange and brilliant world. We will move from the very first works of Greek literature through to the classic Greek tragedies and the Roman tales in Ovid's Metamorphoses. Along the way, we will confront the question of what "mythology" is and how it works, and we will discuss how these traditional stories changed over time to fit different cultural circumstances. We will also consider ancient rationalizations of myth, the relationship of myth and politics, and the reception of classical myth in the modern world.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 38. Apocalypse Then! Forging the Culture of Medieval Rus'**

Catalog Number: 2798

*Michael S. Flier (Slavic Languages and Literatures)*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 18*

When the natives of Medieval Rus (later Russians, Ukrainians, and Belarusians) accepted Orthodox Christianity in the 10th century, their nature-based paganism gave way to a powerfully sensual belief system that made good use of the visual and the verbal to prepare these newest Christians for the coming Apocalypse and Last Judgment. We investigate this transformation from the conversion of Saint Vladimir and the excesses of Ivan the Terrible through the Time of Troubles and the modern turn of Peter the Great. The class features close analysis of architecture, icons and frescoes, ritual, folklore, literature, and history to understand this shift in worldview, including the role of women. Special attention is devoted to the ways in which Medieval Rus is portrayed in film, opera, and ballet.

*Note:* All readings in English. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 39. The Hebrew Bible**

Catalog Number: 9783

*Shaye J.D. Cohen (Near Eastern Languages and Civilizations)*

*Half course (fall term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 5*

This course is a survey of the major books and ideas of the Hebrew Bible (commonly called the Old Testament). The course will also treat the historical contexts in which the Bible emerged, and the Bible's role as canonical scripture in Judaism and Christianity.

*Note:* All readings in translation. No prior knowledge of the subject is assumed. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[Culture and Belief 40. Popular Culture and Modern China]**

Catalog Number: 8730

*David Der-Wei Wang (East Asian Languages and Civilizations)*

*Half course (fall term). M., W., at 11; four film screenings to be arranged; and a weekly section*



*to be arranged.*

This course examines “popular culture” as a modern, transnational phenomenon and explores its manifestation in Chinese communities (in People’s Republic of China, Taiwan, Hong Kong, Southeast Asia and North America) and beyond. From pulp fiction to film, from “Yellow Music” to “Model Theater”, from animations to internet games, the course looks into how China became modern by participating in the global circulation of media forms, and how China helps in her own way enrich the theory and practice of “popular culture”.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief or Aesthetic and Interpretive Understanding, but not both.

### **[Culture and Belief 41. Gender, Islam, and Nation in the Middle East and North Africa]**

Catalog Number: 0352

*Afsaneh Najmabadi (History; Studies of Women, Gender, and Sexuality)*

*Half course (spring term). M., W., F., at 12.*

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:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[Culture and Belief 42. Communism and the Politics of Culture: Czechoslovakia from World War II to the Velvet Revolution]**

Catalog Number: 5237

*Jonathan H. Bolton (Slavic Languages and Literatures)*

*Half course (spring term). M., W., at 11, and a weekly section to be arranged.*

What was Communism, and how did it shape the intellectual life of East Central Europe after World War II? How do artists and writers counter the ideological pressures of the state? This course examines how the intense political pressures of invasion, occupation, and revolution shape a country’s cultural life and are shaped by it in turn. We look at Czechoslovakia’s literature, drama, film, and music from the 1948 Communist takeover, through the Prague Spring and Soviet invasion of 1968, to the 1989 Velvet Revolution, a hallmark of the peaceful overthrow of Communism in Europe. We consider works by Milan Kundera, Bohumil Hrabal, Vaclav Havel; films of the Czech New Wave (Milos Forman, Vera Chytilova, Jiri Menzel); clandestine publishing and underground art; and theories of political dissent under authoritarian regimes.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 45. The History of the English Language**

Catalog Number: 1987

*Daniel G. Donoghue (English)*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 18*

Everyone who uses English has experienced its idiosyncrasies. Why is pronunciation at odds



with spelling? Why so many irregular verbs? What happened to "thou"? What did Shakespeare sound like? How do we know? What about the current stature of English as a world language? This course addresses such questions as it surveys the long history of the language. While the topic is fascinating on its own, a historical knowledge of English gives critical and creative writers more command over the medium of their craft; it also sharpens reading skills. Lectures will be supplemented by exercises from the course website.

*Note:* Expected to be omitted in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief or Aesthetic and Interpretive Understanding, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Culture and Belief 46. Music, Debate, and Islam]

Catalog Number: 87585

*Richard K. Wolf (Music)*

*Half course (spring term). Tu., 1-3, and a weekly section to be arranged.*

This course focuses on the arts of sound practiced by Muslims and on debates associated with “music” in a range of Islamic contexts. The purposes are to understand from a musically informed perspective a set of interrelated musical practices that cut across regions (especially South and West Asia); and how different ideologies, philosophies, and texts—associated with Islam locally, nationally, and internationally—shape local understandings and constructions of sound. The content of classes will include lectures, discussions, live musical demonstrations and careful review of audio-visual materials. Students will also have the opportunity to learn to play or sing Persian music.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief or Aesthetic and Interpretive Understanding, but not both.

### [Culture and Belief 47. The Darwinian Revolution]

Catalog Number: 8691

*Janet Browne (History of Science)*

*Half course (fall term). M., W., (F.) at 10, and a weekly section to be arranged.*

Why is evolutionary theory so controversial in the public sphere? This course looks to the history of cultural changes in the West for answers. We cover the intellectual structure and social context of evolutionary ideas as they emerged in the 19th and 20th centuries, emphasizing Darwinism as a major transformation in Western thought. Topics include key aspects of Darwin's ideas; the comparative reception of Darwinism in Britain, US, Germany, Russia and France; social Darwinism, eugenics and racial theories; early genetics and the search for the gene; religious controversy then and now. The course alternates with Culture and Belief 20.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### Culture and Belief 48. God, Justice, and the Book of Job

Catalog Number: 7991

*Peter Machinist (Near Eastern Languages and Civilizations)*

*Half course (fall term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 11*

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 omitted in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Culture and Belief 49. American Protest Literature from Tom Paine to Tupac]

Catalog Number: 7442

*John Stauffer (English; African and African American Studies) and Timothy P. McCarthy (History and Literature; Harvard Kennedy School)*

*Half course (fall term). Tu., Th., at 1, and a weekly section to be arranged.*

This interdisciplinary course examines the rich tradition of progressive protest literature in the US from the American Revolution to the rise of Hip Hop, globalization, and modern-day slavery. 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.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Culture and Belief 50. The European Postwar: Literature, Film, Politics]

Catalog Number: 88659

*Peter E. Gordon (History)*

*Half course (fall term). M., W., at 11; nine film screenings (approximately every other M., 7-9 pm); and a weekly section to be arranged.*

What happened in the last half century in European culture and politics? How can we read history through culture, and culture through history? This undergraduate lecture survey offers a general overview of European history since 1945, with a primary focus on some of the greatest works of postwar European film and literature. We will interrogate major trends in cinema and literature (e.g., expressionism, existentialism, neo-realism, minimalism, the New Wave, the realist political dramas of the 1970s, and so forth); in conjunction with new modalities of political discourse concerning communism, democracy, colonialism, and sexuality.

*Note:* The course includes six classic novels by postwar European author, and nine of the greatest postwar films by noteworthy European directors. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief or Societies of the World, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### Culture and Belief 51. Making the Middle Ages

Catalog Number: 79782 Enrollment: Limited to 56.

*Catherine McKenna (Celtic Languages and Literatures) and Nicholas Watson (English)*

*Half course (spring term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*



This course offers a general introduction to the cultures and beliefs of medieval Europe. We focus on a variety of artifacts and cultural productions as the centerpieces of a broad and interdisciplinary exploration of medieval studies. Using specific objects and texts as points of entry into a vanished world, we encourage students to explore those areas that interest them most, teasing out the cultures and beliefs of the past while simultaneously developing their skills in research and writing. Through collaborative projects and a creative exploration of texts, images, and collections at Harvard and beyond, students will be invited to make their own Middle Ages.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Culture and Belief 52 (formerly History 1213). The American Evangelical Tradition from Jonathan Edwards to Jerry Falwell]**

Catalog Number: 5888

*David Hempton (Harvard Divinity School)*

*Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged.*

The purpose of the course is to investigate the evangelical tradition from its origins in the religious revivals of the eighteenth century to its contemporary role in American culture, society and politics. Notwithstanding its often stereotypical characterizations, the evangelical tradition is surprisingly eclectic and complex. A central objective of the course, therefore, is to explore that complexity in relation to gender, ethnicity, social class, and political culture. The course will make use of primary and secondary materials to shed light on evangelical theology, spirituality, and cultural expression in America and in a global context.

*Note:* Offered jointly with the Divinity School as 2358. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**Culture and Belief 53. Sacred and Secular Poetry**

Catalog Number: 98258

*Judith Ryan (Germanic Languages and Literatures; Comparative Literature)*

*Half course (fall term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 8*

Tracing poetry from its origins in religious practice, the course examines the process of secularization and the ways in which modern poems retain traces of sacred texts. As poets grapple with an increasingly secular world, the emergence of modernity is revealed in vivid ways. Class discussions will explore the extent to which reminiscences of the sacred form part of the deeper appeal of poetry and its ability to shape meaning in the modern world.

**Culture and Belief 55. The Enlightenment**

Catalog Number: 14022

*James Engell (English; Comparative Literature)*

*Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12*

The Enlightenment creates modern ideas of the self, a just society, and reformed institutions. The course explores six interrelated developments: (1) taking nothing on authority, a spirit of critique examines knowledge, religion, and government; (2) the spread of general knowledge to populations of increasing literacy; (3) debates about human nature—naturally selfish or sympathetic, altered by race or gender, innate or learned? (4) new institutions for equity and



justice, even using violent revolution; (5) efforts supporting abolition, women's rights, and religious toleration; (6) self-consciousness in philosophy, art, and psychology. Thinkers include Pope, Montesquieu, Voltaire, Diderot, Johnson, Rousseau, Burke, Lessing, Gibbon, Smith, Kant, Burney, and Wollstonecraft.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Culture and Belief 56 (formerly English 193a). The Culture of Capitalism]

Catalog Number: 42449

*Martin Puchner (English; Comparative Literature; Dramatic Arts)*

*Half course (spring term). M., W., at 11, and a weekly section to be arranged.*

The course asks how cultural products, including literature, theater and film have captured the spirit of capitalism-fuelling its fantasies, contemplating its effects, and chronicling its crises. More than just an economic system, capitalism created new habits of life and mind as well as new values, forged and distilled by new forms of art. Core readings by Defoe, Franklin, O'Neill, Rand, Miller, and Mamet and background readings by Smith, Marx, Taylor, Weber, Keynes, and Hayek.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Culture and Belief 57. Animated Spirituality: Japanese Religion in *Anime, Manga, and Film*]

Catalog Number: 25057 Enrollment: Limited to 108. May not be audited

*Helen Hardacre (East Asian Languages and Civilizations)*

*Half course (fall term). Tu., Th., at 1; nine film screenings Tu., 4-6pm; and a weekly section to be arranged.*

This course addresses the representation of religion in Japanese popular culture, with emphasis on *anime, manga*, and film. The course examines depictions of religious figures, themes, and human dilemmas in contemporary popular culture as a gateway to understanding the significance of religion in Japanese society and history.

*Note:* Expected to be given in 2015–16.

### [Culture and Belief 58. Case Studies in the Medical Humanities: Interdisciplinary Perspectives on the Experience of Illness and Healing]

Catalog Number: 63195

*David Shumway Jones (History of Science; Harvard Medical School) and Arthur Kleinman (Anthropology; Harvard Medical School)*

*Half course (spring term). Tu., Th., 10–11:30, and a weekly section to be arranged.*

Disease and healing pose pragmatic and moral challenges for individuals and societies. Artists and writers have struggled to make sense of these tragic and transcendent experiences through fiction, poetry, art, and music. Scholars can explore these archives of the illness experience to understand not just disease and medicine but also what it means to be human. This interdisciplinary course examines how the medical humanities can change how we think about suffering, resilience, and care-giving, an endeavor relevant to anyone who expects to encounter these problems in life (i.e., everyone). In 2014 the course will focus on death and dying. Future



offerings will address epidemics, chronic disease, mental illness, or caregiving.  
*Note:* Expected to be given in 2015–16.

### **[Culture and Belief 59. Athens, Rome, and Us: Questions of Identity]**

Catalog Number: 26897

*Emma Dench (The Classics; History)*

*Half course (fall term). Tu., Th., at 12, and a weekly section to be arranged.*

A thematic and comparative exploration of questions of identity in Athens of the fifth to fourth centuries BCE and Rome of the 1st cent. BCE to 1st cent. CE, emphasizing connections with our own society and world-view. How did the ancient Athenians and Romans, and sub-groups of ancient Athenians and Romans, imagine connections and differences between themselves and others peoples? How far did the societies of classical identity have concepts of race, ethnicity, citizenship, nations or gender identities and sexualities that correspond at all closely to our own? Why do these issues matter to us, and what can we learn from these ancient societies?

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Culture and Belief 60. Religion in India: Texts and Traditions in a Complex Society - (New Course)**

Catalog Number: 45038

*Diana L. Eck (South Asian Studies; The Study of Religion)*

*Half course (fall term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 18*

An exploration of the classical texts, spiritual teachings, epic narratives, and religious movements that have shaped a complex civilization for some three thousand years, from the Indus Valley to today. Readings in primary sources - Vedas and Upanishads, Buddhist and Jain teachings, the Mahabharata and the Bhagavad Gita, Bhakti and Sufi poets, Sikh gurus and Muslim kings. Attention to the creation of a rich and composite civilization and the ways in which these sources continue to be of significance to the understanding of modern India.

### **Culture and Belief 61. Gender and Science: From Marie Curie to Gamergate - (New Course)**

Catalog Number: 61168 Enrollment: Limited to 126.

*Sarah S. Richardson*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

Why are women well represented in some fields of scientific study but not others? Do gender beliefs influence the content of scientific knowledge? How is gender encoded in the practices and norms of science? This course explores the intersection of gender and science from Bacon's seventeenth century call to raise a "masculine" science to the present. Topics include: girls, boys, and science education; gender and technology; women in the science professions; bias and objectivity in science; and gender and science in literature, film, and popular culture.

***Cross-listed courses that satisfy the Culture and Belief requirement. Some of these courses may have prerequisites or assume familiarity with the subject matter.***



[Aesthetic and Interpretive Understanding 24. First Nights: Five Performance Premieres](#)  
[Aesthetic and Interpretive Understanding 41. How and What Russia Learned to Read: The Rise of Russian Literary Culture](#)

[Aesthetic and Interpretive Understanding 42. Literature and Revolution: Great Books in Moments of Cultural Transformation]

[Aesthetic and Interpretive Understanding 54 (formerly Culture and Belief 12). For the Love of God and His Prophet: Religion, Literature, and the Arts in Muslim Cultures]

[Aesthetic and Interpretive Understanding 57. American Dreams from *Scarface* to *Easy Rider*]

[Aesthetic and Interpretive Understanding 59 \(formerly Culture and Belief 54\). Nazi Cinema: The Art and Politics of Illusion](#)

[Aesthetic and Interpretive Understanding 62. California in the 60's] - (*New Course*)

[African and African American Studies 182. From R & B to Neo Soul: Black Popular Music and Cultural Transformation]

[Anthropology 1795. The Politics of Language and Identity in Latin America](#)

[Classical Studies 165. Medicine in the Greco-Roman World]

[\\*Computer Science 105. Privacy and Technology](#)

[Economics 1776. Religion and the Rise of Capitalism](#)

[English 148. Modern Monsters in Literature and Film - \(\*New Course\*\)](#)

[\\*Folklore and Mythology 114. Embodied Expression/Expressive Body: Dance in Cultural Context](#)

[\*Folklore and Mythology 128. Fairy Tale, Myth, and Fantasy Literature]

[German 146 (formerly Ethical Reasoning 26). The Ethics of Atheism: Marx, Nietzsche, Freud]

[History 1144. The Renaissance in Florence]

[History 1301. Western Intellectual History II: The Prehistory of Modern Thought]

[History 1318. History of the Book and of Reading]

[History 1445. Science and Religion in American History](#)

[History 1462. History of Sexuality in the Modern West](#)

[History of Science 100. Knowing the World: An Introduction to the History of Science](#)

[History of Science 108. Bodies, Sexualities, and Medicine in the Medieval Middle East](#)

[Islamic Civilizations 178 \(formerly \\*Religion 1820\). Muslim Societies in South Asia: Religion, Culture, and Identity](#)

[Literature 133. Shakespeare Shakes the Globe]

[Music 190gew. Music in Islamic Contexts - \(\*New Course\*\)](#)

[Religion 40. Incarnation and Desire: An Introduction to Christianity](#)

[Religion 46 \(formerly Religion 1413\). The Letters of Paul: Ethnicity, Sex, Ethics, and the End of the World](#)

[Religion 1802. Introduction to Islamic Mysticism: The Sufi Tradition](#)

[Science of the Physical Universe 17. The Einstein Revolution](#)

[Slavic 148. Strange Russian Writers]

[Societies of the World 30. Moctezuma's Mexico: Then and Now \(2012\)!](#)

[Societies of the World 41. Medieval Europe]

[Studies of Women, Gender, and Sexuality 1258. Friends with Benefits?]

[\\*Studies of Women, Gender, and Sexuality 1424. American Fetish: Consumer Culture Encounters the Other](#)



[The Modern Middle East 111 \(formerly Islamic Civilizations 105\). Culture and Society in Contemporary Iran](#)

[United States in the World 32. The World's Religions in Multicultural America: Case Studies in Religious Pluralism](#)

[United States in the World 33. Religion and Social Change](#)

## *Empirical and Mathematical Reasoning*

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

Courses in Empirical and Mathematical Reasoning teach the conceptual and theoretical tools used in reasoning and problem solving, such as statistics, probability, mathematics, logic, and decision theory. Students develop the ability to apply abstract principles and theories to concrete problems. They also learn how to make decisions and draw inferences that involve the evaluation of data and evidence, and how to recognize when an issue cannot be settled on the basis of the available evidence. Students will become aware of the many mistakes that human beings are prone to making in their reasoning and come to understand how to avoid common pitfalls in inference-making.

#### *Empirical and Mathematical Reasoning*

**[Empirical and Mathematical Reasoning 11. Making Sense: Language, Logic, and Communication]**

Catalog Number: 37079

*Bernhard Nickel (Philosophy), Gennaro Chierchia (Linguistics), and Stuart M. Shieber (Harvard School of Engineering and Applied Sciences)*

*Half course (spring term). Tu., Th., 11:30-1, and a weekly section to be arranged.*

What is meaning, and how do we use it to communicate? We address the first of these questions via the second, presenting an interdisciplinary approach to the study of human languages. We investigate language as the product of a natural algorithm, that is, a computational facility which grows spontaneously in our species and enables us to expose our thoughts and feelings. Our investigation uses formal models from logic, linguistics, and computer science. These models will also shed light on human nature and basic philosophical issues concerning language.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Empirical and Mathematical Reasoning 13. Analyzing Politics]**

Catalog Number: 3544

*Kenneth A. Shepsle (Government)*

*Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged.*

A commonsensical survey of rational theories of politics comprised of: (1) individual choice, (2) group choice, (3) collective action, and (4) institutions. The underlying theme is that politics may be described and understood as rational, goal-seeking behavior by citizens, politicians, bureaucrats, and interest groups in various settings. Students are encouraged to think deeply 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. Instruction is by



lecture, small-group section interactions, and experiments.

*Note:* Expected to be given in 2015–16.

### **Empirical and Mathematical Reasoning 14. Fat Chance**

Catalog Number: 26591

*Joseph D. Harris (Mathematics) and Benedict H. Gross (Mathematics)*

*Half course (fall term). M., W., F., at 11, and a weekly section to be arranged. EXAM GROUP: 18*

This course has three objectives: to learn to calculate probabilities precisely, when we can; to learn how to estimate them, when we can't; and to say exactly what we can and can't infer from these calculations. The course is not mathematically demanding--we assume no mathematical background beyond high-school algebra--but the goal is serious: given that we're asked every day to make consequential decisions on the basis of incomplete knowledge, an understanding of basic probability is an essential tool for life.

### **[Empirical and Mathematical Reasoning 16. Real-Life Statistics]**

Catalog Number: 8782

*Instructor to be determined*

*Half course (fall term). Tu., Th., 2:30-4, and a weekly section to be arranged.*

This course explores the statistical reasoning underlying everyday life: learn to inform ordinary decisions with statistical understanding and critically assess information reported in the news. Topics include the implications and validity of medical studies; the interpretation and common pitfalls of surveys and election polls; the motivation for diversifying stock portfolios; the strategies behind online dating websites; and the optimal design for wine tastings. The course also unravels fallacies and paradoxes that often mislead. Students will develop the ability to identify, appreciate, and question the frequent appeals to statistical principles encountered in real life.

*Note:* Expected to be given in 2015–16.

### **Empirical and Mathematical Reasoning 17. Deductive Logic**

Catalog Number: 2508

*Mark Richard (Philosophy)*

*Half course (fall term). M., W., F., at 10, with Fridays 11 - 1 reserved for weekly quizzes; additional weekly section to be arranged. EXAM GROUP: 5*

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.

### **[Empirical and Mathematical Reasoning 18. What are the odds?]**

Catalog Number: 54305

*Andrew W. Murray (Molecular and Chemical Biology) and Edward J. Hall (Philosophy)*



*Half course (spring term). M., W., F., at 11, and a weekly section to be arranged.*

There is the mathematics behind statistics, and then there are the concepts - without a proper grasp of which you will all too likely fall prey to confusion, error, and even outright deception. This course will teach you a bit about the math, and a lot about the concepts. Take it and achieve enlightenment about such topics as the difference between probability and risk, the nature of statistical inference, and the connections between correlation and causation.

*Note:* Expected to be given in 2015–16.

### [Empirical and Mathematical Reasoning 19. The Art of Numbers]

Catalog Number: 9479

*Alyssa Goodman (Astronomy)*

*Half course (fall term). Tu., Th., 1-2:30, and a weekly section to be arranged.*

As data sets get larger and larger, visual tools for exploring them become even more important. "The Art of Numbers" focuses on the insight into quantitative information offered by graphs, tables, charts, maps, and other illustrations. The course explores which graphical tool(s) are best for communicating what kinds of data, and why? Ideas about causality, approximation, statistical significance, credibility, and dimensionality are addressed by analyzing real data and their display. Examples are drawn from epidemiology, astronomy, sports, social-science, finance, geography, politics and economics. Approximately one-half of the course material focuses on web, interactive, and live presentations of data. Textbooks include classic work by Edward Tufte.

*Note:* Expected to be given in 2015–16.

### Empirical and Mathematical Reasoning 20. The Business and Politics of Health

Catalog Number: 4667

*David M. Cutler (Public Health) (Economics)*

*Half course (fall term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

Health and medical care pervade every aspect of our lives. This course uses quantitative methods (graphical analysis, algebra, data analysis) to examine issues related to health, disease, and systems for delivering health care. Topics to be covered include differences in health between rich and poor countries, differences in types of medical care and who receives it, and the political context for reforming health care policy. Techniques for analysis will be developed and demonstrated in class and section. The course uses examples from a variety of international settings, but focuses mainly on health and health care in the US.

*Note:* Students who have taken Economics 1460 may not take this course for credit. Economic concentrators taking this course for concentration credit will need to write a term paper that uses Economics 10 concepts and answer additional questions on problem sets. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning or United States in the World, but not both.

### [Empirical and Mathematical Reasoning 21. Maps and Mapping]

Catalog Number: 94176

*Instructor to be determined*

*Half course (fall term). M., W., at 11.*

Maps are often the most effective way to stimulate spatial reasoning and provoke new



understandings about our world's phenomena. This course introduces contemporary map design, geographic information systems (GIS) and spatial analysis; our emphasis will be on the concepts and techniques that empower new spatial insights into our world.

*Note:* Expected to be given in 2015–16.

### **Empirical and Mathematical Reasoning 22. Nutrition and Health: Myths, Paradigms, and Science**

Catalog Number: 73179

*Karin Michels (Harvard Medical School; Harvard School of Public Health)*

*Half course (fall term). M., 2-4, and a weekly section to be arranged. EXAM GROUP: 7*

What we eat determines our well-being every day, our mental and physical performance, and our long-term health and disease prospects. Understanding how to optimize our diet requires in-depth knowledge of the impact of foods and nutrients on our body. In this course we will evaluate scientific research on nutrition and health. We will discuss diet recommendations in the U.S. and abroad, how nutrition policies are created and how food policies can generate controversies. Learn how to evaluate nutrition paradigms and how to separate myths from science. Acquire skills to assess your own diet and make relevant nutrition choices to maintain long-term health.

*Cross-listed courses that satisfy the Empirical and Mathematical Reasoning Requirement.  
Some of these courses may have prerequisites or assume familiarity with the subject matter.*

[Anthropology 1010. The Fundamentals of Archaeological Methods & Reasoning](#)

[Applied Mathematics 21a. Mathematical Methods in the Sciences](#)

[Applied Mathematics 21b. Mathematical Methods in the Sciences](#)

[Applied Mathematics 101. Statistical Inference for Scientists and Engineers](#)

[Computer Science 1. Great Ideas in Computer Science](#)

[Computer Science 20. Discrete Mathematics for Computer Science](#)

[Computer Science 50 \(Letter Grade\). Introduction to Computer Science I](#)

[Computer Science 171. Visualization](#)

[Economics 10a \(formerly Economics 10\). Principles of Economics](#)

[Economics 10b. Principles of Economics](#)

[Economics 1010a \(formerly Economics 1010a1\). Microeconomic Theory](#)

[Economics 1010b. Macroeconomic Theory](#)

[Economics 1011a. Microeconomic Theory](#)

[Economics 1011b. Macroeconomic Theory](#)

[Economics 1123 \(formerly Economics 1123a1\). Introduction to Econometrics](#)

[Engineering Sciences 1. Introduction to Engineering Sciences]

[Engineering Sciences 50. Introduction to Electrical Engineering](#)

[Government 50. Introduction to Political Science Research Methods](#)

[Human Evolutionary Biology 1590. Ancient Biomolecules - \(New Course\)](#)

[Mathematics Ma. Introduction to Functions and Calculus I](#)

[Mathematics Mb. Introduction to Functions and Calculus II](#)

[Mathematics 1a. Introduction to Calculus](#)

[Mathematics 1b. Calculus, Series, and Differential Equations](#)

[Mathematics 18 \(formerly Mathematics 20\). Multivariable Calculus for Social Sciences](#)



- [\*\*Mathematics 19a. Modeling and Differential Equations for the Life Sciences\*\*](#)
- [\*\*Mathematics 19b. Linear Algebra, Probability, and Statistics for the Life Sciences\*\*](#)
- [\*\*Mathematics 21a. Multivariable Calculus\*\*](#)
- [\*\*Mathematics 21b. Linear Algebra and Differential Equations\*\*](#)
- [\*\*Mathematics 23a. Linear Algebra and Real Analysis I\*\*](#)
- [\*\*Mathematics 23b. Linear Algebra and Real Analysis II\*\*](#)
- [\*\*Mathematics 25a. Honors Linear Algebra and Real Analysis I\*\*](#)
- [\*\*Mathematics 25b. Honors Linear Algebra and Real Analysis II\*\*](#)
- [\*\*\\*Mathematics 55a. Honors Abstract Algebra\*\*](#)
- [\*\*\\*Mathematics 55b. Honors Real and Complex Analysis\*\*](#)
- [\*\*Mathematics 101. Sets, Groups and Topology\*\*](#)
- [\*\*Mathematics 154. Probability Theory\*\*](#)
- [\*\*Physical Sciences 2. Mechanics, Elasticity, Fluids, and Diffusion\*\*](#)
- [\*\*Physical Sciences 3. Electromagnetism, Circuits, Waves, Optics, and Imaging\*\*](#)
- [\*\*Physical Sciences 12a. Mechanics from an Analytic, Numerical and Experimental Perspective\*\*](#)
- [\*\*Physics 15a. Introductory Mechanics and Relativity\*\*](#)
- [\*\*Physics 15b. Introductory Electromagnetism\*\*](#)
- [\*\*Physics 15c. Wave Phenomena\*\*](#)
- [\*\*Physics 16. Mechanics and Special Relativity\*\*](#)
- [\*\*Psychology 1900. Introduction to Statistics for the Behavioral Sciences\*\*](#)
- [Science of the Physical Universe 18. Time]
- [\*\*Science of the Physical Universe 26. Primitive Navigation\*\*](#)
- [\*\*Societies of the World 24. Global Health Challenges: Complexities of Evidence-Based Policy\*\*](#)
- [\*\*\\*Sociology 156. Quantitative Methods in Sociology\*\*](#)
- [\*\*Statistics 100. Introduction to Quantitative Methods for the Social Sciences and Humanities\*\*](#)
- [Statistics 101. Introduction to Quantitative Methods for Psychology and the Behavioral Sciences]
- [\*\*Statistics 102. Introduction to Statistics for Life Sciences\*\*](#)
- [\*\*Statistics 104. Introduction to Quantitative Methods for Economics\*\*](#)

## *Ethical Reasoning*

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

Courses in Ethical Reasoning teach students to reason in a principled way about moral and political beliefs and practices, and to deliberate and assess claims for themselves about ethical issues. Students examine the competing conceptions and theories of ethical concepts such as the good life, obligation, rights, justice, and liberty with a focus on developing the ability to assess and weigh the reasons for and against adopting them to address concrete ethical dilemmas. Students in these courses may encounter a value system very different from their own that calls attention to their own ethical assumptions.

## *Ethical Reasoning*

**[Ethical Reasoning 11. Human Rights: A Philosophical Introduction]**

Catalog Number: 6441

*Mathias Risse (Harvard Kennedy School)**Half course (spring term). M., W., at 2, and a weekly section to be arranged.*

What are human rights? Why would individuals have such rights? How can rights be universal, and what rights are universal? How can human rights rhetoric be criticized? This course will approach these and related questions philosophically, but with an eye to international politics.

*Note:* Expected to be given in 2015–16.

**[Ethical Reasoning 12. Political Justice and Political Trials]**

Catalog Number: 5064

*Charles S. Maier (History)**Half course (spring term). M., W., (F.), at 11, and a weekly section to be arranged.*

Criminal trials have served throughout history to enforce revolutionary change, to impose conformity and stifle dissent, or, alternatively, to advance democracy. Students examine trials in their historical and moral context to weigh such issues as who can prosecute; can crimes be defined after the fact; can punishing speech be justified? Cases include Socrates, Louis XVI, General Dyer, the Soviet purges, Nuremberg, Eichmann, American cold-war hearings, and today's international tribunals and truth commissions.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Ethical Reasoning 13. Self, Freedom, and Existence]**

Catalog Number: 6507

*Richard Moran (Philosophy)**Half course (fall term). M., W., (F.), at 2, and a weekly section to be arranged.*

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 2015–16.

**Ethical Reasoning 15. “If There is No God, All is Permitted:” Theism and Moral Reasoning**

Catalog Number: 1321

*Jay M. Harris (Near Eastern Languages and Civilizations)**Half course (fall term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 11*

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.

**Ethical Reasoning 17. Ethics, Religion, and Violence in Comparative Perspective**

Catalog Number: 7037

*Anne E. Monius (Harvard Divinity School)**Half course (spring term). M., W., at 10 and a weekly section to be arranged. EXAM GROUP: 5*

Predicated on the assumption that global concerns are manifest in highly particularized cultural and religious circumstances, this course seeks to understand Hindu, Buddhist, and Christian framings of and prospective solutions to the problem of communal violence in the contemporary world. Topics examined in each tradition include: conceptions of moral subjectivity, frameworks for moral education, close reading of novels that grapple with the moral challenges (especially new forms of violence) wrought by colonization and globalization, and explicitly religious responses to such violence in the work of Mahatma Gandhi, Buddhist monastic communities in Sri Lanka and Southeast Asia, and Archbishop Desmond Tutu.

**Ethical Reasoning 18. Classical Chinese Ethical and Political Theory**

Catalog Number: 9742

*Michael J. Puett (East Asian Languages and Civilizations; Study of Religion)**Half course (fall term). M., W., at 10, and a weekly section to be arranged. EXAM GROUP: 5*

What is the best way to live a fuller and more ethical life? Concretely what should we do to begin to live in a more flourishing and inspiring way? Questions such as these were at the heart of philosophical debates in China. The answers that classical Chinese thinkers developed in response to these questions are among the most powerful in human history. Regardless of whether one agrees with them or not, they should be studied and taken seriously by anyone who cares about ethics, politics, and the ways to live life more fully.

**[Ethical Reasoning 20. Self, Serenity, and Vulnerability: West and East]**

Catalog Number: 2401

*Michael J. Puett (East Asian Languages & Civilizations; Study of Religion) and Roberto Mangabeira Unger (Harvard Law School)**Half course (spring term). M., 1-3, and a weekly section to be arranged.*

An inquiry into basic moral beliefs and their metaphysical assumptions in the high cultures of Western and Eastern civilizations. The background concern is our struggle, in philosophy, religion, and art, with nihilism: the fear that our lives and the world itself may be meaningless. The foreground theme is the contrast between two answers to the question about how to live one's life: stay out of trouble and look for trouble. How speculative thought has dealt with the limits of insight into what matters most. Exemplary writings from several traditions: modern European, ancient Greek, Chinese, South Asian.

*Note:* Expected to be given in 2015–16. Extended take-home examination. Offered jointly with the Law School as 2392. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Ethical Reasoning 21. Moral Reasoning about Social Protest]**

Catalog Number: 7778

*Susanna C. Siegel (Philosophy)**Half course (fall term). M., W., at 11, and a weekly section to be arranged.*

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 2015–16.

### [Ethical Reasoning 28. Moral Inquiry in the Novels of Tolstoy and Dostoevsky]

Catalog Number: 27743

*Justin Weir (Slavic Languages and Literatures)*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged.*

This course considers how Tolstoy and Dostoevsky take up moral inquiry in their fiction, introduces students to philosophical texts that informed their major fiction, and asks why the novel as a literary genre may be a good forum for the discussion of ethics. We will read Tolstoy's *Anna Karenina*, Dostoevsky's *Notes from Underground* and *The Brothers Karamazov*, as well as selected texts from Rousseau, Schopenhauer, Nietzsche, and others.

*Note:* Expected to be given in 2015–16.

### [Ethical Reasoning 29. Social Theory, the Humanities, and Philosophy Now]

Catalog Number: 21034

*Michael J. Puett (East Asian Languages & Civilizations; Study of Religion) and Roberto Mangabeira Unger (Harvard Law School)*

*Half course (spring term). Th., 5-7 p.m., and a weekly section to be arranged.*

A sustained discussion of the obstacles and the opportunities that the established traditions of Western philosophy, social theory and the humanities present to those who see time as real, history as open, novelty as possible, and social and cultural transformation as imperative. The central theme is how thought deals with the creation of the new. Special attention to three European philosophers -- Hegel, Marx, and Bergson, as well as to those strands in contemporary philosophy and social thought that bear most closely on our concerns. No prerequisites other than willingness to consider a wide range of problems, materials, and ideas.

*Note:* Expected to be given in 2015–16. Offered jointly with the Law School.

### Ethical Reasoning 30. The Just World

Catalog Number: 12206

*Mathias Risse (Harvard Kennedy School)*

*Half course (fall term). T., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*  
 Globalization is changing the world. What do wealthy countries have to do to contribute towards the creation of a just world? We start by exploring different approaches to the question of whether obligations of justice apply only to those who share a country. We will then assess whether the global order harms the poor. Next we look at human rights and ask whether liberal values should be promoted as universal human rights. We will complete the course by exploring three additional subjects: moral obligations arising from trade (specifically whether labor standards should be linked with human rights standards), immigration, and environmental justice.

### Ethical Reasoning 31. The Philosopher and the Tyrant

Catalog Number: 48904



*David Damrosch (Comparative Literature)*

*Half course (fall term). Tu., 2-4, and a weekly section to be arranged. EXAM GROUP: 14*

Philosophers and politicians alike struggle to set the terms for living a good life in a world of conflict. How do court counselors and professional philosophers speak truth to power? How do rulers - and citizens like ourselves - weigh the competing demands of liberty and order, self-fulfillment and self-restraint? Moving from Plato and the *Bible* to responses to Hitler's *Mein Kampf*, this course will examine particularly rich examples of relations between the pursuit of wisdom and the pursuit of power, from the extremes of conflict (the executions of Socrates, Jesus, Sir Thomas More) to the opposite dream of the philosopher king.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**Ethical Reasoning 32. Security: Carefree or Careless**

Catalog Number: 83151

*John T. Hamilton (Comparative Literature)*

*Half course (fall term). T., 1-3, and a weekly section to be arranged. EXAM GROUP: 8*

The term "security" has enjoyed a complex and ambivalent career. Broadly defined as a "removal of care," security leaves its subjects either carefree or careless. Pursuing an itinerary from the Stoics to psychoanalysis, from international relations to feminist theory, the course draws out the ethical implications of the persistent concern to be free of concern. Does "security" make us vigilant or negligent, confident or complacent? Does it promote more fear than it assuages? Is a security purchased with freedom or human rights morally viable? Such questions broach a more informed, nuanced, and critical engagement concerning our civic, professional and personal lives.

**Ethical Reasoning 33. Medical Ethics and History**

Catalog Number: 46736

*David Shumway Jones (History of Science; Harvard Medical School)*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 18*

Disease and medicine have generated ethical dilemmas that have challenged patients and doctors for centuries, from abortion and euthanasia to informed consent and compulsory treatment. Although moral philosophy can clarify the relevant issues, resolution often depends on the details of the specific clinical and social contexts. Taking a historical approach to medical ethics, this class explores how the moral discourse in health care has changed over time in order to understand how social factors influence the persuasiveness of moral arguments. The focus will be on medical practice in the United States in the twentieth century.

**Ethical Reasoning 34. Liberty**

Catalog Number: 80651

*James Hankins (History) and Jeffrey A. Miron (Economics)*

*Half course (spring term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 1*

What is liberty? What considerations justify taking away an individual's freedom? All modern political philosophies and all forms of government claim to be liberating individuals or groups from oppression, but can these claims withstand critical scrutiny? Is power in the hands of the state the best way to secure the freedom and happiness of individuals? Beginning with an intellectual history of ideas of freedom in the Western tradition, the course proceeds to examine a



series of issues and debates that invoke the value of freedom in the modern world: taxation, private property, public speech, and government attempts to shape and regulate the individual's behavior and morality.

### **[Ethical Reasoning 35. Nature]**

Catalog Number: 35187

*Joyce E. Chaplin (History)*

*Half course (spring term). Tu., Th., at 1, and a weekly section to be arranged.*

Ethical relations among people have always implied (whether directly or covertly) a preferred connection between people and nature. This course offers a critical and historical analysis of selected texts that identify human beings as a distinctively ethical species within the natural world, with particular attention to the emergence of normative theories that rank people with and against other natural beings. Topics include: definitions of wilderness and property; social hierarchies based on "natural" differences; agriculture, modern science, industrialization, and consumer economies as historic redefinitions of the human place within nature; animal rights; and environmentalism and its critics.

*Note:* Expected to be given in 2015–16.

### **[Ethical Reasoning 36. Institutional Corruption]**

Catalog Number: 37678

*Lawrence Lessig (Harvard Law School)*

*Half course (spring term). Tu., Th., 1–2:30, and a weekly section to be arranged.*

Institutions make modern life possible by organizing human interactions on a massive scale. We generally benefit from the incentives, norms, and information that institutions provide. However, if corrupted, institutions can cause grave harm. This course will introduce students to "institutional corruption" and equip them with the intellectual tools needed to diagnose, understand, and address its problems. The first half of the semester will draw on economic theory, political philosophy, psychology, and sociology to understand institutional corruption. The second half will examine cases of institutional corruption in medicine, finance, politics, courts, journalism, and academic research and further explore strategies for reform.

*Note:* Expected to be given in 2015–16.

### **Ethical Reasoning 37 (formerly History of Art and Architecture 50g). Adam & Eve**

Catalog Number: 81501

*Joseph Koerner (History of Art & Architecture) and Stephen J. Greenblatt (English)*

*Half course (spring term). M., W., at 1. EXAM GROUP: 8*

What is the power of a story? For several thousand years Adam and Eve were the protagonists in the central origin myth of the Jewish, Christian, and Muslim worlds. That myth was the arena for ethical reasoning about transgression and innocence, sexuality, gender roles, labor, suffering, and death. Jointly taught by History of Art and Architecture and English, our course focuses on this enigmatic story and its spectacular elaborations in theology, philosophy, literature and art. Above all, looking closely at some of the greatest achievements of European art and literature—from Dürer, Michelangelo and Rembrandt to Milton's *Paradise Lost*—we will compare the possibilities of the verbal and visual arts in portraying human being.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning or Aesthetic and Interpretive Understanding, but not both.



### **Ethical Reasoning 38. The Meaning of Life - (New Course)**

Catalog Number: 58361

*Mathias Risse (Kennedy School)*

*Half course (spring term). M., W., at 11. EXAM GROUP: 14*

Is there a point to life as a whole? That is the question about the "meaning of life," a question that is notoriously hard to make precise but has animated much literature, art and philosophy. Philosophers have provided both very disheartening answers and more uplifting ones. Serious scrutiny of such answers should be of interest to anybody who wishes to make reflection on her/his life as a whole part of her/his education. This class is wide-ranging, but its main focus is on contributions by relatively recent thinkers in the Anglo-American analytical tradition of philosophy.

### **Ethical Reasoning 39. Money, Markets, and Morals - (New Course)**

Catalog Number: 27142 Enrollment: Limited to 195.

*Michael J. Sandel (Government)*

*Half course (fall term). M., W., at 11 and weekly sections. EXAM GROUP: 18*

What should be the role of money and markets in our society? Are there some things that money should not be able to buy? For example: Should people be permitted to buy sex, votes, babies, citizenship, or college admission? What about buying and selling the right to pollute, procreate, immigrate, discriminate, or to hunt endangered species? Should we use markets to allocate health care, education, and military service?

*Cross-listed courses that satisfy the Ethical Reasoning Requirement. Some of these courses may have prerequisites or assume familiarity with the subject matter.*

#### **French 139b. The 18th Century: Ethical Dilemmas**

[German 146 (formerly Ethical Reasoning 26). The Ethics of Atheism: Marx, Nietzsche, Freud]

**Government 10. Foundations of Political Theory**

**Government 1060. Ancient and Medieval Political Philosophy**

**Government 1061. The History of Modern Political Philosophy**

[Government 1093. Ethics, Biotechnology, and the Future of Human Nature]

[\*Government 1510. American Constitutional Law]

[History 1300. Western Intellectual History: Greco-Roman Antiquity]

[Life Sciences 60. Ethics, Biotechnology, and the Future of Human Nature]

[Philosophy 168. Kant's Ethical Theory]

[Philosophy 172. The History of Modern Moral Philosophy]

**Philosophy 173. Metaethics**

**Philosophy 178q. Equality and Liberty**

**Religion 57. Faith and Authenticity: Religion, Existentialism and the Human Condition**

**\*SCRB 187. Brains, Identity, and Moral Agency**

[United States in the World 20. The Theory and Practice of Republican Government]

## *Science of Living Systems*

**AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**



Courses in Science of Living Systems teach central concepts, facts and theories in the life sciences and engineering, and relate them to problems of wide concern. These courses may explore a range of topics relating to understanding life -- its origins, the way it adapts to and changes the environment, and the ways in which human interventions can affect its trajectory. These courses provide students with the tools to evaluate scientific claims, consider alternative accounts for empirical findings, and appreciate the ambiguity that often surrounds such findings. Whenever possible, students examine the nature of experiments on living systems through laboratory, field, or other hands-on experiences.

### ***Science of Living Systems***

#### **Science of Living Systems 11. Molecules of Life**

Catalog Number: 9478

*Jon Clardy (Harvard Medical School) and David R. Liu (Chemistry and Chemical Biology)*  
*Half course (fall term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

Molecules form the basis of heredity, govern how our bodies develop, allow us to respond to changes in our environment, and carry our thoughts. This course explores the roles of molecules through case studies of our bodies' messengers, modern drugs, and the future of medicine. Examples include sexual development, metabolism, diabetes, nerve transmission, psychiatric disease, infectious disease, cancer, aging and stem cells. Students will connect to lecture material in discussion section through hands-on activities and role-playing scenarios.

#### **Science of Living Systems 12. Understanding Darwinism**

Catalog Number: 5523

*Janet Browne (History of Science) and Andrew Berry (Organismic and Evolutionary Biology)*  
*Half course (fall term). Tu., Th., 10-11:30, and a weekly section/laboratory to be arranged.*  
*EXAM GROUP: 12*

An interdisciplinary exploration of Darwin's ideas and their impact on science and society. The course links the history of Darwin's ideas with the key features of modern evolutionary biology. We review the development of the main elements of the theory of evolution, highlighting the areas in which Darwin's ideas have proved remarkably robust and areas in which subsequent developments have significantly modified the theory. By also analyzing the historical context of the development of evolutionary thought beyond Darwin, the course emphasizes the dynamic interplay between science and society.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **Science of Living Systems 15. Developmental Psychology: Origins of Knowledge**

Catalog Number: 8280

*Susan E. Carey (Psychology)*

*Half course (spring term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

Developmental Psychology explores, first, how universal human capacities arise in ontogenesis and, second, how people come to have their unique suite of skills and personalities. First, the origins and development of space perception, mathematical capacity, moral judgments, and



concepts of objects, agents, and social relations are studied in relation to two larger time scales: biological evolution and historical/cultural change. Second, the course looks at individual differences in IQ, executive functioning, and social relationships. The interplay between psychological and biological levels of analysis in accounting both for universal development and for individual differences is discussed throughout.

*Note:* Students who have taken Psychology 16 may not take this course for credit. For Psychology concentrations, this course meets a Foundation Course requirement.

### **Science of Living Systems 16. Human Evolution and Human Health**

Catalog Number: 0470

*Daniel E. Lieberman (Human Evolutionary Biology)*

*Half course (spring term). Tu., Th., 1-2:30, and a 90-minute weekly section to be arranged.*

*EXAM GROUP: 1*

How and why did humans evolve to be the way we are, and what are the implications of our evolved anatomy and physiology for human health in a post-industrial world? Why do we get sick, and how can we use principles of evolution to improve health and wellbeing? To address these questions, this course reviews the major transitions that occurred in human evolution, from the divergence of the ape and human lineages to the origins of modern humans. Also considered are the many effects of recent cultural and technological shifts such as agriculture and industrialization on human health.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[Science of Living Systems 17. The Human Organism]**

Catalog Number: 6581 Enrollment: Limited to 75.

*Instructor to be determined.*

*Half course (spring term). M., W., at 12, three two-hour laboratories, and periodic section meetings to explore special topics in depth.*

The course emphasizes neural, cardiopulmonary, endocrine, and reproductive human biology, with a focus on important public health issues. Students will explore critical determinants of their own health as well as the health of diverse communities in rich and poor countries. Topics include the normal functioning of the human body and its responses to infection, injury, and environmental stress. We will discuss the relative power of diagnosis and treatment of disease (medicine) versus primary prevention of disease (public health) in promoting global health. Activities include lectures, demonstrations, 3 guided laboratories, and a directed term paper.

*Note:* Expected to be given in 2015–16.

### **Science of Living Systems 19. Nutrition and Global Health**

Catalog Number: 50018

*Clifford W. Lo (Harvard Medical School) and Christopher P. Duggan (Harvard Medical School; Harvard School of Public Health) and Wafaie W. Fawzi (Harvard School of Public Health)*

*Half course (spring term). M., 3-5, and a weekly section to be arranged. EXAM GROUP: 17*

This course will introduce students to nutrition and global health problems through exploration of demographic, epidemiological, biological, social, political, and economic determinants of nutritional status. Emphasis will be placed on the role of nutritional status and dietary intake, both as a determinant and as a consequence, of these health problems. Students will be



encouraged to think critically about the major challenges to improve nutrition and health at a global level, with a focus on nutrition and infectious diseases, maternal and child health, and chronic diseases. Nutritional assessment, study design, and efficacy of nutrition interventions, will be explored in detail.

### **Science of Living Systems 20. Psychological Science**

Catalog Number: 16308

*Fall: Jason Mitchell (Psychology); Spring: Steven Pinker (Psychology)*

*Half course (fall term; repeated spring term). Fall: M., W., 1-2:30, and a weekly section to be arranged; Spring: Tu., Th., 2:30-4, and a weekly section to be arranged. EXAM GROUP: Fall: 1; Spring: 11*

An introduction to the sciences of mind, including foundational concepts from neuroscience, evolution, genetics, philosophy, and experimental methods, and specific topics such as perception, memory, reasoning and decision-making, consciousness, child development, psychopathology, personality, language, emotion, sexuality, violence, morality and social relations.

*Note:* Students who have taken Science B-62 or Psychology 1 may not take this course for credit but may use those courses to satisfy the General Education requirement for Science of Living Systems. This course, as well as Science B-62 and Psychology 1, meet the Tier 1 requirement for Psychology.

### **Science of Living Systems 22. Human Influence on Life in the Sea**

Catalog Number: 42977

*Robert M. Woollacott (Organismic and Evolutionary Biology) and James J. McCarthy (Organismic and Evolutionary Biology)*

*Half course (fall term). Tu., Th., 11:30-1, and a weekly two-hour section or lab to be arranged.*

*EXAM GROUP: 15*

Many important marine fish stocks are over-harvested and their futures are in doubt. Other human activities, such as pollution and anthropogenic climate change, are also affecting the stability and productivity of marine ecosystems. This course will ask what we need to know about the causes and effects of anthropogenic change to best protect marine ecosystems and ensure sustainable harvests from the sea.

### **[Science of Living Systems 25. Trees, Forests and Global Change]**

Catalog Number: 2635

*Donald H. Pfister (Organismic and Evolutionary Biology)*

*Half course (spring term). Tu., Th., 10-11:30, and a weekly section/laboratory to be arranged.*

Forests cover nearly one third of the earth's land surface area. They provide a vast range of products and services to human civilization, and are important for economic and cultural reasons. This class will provide students with an introduction to the biology and ecology of forest ecosystems. An overarching theme throughout the course will be to understand how climate change will affect forests and the ecological services we derive from them, and in turn how forests can affect their own growth environment and climate change itself.

*Note:* Expected to be given in 2015–16.



### **Science of Living Systems 26. The Toll of Infection: Understanding Disease in Scientific, Social, and Cultural Contexts - (New Course)**

Catalog Number: 73923 Enrollment: Limited to 60.

*Donald A. Goldmann (Harvard School of Public Health)*

*Half course (fall term). M., W., 1–2:30 and a weekly one-hour section to be arranged. EXAM GROUP: 1*

This course will review the devastating impact of representative infectious diseases on wars, politics, economics, religion, public health, and society as reflected in history, literature, and the arts. We will study how infections spawned revolutionary epidemiologic and scientific advances in detection, treatment, and prevention. We will address the gaps between discovery and implementation, including ethical, social, economic, and health systems barriers to progress. We will confront challenges posed by microbial mutation (e.g., antibiotic resistance, evasion of immunity, and adaptation of animal viruses to humans). By weaving together knowledge from science and the humanities, students will understand the historical and contemporary impact of infections and potential solutions to the challenges they pose.

*Cross-listed courses that satisfy the Science of Living Systems Requirement. Some of these courses may have prerequisites or assume familiarity with the subject matter.*

[\*\*Chemistry 27. Organic Chemistry of Life\*\*](#)

[\*\*Life and Physical Sciences A. Foundational Chemistry and Biology\*\*](#)

[\*\*Life Sciences 1a. An Integrated Introduction to the Life Sciences: Chemistry, Molecular Biology, and Cell Biology\*\*](#)

[\*\*Life Sciences 1b. An Integrated Introduction to the Life Sciences: Genetics, Genomics, and Evolution\*\*](#)

[\*\*Life Sciences 2. Evolutionary Human Physiology and Anatomy\*\*](#)

[\*\*\\*MCB 52. Molecular Biology\*\*](#)

[\*\*MCB 80. Neurobiology of Behavior\*\*](#)

[\*\*OEB 10. Foundations of Biological Diversity\*\*](#)

[\*\*OEB 52. Biology of Plants\*\*](#)

[\*\*Psychology 15. Social Psychology\*\*](#)

[\*\*Science of the Physical Universe 20. What is Life? From Quarks to Consciousness\*\*](#)

[\*\*Science of the Physical Universe 22. The Unity of Science: From the Big Bang to the Brontosaurus and Beyond\*\*](#)

[\*\*SCRB 10. Human Developmental and Regenerative Biology\*\*](#)

### ***Societies of the World***

#### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

Courses in Societies of the World provide students with an international perspective by acquainting them with values, customs, and institutions that differ from their own, and help students to understand how different beliefs, behaviors, and ways of organizing society come into being. These courses may focus primarily on a single society or region, or they may address topics that transcend national boundaries, analyzing the flow and transformation of money, goods, people, resources, information, or ideas between and among different societies. The courses may take a variety of disciplinary approaches, and may treat topics from a contemporary



perspective or a historical one. Students will develop an awareness of the diversity of ways in which human beings have organized their social existence.

### ***Societies of the World***

#### **Societies of the World 12. China**

Catalog Number: 5243 Enrollment: Limited to 56.

*Peter K. Bol (East Asian Languages and Civilizations) and William C. Kirby (History; Harvard Business School)*

*Half course (fall term). Tu., (Th.), 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

Modern China presents a dual image: a society transforming itself through economic development and infrastructure investment that aspires to global leadership; and the world's largest and oldest bureaucratic state, with multiple traditions in its cultural, economic, and political life. The modern society and state that is emerging 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 21st century and as a great world civilization that developed along lines different from those of the Mediterranean. This year the course introduces a variety of new online learning features.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **[Societies of the World 13. Japan in Asia and the World]**

Catalog Number: 5373

*Andrew Gordon (History) and David Howell (East Asian Languages and Civilizations)*

*Half course (spring term). M., W., (F.), at 10, and a weekly section to be arranged.*

Japan is a collection of islands, but its past and present unfolds through continuous interaction with wider worlds. This course places Japan in contexts of Asian and global history. It begins with the people, institutions, and ideas of premodern Japan, from the emergence of a court-centered state 1500 years ago to a warrior-dominated society centuries later. We then examine the tumultuous process of change from the 19th century through the present and explore how people in Japan have dealt with the dilemmas of modernity that challenge us all.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **Societies of the World 14. The British Empire**

Catalog Number: 9910

*Maya Jasanoff (History)*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 18*

Less than a century ago the British Empire ruled a quarter of the world. This course surveys the empire's extraordinary rise and fall from the American Revolution to World War II. Course presents a narrative of key events and personalities, introduces major concepts in the study of British imperial history, and considers the empire's political and cultural legacies for the world today. Includes multimedia presentations, hands-on digital assignments, and engaging readings ranging from Niall Ferguson to Mahatma Gandhi.



*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Societies of the World 15. The Cuban Revolution, 1956-1971: A Self-Debate]**

Catalog Number: 6974

*Jorge I. Domínguez (Government)*

*Half course (fall term). M., W., F., at 10, and a weekly section to be arranged.*

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, and the support for revolutions in Africa and Latin America. The instructor debates himself, presenting two or more views on each topic. Readings include original documents in translation.

*Note:* Expected to be given in 2015–16. Sections offered in English or Spanish. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**Societies of the World 18. Europe on Trial: Retribution, Renewal and Reconciliation Since 1945**

Catalog Number: 4588

*Mary D. Lewis (History)*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*

This course examines Europe from the aftermath of the world's most destructive war to today's euro crisis. Using the idea of "trials" both literally and figuratively, we will address the major themes of postwar retribution, the Cold War, decolonization, new social movements, the fall of Communism, the expanding European Union, and the dilemmas facing a pluralist and postcolonial Europe. The roles of vigilante justice, terrorism, social justice and economic welfare will also be explored. Students will study the transcripts and accounts of political trials to examine how these themes occurred and recurred in post-war Europe.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Societies of the World 19. Western Ascendancy: The Mainsprings of Global Power from 1400 to the Present]**

Catalog Number: 77527

*Niall Ferguson (History)*

*Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged.*

From the scientific revolution to the industrial revolution, from representative government to the consumer society, from capitalism to nationalism and socialism, the ideas and institutions of "the West" (meaning Europe and its colonies of settlement) came to dominate the world in the five centuries after around 1500. But what were the mainsprings of Western power? Taking a comparative historical approach, this course seeks to identify the key economic, cultural, social, political and military differences between the West and "the Rest."

*Note:* Expected to be given in 2016–17. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.



### **Societies of the World 21. China's Two Social Revolutions**

Catalog Number: 1884

*Martin K. Whyte (Sociology)*

*Half course (fall term). M., W., at 1, and a weekly section to be arranged. EXAM GROUP: 1*

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 omitted in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[Societies of the World 22. Asia in the Making of the Modern World]**

Catalog Number: 26005 Enrollment: Limited to 30.

*Shigehisa Kuriyama (East Asian Languages and Civilizations) and Ian J. Miller (History)*

*Half course (spring term). Tu., 1-2:30, and a weekly 90-minute section to be arranged.*

How did we come to live as we do? Why do we eat what we eat, wear what we wear, play the games that we play, take the SATs? The roots of a surprisingly large number of things that we now take for granted, as parts of everyday American life, lie deep in the Asian past. In this class you will learn to perceive global history in the American present, and more importantly, to make new historical discoveries yourself. You will master powerful new tools of research and presentation that will allow you to uncover the hidden ties binding our lives here and now with Asia centuries or even millennia ago, and to broadcast your original findings. No prior knowledge of Asian history or languages required. Limited enrollment.

*Note:* Expected to be given in 2016–17. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Societies of the World 24. Global Health Challenges: Complexities of Evidence-Based Policy**

Catalog Number: 92634 Enrollment: Limited to 280.

*Sue J. Goldie (Harvard School of Public Health)*

*Half course (spring term). M., W., at 10, and a weekly section to be arranged. EXAM GROUP: 5*

This course introduces the global health challenges posed by failure to adequately reduce infections, malnutrition, and maternal-child health problems in the most vulnerable populations, escalating rates of non-communicable diseases/injuries, and emerging health risks that cross national boundaries. We will assess social responses to these challenges at the community, national, and global levels. Through an understanding of population health measures, we will examine patterns of disease/mortality between and within countries, capture important time trends, and identify determinants of health inequalities. While emphasizing science driven policy, comparative case examples will illuminate influential systemic factors, health system performance, and the economic/social/political climate.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for either Societies of the World or Empirical and Mathematical Reasoning, but not both.

### **Societies of the World 25. Case Studies in Global Health: Biosocial Perspectives**

Catalog Number: 9587



*Arthur Kleinman (Anthropology; Harvard Medical School), Paul E. Farmer (University Professor; Harvard Medical School; Harvard School of Public Health), Anne E. Becker (Harvard Medical School), and Salmaan Keshavjee (Harvard Medical School)*  
*Half course (fall term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

Examines, through lectures and case-based discussions, a collection of global health problems rooted in rapidly changing social structures that transcend national and other administrative boundaries. Students will explore case studies (addressing AIDS, tuberculosis, mental illness, and other topics) and a diverse literature (including epidemiology, anthropology, history, and clinical medicine), focusing on how a broad biosocial analysis might improve the delivery of services designed to lessen the burden of disease, especially among those living in poverty.

*Note:* Course counts as Social Anthropology.

### [Societies of the World 26. Africa and Africans: The Making of a Continent in the Modern World]

Catalog Number: 5568

*Caroline M. Elkins (History)*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged.*

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 2015–16. This course fulfills the AAAS 11, Introduction to African Studies, course requirement for a concentration or secondary field in African and African American Studies. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Societies of the World 27. The Two Koreas]

Catalog Number: 0786

*Carter J. Eckert (East Asian Languages and Civilizations)*

*Half course (spring term). M., W., (F.), at 11, and a weekly section to be arranged.*

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 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.



### [Societies of the World 28. Exploration and Empire Building]

Catalog Number: 47498

*Kelly A. O'Neill (History)*

*Half course (spring term). M., W., F., at 10, and a weekly section to be arranged.*

This course studies the relationships between scientific study, aesthetic representation, and imperial power. Students will examine documentary and visual records of encounters between indigenous peoples, agents of rival empires, and the physical environment along the vast Siberian and Pacific frontiers.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engages substantially with the Study of the Past.

### **Societies of the World 30. Moctezuma's Mexico: Then and Now (2012)!**

Catalog Number: 3196

*David L. Carrasco (Harvard Divinity School; Anthropology) and William L. Fash (Anthropology)*

*Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12*  
 Explorations of the mythical and social origins, glory days and political collapse of the Aztec Empire and Maya civilizations followed by study of the sexual, religious and racial interactions of the “Great Encounter” between Mesoamerica and Europe. Focus on the archaeology, cosmovision, human sacrifice, divine kingship, the mystery of 2012 and rebellion in Mesoamerican cities and in colonialism. Hands-on work with objects at the Peabody Museum aid in examining new concepts of race, nation and the persistence of Moctezuma’s Mexico in Latino identities in the Mexico-US Borderlands.

*Note:* Offered jointly with the Divinity School as 3158. This course, when taken for a letter grade, meets the General Education requirement for Societies of the World or Culture and Belief, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [Societies of the World 31. Political Economy After The Crisis]

Catalog Number: 80232

*Rebecca Henderson (Harvard Business School)*

*Half course (spring term). Th., 1-3, and a weekly section to be arranged.*

Alternative ways of thinking about contemporary market economies and their reconstruction, explored in three contexts: the recent worldwide financial and economic crisis and the struggle for recovery, the effort to advance socially inclusive economic growth in richer as well as in poorer countries, and the character and consequences of globalization. Special attention given to the relation between institutional alternatives at the level of the economy as a whole and organizational alternatives at the level of the firm. In considering these substantive themes, we also explore the nature of economics as a discipline: its past, present, and future. Students should have some acquaintance with economics, but no advanced training is required.

*Note:* Expected to be given in 2015–16. Readings drawn from the classic and contemporary literatures of economics, business, and social theory. Offered jointly with the Business School and the Law School as 2390.

### [Societies of the World 33. Tokyo]

Catalog Number: 9691



*Theodore C. Bestor (Anthropology)*

*Half course (spring term). M., W., (F.), at 1, and a weekly section to be arranged.*

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 place where Japanese domestic society and global influences have intersected. 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 given in 2015–16. Graduate students interested in this course should enroll in Anthropology 2682, which requires permission of the instructor.

**Societies of the World 34. The Caribbean: Globalization, Socio-Economic Development & Cultural Adaptation**

Catalog Number: 6357

*Orlando Patterson (Sociology)*

*Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*

Caribbean societies are largely the economic and political creations of Western imperial powers and are among the earliest products of globalization. Though *in the West*, they are only partly *of* it, and their popular cultures are highly original blends of African, European and Asian forms. The course examines the area as a system emerging through genocide, piracy, plantation slavery, colonialism and globalization, from a situation of great social and cultural diversity to the present tendency toward socio-economic and cultural convergence. Patterns of underdevelopment and government are explored through national case studies (Puerto Rico, Cuba, Jamaica & Haiti) and selected, region-wide modern issues (hurricanes, earthquakes and other natural disasters; migration & transnationalism; crime & drug trafficking), as are cultural adaptations through studies of Afro-Caribbean religions, folkways, and music. America's special role in the region is emphasized.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Societies of the World 35. Conditional Equality: The Case of the Jews of Europe in Modern Times]**

Catalog Number: 88298

*Jay M. Harris (Near Eastern Languages and Civilizations)*

*Half course (fall term). M., W., (F.), at 12, and a weekly section to be arranged.*

This course is a study in the relations between majorities and minorities in modern Europe, using the Jews as a focus. It will examine the ways in which the equal status of a minority is negotiated through cultural and political interaction, both subtle and blunt. It will further focus on the role that such negotiations have in the formation of identities of both the majority and the minority. Finally, it will examine the ways in which majorities can exercise control over minorities rendering them conditionally rather than fully equal participants in the national projects of the age.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Societies of the World 36. Modern India and South Asia]**

Catalog Number: 9058

*Sugata Bose (History)**Half course (fall term). M., W., at 10, and a weekly section to be arranged.*

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 given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Societies of the World 37. The Chinese Overseas]**

Catalog Number: 7869

*Michael A. Szonyi (East Asian Languages and Civilizations)**Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged.*

This course introduces the emigration of people from China to other parts of the world over the last five centuries. It considers the causes of emigration, the ties that emigrants retained to China, and the communities that Overseas Chinese created abroad. It compares the experiences of emigrants and their descendants in Southeast Asia and in North America. Last, it tries to situate the recent wave of Chinese migration to North America in global and historical context.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**Societies of the World 38. Pyramid Schemes: The Archaeological History of Ancient Egypt**

Catalog Number: 36776

*Peter Der Manuelian (Near Eastern Languages and Civilizations; Anthropology)**Half course (spring term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP:**14*

Surveys ancient Egyptian pharaonic civilization. Emphasizes Egyptian material culture: pyramids, temples, tombs, settlements, and artifacts. Explores major developmental themes that defined the Egyptian state: the geographical landscape, kingship, social stratification, and religion. Follows a chronological path with excursions into Egyptian art, history, politics, religion, literature, and language (hieroglyphs). Also touches on contemporary issues of object repatriation, archaeology and cultural nationalism, and the evolution of modern Egyptology. Includes field trips to the Egyptian collections of the Peabody Museum and the Museum of Fine Arts, Boston, along with immersive 3D computer models in Harvard's Visualization Center. No prior experience in Egyptology expected.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Societies of the World 40. The Incas: The Last Great Empire of Pre-Columbian South America]**

Catalog Number: 5311

**Gary Urton (Anthropology)**

*Half course (fall term). Tu., Th., 1-2:30, and a weekly section to be arranged.*

This course guides students on an exploration of the largest and most complex civilization of Pre-Columbian America—the Inca Empire of Andean South America. We will address such questions as how did a civilization emerge and thrive at 12,000 feet above sea level? How could a state-level society exist without markets, the wheel, or writing? In addition to lectures and discussions, students will experience the products of Inca civilization through hands-on study of artifacts in the Peabody Museum of Archaeology and Ethnology.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Societies of the World 41. Medieval Europe]**

Catalog Number: 4278

*Michael McCormick (History)*

*Half course (fall term). M., W., (F.), at 11, and a weekly section to be arranged.*

This course will examine the emergence of medieval civilization from the ruins of the ancient world, and the evolution of that civilization into modern Europe. Themes include: the fall of Rome, the spread of Christianity, the rise and fall of Byzantium, the challenge of Islam, the Vikings, the Crusades, commerce and agriculture, the Feudal Revolution, the Twelfth Century Renaissance, spirituality and persecution, the origins of law and government, the Black Death, and the Italian Renaissance.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Societies of the World or Culture and Belief, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Societies of the World 42. The World Wars in Global Context, 1905-1950]**

Catalog Number: 98327

*Charles S. Maier (History)*

*Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged.*

Examines the origins, military history, and successive postwar settlements of World Wars I and II in the framework of evolving empires, fascist, communist, and democratic ideological mobilization, forced resettlement and cultures of mass violence, ongoing economic and social change (and persistence). Attention to Asian and African as well as European and American transformations.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**Societies of the World 43. Japan's Samurai Revolution**

Catalog Number: 4164

*Ian J. Miller (History) and David Howell (East Asian Languages and Civilizations)*

*Half course (fall term). M., W., at 2, and a weekly section to be arranged. EXAM GROUP: 7*

On July 8, 1853, Commodore Mathew C. Perry steamed into Japan's Edo Bay with four heavily armed US Navy warships. Two were the so-called "black ships," ominously painted coal-burning steamships of the latest design. There, within view of a stunned populace, Perry issued an ultimatum: open the country to trade or face unstoppable bombardment. Thus began Japan's modern engagement with the outside world, a new chapter in the broader encounter between



“East” and “West.” Through primary sources, discussion and lecture, this course examines Japan’s rapid development from samurai-led feudalism into the world’s first non-Western imperial power.

*Note:* No Japanese language skills required. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Societies of the World 44. Human Trafficking, Slavery and Abolition in the Modern World**

Catalog Number: 70642

*Orlando Patterson (Sociology)*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*

This course surveys the nature, types and extent of modern servitude, distinguishing broadly between those resulting from international trafficking such as trans-national prostitution, human smuggling into bonded labor, child soldiering and organ trafficking, and more intra-national forms such as debt-bondage and the domestic exploitation of women and other vulnerable groups. Examines the conceptual and theoretical issues raised in attempts to distinguish among these types of differential power relations; the empirical difficulties of estimating the magnitude of what are inherently secretive processes; and the ideological controversies surrounding the subject. Explores ethical, socio-political and practical issues raised by these trends.

### **Societies of the World 45. Beyond the Great Wall: China and the Nomadic Frontier**

Catalog Number: 6134

*Mark C. Elliott (East Asian Languages and Civilizations)*

*Half course (spring term). Tu., Th., 1-2:30, and a weekly section to be arranged. EXAM GROUP: 1*

The interaction between sedentary and nomadic civilizations is one of the great themes of human history. This course focuses on the classic case of relations between China and Inner Asia from ancient times to the 21st century. Approaching the problem from historical and theoretical perspectives, the course addresses the political, economic, social, and cultural dimensions of the storied Great Wall frontier.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[Societies of the World 46. The Anthropology of Arabia]**

Catalog Number: 89167

*Steven C. Caton (Anthropology)*

*Half course (fall term). Tu., Th., at 9, and a weekly section to be arranged.*

The Arabian Peninsula (Saudi Arabia, the Gulf States, Oman and Yemen) is the focus of this course. Among topics to be addressed are: tribal organization and its continuing importance; gender relations; varieties of Islam and their influence; old and new forms of urbanism. Primary reading materials are ethnographic.

*Note:* Expected to be given in 2015–16. No background in anthropology or Middle East studies required. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.



### **Societies of the World 47. Contemporary South Asia: Entrepreneurial Solutions to Intractable Social & Economic Problems**

Catalog Number: 85573

*Tarun Khanna (Harvard Business School)*

*Half course (fall term). M., W., 3:30-5, and a weekly section to be arranged. EXAM GROUP: 6*

South Asia is home to two of the world's seven billion people. The primary objective of the course is to engage students with the modern day challenges affecting South Asia, and to examine a range of entrepreneurial attempts to solve these problems. The course focuses on several categories of social and economic problems faced by the countries of South Asia, with specific focus on the realms of Education, Health, Financial Inclusion, and Urbanization. The goal is to understand ways in which entrepreneurial action can effectively tackle major socioeconomic problems in South Asia, by combining knowledge of historical causes, qualitative and quantitative evidence, and context-specific knowledge of the commonalities and differences across South Asian countries. No prior knowledge of South Asia is required.

*Note:* Offered jointly with the Business School as 1266, the School of Public Health as GHP 568, the Kennedy School as PED-338, the Law School as HLS 2543 and the Graduate School of Education as A-819.

### **[Societies of the World 49. The Worlds of Business in Modern China]**

Catalog Number: 29129 Enrollment: Limited to 60.

*William C. Kirby (History; Harvard Business School)*

*Half course (spring term). M., W., at 11, and a weekly section to be arranged.*

China was home to the world's largest economy two centuries ago. Two decades from now, it will be the world's largest economy again. This course uses business as a lens through which to study modern China. Using new Harvard Business School cases, we explore traditional family firms and internet startups; state-owned enterprises and their private-sector challengers; and the catalytic role of Hong Kong, Taiwan, and foreign enterprise in shaping contemporary China. Case studies cast light on larger themes: the role of party and government (national and local) in business and society; the legal environment; and the global impact of China's development.

*Note:* Expected to be given in 2015–16.

### **Societies of the World 50. Political Corruption**

Catalog Number: 27813

*James Alt (Government) and Daniel Ziblatt (Government)*

*Half course (fall term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 8*

Political corruption exists everywhere, but which countries are most corrupt? Do highly corrupt countries share common characteristics? How much corruption is there? The social costs of political corruption, from the stealing of public funds to bribes paid to avoid basic safety and health regulations, are often extremely high. Why are so few recent attempts to fight corruption successful? The course is comparative, draws historical connections, and as far as possible requires no background knowledge.

### **Societies of the World 51 (formerly Anthropology 1655). Politics of Nature**

Catalog Number: 0710

*Ajantha Subramanian (Anthropology)*

*Half course (fall term). W., 1-3, and a weekly section Friday at 1. Additional section times to be*



*arranged if needed. EXAM GROUP: 1*

This course examines the historical, social, and political life of nature in its many manifestations--as a source of life and livelihood, as a resource for exploitation, as a heritage to be protected, and as a post-industrial hybrid--in order to understand the variety of human interactions with the natural environment. Through a focus on property relations, imperialism, development, and science, students will be exposed to the intimate connection between social inequality and ecological degradation, and encouraged to envision possibilities for a future of greater equality and sustainability.

**[Societies of the World 52 (formerly Slavic 144). The Phoenix and the Firebird: Russia in Global Perspective]**

Catalog Number: 49677

*Julie A. Buckler (Slavic Languages and Literatures) and Kelly A. O'Neill-Uzgiris (History)*

*Half course (spring term). Tu., Th., 10-11:30, and a weekly section to be arranged.*

From the Middle East to the Pacific rim, Russia is re-emerging as a major player on the world stage. Russia has transitioned in significant ways since the 1991 break-up of the Soviet Union ("the evil empire"), just as it did during the tumultuous aftermath of the 1917 Bolshevik Revolution that ended a 300-year imperial dynasty. Through in-depth, interdisciplinary examination of six key themes with contemporary as well as historical resonance (conquest, political terror, the environment, commerce, imaginative representations, and mobility), we will investigate the evolving concept of "Russianness" in a global context. Assignments include curation of a "Russia in the World" digital exhibit.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[Societies of the World 53 (formerly History 1040). The Fall of the Roman Empire]**

Catalog Number: 6019

*Michael McCormick (History)*

*Half course (spring term). M., W., at 1, and a weekly section to be arranged.*

Uses the latest results of archaeology, written sources, environmental sciences, genetics, GIS, etc., to study the changes, violent or subtle, that transformed the Roman world to produce medieval civilization between ca. 300 and 700. Topics include Constantine's conversion; economic recovery, collapse and climate change; the barbarians; women and power; pandemic disease; emphasizes reading of ancient sources in translation, archaeology, and the sciences of the human past.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**Societies of the World 54 (formerly Religion 1832). Islam and Politics in the Modern Middle East**

Catalog Number: 43973

*Malika Zeghal*

*Half course (spring term). M., W., at 10 and hour to be arranged. EXAM GROUP: 5*

This course examines the origins, ideologies, and political strategies of twentieth and twenty-first century Islamist movements in the Middle East and beyond. We will pay particular attention to the evolution of these movements in the larger historical and political context, up to and



including the Arab Spring. We will use primary sources in translation and in Arabic (for those with reading proficiency). There are no language or other prerequisites for this class.

*Note:* Offered jointly with the Divinity School as 3361. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

*Cross-listed courses that satisfy the Societies of the World Requirement. Some of these courses may have prerequisites or assume familiarity with the subject matter.*

[\*\*African and African American Studies 11. Introduction to African Studies\*\*](#)

[\*\*African and African American Studies 20. Introduction to African Languages and Cultures\*\*](#)

[\*\*Ancient Near East 103. Ancient Lives\*\*](#)

[\*\*Culture and Belief 21. Pathways through the Andes—Culture, History, and Beliefs in Andean South America\*\*](#)

[\*\*Culture and Belief 33. Introduction to the Study of East Asian Religions\*\*](#)

[Culture and Belief 50. The European Postwar: Literature, Film, Politics]

[Economics 1400 (formerly Societies of the World 48). The Future of Globalization: Issues, Actors, and Decisions]

[\*\*Environmental Science and Public Policy 11. Sustainable Development\*\*](#)

[\*\*Government 20. Foundations of Comparative Politics\*\*](#)

[\*\*Government 40. International Conflict and Cooperation\*\*](#)

[\*\*Government 1295. Comparative Politics in Latin America\*\*](#)

[\*\*History 1011. The World of the Roman Empire\*\*](#)

[\*\*History 1020 \(formerly History 1920\). A Global History of Modern Times\*\*](#)

[\*\*History 1035. Byzantine Civilization\*\*](#)

[History 1265. German Empires, 1848-1948]

[History 1266. Central Europe, 1789-1918: Empires, Nations, States]

[History 1281. The End of Communism]

[History 1513. History of Modern Latin America]

[History 1704 (formerly Societies of the World 39). Slavery and Slave Trade in Africa and the Americas]

[\*\*Islamic Civilizations 178 \(formerly \\*Religion 1820\). Muslim Societies in South Asia: Religion, Culture, and Identity\*\*](#)

[South Asian Studies 190. Religious Nationalism and Ethnic Conflict in Modern South Asia]

## *United States in the World*

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

Courses in United States in the World examine American social, political, legal, cultural, and/or economic practices, institutions, and behaviors from contemporary, historical, and/or analytical perspectives. These will help students to understand this country as a heterogeneous and multifaceted nation situated within an international framework by examining ideas about what it means to be an American, about the persistence and diversity of American values, about the relations among different groups within the United States and between the United States and the rest of the world. Courses may compare the American situation to other societies of the world, or



show change over time within the United States. These courses prepare students for civic agency by providing critical tools to understand these issues in a historical and/or comparative context.

### ***United States in the World***

#### **[United States in the World 11. American Health Care Policy]**

Catalog Number: 4045

*Richard Frank (Harvard Medical School)*

*Half course (fall term). M., W., 3:30-5, and a weekly section to be arranged.*

Health care in America poses fundamental policy challenges to our ability to protect low income Americans from the costs of illness; to produce high quality care; to efficiently use health care resources, and to allow Americans to die without pain, in the company of family, as they desire. This course aims to offer students a solid understanding of the American health care system, the potential impact of new reform legislation, and challenges that will remain in the future.

*Note:* Students who have taken General Education 186 or Extra-Departmental Courses 186 may not take this course for credit.

#### **[United States in the World 12. American Encounters: Art, Contact, and Conflict, 1560-1860]**

Catalog Number: 8937

*Jennifer L. Roberts (History of Art and Architecture)*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged.*

An introduction to early American art from a transnational, cross-cultural perspective. We begin with the global struggle for control of the North American continent, tracing the colliding artistic traditions of multiple European colonial powers, Native American groups, and slave cultures.

We then examine the cultural constitution of U.S. nationhood as it developed through (and against) the visual and material cultures of Europe and the Atlantic and Pacific worlds. Icons of a seemingly familiar national heritage—such as Washington's portrait on the dollar bill—are revealed as complex formal negotiations emerging from international dynamics of commerce, politics, religion, science, and migration.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **[United States in the World 13. Medicine and Society in America]**

Catalog Number: 1552

*David Shumway Jones (History of Science; Harvard Medical School)*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged.*

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 given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **United States in the World 15. Is the American Racial Order Being Transformed?**

Catalog Number: 0916

*Jennifer L. Hochschild (Government; African and African American Studies)*

*Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*  
 Is a fundamental transformation occurring in the American racial order? If so, are these changes for the better or the worse? We first briefly explore the history of American racial and ethnic dynamics, then examine four potentially transformative forces: high levels of immigration, rising multiracialism, links between genomic science and "race," and the changing behaviors and beliefs of young American adults. We then consider blockages to transformation: incarceration of nonAnglo men, wealth disparities, and treatment of Muslims and undocumented immigrants. We conclude by imagining various ideal futures for race and ethnicity in the U.S.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[United States in the World 16. Men and Women in Public and Private: the US in the 20th Century]**

Catalog Number: 4182

*Nancy F. Cott (History)*

*Half course (fall term). M., W., at 12, and a weekly section to be arranged.*

This course offers historical perspective on the social relations and relative power of the sexes, tracing changes and continuities over the past century in family lives, work, popular culture and politics. We will look at sexuality, masculinity, and femininity, centering these in US social, cultural and political history in the context of a wider world.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[United States in the World 18. Thinking About the Constitution]**

Catalog Number: 11083 Enrollment: Limited to 150.

*Laurence H. Tribe (University Professor; Harvard Law School)*

*Half course (spring term). Tu., Th., 10-11:30, and a weekly section to be arranged.*

What difference does our Constitution make? Does it matter whether we think about it only as a text, as living practice, or as a set of mostly unwritten principles? This course will explore such questions by investigating several concrete constitutional controversies—about abortion, birth, and dying; about embryo research; about race and gender; about the Obama health insurance reform; about sexual intimacy and same-sex marriage; about religion, free speech, and campaign finance; about workers' rights; about informational privacy; and about emergency presidential action. Readings will be drawn from judicial and other writings about the Constitution, its history, and its interpretation.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[United States in the World 19. American Food: A Global History]**

Catalog Number: 43817



*Joyce E. Chaplin (History)*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged.*

Europeans “discovered” America in search of foodstuffs, specifically spices. And food has been central to the American experience from the starving time in early Virginia to the problem of obesity in the United States today. But what is American about American food? How have individual food choices and national food policies connected Americans to the larger world, both the social worlds of other human beings and the natural world of all other living beings?

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[United States in the World 20. The Theory and Practice of Republican Government]**

Catalog Number: 1489

*Daniel P. Carpenter (Government)*

*Half course (spring term). M., W., at 10, and a weekly section to be arranged.*

A theoretical and historical survey of the evolution of republican (representative) government, with a particular focus upon European and American institutions. We will alternate between philosophical treatments and empirical studies of republican regimes. Questions include: How did republican government evolve (in England and France) centuries before mass elections? What institutions besides elections keep the ruled attuned to the people? Did arguments for legislative supremacy prefigure the rise of parliamentary authority? If so, how? How did modern republics co-evolve with institutions of slavery? What is the role of virtue in a democratic republic? How can government ensure the “rule of the wise” without fostering autocratic power? What critique might republican theory advance of populist and libertarian arrangements, and how populist and libertarian critics respond?

*Note:* Expected to be given in 2016–17. This course, when taken for a letter grade, meets the General Education requirement for United States in the World or Ethical Reasoning, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **United States in the World 24. Reinventing Boston: The Changing American City**

Catalog Number: 9395

*David Luberoff (Sociology; Radcliffe Institute), Christopher Winship (Sociology), and Matthew E. Kaliner (Sociology)*

*Half course (spring term). Tu., Th., 1-2:30, and a weekly section to be arranged. EXAM*

*GROUP: 1*

American cities have changed in extraordinary ways. In the last half of the 20th century, there was gloom about urban life and many cities were projected to decline and decay. Many did but Boston and other cities blossomed, becoming models of urban renaissance. Using Boston as a case, this course considers issues of economic change, technology, neighborhood inequality, political governance, elite relations, cultural institutions, crime, race and ethnic relations, immigration, gentrification and suburbanization. Regular guest speakers. Requirements: Several short memos on neighborhood visits, midterm essay, 1 term paper, and active participation in class and section.

*Note:* This course, when taken for a letter grade, may be counted for introductory Sociology concentration requirement.



### **[United States in the World 26. Sex and the Citizen: Race, Gender, and Belonging in the United States]**

Catalog Number: 64666 Enrollment: Limited to 126.

*Caroline Light (Studies of Women, Gender, and Sexuality)*

*Half course (spring term). M., W., at 10, and a weekly section to be arranged.*

Even before the formal establishment of the United States, assumptions about sex have helped determine who is entitled to - and not entitled to - the privileges and protections of full citizenship. This course investigates the roles that sex, race, gender, and sexuality have played in configuring notions of citizenship over time as well as the ways in which sexual rights remain a site of contestation and struggle in the modern United States.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[United States in the World 28. Slavery/Capitalism/Imperialism: The US in the Nineteenth Century]**

Catalog Number: 5470

*Walter Johnson (History; African and African American Studies)*

*Half course (spring term). M., W., (F.), at 11, and a weekly section to be arranged.*

This course treats the history of the 19th-century US and the Civil War in light of the history of US imperialism, especially the War of 1812, the Mexican-American War, and the illegal invasions of Cuba and Nicaragua in the 1850s. Likewise, it relates the history of slavery in the US to the Haitian Revolution, the Louisiana Purchase, Indian removal, Atlantic cotton, land and money markets, and the hemispheric history of antislavery.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **United States in the World 29. Designing the American City: Civic Aspirations and Urban Form**

Catalog Number: 3243

*Alex Krieger (Harvard Graduate School of Design)*

*Half course (spring term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 1*  
 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 contemporary 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:* Offered jointly with the Graduate School of Design as DES 0330200. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **United States in the World 30. Tangible Things: Harvard Collections in World History**

Catalog Number: 21669 Enrollment: Limited to 105.

*Laurel Thatcher Ulrich (University Professor; History)*

*Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP:*



12

People make history through the things they make, collect, exhibit, exchange, throw away, or ignore. Over four centuries, Harvard has not only amassed books and manuscripts but art works, scientific instruments and specimens, ethnographic objects, and historical relics of all sorts. By learning how and why particular things arrived in Cambridge and what happened to them when they got here, students will discover how material objects have shaped academic disciplines, reinforced or challenged social boundaries, and defined America's place in the world. This is an interactive course, with weekly visits to museums and close-up investigation of specimens and artifacts.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **United States in the World 31. American Society and Public Policy**

Catalog Number: 6661

*Theda Skocpol (Government) and Mary C. Waters (Sociology)*

*Half course (fall term). M., W., at 10, and a weekly section to be arranged. EXAM GROUP: 5*  
In the U.S., compared to other major nations, how have social problems been defined and redefined in recent decades; why do they appear differently to various groups; and how are public policies about problematic social conditions debated, devised, and changed? This course synthesizes various kinds of evidence-demographic, attitudinal, ethnographic, and institutional-to probe the creation and impact of major public policies about social support for families and workers; immigration and citizenship; and access to higher education.

### **United States in the World 32. The World's Religions in Multicultural America: Case Studies in Religious Pluralism**

Catalog Number: 8833 Enrollment: Limited to 56.

*Diana L. Eck (South Asian Studies; Study of Religion)*

*Half course (spring term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

An exploration of the dynamic religious landscape of the US with special focus on Muslim, Hindu, Buddhist, and Sikh traditions in the most recent period of post-1965 immigration. How are faith and freedom negotiated in a more complex society? In what contexts do minority religious communities encounter long-dominant Christian and Jewish communities? How is America changing as religious communities struggle with civic, constitutional, ethical, and theological issues, especially in the post-9/11 period? Readings, films, discussion, and class projects will focus on particular cases and controversies.

*Note:* Offered jointly with the Divinity School as 3847. This course, when taken for a letter grade, meets the General Education requirement for United States in the World or Culture and Belief, but not both.

### **United States in the World 33. Religion and Social Change**

Catalog Number: 8058

*Marla F. Frederick (African and African American Studies; Study of Religion)*

*Half course (fall term). M., 1-3, and a weekly section to be arranged. EXAM GROUP: 1*

Religion has inspired new understandings of social and political engagement. From early protest oriented struggles for civil rights in the US to the more recent personal responsibility calls of



neo-pentecostal discourses, this course takes African American religious engagement with the process of democracy as a starting point for thinking about how other communities around the world have employed religion as a means of advancing social change. Through ethnography, auto/biography, and documentary film, this class compares and contrasts the influence that religious moods and motivations have had on calls for democracy and social change in places like Latin America, the Middle East and West Africa. In each instance the course questions the place of the US government and US religious bodies in these global efforts towards change.

*Note:* Offered jointly with the Divinity School as 3700. This course, when taken for a letter grade, meets the General Education requirement for United States in the World or Culture and Belief, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **[United States in the World 34. The Civil War from Nat Turner to *Birth of a Nation*]**

Catalog Number: 43416

*Amanda Claybaugh (English) and John Stauffer (English; African and African American Studies)*

*Half course (spring term). M., W., at 12, and a weekly section to be arranged.*

This interdisciplinary course reframes traditional understandings of the Civil War in three ways. First, by showing that civil conflict in the United States began well before 1861 and ended well after 1865, taking the form of slave uprisings and Klan terrorism, as well as conventional war. Second, by showing that the former Confederacy won this longer Civil War by establishing a new order of black freedom. And third, by placing this war in the context of international politics and trade. "Readings" range from fiction, film, letters, and speeches to poetry, pamphlets, prints and photographs, songs, and history.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **United States in the World 35. Dilemmas of Equity and Excellence in American K-12 Education**

Catalog Number: 55027 Enrollment: Limited to 80.

*Katherine K. Merseth (Harvard Graduate School of Education)*

*Half course (fall term; repeated spring term). Fall: Tu., Th., 11:30–1, and a weekly 90-minute section to be arranged; Spring: M., W., 1–2:30, and a weekly 90-minute section to be arranged.*

*EXAM GROUP: Fall: 15; Spring: 8*

Events such as Teach for America's 20th anniversary and films like Waiting for Superman highlight urgent concerns about the quality and reach of American schooling in the 21st century. Against this backdrop, the course grapples with several dilemmas that have defined American K-12 education throughout history. What constitutes educational excellence? Can excellence be achieved for everyone? Why do we have schools and what is their purpose? Given that families, politicians, and the courts often disagree vehemently about the answers to these questions, the course considers who and what will define the future of American education and its role in society.

#### **United States in the World 36. Innovation and Entrepreneurship: American Experience in Comparative Perspective**

Catalog Number: 27723 Enrollment: Limited to 95.



*Mihir A. Desai (Harvard Business School) and David L. Ager (Harvard Business School)*

*Half course (fall term). M., W., 3:30–5. EXAM GROUP: 6*

What gives rise to entrepreneurial opportunity and innovative activity? How do innovators and entrepreneurs think about the world? How are organizations born and how do they grow? How can innovation and entrepreneurship address the major challenges facing the world? The course will address these questions by bringing together faculty members of Harvard University to provide a diverse set of perspectives on the nature of innovation and entrepreneurship. The course has three complementary pedagogical methods. Members of the Harvard Business School faculty will provide a set of interactive lectures using case studies that illustrate how for-profit and not-for-profit organizations recognize and capitalize on opportunities. Second, faculty members from around the University will provide lectures on specific areas related to their expertise. Third, a set of group projects that allow students to work in the field with sponsoring organizations will be completed over the course of the semester.

*Note:* Unlike other General Education courses, this course assumes advanced coursework in a relevant social science and thus is open to freshmen only with permission of the instructor.

### **[United States in the World 38. Forced to be Free: Americans as Occupiers and Nation-Builders]**

Catalog Number: 26219

*Andrew Gordon (History) and Erez Manela (History)*

*Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged.*

The United States has launched numerous projects of military occupation and nation-building in foreign lands since the late 19th century. These have been contradictory enterprises, carrying ideals of freedom and self-determination "offered" by force or by fiat. This course will assess the meanings and legacies of these projects by examining the ideas, strategies, policies, and outcomes of occupations ranging from the Philippines and Haiti early on, to Japan, Germany, and Korea in mid-century to, most recently, Afghanistan and Iraq. The course focuses on American activities and ideas but also examines the responses of the occupied.

*Note:* Expected to be given in 2015–16. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **United States in the World 39. History of American Democracy**

Catalog Number: 55546 Enrollment: Limited to 72.

*David Moss (Harvard Business School)*

*Half course (fall term). M., W., 3:30–5, and an optional weekly section to be arranged. EXAM GROUP: 6*

Today we often hear that American democracy is broken—but what does a healthy democracy look like? How has American democratic governance functioned in the past, and how has it changed over time? This course approaches American history with these questions in mind. Based on the case method, each short reading will introduce students to a different critical episode in the development of American democracy, from drafting of the Constitution to contemporary fights over same-sex marriage. The discussion-based classes will encourage students to challenge each other's assumptions about democratic values and practices, and draw their own conclusions about what "democracy" means in America.

*Note:* Offered jointly with the Business School as 1139. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.



### **United States in the World 40 (formerly History 1989). New World Orders? From the Cold War to Contemporary International Relations**

Catalog Number: 83056 Enrollment: Limited to 75.

*Mary Elise Sarotte (Government; History)*

*Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12*

The US and major European states, including Russia and the Soviet Union, have tried to instill order upon the chaotic transatlantic and international relations of the twentieth and twenty-first centuries. This course examines their attempts to institute "new world orders" as the global Cold War unfolded, European empires gave way to European integration, and technology reshaped politics. It also explores the legacy of these events for international relations in the 1990s and the twenty-first century.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **United States in the World 41 (formerly History 1495). Power and Protest: The United States in the World of the 1960s**

Catalog Number: 5900

*Lisa M. McGirr (History)*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*

This course charts the key events, actors, ideas and strategies of collective movements for social change during the "long 1960s." It situates these mobilizations within the key economic, social and political developments in the post-World War II period in the United States and the world. Topics include Cold War politics from Eisenhower to Nixon, the civil rights movement, the new left, the women's movement, the war in Vietnam, black power, as well as the emergence of a revitalized political Right. The legacies of these movements and the more recent economic and political shifts that have challenged some of their core assumptions are also considered.

*Note:* This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

*Cross-listed courses that satisfy the United States in the World Requirement. Some of these courses may have prerequisites or assume familiarity with the subject matter.*

**African and African American Studies 10. Introduction to African American Studies**

**Economics 10a (formerly Economics 10). Principles of Economics**

**Economics 10b. Principles of Economics**

[Economics 1356. Economics of Work and Family]

**Empirical and Mathematical Reasoning 20. The Business and Politics of Health**

**Environmental Science and Public Policy 78. Environmental Politics**

**Government 30. American Government: A New Perspective**

**\*Government 94q. US-Latin American Relations: Seminar**

**History 1445. Science and Religion in American History**

[History 1457. History of American Capitalism]

[History 1465. The United States in the World since 1900]

[History 1511. Latin America and the United States]

**Sociology 27. Introduction to Social Movements**



# Graduate Seminars in General Education and in Undergraduate Education

## **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

These seminars for graduate students are committed to the discussion, development, and design of undergraduate courses that will be appropriate for the undergraduate curriculum, including but not limited to the Program in General Education. Graduate students actively engage with faculty to consider central conceptual and analytic themes, course design and pedagogy, as well as other important decisions in the development and implementation of undergraduate courses.

Interested graduate students should contact the specific faculty members for more information and check with their home departments about whether these courses will fulfill requirements for relevant graduate degrees.

### *Graduate Seminars in General Education*

#### **Anthropology 2111. Changes in the Land: The Archaeology of Humans and the Earth (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 50321

*Christian Alexander Tryon and Jeffrey Quilter*

*Half course (spring term). Th., 2–5. EXAM GROUP: 11*

How have humans shaped the environment and how has the environment shaped humans throughout their (pre)history? We will explore key theories and case studies and students will further explore these questions through independent research.

*Note:* The seminar will design and develop a General Education course on these themes for undergraduates.

#### **\*History 2258. Histories of the Future (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 52767

*Alison Frank Johnson*

*Half course (fall term). W., 10–12. EXAM GROUP: 5*

The seminar will consider how individual people and groups in the past thought about and planned for the future. Specific topics can include the history of: insurance; speculation; engineering and unintended environmental consequences; climate change; population growth (or decline) and social planning; education and "disruption." Our object will be to design an undergraduate course that encourages students to look critically at how we think we can plan for



the future in the present.

*Note:* Consent of instructor required. The seminar will design and develop a General Education course on these themes for undergraduates.

**[\*History 2414. The American Attic (Graduate Seminar in General Education)]**

Catalog Number: 44981 Enrollment: Limited to 12.

*Jill M. Lepore and Robin E. Kelsey*

*Half course (fall term). Hours to be arranged.*

This interdisciplinary graduate seminar is dedicated to developing an undergraduate course on the attic as both a place and a realm of the imagination. Students will explore the historical and aesthetic richness of archives.

*Note:* Expected to be given in 2016–17. The seminar will design and develop a General Education course on these themes for undergraduates.

**History of Art and Architecture 268x. Looking Back: Re-imagining an Introduction to the History of Western Art (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 65666 Enrollment: Limited to 12.

*Jeffrey F. Hamburger and Joseph Koerner*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

Since its beginnings, the history of art has been conceived of as a teleological process defined largely in terms of progress, culminating in the triumph of modernism. As a counter-heuristic, we will teach the history of art from the present and looking back to the past. After an historiographical introduction, focused on Vasari, Winckelmann, Hegel and historicism, also in reverse, each section will consist of a critical chain of appropriations made by modern artists who constructed their own understanding of tradition, ending in Antiquity. Each section will focus on a major artist.

*Note:* The seminar will design and develop a General Education course on this theme for undergraduates.

**History of Science 245. The Changing Concept of Race in Science and Medicine in the United States: From Jefferson to Genomics (Graduate Seminar in General Education)**

Catalog Number: 57429

*Evelynn M. Hammonds*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

This course explores the history of the concept of "race" as used by biologists, anthropologists, and physicians from the 17th century to the present and social and political responses to the concept of race in these fields.

*Note:* The seminar will design and develop a General Education course on these themes for undergraduates.

**[Music 295r. California in the '60s (Graduate Seminar in General Education)]**

Catalog Number: 77487

*Kate van Orden*

*Half course (fall term). Hours to be arranged.*

*California in the '60s* This seminar will design and prep an undergraduate course for non-concentrators on music in California during the "long" sixties, from 1964-71. Principal themes



will include youth, culture and the counter-culture politics of black power, women's liberation, and psychedelia; music includes surf rock, folk rock, acid rock, and singer-songwriters; artists include the Beach Boys, The Doors, Jefferson Airplane, Sly Stone, The Byrds and Joni Mitchell.

*Note:* Expected to be given in 2015–16. The seminar will design and develop a General Education course on these themes for undergraduates.

**[OEB 282. Genomics and Evolution of Infectious Disease (Graduate Seminar in General Education)]**

Catalog Number: 43026

*Pardis Sabeti*

*Half course (fall term). Tu., 2–4.*

Infectious diseases rapidly evolve to evade our immune systems, drugs, and vaccines, to remain agents of great morbidity and mortality. We will investigate the genome evolution of these pathogens and our intervention strategies for them past and present, with case examples from avian flu, malaria, TB, lassa fever and more. The seminar will design and develop a General Education course on these themes for undergraduates.

*Note:* Expected to be given in 2015–16.

**Philosophy 232r. The Art of Living (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 29402

*Sean D. Kelly*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

From its inception in Ancient Greece, Philosophy was conceived of not merely as an intellectual pursuit, but as an entire way of life. Indeed ethics, in the words of the Roman philosopher Cicero, was essentially an *ars vivendi*, an art of living [*De Fin.* 1.42 *et. al.*]. This graduate seminar is devoted to developing a General Education course that approaches philosophical texts from this broad-minded perspective. In the seminar we will pursue intensive reading of figures from Socrates to Foucault, and we will discuss various pedagogical strategies and creative assignments intended to bring to life the art that each of these figures points us toward.

*Note:* The seminar will design and develop a General Education course on these themes for undergraduates.

**Philosophy 253. The Epistemic Authority of Science (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 44411

*Edward J. Hall and Scott Brewer (Law School)*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

A systematic examination of the nature and significance of the epistemic authority that our culture currently bequeaths upon science, with emphasis on issues in both the public and private spheres. How, in a democratic society, should scientific expertise be adjudicated, and deployed in decision-making in political and legal settings? To what extent are science and religion in conflict? What is it to adopt a "scientific worldview" - and what difference should this make, if any, to how an individual perceives and conducts her own life?

*Note:* The seminar will design and develop a General Education course on these themes for undergraduates.



**[Sociology 239. Just Institutions (Graduate Seminar in General Education)]**

Catalog Number: 38797

*Christopher Winship*

*Half course (spring term). M., 2–4.*

Examines the normative, psychological, and sociological underpinnings needed to develop and maintain social institutions that are considered "just". The seminar will design and develop a General Education course for undergraduates.

*Note:* Expected to be given in 2015–16.

**\*Studies of Women, Gender, and Sexuality 2012. Sex as an Ethical Problem (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 99186 Enrollment: Limited to 12.

*Mark D. Jordan (Divinity School)*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

This seminar will draft and then evaluate alternate plans on ethical reasoning about sexual acts, desires, and identities. In an astonishingly short time, sex has been pushed from the center of American morality to somewhere beyond the edge of it. A hundred years ago, "immorality" without qualification usually meant sexual misconduct, especially by women. Today many Americans are unclear whether there is any morality to sex beyond counsels of hygiene or responsible reproduction. This rapid historical change makes sex a very good place to think not only about how ethical reasoning changes, but what it does and doesn't add to human lives. The seminar will consider the full range of topics pertinent to a course on sexual ethics, but also and perhaps more importantly the array of possible pedagogies.

*Note:* The seminar will design and develop a General Education course on these themes for undergraduates.

***Graduate Seminars in Undergraduate Education***

**\*Life Sciences 200. Integrated Science (Graduate Seminar in Undergraduate Education) - (New Course)**

Catalog Number: 84132

*Andrew W. Murray, Michael Manish Desai, Erel Levine, and Mary Elizabeth Wahl*

*Half course (fall term). M., W., F., 10–11:30. EXAM GROUP: 5*

Graduate students who take this class will help to shape the structure of a course to be offered the following year and will be encouraged to serve as its teaching fellows. That course is a year-long integrated double course that will introduce a group of motivated freshman to the concepts that they will need to do interdisciplinary scientific research. Problems in the life sciences will be used to illustrate and integrate critical concepts from mathematics, physics, chemistry, computer science, and biology.

*Note:* The seminar will design and develop a course on these themes for undergraduates.

*Prerequisite:* Students must be in their second year of graduate study or above, and permission of the instructor.

**Slavic 253. Reading Contemporary Russia (Graduate Seminar in Undergraduate Education) - (New Course)**

Catalog Number: 16391



*Stephanie Sandler*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

Seminar on post-1989 Russian literature, film, and culture, and on the challenges and pleasures of studying contemporary cultural processes. Includes Brodsky, Medvedev, Pelevin, Petrushevskaya, Prigov, Shvarts, Sorokin; German, Muratova, Sokurov. Combines individual research proposals with designing an undergraduate course.

*Note:* Graduate students who take this class will help to shape the structure of a concentration course to be offered in 2016-17 and will be encouraged to serve as its teaching fellows.

*Prerequisite:* Reading knowledge of Russian.

## Core Curriculum

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

All students who entered Harvard College prior to September 2009 must meet the requirements of the Core Curriculum in order to graduate, unless they choose to switch to the Program in General Education. Students should consult the General Education Office ([gened@fas.harvard.edu](mailto:gened@fas.harvard.edu), 617-495-2563, Holyoke Center Fourth Floor) to discuss options for completing Core Curriculum requirements or for switching to General Education requirements. For more information on the Program in General Education, please visit [www.generaleducation.fas.harvard.edu](http://www.generaleducation.fas.harvard.edu).

Courses that meet Core area requirements are denoted in the "Note" field at the end of the respective course listing. Students may also find these courses by using the advanced search option in the Course Planner tool on [my.harvard.edu](http://my.harvard.edu); there is a field to search by Core Curriculum requirement.

## Freshman Seminars and House Seminars

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

*Faculty of the Committee on Freshman Seminars*



Jay M. Harris, Dean of Undergraduate Education, and Harry Austryn Wolfson Professor of Jewish Studies (*Chair*)

Kathleen M. Coleman, James Loeb Professor of the Classics

Jennifer L. Hochschild, Henry LaBarre Jayne Professor of Government and Professor of African and African American Studies

Andrew H. Knoll, Fisher Professor of Natural History and Professor of Earth and Planetary Sciences

Ofrit Liviatan, Lecturer on Government, and Director of Freshman Seminars (*ex officio*)

Panagiotis Roilos, George Seferis Professor of Modern Greek Studies and of Comparative Literature

### ***The Freshman Seminar Program***

Freshman Seminars are designed to intensify the intellectual experience of incoming undergraduates by allowing them to work closely with faculty members on topics of mutual interest. Enrollment is limited to the first two terms of students who enter as freshmen. Freshman Seminars are graded SAT/UNS and may not be audited. For information on the Freshman Seminar Program, please visit our website at [www.freshmanseminars.college.harvard.edu](http://www.freshmanseminars.college.harvard.edu).

#### ***Freshman Seminars 2014-15***

##### **\*Freshman Seminar 21f. On Broken Ground: The Science and Impact of Earthquakes - (New Course)**

Catalog Number: 74849 Enrollment: Limited to 12.

*Brendan J. Meade*

*Half course (fall term). W., 2–5. EXAM GROUP: 7*

Great earthquakes have shaped both the Earth and history. Here we consider the causes of earthquakes, assessments of their hazard, as well as their impact on human society through an analysis of contemporary and historical ruptures. Further we discuss the future of earthquake hazards on a more populated planet and how technological approaches are allowing us to prepare for earthquakes before they happen.

*Note:* Open to Freshmen only.

##### **\*Freshman Seminar 21g. How Did the First Stars and Galaxies Form?**

Catalog Number: 74245 Enrollment: Limited to 12.

*Abraham Loeb*

*Half course (spring term). M., 1:30–3:30. EXAM GROUP: 8*

Since the Universe is expanding, it must have been denser in the past. Therefore, there must have been an early time when stars like our Sun or galaxies like the Milky Way did not exist because the Universe was denser than they are. We therefore face the important question about our origins: how and when did the first stars and galaxies form? Primitive versions of this question were considered in religious and philosophical texts for thousands of years. The Seminar will summarize the fundamental principles and scientific ideas that are being used to address this question in modern cosmological studies.

*Note:* Open to Freshmen only



### **\*Freshman Seminar 21i. Evolution, Buddhism, and Ethics**

Catalog Number: 97898 Enrollment: Limited to 15.

*John Wakeley*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

Darwin's theory of evolution by natural selection, today supported by genetics, is often seen as antagonistic to religion. Buddhism is one of the world's major religions, yet is sometimes described as scientific. In fact, science and religion have a lot to say to each other, in particular about what can be done versus what should be done. This course explores points of contact between evolutionary genetics and Buddhism, centering on the notion of "emptiness," and building knowledge of each so that ethical questions about animals in research, genetic testing, and human genetic engineering can be discussed.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 21j. Plant Sex: Insights into the birds and the bees and the buttercups and the bleeding hearts - (New Course)**

Catalog Number: 43651 Enrollment: Limited to 10.

*Robin Hopkins*

*Half course (spring term). M., 2–5. EXAM GROUP: 18*

This seminar addresses fundamental evolutionary concepts while exploring the dynamic relationship between plants and their pollinators. We will use plant-pollinator interactions to understand the science of mutualism, co-evolution, speciation, convergence, animal behavior, and conservation biology. Discussions and readings on these topics will be highlighted by trips to the Arnold Arboretum, the Harvard Museum of Natural History, the Wellesley College greenhouses, and a local beekeeper. We will utilize living plants to explore diversity in plant morphology and reproductive strategies.

*Note:* Open to Freshmen only. The seminar will include required field trips, dates TBD.

Transportation and entrance fees are provided free of charge.

### **\*Freshman Seminar 21q. Biological Impostors: Mimicry and Camouflage in Nature**

Catalog Number: 8762 Enrollment: Limited to 12.

*Michael R. Canfield*

*Half course (spring term). Th., 2:30–4:30. EXAM GROUP: 11*

Plants and animals imitate one another and their surroundings to escape notice and avoid predators. This seminar explores the evolution of mimicry and camouflage using case studies that reveal the range of visual, behavioral, acoustical, and chemical means by which this deception is accomplished.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 21v. Black Holes, String Theory and the Fundamental Laws of Nature**

Catalog Number: 60008 Enrollment: Limited to 12.

*Andrew Strominger*

*Half course (fall term). Tu., 7–9 p.m. EXAM GROUP: 16*

This seminar will review both our established knowledge of the fundamental laws of nature as well as our best guesses and attempts to understand what might lie beyond our current knowledge. The black hole information puzzle, the nature of space and time at short distances, string theory, the Higgs boson, unification of the forces, quantum gravity and the origin of the



universe will be among the topics covered.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 21w. Research at the Harvard Forest: Global Change Ecology- Forests, Ecosystem Function, the Future**

Catalog Number: 0060 Enrollment: Limited to 11.

*David R. Foster*

*Half course (spring term). Harvard Forest, Petersham, MA --4 weekend-long field trips, TBD.*

*EXAM GROUP: 10*

This course explores state-of-the-art research, tools and measurements used to investigate and predict climate change through ongoing studies at the Harvard Forest's 3,500 acre outdoor laboratory in Petersham, MA. The seminar consists of four weekend-long field trips (Friday evening-Sunday) to the Harvard Forest and a final on-campus meeting. Students develop skills for evaluating, discussing, and presenting the ecological evidence for climate change, including feedbacks between forests and the atmosphere and long-term impacts on forest ecosystems.

*Note:* Open to Freshmen only. Four weekends at the Harvard Forest in Petersham, MA (Fri, 3pm-Sun, late afternoon) dates TBA. Transportation, accommodations, and meals at the Harvard Forest will be provided.

### **\*Freshman Seminar 21y. The Art and Politics of Science**

Catalog Number: 89138 Enrollment: Limited to 12.

*Roberto G. Kolter (Medical School)*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Objectivity is important in science, yet it is clear that there are elements of creativity and politics that shape the practice and communication of science. This course explores how individual creativity and political behavior influence scientific pursuits and science communication. This is done through diverse activities, including interviews with scientists, viewing and discussing films that broach scientific topics, e.g. "DNA Story" and "GATTACA", reading and discussing K. C. Cole's "Frank Oppenheimer and his astonishing Exploratorium", a visit to the Museum of Science and the preparation of a "hands on" experiment.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 22l. Justice in Health: Ethics of Public Health in the Contemporary World - (New Course)**

Catalog Number: 10823 Enrollment: Limited to 12.

*Soha Hassan Bayoumi*

*Half course (fall term). Tu., 3–5. EXAM GROUP: 2*

This seminar addresses central issues in the philosophy of healthcare, investigating how some fundamental questions in this field have been answered and exploring alternatives. Questions addressed include: What is health? What is healthcare? Does health have special moral significance? Is there a human right to health? Why do persons and communities differ in their health outcomes and when are these differences considered unjust? Are we responsible for our own health outcomes? The course focuses on questions of class, race, gender and aging in its discussion of justice in health and examines ethical questions in global health.

*Note:* Open to Freshmen only.



### **\*Freshman Seminar 22t. Why We Animals Sing**

Catalog Number: 22509 Enrollment: Limited to 15.

*Brian D. Farrell*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

We will become familiar with sounds and structures of the different kinds of acoustic animals, including birds, mammals, frogs and insects, and the different kinds of habitats in which they produce their songs and calls. We will explore the evolution and biology of music in humans.

*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., 2–5:30. EXAM GROUP: 7*

The seminar will apply scientifically quantitative methods to understanding a number of problems of general public concern, and provide insight into the roles of a scientist in public affairs by understanding diverse problems of the environment, pollution, and public health. The topics will be selected in the first two weeks from those that are topical at the time.

*Note:* Open to Freshmen only. There will be a required trip, date TBD.

### **\*Freshman Seminar 23e. The Scientific Method: A Roadmap to Knowledge**

Catalog Number: 14833 Enrollment: Limited to 12.

*Robert Sackstein (Medical School)*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

This course is designed to provide a working knowledge of the scientific method, thereby fostering development of fundamental skills in logic and experimental design. The various forms of reasoning (inductive, abductive, deductive) will be discussed in context of the practice of science. Through critical analysis of historical and contemporary scientific reports, students will gain an understanding of creating appropriate hypotheses, of controlled experimentation, and of the breadth and limits of conclusions drawn from experimental data.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 23g. Nature, Nurture, and Mental Illness - (New Course)**

Catalog Number: 24789 Enrollment: Limited to 12.

*Jordan W. Smoller (Medical School)*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

By the latest estimates, more than half of us will meet the criteria for a diagnosable mental illness at some point in our lives. Rates of many disorders -from autism and ADHD to eating disorders and depression-have apparently been increasing substantially in recent decades. What do we know about the causes of mental illness? This seminar will explore the role of nature, nurture, and culture in our understanding of mental illness. We will draw on a broad range of disciplines-from psychology, psychiatry and anthropology to genetics and neurobiology-to examine the roots of normal and abnormal behavior.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 23k. Insights from Narratives of Illness**

Catalog Number: 1904 Enrollment: Limited to 12.



*Jerome E. Groopman (Medical School)*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

A physician occupies a unique perch, regularly witnessing life's great mysteries; it is no wonder that narratives of illness have been of interest to both physician and non-physician writers. Examines and interrogates both literary and journalistic dimensions of medical writing from Tolstoy to Oliver Sacks as well as newspapers and periodicals. Studies not only mainstream medical journalists, but so called alternative medical writers such as Andrew Weil also. Work with different forms of medical writing.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 23l. Medicine, Law, and Ethics: An Introduction**

Catalog Number: 4235 Enrollment: Limited to 15.

*Shahram Khoshbin (Medical School)*

*Half course (spring term). M., Th., 7–9 p.m. EXAM GROUP: 13*

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, human reproductive technologies, mental illness, and experimentation on animals. Historical background of present-day medical practices and relevant law to be discussed.

*Note:* Open to Freshmen only.

*Prerequisite:* All students are welcome, but this seminar is particularly geared to pre-medical and pre-law students. Students are advised that this course is intended to be introductory.

**\*Freshman Seminar 23m. Nutrition and Public Health**

Catalog Number: 8823 Enrollment: Limited to 15.

*Clifford Lo (Medical School)*

*Half course (fall term). Tu., 6:30–8:30 p.m. EXAM GROUP: 16*

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:* Open to Freshmen only. Clinical rounds with Nutrition Support Services at Children's Hospital are optional.

**\*Freshman Seminar 23p. Physics, Math and Puzzles**

Catalog Number: 71288 Enrollment: Limited to 15.

*Cumrun Vafa*

*Half course (fall term). Section I: W., 4:30–6:30; Section II: F., 4–6. EXAM GROUP: 17*

Principles of modern physics are based on simple but at the same time deep concepts. Many of these concepts are naturally encountered when solving mathematical puzzles. The aim of this seminar is to illustrate the connection between physics and mathematics and use simple ideas and puzzles to shed light on this relation. We will also draw upon ideas encountered in the context of string theory and higher dimensional realizations of our universe. Recommended for students deeply interested in both physics and mathematics.

*Note:* Open to Freshmen only. Friday class will be added if needed, TBD.



*Prerequisite:* This seminar is recommended for students with a strong background in both math and physics and with keen interest in the relation between the two subjects.

### **\*Freshman Seminar 23y. All Physics in 13 Days**

Catalog Number: 95524 Enrollment: Limited to 13.

*John M. Doyle*

*Half course (spring term). F., 10–12. EXAM GROUP: 5*

This seminar will introduce 13 key pieces of knowledge about our physical world: 1) Boltzmann factor and thermal equilibrium, 2) Turbulence, 3) Reaction rates, 4) Indistinguishable particles, 5) Quantum waves, 6) Linearity, 7) Entropy and information, 8) Discharges, ionization, 9) Relativity, 10) Nuclear binding energies, 11) Photon modes, 12) Diffraction, 13) Resonance.

Each week we will discuss one of these principles and see how we might gain an understanding of our physical and technological world.

*Note:* Open to Freshmen only.

*Prerequisite:* Professor Doyle has made a change to the prerequisites. Since this is a fall term course, applicants will not be required to have taken Mechanics 11a, 15a, or 16. Please know, though, that this seminar will be geared to students likely to go on in physics or related areas, such as chem/phys or engineering. The introduction to certain principles is done with the expectation that students will return to a more formal course on the subject in the future.

### **\*Freshman Seminar 24e. The Physics and Applied Physics Freshman Research Laboratory**

Catalog Number: 3573 Enrollment: Limited to 12.

*Jene A. Golovchenko*

*Half course (fall term). W., F., 3–5. EXAM GROUP: 6*

Exposees students considering careers in science or engineering to environment of a modern research laboratory. Research teams construct, perform, analyze, and report on cutting-edge experiments in physical, engineering, and biological sciences. Projects provide insight into the mathematical, mechanical, electronic, chemical, computational, and organizational tools and skills that characterize modern experimental science. Past projects focused on atomic, nuclear, and solid state physics, materials science, dynamical systems, and biophysical science. Projects highlight both team and individual effort.

*Note:* Open to Freshmen only. This class will meet off-campus at the Rowlands Institute at Harvard. Transportation will be provided at no charge to students.

### **\*Freshman Seminar 24g. A Brief History of Surgery**

Catalog Number: 74216 Enrollment: Limited to 15.

*Frederick H. Millham*

*Half course (fall term). Th., 7–9 p.m. EXAM GROUP: 16*

In this seminar, students explore the historical foundation of modern surgical practice. They will study the medical notions of the ancients, and then see these notions overturned in The Enlightenment. Advances of the 19th century will be studied in detail. We will end with a session on combat casualty care, aided by an experienced combat surgeon. Students will write a 5 page paper on a topic in surgical history and will present their work to the class.

*Note:* Open for Freshmen only.



### **\*Freshman Seminar 24k. The Surprising Science of Happiness**

Catalog Number: 21444 Enrollment: Limited to 12.

*Nancy Lee Etcoff (Medical School)*

*Half course (spring term). Tu., 3–5. EXAM GROUP: 16*

After a century of studying how to cure mental illness, scientists have started to explore what makes us happy. What have they discovered? In this course, we will critically examine the findings from the new science of happiness revealing how they are altering our understanding of what happiness is, the optimal ways to achieve and increase it, the role of circumstance in its occurrence, its effect on our bodies, and its place in human nature.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 24n. Child Health in America**

Catalog Number: 6367 Enrollment: Limited to 12.

*Judith Palfrey (Medical School) and John G. Palfrey*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

Reviews history of children's health care in the United States; explores the impact of geography, environment, nutrition, clean water, as well as scientific discoveries of the late 19th and the early 20th centuries and the emergence of high technology care in middle and late 20th century. Does America provide children the best possible health care available? Compares United States epidemiology with that of other developed and developing nations. Explores how child health delivery is financed.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 24p. Getting to Know Charles Darwin**

Catalog Number: 36551 Enrollment: Limited to 12.

*William Friedman*

*Half course (fall term). W., 2–6. EXAM GROUP: 7*

We will read a selection of Darwin's publications, as well as his private correspondence, paying close attention to the man behind the science as revealed by his writings. We will get to know Darwin, the avid breeder of pigeons, lover of barnacles, devoted father and husband, gifted correspondent and tactician, and remarkable backyard scientist. Together, the class will reproduce ten of Darwin's classic Down House experiments and observations that were central to his case for natural selection and evolution.

*Note:* Open to Freshmen only. Required field trips to the Arnold Arboretum of Harvard University, the Museum of Comparative Zoology, and a local pigeon fancier will be included.

### **\*Freshman Seminar 24q. Biology of Symbiosis: Living Together Can Be Fun!**

Catalog Number: 32855 Enrollment: Limited to 12.

*Colleen M. Cavanaugh*

*Half course (fall term). W., 2–4 with occasional meetings until 5 pm for trips or projects. EXAM GROUP: 7*

This course examines the remarkable diversity of symbiotic associations on Earth, their ecology and evolution, and their roles in human health and disease, agriculture, and biotechnology. Symbioses - "living together" - with microbes are ubiquitous in nature, ranging from lichens to the human microbiome. Symbiosis drives evolution, resulting in "new organisms" and charges us to think about biodiversity on a new level. In this freshman seminar, microbial symbioses with



animals (including humans), plants, fungi, protists will be discussed, complemented by microscopy and field trips to local environs including Boston Harbor Islands, the New England Aquarium, and your own microbiome.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 24u. "How Did I Get Here?"--Appreciating "Normal" Child Development**

Catalog Number: 81872 Enrollment: Limited to 12.

*Laura Marie Prager (Medical School)*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

How do we conceptualize "normal" growth and development? In this seminar, we will examine stages of child development from many vantage points: neurobiological, physical, cultural, and psychological. Readings will include classic papers on development, textbook chapters that provide overviews of specific developmental stages, recently published research articles on brain development and genetic inheritance, selected contemporary children's and young adult literature, personal memoirs, and short stories written about childhood. We will also examine clips from contemporary films. Assignments will consist of three short response papers and a longer final paper. There are no prerequisites for this course.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 25e. Autism**

Catalog Number: 92389 Enrollment: Limited to 12.

*Charles A. Nelson (Medical School, Public Health)*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

Autism is an increasingly common disorder, frequently found in the popular press and Hollywood movies. It affects roughly 1:100 individuals, approximately 500 times the rate of just a few decades ago. Sadly, despite the considerable financial resources devoted to the study of autism we still do not know what causes the disorder, why its severity varies so enormously from person to person and how best to treat it. This seminar will be broad in scope, focusing on the following key themes: genetic, neurological and possibly environmental causes of autism, risk factors for developing the disorder, best way to characterize the disorder, best treatment options.

*Note:* Open to Freshmen only. Note: The instructor will arrange field trips to various clinics that provide services for individuals with autism.

**\*Freshman Seminar 25k. You Are What You Eat**

Catalog Number: 3913 Enrollment: Limited to 15.

*Karin B. Michels*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

What does food do to our bodies? What does a healthy diet entail? Explores and critically evaluates diet recommendations and knowledge about the role of diet in maintaining health. Discusses the obesity epidemic, with a focus on childhood obesity and the role of school lunch programs. Explores local resources including Harvard Community Gardens and Food Literacy Program and how meals are prepared at the Harvard University Dining Services. Discusses genetically modified foods and mindful cooking and eating. Will review the book "Eat, drink, and be healthy". Hands-on experience in nutrition education.

*Note:* Open to Freshmen only.



### **\*Freshman Seminar 25n. Understanding Psychological Development, Disorder and Treatment: Learning through Literature and Research**

Catalog Number: 9589 Enrollment: Limited to 12.

*Nancy Rappaport (Medical School)*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

Deepens understanding of human development and how individuals cope with serious emotional or social difficulties (neglect, bipolar disorder, autism, depression). We will use multiple perspectives: medical texts that provide practical knowledge, narrative readings to understand how patients experience the meaning of illness, speaking with patients about their experiences, and portrayals of development-related mental illness in the press. Examines the fundamental need for tenderness and making meaning, the resourcefulness required for resiliency and the context of vulnerability.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 25o. Building a Living Cell One Brick at a Time**

Catalog Number: 48982 Enrollment: Limited to 14.

*Alain Viel*

*Half course (fall term). W., 2–5. EXAM GROUP: 7*

Synthetic biology is an emerging multi-disciplinary field of research aimed at developing solutions to problems impacting our individual lives and ultimately our long-term survival as a species. We need to find alternative and renewable sources of energy and food, new ways to process and recycle limited resources, and tools to detect and address environmental pollutants. These and other challenges can be addressed by the development of microorganisms re-engineered to perform new functions. In this "hands-on" laboratory course students will design experiments and build and then test synthetic biological systems. Additionally, students will present and discuss selected topics in synthetic biology.

*Note:* Open to Freshmen only

### **\*Freshman Seminar 25p. Neurotoxicology: Biological Effects of Environmental Poisons**

Catalog Number: 1838 Enrollment: Limited to 15.

*S. Allen Counter (Medical School)*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Explores wide range of environmental and man-made neurotoxic substances and effects on human and animal populations. Attention to pediatric exposure to neurotoxic agents and associated neurodevelopmental disabilities, as well as neurobehavioral and immunological changes. Examines impact of lead and mercury poisoning, PCBs. Investigates neurophysiology and neurochemistry of a number of other neurotoxins, including arsenic, tetrodotoxin, saxitoxin, botulinum, curare, cocaine, and "nerve gas." What dangers do these toxins pose? What can or should be done to prevent exposure?

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 25q. Understanding Emotions**

Catalog Number: 94303 Enrollment: Limited to 15.

*Matthew Leeds*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

Large and small, simple and complex, self-evident and confusing, emotions in all their variety



are a fundamental part of life. But just what are emotions? Are they the same in all cultures? What, if any, functions do they serve? Can we control our emotions? What role do they play in development, personality, relationships and well-being? What effects can they have on physical health? And do they present special challenges to scientific study? This seminar will take up these and other fundamental questions, and will discuss methods used to study emotion and the current state of knowledge about human emotion.

*Note:* Open to Freshmen only

#### **\*Freshman Seminar 25w. Responsibility, the Brain, and Behavior**

Catalog Number: 0049 Enrollment: Limited to 15.

*Ronald Schouten (Medical School)*

*Half course (fall term). Tu., 7–9 p.m. EXAM GROUP: 16*

Explores philosophical and legal bases of the concept of individual responsibility as applied in the criminal justice system. Examines how forensic mental health professionals assess an individual's mental state at time of an alleged criminal act, the legal standards applied, and the social and political forces that help shape the legal decision. Considers the insanity defense; examines modern concepts of the biological basis of behavioral disorders and their relationship to existing standards of criminal responsibility.

*Note:* Open to Freshmen only. The seminar may include a required trip outside of class time to Bridgewater State Hospital, Massachusetts's maximum security forensic hospital. Transportation will be provided free of charge.

*Prerequisite:* There are no prerequisites, but an interest in law, psychology, or related fields would be advantageous.

#### **\*Freshman Seminar 25x. Human Brain in Health and Disease: A Neurologist's Perspective**

Catalog Number: 25887 Enrollment: Limited to 15. The course is intended for those who have scored -5- on AP Biology or Chemistry.

*Thomas N. Byrne*

*Half course (fall term). Tu., 7–9 p.m. EXAM GROUP: 16*

Brain function serves as the basis for how we make rational and irrational decisions, learn to read or not (dyslexia), learn and remember or not (amnesia), empathize and understand the perspective of another or not (autism). The mind is shaped by the interaction of the brain and environment. Our understanding of the brain enables us to attempt to modify the environment to enhance the mind. This course will look at these issues in individuals with normal brain function and those with neurological disorders.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 25z. Stress and Disease (Biobehavioral Aspects of Health and Disease)**

Catalog Number: 1691 Enrollment: Limited to 12.

*Donald B. Giddon (Dental School)*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

This seminar on biobehavioral bases of health and disease focuses on the interaction of injurious or infectious agents and the physical and social environment in the development and maintenance of stress-related disorders. What factors are stressful for given individuals? What are the pathophysiological and/or behavioral pathways to disease? Why is a particular body organ system the target of stress? What psychological, social, and economic factors influence



cognitive, affective/physiological, and behavioral responses to disease?

*Note:* Open to Freshmen only. Most class meetings will be at the Medical School.

### **\*Freshman Seminar 26f. Dreams: Our Mind by Night**

Catalog Number: 91442 Enrollment: Limited to 12.

*Deirdre Leigh Barrett*

*Half course (fall term). Th., 3–5:30. EXAM GROUP: 2*

This course examines dreams with an emphasis on their relation to the creative process and problem solving. It draws on psychology predominantly-neurophysiology, clinical, and personality research while also including perspectives from history, religion, art, literature, and anthropology. We'll visit a sleep laboratory and a dream-artist's studio. Students will keep a dream journal, and engage in exercises to improve dream recall, influence content toward lucidity and other goals, and to interpret your dreams. Students will write a term paper on a dream-related topic of their choice.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 26j. The Universe's Hidden Dimensions**

Catalog Number: 7529 Enrollment: Limited to 15.

*Lisa Randall (Department of Physics)*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Based loosely on book, Warped Passages, considers revolutionary developments in Physics in early 20th century: quantum mechanics and general relativity; investigates key concepts which separated these developments from the physical theories which previously existed. Topics: particle physics, supersymmetry, string theory, and theories of extra dimensions of space. We will consider the motivations underlying these theories, their current status, and how we might hope to test some of the underlying ideas in the near future.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 26k. Transformative ideas in brain science and neuroscience: how war, technology, and disease have illuminated the organization and function of the nervous system historically and today - (New Course)**

Catalog Number: 93587 Enrollment: Limited to 12.

*Jeffrey D. Macklis*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

This seminar will offer an integrated historical-neurobiological-neurological introduction to foundational and transformative ideas in the ~3,700 year history of neuroscience, brain science, and "lay" neurology - all accessible to freshmen with interests from history, art, and literature to economics, social policy, and business to neuroscience / life sciences. No background will be assumed. Rather, historical vignettes and sources will be tied to modern understanding of elements of the nervous system, their organization, function, and modes of investigation and manipulation. Some historical contexts, often including war, disease, serendipity, and technology advancement, will be highlighted as advancing knowledge in surprising ways.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 26o. Changing Our Mind: Evolving Thoughts on Brain Regeneration - (New Course)**



Catalog Number: 31229 Enrollment: Limited to 12.

*Paola Arlotta*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

We will discuss current theories on brain regeneration in a dynamic setting that combines brainstorming of the literature with hands-on experience in the laboratory. Students will learn experiments that have shaped the field of brain repair and consider the newest theories on ways to regenerate the nervous system. We will also visit the laboratory to investigate the regenerative capabilities of different organisms. Experimental results will be used to consider, contrast and evaluate how regenerative capacities have changed during evolution and to brainstorm paths forward towards new solutions for brain regeneration in species, like humans, that have not mastered this art.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 26u. What is Mental Illness?**

Catalog Number: 9123 Enrollment: Limited to 12.

*Michael William Kahn (Medical School)*

*Half course (fall term). M., 2:30–4:30. EXAM GROUP: 7*

Introduces students to the nature of mental illness based on recorded interviews of people suffering from a variety of psychiatric conditions. Investigates what illness and treatment are like from patient's perspective. Interviews supplemented by readings which include a variety of patient narratives. Provides background on categories of mental illness, the varieties of treatment available, and the nature of the illness experience itself.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 26v. Blood: From Gory to Glory**

Catalog Number: 9017 Enrollment: Limited to 12.

*David T. Scadden*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

Humans have long understood that the blood flowing in their veins was imperative to their health and well-being. This course will examine the history, attitudes and beliefs surrounding blood. We will study human beliefs about blood and its uses in cultural beliefs and ceremonies. We will examine the science associated with blood: the production and the function of blood in the body, ideas of blood regarding medicine, healing, blood-related illnesses, biotechnology, nanotechnology and stem cell research.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 26w. The Biology and Science of Cancer and Its Treatments: From Empiric to Scientific to Humanistic**

Catalog Number: 63338 Enrollment: Limited to 15.

*George Daniel Demetri*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

"Cancer" represents hundreds of different diseases with a wide variety of causative mechanisms. We will study the biology of cancer and what makes a normal cell become a cancer one, delving into acquired and inherited genetic abnormalities and effects of environmental factors, such as nutrition, radiation, and tobacco. Current approaches to cancer will be discussed from prevention



and early detection to treatment of survivorship.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 26z. What is Life?**

Catalog Number: 20722 Enrollment: Limited to 12.

*Guido Guidotti*

*Half course (fall term). Th., 2:30–4. EXAM GROUP: 14*

This seminar considers the conditions of a cell necessary to support life. The proposal is to find a definition for a living system using information and principles of biology, chemistry and physics to characterize some central properties of living cells, like energy and material uptake and use, cellular crowding, diffusion and molecular interactions, homeostasis and growth.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 27i. Global Health: Comparative Analysis of Healthcare Delivery Systems**

Catalog Number: 38826 Enrollment: Limited to 15.

*Sanjay Saini*

*Half course (fall term). M., at 2. EXAM GROUP: 7*

This interactive seminar will allow students to obtain greater understanding of global health issues through critical comparative analysis of healthcare systems of selected countries from the developed, emerging and developing world. Weekly sessions will comprise of student-led discussion that revolves around an important healthcare issue. Domain expert guest speakers will be included allowing students to network with thought leaders. Student will explore in-depth a topic of their choice and prepare a manuscript for publication in a peer-reviewed medical journal.

*Note:* Open to Freshmen only

### **\*Freshman Seminar 27j. Prediction: From Ancient Omens to Modern Computer Simulations - (New Course)**

Catalog Number: 93907 Enrollment: Limited to 12.

*Alyssa Goodman*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

We will discuss the variety of approaches humans have taken to predicting their own future.

Early weeks will focus on Omens, Oracles, Religion and Prophecy. Next, we will move on to the so-called Scientific Revolution, exemplified by the work of Galileo, and the Age of Exploration, enabled by John Harrison's solution to finding longitude at sea. The last several weeks of the seminar will focus on predictive work in epidemiology, finance, and climate, and ultimately on work about the Universe's future. Students will conclude with a discussion of how computer models of health/wealth/climate combine to predict our future.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 27k. Energy: Be the Change - (New Course)**

Catalog Number: 86172 Enrollment: Limited to 12.

*Mara Prentiss (Department of Physics)*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

Energy use underpins much of our current global society, but there is widespread agreement that our current energy use cannot continue. We will explore physical, economic, social,



governmental, and spiritual aspects of our current energy consumption. We will then consider what drives people to propose change. Finally, we will consider what changes we ourselves propose should be made during the next 1 year, 5 year, and 20 year period. Students will pick at least one change and describe how that change could be made, including considering losses that will be required for that change to be realized.

#### **\*Freshman Seminar 30o. What is College and What is It For?**

Catalog Number: 1897 Enrollment: Limited to 15.

*Paul J. Barreira (Medical School)*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

Asks students to think and write critically about American higher education--its history, purpose and ongoing challenges. Considers "the uses of the university" from a variety of perspectives: historical, sociological, economic, and developmental. Addresses questions: What constitutes a liberal arts education? What are its goals? How should students be assessed? What role do extracurricular activities play in a college education? Does a bachelor's degree certify a vocational education, a cultural one, or a moral one?

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 30q. Death and Immortality - (New Course)**

Catalog Number: 19355 Enrollment: Limited to 15.

*Cheryl K. Chen*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

In this course, we will discuss philosophical questions about death and immortality. What is death? Is there a moral difference between "brain death" and the irreversible loss of consciousness? Is the classification of a person as dead a moral judgment, or is it an entirely scientific matter? Is death a misfortune to the person who dies? How can death be a misfortune if you are no longer around to experience that misfortune? Is it possible to survive after death? What does it mean for you to survive after your death? Is there such a thing as an immaterial soul distinct from your body? Is immortality something you should want in the first place? Even if you do not live forever, is it nevertheless important that humanity continues to exist after your death? By discussing these questions about death, we will hopefully gain insight about the importance and meaning of life.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 30t. The Novel in the Twenty-First Century**

Catalog Number: 24541 Enrollment: Limited to 15.

*Timothy M. Wientzen*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

This course seeks to understand the unique historical moment of our early century through close attention to some of its most significant literary artifacts. We will examine how the novel, as a literary form, has incorporated, challenged, and built upon new communication networks, transnational social affiliations, the rise of genetic engineering, and the looming collapse of our biosphere. How does the novel, once the repository of cultural memory, relate to history—and the danger of forgetting—in a world increasingly geared toward instantaneity? And, most importantly, how does the twenty-first century novel imagine alternatives to our most serious



social perils?

*Note:* Open to Freshmen only.

**\*Freshman Seminar 30u. Multiethnic American Short Stories: Tales We Tell Ourselves - (New Course)**

Catalog Number: 57354 Enrollment: Limited to 12.

*Tessa Lowinske Desmond*

*Half course (spring term). F., 10–12. EXAM GROUP: 5*

Taken up by many ethnic groups in America, the short story has been used to convey experiences with immigration and assimilation, discrimination and oppression, generational divides, and interactions across difference. Examination of such short stories opens up readers to a deeper understanding of America's multiethnic landscape. Together we will examine historical context for the short story's ongoing role in American culture, its relationship with publishing houses and critics, as well as its adaptability to new technologies. Reading Toni Morrison, Jhumpa Lahiri, Junot Diaz, and Sherman Alexie, among others, we will consider ties that both link and divide our multiethnic world.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 30v. Mexico: Revolution, Authoritarianism and Democracy: 100 Years - (New Course)**

Catalog Number: 97772 Enrollment: Limited to 12.

*Jorge I. Domínguez*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Mexico over the past century experienced a prolonged violent revolutionary war and subsequent transformation, established one of the world's longest-lived authoritarian regimes, and has been building robust democratic politics. The combination of these three dramatic moments is rare worldwide. Most countries in that century had only one or two such moments. Why did Mexicans kill each other so relentlessly for so long? Why did they build, from the rulers' perspective, the world's most effective authoritarian regime? Why was democratic transition so slow-moving? Was there collective wisdom in democratic politics, steering a successful transition within the lifetimes of the Freshmen?

*Note:* Open to Freshmen only.

**\*Freshman Seminar 30w. Engaging the New Atheism: Why Religion Remains - (New Course)**

Catalog Number: 38906 Enrollment: Limited to 12.

*David Lamberth (Divinity School)*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

Beliefs about the supernatural (God, heaven) are traditionally taken to be the central feature of religion. Recently scientists and critics have attacked religious belief, reviving anti-supernatural arguments against religion and suggesting that it be overcome by rational, scientific thinking. And yet religion remains. Not only does it remain, but it continues to exert tenacious influence personally, culturally, and politically. Why is this? This seminar considers the status of religious belief and looks at alternate understandings of what religion involves and does. Readings range from "new atheists" to philosophers and theorists of religion, modernity and ritual, to



evolutionary biology and neuroscience.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 30z. George Orwell: Journalist, Essayist, and Conscience of an Age**

Catalog Number: 96119 Enrollment: Limited to 12.

*Mark A. Kishlansky*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

George Orwell is one of the great political writers of the twentieth century. The word "Orwellian" summarizes his dystopic vision of state control and concepts such as "Big Brother" and the "thought -police" have entered popular consciousness. But Orwell was also a social reformer in the tradition of the Progressives. Alongside the content of his work, Orwell professed a lifelong interest in the process of writing. His essays on the corruption of language, the politicization of literature, and the less admirable side of the art of persuasion hold enduring interest for anyone who lives by and loves the English language.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 31g. The Pleasures of Japanese Poetry: Reading, Writing, and Translation**

Catalog Number: 1645 Enrollment: Limited to 12.

*Edwin A. Cranston*

*Half course (fall term). W., 2–5. EXAM GROUP: 7*

Reads classical waka, its modern descendant the tanka, and examples of linked verse (renga) and modern poems in free and prose-poem forms. (And haiku too!) Focuses on themes such as desire, renunciation, time, memory, war, death, sorrow, and receptivity. Students keep a diary of their encounters with the new poetry, practice the art of sequencing, and make their own translations based on literal renderings and explanations of Japanese originals.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 31j. Skepticism and Knowledge**

Catalog Number: 9760 Enrollment: Limited to 15.

*Catherine Z. Elgin (Faculty of Education)*

*Half course (fall term). Tu., 3–5. EXAM GROUP: 2*

What can we know; how can we know it? Can I know that I am not a brain in a vat being manipulated into thinking that I have a body? Can I know that Lincoln was assassinated, that electrons have negative charge, that *Hamlet* is a masterpiece, that the sun will rise tomorrow? This seminar will study skeptical arguments and responses to them to explore the nature and scope of knowledge.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 31n. Beauty and Christianity**

Catalog Number: 4682 Enrollment: Limited to 12.

*Robert J. Kiely*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Jesus has inspired great works of art, literature, and music, but Christians have not always agreed on the function of beauty. This seminar will consider Christian aesthetics, art (Italian Renaissance), and music (Bach, Messiaen, and spirituals), but the focus will be on literary works



of St. Francis, Dante, Herbert, Donne, Hopkins, Hawthorne, Melville, C.S. Lewis, and O'Connor. The abiding question will be: In what ways does aesthetic form-- beauty-- enhance, qualify, complicate, or obscure the gospel?

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 31p. Trials from Ancient Athens**

Catalog Number: 59648 Enrollment: Limited to 14.

*Adriaan M. Lanni (Law School)*

*Half course (fall term). Th., 3–5:30. EXAM GROUP: 2*

In classical Athens, litigants represented themselves before hundreds of jurors who rendered verdicts without instruction from a judge. We will read surviving Athenian court speeches involving homicide, assault, adultery, prostitution, slander, treason, citizenship, and commerce, as well as Plato's account of Socrates' defense speech. Taught by a law professor, the focus will be on comparing ancient and modern approaches to problems faced by all legal systems and on evaluating Athens' distinctively amateur legal system. Students will be expected to write one 5-page paper, to contribute to and lead one class discussion, and to participate in a "mock trial" of an Athenian homicide case.

*Note:* Open to Freshmen only. Prior knowledge of ancient history or ancient languages is not required; all readings are in translation and the seminar is designed to be of interest to those without a background in the ancient world.

### **\*Freshman Seminar 31q. Literal Looking: What We See in Art**

Catalog Number: 87001 Enrollment: Limited to 12.

*Peter J. Burgard*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

What do we really see when we look at a work of art? This seminar is an exercise in evaluating artistic composition as it presents itself to the viewer. Primarily devoted to looking and talking about what we think we see, what we actually see, and how it informs interpretation, but with consideration as well of what experts say we should see - in order to explore the degree to which literal looking aids or is aided by contextually informed looking. Works by Raphael, Caravaggio, Bernini, Velázquez, Turner, Renoir, Sargent, Klimt, Schiele, Kandinsky, Bacon, Richter (subject to change).

*Note:* Open to Freshmen only. The seminar includes a required field trip, date TBD.

### **\*Freshman Seminar 31u. The Varieties of Conservatism - (New Course)**

Catalog Number: 96982 Enrollment: Limited to 12.

*Stephen G. Osadetz*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

This course attempts to understand conservatism, less as a set of dogmatic political positions, and more as an attitude that allows us to rethink our fixation on the present, one that helps us to find company with the authors and traditions of the past. Our readings, drawn from thinkers such as Edmund Burke and Alexis de Tocqueville, will emphasize the remarkable intellectual fluidity of certain works that are often claimed as classics of conservatism. These authors make powerful emotional appeals to respect and preserve certain traditional ways of life in the face of relentless social change.

*Note:* Open to Freshmen only.



**\*Freshman Seminar 31x. Modern Motion: 100 Years of American Dance - (New Course)**

Catalog Number: 27292 Enrollment: Limited to 12.

*Sydney Skybetter (Dramatic Arts)*

*Half course (spring term). M., 3–5. EXAM GROUP: 17*

This course examines the last century of American dance through the lens of technologies of the stage, body and transnational exchange. Beginning with a survey of American influence on European ballet, this class explores the beginnings of American modern dance with Isadora Duncan and Ruth St. Denis through their creative dialogue with German choreographers Rudolph von Laban and Mary Wigman. By considering the body as a site of study, conversations around feminism, identity, and innovation will place such quintessentially "American" artists as George Balanchine and William Forsythe into global context, and bring dance into a larger art-historical and technological frame.

**\*Freshman Seminar 32m. Food for Thought: Culinary Culture in Spain and Latin America**

Catalog Number: 37898 Enrollment: Limited to 15.

*Johanna Damgaard Liander*

*Half course (spring term). M., 3–5:30. EXAM GROUP: 17*

The French have said that the history of a nation depends on what they eat. Yet in the case of Spain, it's clearly the reverse. What Spain has eaten has been a consequence of the country's vast-and often turbulent-history. Invasions, expansions, exile and immigration have created and continue to create the cuisine and culture, which will be our focus in this seminar. Likewise, we will consider the culinary exchange with Latin America, with specific reference to Argentina, Peru and the Caribbean. From don Quijote's rudimentary repas, to Almodóvar's gazpacho, we'll conclude at the tables of the globalized metropolis.

*Note:* Open to Freshmen only. The class will engage in hands-on sessions in the kitchen.

*Prerequisite:* No previous knowledge of Spanish language, or travel to any of the countries mentioned, is required.

**\*Freshman Seminar 32v. The Art of Storytelling**

Catalog Number: 7011 Enrollment: Limited to 12.

*Deborah D. Foster*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

People everywhere tell stories to express both the verities and contradictions found in experiences of everyday life. Based on storytelling traditions, a narrator shapes the story to reflect his or her own intentions, making it personally expressive as well as publicly meaningful to a particular audience. This seminar examines the nature of storytelling, its enduring appeal, and its ability to adapt to multiple technologies (print, film, internet). Participants engage in the storytelling process itself.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 33j. Temples and Museums: Politics of Display and the Arts of South and Southeast Asia - (New Course)**

Catalog Number: 50081 Enrollment: Limited to 10.

*Jinah Kim*

*Half course (fall term). M., 1–3. EXAM GROUP: 1*



How different is an image in a museum from a religious image installed in a temple? This seminar will explore the politics of display and the history of appropriation and reappropriation of the arts of South and Southeast Asia with select historical examples and contemporary cases, including the Hollywood films such as *Indiana Jones and the Temple of Doom* (1984) and *Lara Croft: Tomb Raider* (2001). Local museums displaying the arts of South and Southeast Asia and diasporic community temples, such as the Thai Temple in Raynham, MA and Shri Lakshmi Temple in Ashland, MA, will provide a laboratory to experience and analyze the politics of display going beyond a binary interpretation.

*Note:* Open to Freshmen only. The seminar includes required field trips, dates TBD. Transportation and entrance fees are provided free of charge.

**\*Freshman Seminar 33k. Reasoning About God: Exploring Religious Belief in Light of Philosophy and Cognitive Science**

Catalog Number: 35953 Enrollment: Limited to 15.

*Güven Güzeldere*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

This seminar explores the nature of religious belief and various ways of reasoning about God, in light of philosophical arguments and recent research in the cognitive sciences. Questions that will be subjected to a systematic analytical examination include the rational and psychological bases for belief in God, the metaphysical possibility of an afterlife, and the relation between faith and reason (including the relation between religious belief and scientific knowledge). We will also discuss various philosophical arguments for the existence of God, different conceptions of the soul, the problem of evil, and the relation of religion to morality.

*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). M., 2–4. EXAM GROUP: 7*

Do inherited forms found in literature permit only certain variations within experience to reach lucidity? Investigates literature's limits in giving account of mind, everyday experience, thought, memory, full character, and situation in time. Studies Shakespeare's *Hamlet* and Joyce's *Ulysses*, a modern work of unusual complexity and resistance to both interpretation and to simple comfortable reading. Reading these two works suggests potential meanings for terms like complexity, resistance, openness of meaning, and experimentation within form.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 34o. You and Your Camera**

Catalog Number: 40867 Enrollment: Limited to 12.

*Peter S. Pershan*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

The goal of representing the 3-dimensional world on a 2-dimensional surface dates back at least as far as the approximately 30,000 year old cave drawings. For all of these past centuries there were relatively few people who could create realistic 2 dimensional images of the people and things that wanted preservation. Although photography has changed this there are still significant differences between the images that most people create and the photographs of our leading



photographers. In this seminar we will discuss the artistic history, the nature of vision and the fundamental physics on which modern digital photography is based.

*Note:* Open to Freshmen only. Arrangements for loaned cameras will be made for those that do not own one.

*Prerequisite:* Ideally students should have a good high school physics course; however, individuals who are motivated to understand the science of photography should not have a problem with the material taught in the seminar. Similarly students should feel comfortable with high school algebra and trigonometry.

#### **\*Freshman Seminar 34v. Broadway Musicals: History and Performance - (New Course)**

Catalog Number: 42006 Enrollment: Limited to 12.

*Carol J. Oja*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

This seminar explores a core group of Broadway musicals, fusing classroom study and hands-on creativity. Historical and musical discussions will be paired with student performances and staging of individual scenes (under the guidance of the A.R.T. Institute). The seminar touches on signal moments in the "Golden Age" of the musical, and it involves a collaboration with A.R.T.'s "Civil War" series, including a new opera by Matt Aucoin ('12).

*Note:* Open to Freshmen only. Student musicians and actors are welcome in the course, as are students who love to watch shows but not necessarily perform in them. Ability to read music is desirable but not required.

#### **\*Freshman Seminar 35i. Reconstruction in American Memory - (New Course)**

Catalog Number: 30378 Enrollment: Limited to 12.

*Todd Carmody*

*Half course (spring term). Tu., 3–5. EXAM GROUP: 16*

Reconstruction - the period of economic rebuilding and philosophical reorientation that followed the American Civil War - was an unprecedented moment of historical rupture. Reconstruction sought quite simply to remake an entire society at once, from one day to the next replacing slavery with the ideals of free labor and democratic participation. In this seminar, we will consider Reconstruction as a set of historical events and as a narrative problem. In other words, while learning about this unheralded moment of change in American history, we will also ask how Reconstruction became a story to be passed down from one generation to the next - by novelists, poets, historians, political scientists, and filmmakers.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 35j. Korean Romance Before the Twentieth Century - (New Course)**

Catalog Number: 14846 Enrollment: Limited to 12.

*Si Nae Park*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

This course will explore tales of love as a window onto Korea before the 20th century (late Koryō to late Chosōn dynasties spanning 13th through 19th centuries), paying special attention to comparisons with related romances in China. We will combine close reading of traditional tales in English translation with study of paintings and images in old books, and compare the tales as well with more recent portrayals in photography, film and television. Secondary readings will provide the sociocultural and historical contexts.



*Note:* Open to Freshmen only. No prior knowledge of Korean language is required. Those interested in East Asia will find this course a useful gateway to lecture courses in the Department of East Asian Languages and Civilizations.

#### **\*Freshman Seminar 35n. The Art and Craft of Acting**

Catalog Number: 21542 Enrollment: Limited to 12.

*Remo Francisco Airaldi*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

Provides an introduction to acting by combining elements of a discussion seminar with exercises, improvisations and performance activities. Uses improvisation to improve group/ensemble dynamics, minimize habitual behaviors and to develop characters. Explores a range of acting techniques designed to give students greater access to their creativity, imagination and emotional life. In the later part of the term we will work on monologues. Students also attend and critique productions at the Loeb Drama Center and other theaters in the Boston area.

*Note:* Open to Freshmen only. Students will be required to attend theater performances (dates TBD) during the course of the term. There will be no charge to the student.

#### **\*Freshman Seminar 35v. Poems and Photographs**

Catalog Number: 1868 Enrollment: Limited to 15.

*Melissa Sara Feuerstein*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

Brings together lyric poetry and photography as art forms that provide respite from plot's pull toward closure. Explores how poems and photographs engage the mind in different rhythms of contemplation by preserving tensions between movement and stillness, fragmentation and wholeness, familiarity and strangeness, presence and absence, life and death. Focuses on genres of self-portrait, still life, landscape, and elegy, suggesting how particular poems and photographs satisfy mind's desire for non-narrative expression and experience.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 35w. Sex, Gender, Shakespeare - (New Course)**

Catalog Number: 54211 Enrollment: Limited to 12.

*Jamey Elizabeth Graham*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

Was Shakespeare a misogynist, a feminist, or a product of his time? Was he homosexual? That these questions remain controversial four hundred years after Shakespeare's death testifies to the sensitive complexity with which Shakespeare handled the topics of sex and gender. This course explores how sexuality and gender function in numerous plays, sonnets, and narrative poems. Since words like "feminist" and "homosexual" did not exist in Shakespeare's lifetime, the course will introduce historically responsible methods of analyzing our subject matter. In the case of the plays, we will focus on performance, including modern films and period use of boy actors.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 36s. Comparative Historical Mythology**

Catalog Number: 89987 Enrollment: Limited to 15.

*Michael Witzel*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*



Deals with an innovative approach to comparative mythology by incorporating an *historical* approach, not by the commonly assumed archetypes or diffusion. Working backwards from our earliest written sources (Egypt, etc.), successively earlier stages are detected through repeated reconstructions. Recent developments in genetics, archaeology, linguistics support the proposed historical model that tentatively reaches back to the "African Eve." Testing the proposal offers a wide scope for students' participation and research in texts and in the sciences.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 36z. Monstrous Literature - (New Course)**

Catalog Number: 50374 Enrollment: Limited to 12.

*Christine S. Lee*

*Half course (fall term). Tu., 3–5. EXAM GROUP: 2*

This course will explore the literature of the monstrous, with a particular focus on two extraordinary periods: the Renaissance and the Romantic era. From moral monstrosities like the overreaching Faust to physical monstrosities like Frankenstein's creature, monsters defy the order of things. Their very bodies may transgress the norm, or their ambitions seek to overthrow our entire world. What does the monster mean? And what do these figures reveal about our attitudes toward the future, toward cultural outsiders, toward the body and the boundaries between human and non-human? Authors include Montaigne, Marlowe, Shakespeare, Spenser, Milton, Goethe, Byron, and Shelley.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 37k. Horror in Literature and Movies: Cultural, Psychological, and Scientific Aspects of the Horror Genre - (New Course)**

Catalog Number: 39378 Enrollment: Limited to 12.

*Steven C. Schlozman*

*Half course (fall term). F., 10–12. EXAM GROUP: 5*

This seminar involves defining fictional horror and also creating horror stories. As such, the course is both a discussion of horror and an introduction to creative horror writing. We will utilize literature from film theorists, literary critics, cultural psychologists, neuroscientists, and the popular press. We will also examine seminal films and written stories. The instructor is both a medical school professor and a professional horror writer. Through techniques that have been employed at writing workshops and panel discussions, we will develop our own sense of what constitutes horror and at the same time hone our creative writing skills.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 37v. Muslim Voices in Contemporary World Literatures**

Catalog Number: 8901 Enrollment: Limited to 12.

*Ali S. Asani*

*Half course (fall term). Tu., 7–9:30 p.m. EXAM GROUP: 16*

What do Muslims think of acts of terrorism committed in the name of Islam, the mixing of religion with politics, the status and rights of women, the hegemony of the "West"? This seminar investigates the viewpoints of prominent Muslim writers on these and other "hot button" issues as reflected in novels, short stories and poetry from different parts of the world. Explores a range of issues facing Muslim communities in various parts of the world by examining the impact of colonialism, nationalism, globalization and politicization of Islam on the search for a modern



Islamic identity. Readings of Muslim authors from the Middle East, sub-Saharan Africa, South Asia, Europe and America.

*Note:* Open to Freshmen only. No prior knowledge of Islam required. Assignments include compiling a portfolio of creative responses to the weekly readings using different media.

**\*Freshman Seminar 38o. The Evolution of Latino/a Culture: Analyzing the Interplay Between Stereotypes and Self-Definition - (New Course)**

Catalog Number: 81463 Enrollment: Limited to 12.

*Rebeca L. Hey-Colon*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

With numbers surpassing 50 million (and growing), Latinos/as in the United States are asserting their place as a powerful component of this nation. Through a discussion of the "established" conversation surrounding Latino/a culture that then shifts to more recent Latino/a driven production, this seminar examines how Latino/a culture has evolved in tandem with its population. Specifically, this will be addressed through close readings and analyses of movies, TV shows, stand-up comedy, music, and literature from the 1980s through 2013. Placed in conversation with each other, these texts illustrate the tension between stereotypes and self-definition that currently permeates Latino/a culture.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 38q. History at the Movies - (New Course)**

Catalog Number: 63057 Enrollment: Limited to 12.

*Daniel Scott Loss*

*Half course (spring term). Tu., 3–5. EXAM GROUP: 16*

Since the earliest days of cinema, filmmakers have looked to the past for inspiration. Historians have often dismissed cinematic versions of the past for their inaccuracies and simplifications. This seminar adopts a more open-minded view of historical movies to explore the potential of film as a medium for understanding and representing history and to consider some of the "big" questions of history. Movies covering a wide chronological range and drawn from a variety of sub-genres will be included. ?

*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). Th., 3–5. EXAM GROUP: 2*

Beethoven's sixteen quartets span almost his entire creative output, ranging from the classical Six Quartets, Op. 18 of 1800, to the transcendent, pioneering late quartets, the last completed in the year of his death in 1827. These works contain the full range of Beethoven's musical expression and some of his best-known music. The seminar will work from scores, selected recordings, and live performances connected to the Chiara Quartet's Harvard residency in the fall. Seminar members may play in class; individual projects and some readings.

*Note:* Open to Freshmen only. The seminar includes required attendance at one live performance outside of the regular class time.

*Prerequisite:* Participants should be able to read music (at least treble and bass clef).



**\*Freshman Seminar 39j. Dirty and Dangerous: Environmental Problems and Problem Environments in US History - (New Course)**

Catalog Number: 35345 Enrollment: Limited to 12.

*Susanna Bohme*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

"Dirty and Dangerous" explores the relationship between people and the material world by focusing on the "dark side" of natural and human-made environments. How have people in the US perceived and experienced dangers associated with climate, landscape, toxins, disease, and the built environment? Focusing on the late 19th century until today, the course is organized around three types of environment: wilderness, homes, and workplace. We will draw on a range of sources, including poetry, fiction, films, activist writing, historical scholarship, and a "Toxic Tour" of Boston, examining dangers, fears and anxieties about these various environments in their historical context.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 39n. The Call of Beauty**

Catalog Number: 18472 Enrollment: Limited to 12.

*Elaine Scarry*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

Philosophers, poets, scientists, and mathematicians have meditated on the nature and power of beauty. Beauty calls on us to educate ourselves, but also calls on us to repair the injuries of the world. Readings include Plato and Sappho; Aquinas and Lady Murasaki ; Rilke and Maya Lin today. We will study aspects of beauty such as color (e.g. "The Lady and the Unicorn" tapestries depicting the five senses) and symmetry (a book on symmetry by astrophysicist Mario Livio). Topics include the beauty of earth (e.g. the writings of environmentalist Rachel Carson) and the beauty of faces (Homer on Helen, Seamus Heaney on an unnamed soldier).

*Note:* Open to Freshmen only.

**\*Freshman Seminar 39p. Traveling Latin America: Empire, I and the Empirical Eye - (New Course)**

Catalog Number: 66608 Enrollment: Limited to 12.

*Ezer Vierba*

*Half course (fall term). Tu., 4–8 p.m.; films will often be shown after class from 6-8pm. EXAM GROUP: 16*

From the earliest years of its "discovery" to the rise of the Machu Picchu Facebook portrait, travelers have played the most intriguing roles in Latin America: advocates of the continent's beauty, protectors of its cultures, scientists and conquerors, voyeurs, consumers and looters. How can we understand these travelers, and how have they understood themselves? In this freshman seminar we will look at a variety of accounts of historians, anthropologists, filmmakers, and travelers, in order to answer these questions. We will think about the content and form of these texts, while also contextualizing these documents historically, and considering their audiences, their genres and ideologies.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 39u. American Painting After the Civil War: John Singer Sargent, Winslow Homer, and their Contemporaries - (New Course)**



Catalog Number: 77064 Enrollment: Limited to 12.

*Theodore E. Stebbins*

*Half course (spring term). Tu., 3–5. EXAM GROUP: 16*

This course, designed for those with no prior art history, will examine the work of some of the outstanding painters and writers of America's "Gilded Age," the period (roughly 1870-1895) that takes its name from the title of a novel by Mark Twain. The paintings of John Singer Sargent, Winslow Homer, Thomas Eakins, and others will be examined in comparison with the writing of Walt Whitman, Henry James, and William Dean Howells. We will make extensive use of original works at Harvard's newly reopened Fogg Museum. We will learn to "read" paintings, and will explore various methods of interpreting them as we seek to discover what the work of art can tell us about the culture that produced it, and how the history and literature of the period sheds light on the work of art. Note: Please read or refresh your memory of Twain's HUCK FINN before the first class. There will be required field trips to museums, dates TBD.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 39v. Fear and Wonder: Natural and Unnatural Experience of the Sublime**

Catalog Number: 21129 Enrollment: Limited to 15.

*Christina Lynne Svendsen*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

This seminar explores extreme states of mind: the feeling of fear and wonder that philosophers call the sublime. Sublime experiences are so intense that they overwhelm our senses and our ability to express ourselves, jamming the system. The rediscovery of the sublime in the late eighteenth century coincided with a cultural shift from viewing the Alps as a site of fear to a place of awe and beauty, a shift reflected in Romantic art and literature. It reappears in modernism, in forms that range from Gothic fiction to the technological sublime of skyscrapers, the Wild West, and novels on the "posthuman" sublime of life after ecological catastrophe.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 39x. Watch Her Step: Ballet Past and Present - (New Course)**

Catalog Number: 94012 Enrollment: Limited to 12.

*Daria Khitrova*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

Considers major ballets from The Sleeping Beauty to The Rite of Spring and beyond. Examines the art of ballet as performed today and in its historical development. Sees ballet not only as dance but as interaction between contributing arts: music, painting, and drama.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 40i. The Supreme Court in U.S. History**

Catalog Number: 7142 Enrollment: Limited to 15.

*Richard H. Fallon (Law School)*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

Often described as the world's most powerful court, the US Supreme Court has not always enjoyed high prestige or unquestioned authority. The Court's significance has waxed and occasionally waned, with the variations typically depending on surrounding currents in the nation's social and political history. Examines the history of the Court from the nation's



founding to the present. Highlights relation between constitutional law and ordinary politics, and the ways in which they influence one another.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 40l. Free Speech - (New Course)**

Catalog Number: 48874 Enrollment: Limited to 12.

*Sanford J. Ungar*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

In this age of rapid globalization and heightened cross-cultural contacts, nations struggle to reaffirm their identities and values. In the United States, one of the most precious values is free speech, embedded in the First Amendment to the Constitution and regarded as a keystone of American democracy. But arguments over the boundaries of free speech have become intense, especially in the era of electronic communication. This seminar will examine the dialogue taking place within the United States and around the world on free speech issues - sometimes civil, but often a political or cultural confrontation that turns violent.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 40n. The Twenty Years' Crisis, 1919-1939: Democracy, Totalitarianism, and Everything Between - (New Course)**

Catalog Number: 79418 Enrollment: Limited to 12.

*Ian N. Storey*

*Half course (fall term). Tu., 4–6. EXAM GROUP: 16*

This seminar explores issues in the theory and practice of democracy through the lens of the twenty years of economic, political, and social turmoil across the globe between the two World Wars. By focusing intensively on a historical context in which no political value could be taken for granted and few dared say what the future might hold for the structure of human community, we will explore the depths of democratic polity and its limits for both the past and the present.

*Note:* Open to Freshmen only.

**\*Freshman Seminar 40p. Making the Grade? Middle and High School Math Education in the U.S.**

Catalog Number: 36111 Enrollment: Limited to 15.

*Robin Gottlieb*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

What are the goals of mathematics education at the middle and high school level, and how do these goals impact our evaluation of the success or failure of math education in America? Why does math education at these levels matter? What societal structures (historic, economic, political, cultural) impact mathematics education? How does math education in turn impact societal structures? As the world changes, how do the goals of mathematics education change, and in what ways? We will explore these issues to become more educated participants in this ongoing discussion.

*Note:* Open to Freshmen only. A special invitation to students not planning to concentrate in math is extended.

*Prerequisite:* This is not a mathematics course and has no prerequisites.



### **\*Freshman Seminar 40t. Political Rhetoric and American Democracy - (New Course)**

Catalog Number: 88853 Enrollment: Limited to 12.

*Adam Emanuel Sandel*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

This course investigates a question at the heart of democratic politics: in what sense, if any, is rhetoric a part of reasoned political argument? Is rhetoric necessarily a kind of pandering or manipulation? Or can rhetoric be a part of thoughtful deliberation on the common good? We will examine the case for and against rhetoric by turning to classical texts (Aristotle, Plato, Hobbes, Kant), contemporary political theory, and great political speeches (Frederick Douglass, Abraham Lincoln, Lyndon Johnson, and others.)

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 41i. Everyday Life in Nazi Germany - (New Course)**

Catalog Number: 11169 Enrollment: Limited to 12.

*Willeke H. Sandler*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

This seminar will examine the experiences of those Germans defined as "Aryan" in the Third Reich, that is, those not directly persecuted by the regime. How did they adjust (or not adjust) to the changes brought to everyday life by the Nazi regime? How did their behaviors and attitudes change in ways that helped or hindered the regime and its racial agenda? How would we define the boundaries of collaboration or consent within this society? Readings will explore aspects of German society under Nazism including the experiences of young people and women, consumption, popular culture, and the question of terror.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 41j. The Problem of Economic Development - (New Course)**

Catalog Number: 52063 Enrollment: Limited to 12.

*Michael R. Kremer*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

Understanding the determinants of the wealth of nations has long motivated the study of economics and it is arguably the most important problem in the field for human welfare. This seminar will examine the problem of economic development, looking both at historical experience and at contemporary issues in developing countries. It will focus on approaches from economics, but will also draw on other disciplines, including history, political science, and sociology.

*Note:* Open to Freshmen only.

*Prerequisite:* Students are expected to have had some background in economics, such as an AP economics course in high school, Ec 10a, or simultaneous enrollment in Social Analysis 10.

### **\*Freshman Seminar 41k. Human Rights, Law and Advocacy - (New Course)**

Catalog Number: 56418 Enrollment: Limited to 12.

*Susan Farbstein (Law School)*

*Half course (fall term). Tu., 3–5. EXAM GROUP: 2*

Human rights practitioners confront numerous ethical, strategic, and legal dilemmas in their struggles for social justice. This freshman seminar explores the underlying legal framework in which human rights advocates operate, and then uses specific case studies to consider the various



challenges they must grapple with in their work. The seminar is designed to encourage students to critically evaluate the human rights movement while offering an introduction to some of the essential tools and strategies used by human rights advocates, including advocacy, litigation, documentation, and report writing.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 41t. Modernity, Society, and the Novel**

Catalog Number: 77764 Enrollment: Limited to 15.

*Eric A. Malczewski*

*Half course (fall term). Tu., 4–6. EXAM GROUP: 16*

This seminar focuses on the experience of the social actor in modernity, using novels and sociological literature as guides; the nature of modernity will be examined, with the existential experience of the modern individual as the object of focus. The novel will be studied so as to gain leverage on such questions as "What is identity, and how is it shaped?" and "What are the implications of modernity on one's creation of the self?" The novels to be considered juxtapose the experience of women to that of men and focus on 19th and early 20th century England, France, and America.

*Note:* Open to Freshmen only

#### **\*Freshman Seminar 41u. Museums**

Catalog Number: 57831 Enrollment: Limited to 12.

*James Hanken*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

What are museums? What exactly do they do, and why? Do they have a future? Traces the history of museums from their beginnings centuries ago to the modern institutions of today. Considers objects and their conservation, the role of museums in contemporary society, finances, dual—and sometimes conflicting—functions of scholarly research and public display, exhibit design, legal and ethical issues, and other challenges. Sessions include field trips to museums at Harvard and elsewhere in the Boston area to view public exhibits and "behind-the-scenes" collections that the public rarely sees.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 41x. Can Government be "good"? Ethics, Public Policy, and Tough Choices**

Catalog Number: 22133 Enrollment: Limited to 15.

*Olivia K. Newman*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

Every day, leaders and policymakers are inundated with tough choices. Sometimes they make "good" decisions, sometimes not. Sometimes it isn't clear which decision is best. We will examine several ethical challenges confronting those in charge. May leaders authorize torture under some circumstances? Can citizens really be free if they are homeless and hungry? Is welfare and wealth redistribution a violation of wealthier citizens' liberty? And how should society distribute scarce resources like health care? There are no easy answers to these dilemmas. "Good" government, then, may be the government that best recognizes these murky waters and proceeds carefully.

*Note:* Open to Freshmen only.



### **\*Freshman Seminar 42k. Comparative Law and Religion**

Catalog Number: 9992 Enrollment: Limited to 12.

*Ofrit Liviatan*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

Investigates the use of legal processes in addressing religion-based conflicts, a leading source of tension in modern societies. The seminar will explore theoretical approaches to accommodating religious diversity and examine existing models of religion-state relationships. Drawing on legal cases from the US, Turkey, India, Israel, Spain, Canada, and England, the seminar will also familiarize participants with contemporary debates involving religion: the wearing of Islamic headscarf, religion and education, the funding of religious institutions, etc.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 42n. Comparative National Security of Middle Eastern Countries**

Catalog Number: 5714 Enrollment: Limited to 12.

*Charles David Freilich*

*Half course (spring term). Tu., 3–5. EXAM GROUP: 16*

The course surveys the national security threats and opportunities facing the primary countries of the Middle East, from their perspective. Issues discussed include the domestic sources of national security considerations, including regime change and the impact of the Arab Spring, relations with regional and international players, military doctrine, foreign policy principles. The seminar is an interactive, "real world" exercise, in which students play the role of leaders in the countries of their choosing and write practical policy recommendations on current affairs.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 42u. The Laws of War and the War on Terrorism**

Catalog Number: 9694 Enrollment: Limited to 12.

*Gregg Andrew Peeples*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

How do the "laws of war" regulate the conduct of the United States in the "Global War on Terrorism?" This seminar examines the historical development of two legal concepts: *jus ad bellum*, which determines the legitimacy of the use of armed force; and *jus in bello*, which defines the duties of soldiers and belligerent states. Drawing on this background, the seminar explores how these laws have influenced U.S. military and anti-terrorism operations since 9/11.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 42w. The Book: From Gutenberg to the Internet**

Catalog Number: 6004 Enrollment: Limited to 12.

*Robert Darnton*

*Half course (spring term). Tu., 1–4. EXAM GROUP: 1*

Examines the impact of books on Western culture from the time of Gutenberg. Hands-on experience in studying the book as a physical object and theoretical reflection on the nature of printing as a means of communication. Students will consider the publishing history of great books such as Shakespeare's First Folio and will address the problem of books as elements in the electronic media.

*Note:* Open to Freshmen only. Additional time after the seminar meeting may be arranged for hands-on workshops.



### **\*Freshman Seminar 43m. Psychology of Religion**

Catalog Number: 83191 Enrollment: Limited to 15.

*Jon Wesley Boyd (Medical School)*

*Half course (fall term). M., 3:30–5:30. EXAM GROUP: 6*

This course addresses some of the fundamental issues of the nature of the self, issues which appear at the intersection of religion and psychology: Where do we turn for ultimate meaning? What happens when individuals undergo some sort of crisis and radically change their belief system or how they engage with the world? How do we face death? The course will focus on the ways in which both individuals and cultures create frameworks of meaning. The readings explore philosophical, psychological, and literary perspectives on these issues and questions and include works by Freud, Dostoevsky, William James, Flannery O'Connor and others.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 44g. Public Policy Approaches to Global Climate Change**

Catalog Number: 1032 Enrollment: Limited to 14.

*Richard N. Cooper*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Reviews what is known about greenhouse gas emissions' possible impact on climate. Explores possible impact of climate change on social and economic conditions over the next century. Investigates possible public policy responses to these developments, including actions both to adapt to and to mitigate climate change. What would be the costs of adaptation? Would an investment in mitigating the changes be worthwhile? Are there possibilities for international cooperation in dealing with the problem?

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 44s. Neanderthals and Human Evolutionary Theory**

Catalog Number: 46776 Enrollment: Limited to 12.

*Tanya M. Smith*

*Half course (fall term). Th., 3–5:30. EXAM GROUP: 2*

This course explores the origins and development of human evolutionary theory in parallel with the discovery and study of our "cousins," the Neanderthals. Readings and discussions highlight breakthroughs in evolutionary theory since the 17th century, ranging from the Darwinian revolution to the field of "evo-devo." The recent history of the Neanderthals is explored in detail, which mirrors intellectual developments in biological anthropology ranging from the re-conceptualization of race to innovations in recovering ancient DNA.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 44t. The Atomic Bomb in History and Culture**

Catalog Number: 2897 Enrollment: Limited to 15.

*Everett I. Mendelsohn*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

The explosion of the atomic bomb over the Japanese city of Hiroshima in 1945 ushered in a new era of warfare, of scientific prominence, of civic anxiety, and political challenge. Explores the interaction of science, politics, strategy, and culture in the studies of historians as well as in the literature, films, and theater from the early years of the twentieth century through the 1970s and



1980s dealing with the atom and the atom bomb.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 44w. The Masquerade of Common Scents: An Exploration of Ephemeral Knowledge**

Catalog Number: 84866 Enrollment: Limited to 15.

*Sean Tath O'Donnell*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

Intimate, subjective and transitory, the sense of smell has the power to evoke memory and emotions, to mark places and persons, and give rise to both desire and disgust. Lacking a well-defined vocabulary, smell can be elusive. Yet, as evidence of disease, crime, gender, race, sexuality, the sacred and profane, scent lingers on in judgment. How does this verdict coalesce - in medicine, public health and law? We will sample various scents and use them as the occasion for writing and reflection -- shared and yet privately known, these olfactory forays will serve as our experience of an impossibly common sense.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 46k. The Terrorist**

Catalog Number: 19962 Enrollment: Limited to 15.

*Jessica E. Stern and Ronald Schouten (Medical School)*

*Half course (spring term). W., 7–9 p.m. EXAM GROUP: 13*

This course will introduce students to the study of terrorism. We will cover the history and evolution of the tactic, from the Zealots to al Qaeda to the Tsarnaev Brothers. We will assess terrorists' motivations and how they market their causes to various publics. Why do terrorists do what they do? We will explore risk factors at various levels, including global, national, group, and personal. After completing this course, we expect that students will have a much more nuanced and intellectually grounded understanding of terrorism.

*Note:* Open to Freshmen only.

### **\*Freshman Seminar 46p. Human Rights in Peace and War**

Catalog Number: 8408 Enrollment: Limited to 12.

*Jennifer Leaning (Public Health) and Jacqueline Bhabha (Public Health)*

*Half course (fall term). Tu., 3–5. EXAM GROUP: 2*

Studies how human rights perspective illuminates relations between state authority and individuals and defines standards of behavior that societies agree to aspire to reach. Topics include the 1948 Universal Declaration of Human Rights, rights in political and economic spheres, the rights of women, children, and refugees, international human rights law and international humanitarian law, and the state, regional, and international processes and structures that establish and monitor the regime of international human rights law.

*Note:* Open to Freshmen only. Meets at the Harvard Kennedy School in Harvard Square.

### **\*Freshman Seminar 46t. Rebels With a Cause: Tiananmen in History and Memory**

Catalog Number: 54666 Enrollment: Limited to 15.

*Rowena Xiaoqing He*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

In spring 1989, millions of Chinese took to the streets calling for political reforms. The



nationwide demonstrations and the college students' hunger strike on Tiananmen Square ended with the People's Liberation Army firing on unarmed civilians. Student leaders and intellectuals were purged, imprisoned, or exiled. Discussion about "Tiananmen" remains a political taboo in China today despite the Tiananmen Mothers' struggle to keep the forbidden memory alive. This course will explore the Tiananmen Movement in history and memory. Exiled student leaders and political prisoners from the movement will be invited to share their experience and perspectives with the class.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 48e. Health and Mental Health in Everyday Life**

Catalog Number: 96979 Enrollment: Limited to 12.

*Mary Ruggie (Kennedy School)*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

This course adopts interdisciplinary perspectives toward understanding how health and mental health problems and well-being are manifest, if and how common patterns are changing, and how circumstances and contexts impact outcomes. We examine similarities and differences based on gender, race/ethnicity and other personal and social characteristics. Topics include everyday stress, body image, eating disorders, depression, substance abuse, sexual activity and gender-based violence. Throughout, we traverse the boundary between health and illness in order to explore the role of individuals, their social support networks, and health care professionals in developing and guiding positive strategies for coping and healing.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 48j. Moral and Political issues in Contemporary Democracies**

Catalog Number: 95954 Enrollment: Limited to 15.

*Carla Yumate*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

The course addresses timely *problems* and core *values* of contemporary democracies. The *problems* that we will examine include: torture, terrorism, immigration, affirmative action, and hate speech. Each of these topics poses a challenge to key *values* characteristic of liberal-democracies such as the rule of law, toleration, political equality, and freedom. We will examine the philosophical justification of these values as a background to the discussion of the applied cases mentioned above.

*Note:* 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 (fall term). W., 2:30–4:30. EXAM GROUP: 7*

Explores the theories of political legitimacy and justified resistance to authority developed by the persecuted Protestants during the French Wars of Religion, and traces the influence of these ideas about political obligation and religious conscience on some of the major figures in modern political philosophy from Hobbes to Kant. Students should be prepared to engage in both



historical detective work and philosophical reflection. All required reading will be in English.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 48v. North Korea as History and Crisis**

Catalog Number: 5209 Enrollment: Limited to 12.

*Carter J. Eckert*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

Explores the historical context of the present crisis on the Korean peninsula and engages students in current debates about the crisis from a variety of different official, institutional, and popular perspectives, including those of North and South Korea, the United States, China, Japan, Russia, and other concerned parties, such as the United Nations. Students encouraged to develop own perspectives on resolving crisis. Examines role of historical forces in shaping the crisis and its possible resolution.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 49g. The Holocaust, History and Reaction**

Catalog Number: 1208 Enrollment: Limited to 15.

*Kevin J. Madigan (Divinity School)*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

Approaches Nazi persecution of European Jewry from several disciplinary perspectives. Presents background and narrative of the Holocaust, introduces the use of primary historical sources, and studies some of the major historiographical debates. Evaluates religious and theological reactions to the Holocaust -- uses literary, cinematic, and theological sources. Considers the role played by the Protestant and Catholic churches and theologies in the Holocaust. Assesses role played by the Holocaust in today's world, specifically in the United States.

*Note:* Open to Freshmen only.

#### **\*Freshman Seminar 49n. Measurements of the Mind: The Creation and Critique of the Psychological Test**

Catalog Number: 9965 Enrollment: Limited to 12.

*Marla D. Eby (Medical School)*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

Introduces the history of psychological tests, from the perspective of the psychologists using them, the people tested, and the general public. Examines the creativity within psychology in the making of such tests, as well as the drawbacks and dangers of the (mis)uses of these instruments. Explores tests in current use, as well as tests contained in various Harvard archives. Final project for this seminar involves the design of an original psychological test.

*Note:* Open to Freshmen only.

### ***House Seminars***

House Seminars are limited enrollment courses sponsored by the individual residential Houses. They are open to undergraduates only, whether freshmen or upperclassmen, across all house affiliations. They are letter-graded degree-credit courses that may be taken Pass/Fail. Enrollment requires the permission of the instructor.



***Primarily for Undergraduates***

***Leverett***

**Leverett 73. Physics and Technology for Future Presidential Science Advisors - (New Course)**

Catalog Number: 69884 Enrollment: Limited to 8. Open to students from all Houses and to freshmen.

*Howard Georgi (Department of Physics)*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 3*

In our calculus-based mechanics courses, students see physics as the paradigmatic mathematical science. But it is not until they are well into the 100 level physics classes that they begin to see in their coursework the transformative effect that physics has on the modern world. In this class, I hope to explore ways of addressing this lacuna. The course will be very loosely based on *Physics and Technology for Future Presidents* by Rich Muller (If you don't know this book, I recommend looking at the waves chapter - an old version but nearly complete is online <http://muller.lbl.gov/teaching/physics10/PffP—textbook/PffP-07-waves-5-27.htm>).

*Note:* Additional topics not covered in Muller's book will include the rainbow, the Kelvin wake, shock waves and topics from the PSI component of Physics 15c. There will be weekly assignments including short essays and in-class presentations. The course will be letter-graded with the grade based on performance on the assignments, and a final group project and presentation.

*Prerequisite:* Physics 15a or 16 or equivalent background in calculus based mechanics.

***Lowell***

***Mather***

***Pforzheimer***

***Winthrop***

**Winthrop 75. The Laws of War**

Catalog Number: 7271 Enrollment: Limited to 15.

*Gregg Andrew Peeples*

*Half course (spring term). M., 3–5. EXAM GROUP: 17*

What are the "laws of war"? This seminar examines the historical development of two legal concepts: *jus ad bellum*, which judges the legitimacy of the use force in international relations; and *jus in bello*, which defines the duties of belligerents during an armed conflict. Drawing on this background in international and U.S. law, the seminar then explores how these laws have influenced the U.S. "War on Terror" and how they might shape future conflicts.

*Note:* Open to students from all Houses.



# African and African American Studies

## **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

### ***Faculty of the Department of African and African American Studies***

Lawrence D. Bobo, W. E. B. Du Bois Professor of the Social Sciences (*Chair*)

Emmanuel K. Akyeampong, Professor of History and of African and African American Studies

Ali S. Asani, Professor of Indo-Muslim and Islamic Religion and Cultures

Robert H. Bates, Eaton Professor of the Science of Government and Professor of African and African American Studies (*on leave fall term*)

Aisha Mahina Beliso-De Jesus, Associate Professor of African American Religions (*Divinity School*)

Robin M. Bernstein, Professor of African and African American Studies and of Women, Gender and Sexuality (*on leave 2014-15*)

Suzanne P. Blier, Allen Whitehill Clowes Professor of Fine Arts and Professor of African and African American Studies

Vincent Brown, Charles Warren Professor of American History and Professor of African and African American Studies

Glenda R. Carpio, Professor of English and of African and African American Studies

Jean Comaroff, Alfred North Whitehead Professor of African and African American Studies and of Anthropology (*on leave spring term*)

John Comaroff, Hugh K. Foster Professor of African and African American Studies and of Anthropology (*on leave spring term*)

Alejandro de la Fuente, Robert Woods Bliss Professor of Latin-American History and Economics and Professor of African and African American Studies and of History

Boubacar Diakite, Preceptor in African and African American Studies

Caroline M. Elkins, Professor of History (*on leave 2014-15*)

Marla F. Frederick, Professor of African and African American Studies and of Religion (*Director of Graduate Studies*)

Henry Louis Gates, Jr., Alphonse Fletcher, Jr. University Professor

Claudine Gay, Professor of Government and of African and African American Studies

Evelynn M. Hammonds, Barbara Gutmann Rosenkrantz 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

Elizabeth Kai Hinton, Assistant 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

Biodun Jeyifo, Professor of African and African American Studies and of Comparative Literature

Walter Johnson, Winthrop Professor of History and Professor of African and African American Studies (*on leave fall term*)

Jamaica Kincaid, Professor in African and African American Studies in Residence

Michèle Lamont, Robert I. Goldman Professor of European Studies and Professor of Sociology and of African and African American Studies (*on leave 2014-15*)

Joanna Lipper, Lecturer on African and African American Studies

Tessa Lowinske Desmond, Lecturer on African and African American Studies

Carla Denny Martin, Lecturer on Social Studies and College Fellow on African and African American Studies,

George Paul Meiu, Assistant Professor of Anthropology and African and African American Studies

Ingrid Monson, Quincy Jones Professor of African-American Music, Supported by the Time Warner Endowment (*Director of Undergraduate Studies*)

Marcyliena Morgan, Professor of African and African American Studies

John M. Mugane, Professor of the Practice of African Languages and Cultures and Director of the African Language Program

Jacob Olupona, Professor of African and African American Studies and Professor of African Religious Traditions

Laurence A. Ralph, Assistant Professor of African and African American Studies and Anthropology

Tommie Shelby, Caldwell Titcomb Professor of African and African American Studies and of Philosophy

Kay Kaufman Shelemay, G. Gordon Watts Professor of Music and Professor of African and African American Studies

James Sidanius, Professor of Psychology 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 (*on leave 2014-15*)

Doris Sommer, Ira Jewell Williams, Jr. Professor of Romance Languages and Literatures and of African and African American Studies

John Stauffer, Professor of English and of African and African American Studies (*on leave fall term*)

Patrick Vinck, Lecturer on Medicine, and Visiting Scientist (*Medical School, Public Health*)

David Williams, Florence Sprague Norman and Laura Smart Norman Professor of Public Health in the School of Public Health and Professor of African and African American Studies in the Faculty of Arts and Sciences (*on leave spring term*)

William Julius Wilson, Lewis P. and Linda L. Geyser University Professor

### ***Other Faculty Offering Instruction in African and African American Studies***

Homi K. Bhabha, Anne F. Rothenberg Professor of the Humanities (*on leave 2014-15*)

Orlando Patterson, John Cowles Professor of Sociology

### ***Affiliates of the Department of African and African American Studies***



Michael R. Kremer, Gates Professor of Developing Societies

***Primarily for Undergraduates***

**African and African American Studies 10. Introduction to African American Studies**

Catalog Number: 0802

*Henry Louis Gates, Jr. and Lawrence D. Bobo*

*Half course (spring term). M., W., (F.), at 11. EXAM GROUP: 14*

An exploration of some of the key texts and issues in 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 in the African American Studies track. 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 General Education requirement for United States in the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**African and African American Studies 11. Introduction to African Studies**

Catalog Number: 9428

*Jacob Olupona*

*Half course (fall term). W., 10–12. EXAM GROUP: 5*

This course introduces students to the general outlines of African archeology, history and geography, as well as key concepts in the study of African health, social life, economic situation, arts, and politics. Our aim is to give students a fundamental vocabulary and interdisciplinary methodology for the study of Africa. Throughout, we assume that Africa is not a unique isolate but a continent bubbling with internal diversity, historical change, and cultural connections beyond its shores. The course is open to all students who are interested in exploring various dimensions of African life and cultures in ancient and modern periods.

*Note:* Required of concentrators in African Studies track. This course, when taken for a letter grade, meets the General Education requirement for Societies of the World.

**African and African American Studies 16. Sociology of the Black Community**

Catalog Number: 73035

*Lawrence D. Bobo*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

This course examines issues of race, class, gender, and identity in the Afro-American community. Topics of special emphasis include the contemporary situation of the black family, class stratification and the conditions and prospects of the modern black middle class, black feminist thought, black educational performance, and the dynamics of race. Our objective is to arrive at a deeper sociological analysis and appreciation of the changing life experiences awaiting African Americans.

**African and African American Studies 20. Introduction to African Languages and Cultures**



Catalog Number: 2048

*John M. Mugane*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

This introduction to African languages and cultures explores how sub-Saharan Africans use language to understand, organize, and transmit (culture, history, etc.) indigenous knowledge to successive generations. Language serves as a road map to comprehending how social, political, and economic institutions and processes develop: from kinship structures and the evolution of political offices to trade relations and the transfer of environmental knowledge. As a Social Engagement course, AAAS 20 will wed scholarly inquiry and academic study to practical experience and personal involvement in the community. Students will be given the opportunity to study Africans, their languages, and their cultures from the ground up, not only through textbooks and data sets but through personal relationships, cultural participation, and inquisitive explorations of local African heritage communities. Throughout the semester you will be asked to employ video production, ethnographic research, creative writing, "social-portraiture," GIS mapping, and linguistic study as you engage with Africans, their languages, and their cultures. By examining linguistic debates and cultural traditions and interrogating their import in the daily lives of Boston-area Africans, we hope to bridge the divide between grand theories and everyday practices, between intellectual debates and the lived experiences of individuals, between the American academy and the African world. Ultimately, this course aims to place Africans themselves in the center of the academic study of Africa.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Societies of the World.

### ***African Languages***

Language classes are open to undergraduates, graduate students, and cross-registration applicants. For instruction in languages that are not listed, please consult the Director of the African Language Program. Not open to auditors.

### ***Undergraduate Language Tutorials***

#### **African and African American Studies 90r. African Language Tutorials**

Catalog Number: 7010

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 15*

Individualized study of an African language at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy. Any language not listed as a course is taught under this number.

*Note:* For instruction in languages that are not listed, please consult the Director of the African Language Program. Not open to auditors.

### ***Afrikaans***

#### **African and African American Studies 90r.a1. Afrikaans**

Catalog Number: 97322

*John M. Mugane*



*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*  
 Individualized study of Afrikaans at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Amharic***

#### **African and African American Studies 90r.a. Amharic**

Catalog Number: 44149

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 15*  
 Individualized study of Amharic at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Bamanakan***

#### **African and African American Studies 90r.b. Bamanakan**

Catalog Number: 59256

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 13; Spring: 9*

Individualized study of Bamanakan at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Bemba***

#### **African and African American Studies 90r.a6. Bemba - (New Course)**

Catalog Number: 59105

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged.*

Individualized study of Bemba at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Cape Verdean Creole***



### **African and African American Studies 90r.c. Cape Verdean Creole**

Catalog Number: 74363

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*

Individualized study of Cape Verdean Creole at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Chichewa***

### **African and African American Studies 90r.d. Chichewa**

Catalog Number: 22841

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*

Individualized study of Chichewa at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Dinka***

### **African and African American Studies 90r.e. Dinka**

Catalog Number: 37948

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

Individualized study of Dinka at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Gikuyu***

### **Gikuyu A. Elementary Gikuyu**

Catalog Number: 0009

*John M. Mugane*

*Full course (indivisible). Hours to be arranged. EXAM GROUP: 4*

Gikuyu is a Bantu language spoken by Kenya's most populous ethnic group. The Gikuyu are among Africa's most recognized peoples because of the Mau Mau freedom fighters who were mainly Gikuyu.



*Note:* The course is designed primarily for students who have no prior knowledge of Gikuyu; however, students with minimal knowledge of the language may also register for the course. Not open to auditors.

### **Gikuyu B. Intermediate Gikuyu**

Catalog Number: 0010

*John M. Mugane and assistant*

*Full course (indivisible). Hours to be arranged. EXAM GROUP: 4*

Continuation of Gikuyu A. Gikuyu is a Bantu language spoken by Kenya's most populous ethnic group. The Gikuyu are among Africa's most recognized peoples because of the Mau Mau freedom fighters who were mainly Gikuyu.

*Note:* Not open to auditors.

*Prerequisite:* Gikuyu A or the equivalent of one year's study in Gikuyu.

### **Gikuyu 101ar. Reading in Gikuyu**

Catalog Number: 0017

*John M. Mugane and assistant*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 4*

Advanced reading in Gikuyu.

*Note:* Not open to auditors.

*Prerequisite:* Gikuyu B or equivalent.

### **Gikuyu 101br. Reading in Gikuyu II**

Catalog Number: 0018

*John M. Mugane and assistant*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 10*

Advanced reading in Gikuyu II.

*Note:* Not open to auditors.

*Prerequisite:* Gikuyu 101ar or equivalent.

### ***Haitian Creole***

#### **African and African American Studies 90r.g. Haitian Creole**

Catalog Number: 68162

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be Arranged. EXAM GROUP: Fall: 7; Spring: 18*

Individualized study of Haitian Creole at the elementary, intermediate, and advanced levels.

Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Hassaniyah***



### **African and African American Studies 90r.a2. Hassaniyah**

Catalog Number: 72814

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

Individualized study of Hassaniyah at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Hausa***

### **African and African American Studies 90r.h. Hausa**

Catalog Number: 83269

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

Individualized study of Hausa at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Ibibio***

### **African and African American Studies 90r.w. Ibibio**

Catalog Number: 42039

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 9; Spring: 2*

Individualized study of Ibibio at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Igbo***

### **African and African American Studies 90r.i. Igbo**

Catalog Number: 31747

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

Individualized study of Igbo at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.



*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Jamaican Patois***

#### **African and African American Studies 90r.a5. Jamaican Patois - (New Course)**

Catalog Number: 53056

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Spring: 10*  
 Individualized study of Jamaican Patois at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Kikongo***

#### **African and African American Studies 90r.v. Kikongo**

Catalog Number: 52859

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*

Individualized study of Kikongo at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Kinyarwanda***

#### **African and African American Studies 90r.j. Kinyarwanda**

Catalog Number: 98376

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 7; Spring: 18*

Individualized study of Kinyarwanda at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Krio***

#### **African and African American Studies 90r.s. Krio**

Catalog Number: 74597



*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*

Individualized study of Krio at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

*Lingala*

**African and African American Studies 90r.z. Lingala**

Catalog Number: 85266

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 15*

Individualized study of Lingala at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of the Language Programs for more information. Not open to auditors.

*Luganda*

**African and African American Studies 90r.k. Luganda**

Catalog Number: 46854

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 16*

Individualized study of Luganda at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

*Malagasy*

**African and African American Studies 90r.a4. Malagasy**

Catalog Number: 98208

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*

Individualized study of Malagasy at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Oromo*



### **African and African American Studies 90r.l. Oromo**

Catalog Number: 61961

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 5*

Individualized study of Oromo at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Pulaar***

### **African and African American Studies 90r.v. Pulaar**

Catalog Number: 40174

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 16*

Individualized study of Pulaar at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of the Language Programs for more information. Not open to auditors.

### ***Setswana***

### **African and African American Studies 90r.x. Setswana**

Catalog Number: 81159

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*

Individualized study of Setswana at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Shona***

### **African and African American Studies 90r.t. Shona**

Catalog Number: 27694

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

Individualized study of Shona at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on



the part of the student. Please consult the Director of Language Programs for more information.  
 Not open to auditors.

### *Somali*

#### **African and African American Studies 90r.m. Somali**

Catalog Number: 10439

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 18;  
 Spring: 14*

Individualized study of Somali at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information.  
 Not open to auditors.

### *Sudanese Arabic*

#### **African and African American Studies 90r.u. Sudanese Arabic**

Catalog Number: 46375

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 10*  
 Individualized study of Sudanese Arabic at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information.  
 Not open to auditors.

### *Swahili*

#### **Swahili A. Elementary Swahili**

Catalog Number: 1878

*John M. Mugane*

*Full course (indivisible). Fall: M., W., F., at 10; Spring: M., W., F., at 10. EXAM GROUP: 5*  
 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.

#### **Swahili B. Intermediate Swahili**

Catalog Number: 3442

*John M. Mugane and assistant*

*Full course (indivisible). Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*  
 Continuation of Swahili A. 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.

*Prerequisite:* Swahili A or the equivalent of one year's study of Swahili.

### **Swahili 101ar. Reading in Swahili**

Catalog Number: 8503

*John M. Mugane and assistant*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 18*

Advanced reading in Swahili.

*Prerequisite:* Swahili B or equivalent.

### **Swahili 101br. Reading in Swahili II**

Catalog Number: 7746

*John M. Mugane and assistant*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 18*

Advanced reading in Swahili II.

*Prerequisite:* Swahili 101ar or equivalent.

### ***Tigrinya***

#### **African and African American Studies 90r.n. Tigrinya**

Catalog Number: 77068

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 15*

Individualized study of Tigrinya at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Tshiluba***

#### **African and African American Studies 90r.a3. Tshiluba**

Catalog Number: 89955

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 12*

Individualized study of Tshiluba at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Twi***

#### **Twi A. Elementary Twi**

Catalog Number: 0023

*John M. Mugane*



*Full course (indivisible). Hours to be arranged. EXAM GROUP: 4*

Twi is one of the regional languages of the Akan speaking peoples of Ghana, constituting the largest ethnic group in Ghana. Twi is fast becoming the *lingua franca* of the country. This course aims to help students acquire the Twi language at the basic or elementary level.

*Note:* The course is designed primarily for students who have no prior knowledge of Twi; however, students with minimal knowledge of the language may also register for the course. Not open to auditors.

### **Twi B. Intermediate Twi**

Catalog Number: 0025

*John M. Mugane and assistant*

*Full course (indivisible). Hours to be arranged. EXAM GROUP: 4*

Continuation of Twi A. Twi is one of the regional languages of the Akan speaking peoples of Ghana constituting the largest ethnic group in Ghana. Twi is fast becoming the *lingua franca* of the country. The Akan people are well known for their art and culture, especially the traditional colorful Kente cloth.

*Note:* Not open to auditors.

*Prerequisite:* Twi A or the equivalent of one year's study of Twi.

### **Twi 101ar. Reading in Twi**

Catalog Number: 0026

*John M. Mugane and assistant*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 10*

Advanced reading in Twi.

*Note:* Not open to auditors.

*Prerequisite:* Twi B or equivalent.

### **Twi 101br. Reading in Twi II**

Catalog Number: 0028

*John M. Mugane*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 11*

Advanced reading in Twi II.

*Note:* Not open to auditors.

*Prerequisite:* Twi 101ar or equivalent.

### ***Wolof***

### **African and African American Studies 90r.o. Wolof**

Catalog Number: 25546

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 13; Spring: 9*

Individualized study of Wolof at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on



the part of the student. Please consult the Director of Language Programs for more information.  
 Not open to auditors.

### **Xhosa**

#### **African and African American Studies 90r.p. Xhosa**

Catalog Number: 92175

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 8;  
 Spring: 1*

Individualized study of Xhosa at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information.  
 Not open to auditors.

### **Yoruba**

#### **Yoruba A. Elementary Yoruba**

Catalog Number: 0029

*John M. Mugane*

*Full course (indivisible). Hours to be arranged. EXAM GROUP: 4*

Yoruba is spoken in the West African countries of Nigeria, Benin Republic, and parts of Togo and Sierra Leone, therefore constituting one of the largest single languages in sub-Saharan Africa. Yoruba is also spoken in Cuba and Brazil. Students will acquire the Yoruba language at the basic or elementary level.

*Note:* Primarily designed for students who have no prior knowledge of Yoruba. However, students with minimal knowledge of the language may also register for the course. Not open to auditors.

#### **Yoruba B. Intermediate Yoruba**

Catalog Number: 0031

*John M. Mugane*

*Full course (indivisible). Hours to be arranged. EXAM GROUP: 5*

Continuation of Yoruba A. Yoruba is spoken in the West African countries of Nigeria, Benin Republic, and parts of Togo and Sierra Leone, therefore constituting one of the largest single languages in sub-Saharan Africa. Yoruba is also spoken in Cuba and Brazil. Students will acquire the Yoruba language at the basic or elementary level.

*Note:* Not open to auditors.

*Prerequisite:* Yoruba A or the equivalent of one year's study of Yoruba.

#### **Yoruba 101ar. Reading in Yoruba**

Catalog Number: 0033

*John M. Mugane and assistant*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 15*

Advanced reading in Yoruba.



*Note:* Not open to auditors.

*Prerequisite:* Yoruba B or equivalent.

### **Yoruba 101br. Reading in Yoruba II**

Catalog Number: 0035

*John M. Mugane and assistant*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*

Advanced reading in Yoruba II.

*Note:* Not open to auditors.

*Prerequisite:* Yoruba 101a or equivalent.

### ***Zulu***

### **African and African American Studies 90r.q. Zulu**

Catalog Number: 40653

*John M. Mugane*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 14; Spring: 11*

Individualized study of Zulu at the elementary, intermediate, and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Language Programs for more information. Not open to auditors.

### ***Undergraduate Tutorials***

### **\*African and African American Studies 91r. Supervised Reading and Research**

Catalog Number: 1269

*Ingrid Monson and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 9; Spring: 2*

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 97. Sophomore Tutorial**

Catalog Number: 3022 Enrollment: Limited to 30.

*Carla Denny Martin*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

This course will examine the complexity of contemporary racial and ethnic experience in the United States, focusing on self-identified "mixed-race" groups and voluntary immigrant groups from Africa, Latin America, and the Caribbean (e.g. from Brazil, Cape Verde, Ethiopia, Haiti, Puerto Rico, and Nigeria). Interdisciplinary course readings will introduce key theoretical issues in the social sciences and humanities, such as cultural relativism, the social construction of race, class, gender, sexuality, and ethnicity, and the negotiation of identity in diaspora and minority settings. Assignments will include both written work and social engagement with local



communities resulting in multimedia projects.

*Note:* Required for concentrators in African and African American Studies. Open to all undergraduates.

### **\*African and African American Studies 98. Junior Tutorial - African American Studies**

Catalog Number: 6272

*Ingrid Monson and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*

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 Director of Undergraduate Studies.

### **\*African and African American Studies 98a. Junior Tutorial - African Studies**

Catalog Number: 3070

*Ingrid Monson and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 10*

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 11, or a substitute course approved by the Director of Undergraduate Studies.

### **\*African and African American Studies 99. Senior Thesis Workshop**

Catalog Number: 8654

*Ingrid Monson and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*

Thesis supervision under the direction of a member of the Department.

*Note:* Enrollment limited to honors candidates.

### ***For Undergraduates and Graduates***

#### **[African and African American Studies 102x. Urban Problems and the Role of the Expert]**

Catalog Number: 89772

*Laurence A. Ralph*

*Half course (spring term). W., 2–4.*

This course will equip students with qualitative research experience that focuses on the ways in which urban residents deal with the consequences of violence, crime, and injury. The class will meet once a week for a three-hour period. Each week students will either be on Harvard's campus or at their chosen field site. Field sites will be chosen early in the semester. Possible sites include: 1) a violence prevention program in Dorchester; 2) a homeless shelter in Boston; 3) a housing and tenants rights advocacy group in Roxbury; and 4) a physical rehabilitation center for war veterans in Jamaica Plain. While learning how to engineer a research project (that may eventually blossom into a senior thesis), students will be encouraged to examine how injury is both embodied and perpetuated through "structural violence," or the social forces that



predetermine a population's susceptibility for injury and illness.

*Note:* Expected to be given in 2015–16.

### **African and African American Studies 103x. The Black Radical Tradition - (New Course)**

Catalog Number: 56476

*Justin Leroy*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

This course functions, first and foremost, as a map of the major landmarks in twentieth-century black intellectual history. Using primary sources (that is, work written by black intellectuals rather than about them), the course engages the idea of a "black radical tradition". The black radical tradition is bound together as a set of ideas that constructs and reconstructs philosophical and political connections across the rupturing history of black dispossession, displacement, and disenfranchisement. The black radical tradition, then, exists in dialectical tension with many of the key idioms of Enlightenment and liberal philosophy (freedom, progress, history, justice, civilization). We pay particular attention to how the black radical tradition has framed the relationship of black history to modernity and global historical developments; how it has posited black selfhood and black liberation over and against attempts to conscript the end of slavery into a seamless narrative about the triumph of liberal values; and finally, whether black desires and black life itself can ever be validated in the midst of ongoing anti-black racism.

### **African and African American Studies 104z. Voodooizations and the Politics of Representation**

Catalog Number: 64519

*Aisha Mahina Beliso-De Jesus (Divinity School)*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This course will examine the process by which representations of Black spiritualities in film and media have constructed a genre of "voodoo" as well as "voodooizations" of different religious and spiritual beliefs. This class will not be about vodou or vodun the spiritual/religious belief system. Instead, we will address differing politics of representation, we will engage in theories of reception and commodification, cultural studies, performance theory, postcolonial theories, critical feminist and queer media studies.

*Note:* Offered jointly with Divinity School as 2735.

### **[African and African American Studies 105x. Anthropology of Africa: Culture, Power, and Modernity ] - (New Course)**

Catalog Number: 73078

*George Paul Meiu*

*Half course (spring term). Hours to be arranged.*

Africa has occupied a central place in the making of anthropology as a discipline. If early ethnographic studies of African contexts generated leading theories of society and political organization, contemporary anthropologists made African livelihoods key contexts for understanding modernity, globalization, and the dynamics of late capitalism. Taking "Africa" as both an ideological category of knowledge and power and a geo-political context of life, this course traces the ways in which lives, subjectivities, and intimacies in Africa mediate and are shaped by global historical processes. We examine diverse themes and theories that deal with local and regional economies; kinship and socio-political organization; ritual, sexuality, and the



life course; colonial and missionary reforms; labor migration and urbanization; development and witchcraft; law and criminality in the postcolonial state; the effects of market liberalization; and the commodification of African identities. We ask: What do ethnographies of Africa offer us by means of understanding the world at large?

*Note:* Expected to be given in 2015–16.

### **African and African American Studies 106x. Contemporary African Music: Global and Local**

Catalog Number: 92015

*Ingrid Monson*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

Examines contemporary African music with emphasis on the relationship between traditional and popular genres. Of particular interest are themes of music and social commentary, music and public health, music and political conflict, and music and youth empowerment. Case studies from Mali, Nigeria, Kenya, Democratic Republic of the Congo, and South Africa will be featured.

### **[African and African American Studies 107x. Race, Ethnicity, and the Empire] - (New Course)**

Catalog Number: 75126

*George Paul Meiu*

*Half course (fall term). Hours to be arranged.*

This course explores how discourses and embodied encounters have produced Otherness through racial and ethnic categorizations and how such categories mediate political and economic interventions in the colonial and postcolonial world. How do discourses of racial, ethnic, and cultural difference shape the lived worlds of those they claim to represent? How does alterity emerge and how is it embodied by subjects of difference? And what is the role of globalization, commodification, and consumption in the regeneration, reconfiguration, or erasure of markers of difference? Students will revisit classic texts in postcolonial theory and critical race theory in order to explore how their conceptual insights can be translated into ethnographic practice and historical analysis. If anthropology has long been invested in various categories of difference, this course also sets out to rethink what the discipline can offer towards a critical investigation of the production of alterity in the (post)colonial world.

*Note:* Expected to be given in 2015–16.

### **African and African American Studies 108x. Exploring Race and Community in the Digital World**

Catalog Number: 23117 Enrollment: Limited to 30.

*Carla Denny Martin*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This class will consider the study of race, ethnicity, and diaspora in relation to the digital world. Complex societal issues of power, domination, and bias follow us into digital spaces.

Simultaneously, the much discussed digital divide has shifted from differential access to inequity in ownership, control, and content. The imagined democratizing promise of the digital exists in stark contrast to "the other". Individuals and collectives use digital technologies to reproduce and address notions of social difference. Hate groups actively recruit members and propagandize



online via chat rooms, websites, social media, and virtual world games. Anti-racism organizations and individuals expose hate groups, educate on race and gender, transform the digital humanities to be more inclusive, and critique and advocate against faulty policies and stereotypical representations of minority groups. Digital environments are crucial spaces for research, critique, and social engagement on intolerance and inequality and simultaneously, positive ways of commemorating, representing, and engaging with shared experiences of race, gender, and ethnicity. Weekly workshops will feature expert guest visitors from a variety of interdisciplinary and cross-cultural backgrounds, and will be organized around a series of themes that are key to studies of race and technology. These workshops, open to faculty and students, will meet Thursdays from 11:30-1 pm. 30 students will be permitted to take this as a course; they will also meet on Tuesdays, 11:30-1 pm. Innovative assignments will develop student skills in digital research, content creation, and design.

### [\*\*African and African American Studies 109. Using Film for Social Change\*\*](#)

Catalog Number: 41141

*Joanna Lipper*

*Half course (spring term). M., 2–4, and a weekly discussion section W., at 6, and film series W., 7–9 p.m. EXAM GROUP: 18*

New technology and democratized access to digital media powerfully impact strategies aiming to heighten global awareness of local issues and are integral to efforts seeking to inspire empathy, political engagement, social activism, and charitable giving. With a focus on race, gender, and identity, this course will explore the portrayal of the human condition across cultures in feature films, documentaries, and photography. Students will have the opportunity to create their own multimedia projects.

### [\*\*African and African American Studies 111. Spectral Fictions, Savage Phantasms: Race and Gender in Anti-Racist South African and African American Drama, Fiction and Film\*\*](#)

Catalog Number: 22792

*Biodun Jeyifo*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

Why have social orders like Apartheid South Africa and White Supremacy in segregated America that are based on extreme racial, gender and national oppression always generated often violent, hallucinatory fictions of the racial and gender identities of the oppressed? And why have the oppressed in turn often internalized these sorts of fictions and also produced counter-fictions that more or less conform to the same violent, phantasmic logic? In this course, we will explore how these fictions and counter-fictions are reproduced and challenged in some of the most powerful, canonical works of drama, fiction and cinema by South African and African American authors and filmmakers. As the Nigerian author, Chinua Achebe once famously remarked: "where one thing stands, another thing will stand beside it." To this end, we will pay special attention in the course to how, both in form and in content, race and gender always seem, constitutively, to intersect in these fictions and counter-fictions. The course is thus a study in the dark, violent but generative cultural unconscious of modern racialized and gendered identities.

### [\*\*\[African and African American Studies 112. Black Humor: Performance, Art, and Literature\]\*\*](#)

Catalog Number: 1962



*Glenda R. Carpio*

*Half course (fall term). Tu., 2–4.*

This course explores the cultural richness of African American humor through analyses of stand-up, drama, the visual arts and literature from the 19th century onward. Artists include but are not limited to Richard Pryor (and many other important figures in black comedy), the painter Robert Colescott, the artists Kara Walker, writer William Wells Brown, Charles W. Chesnutt, George Schuyler, and Ishmael Reed.

*Note:* Expected to be given in 2016–17.

**African and African American Studies 116. Autobiography and Memoir: Remembering the Self**

Catalog Number: 8935

*Jamaica Kincaid*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

Close readings of classic autobiographies: Fredrick Douglas, Booker T. Washington, Thomas Jefferson, Henry Adams, Elizabeth Keckley; and contemporary memoirs by Ta Natesi Coates, Hilton Als among others. A weekly critical paper is required; the final paper is a creative one, a short memoir.

**African and African American Studies 117x. Of Mean Streets and Jungle Fevers: Race, Gender and Ethnicity in Martin Scorsese and Spike Lee**

Catalog Number: 10829

*Biodun Jeyifo*

*Half course (fall term). Th., 1–3:30. EXAM GROUP: 8*

Against the background of radical theories of racial formation and identity politics in America, this course will comparatively explore controversial images of African Americans and Italian Americans in selected films of two of the most important contemporary American filmmakers, Martin Scorsese and Spike Lee. On their road to becoming iconic figures in America's contemporary cinematic and artistic avant-garde, Scorsese and Lee radically transformed received or conventional perceptions of Italian Americans and African Americans in mainstream American film. In this course, we will explore both similar and contrastive styles and approaches by the two filmmakers. Special attention will be paid to popular and scholarly discourses that the selected films of Scorsese and Lee have generated.

**[African and African American Studies 117y. Specters of Race and Paroxysms of Violence in Scorsese and Tarantino] - (New Course)**

Catalog Number: 81806

*Biodun Jeyifo*

*Half course (fall term). Hours to be arranged.*

Through such films as "Taxi Driver", "Raging Bull", "Pulp Fiction" and "Django Unchained", the course will explore the avant-garde techniques of cinematic storytelling that Scorsese and Tarantino deploy to explore America's obsession with the figure of the black male as both a victim and purveyor of extreme violence.

*Note:* Expected to be given in 2015–16.



### [\*\*African and African American Studies 118. The History of African Americans From the Slave Trade to the Civil War\*\*](#)

Catalog Number: 7429

*Vincent Brown*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course surveys African American History from the first migrations of Africans to the Americas during the Transatlantic Slave Trade to the eve of the U.S. Civil War. Atlantic in scope, our studies will consider black US history in the context of broader regional variations, highlighting both the distinctive and the unexceptional features of black society, culture, and politics. Lectures, readings, discussions, and assignments will emphasize several key themes: the indispensability of slavery to the colonial development of the Americas, the entrenchment of race as a mode of categorical belonging and discrimination, the continuity of multivalent struggles for dignity, freedom, and equality, and the shaping force of gender, geography, and imperial warfare in the transformations of the period. Special attention will be paid to the interpretive possibilities of representing this history in the form of data, argumentative prose, storytelling, and works of visual art.

### [\*\*African and African American Studies 119x. Chocolate, Culture, and the Politics of Food\*\*](#)

Catalog Number: 10526

*Carla Denny Martin*

*Half course (spring term). M., W., at 1, and a weekly section to be arranged. EXAM GROUP: 8*

This course will examine the sociohistorical legacy of chocolate, with a delicious emphasis on the eating and appreciation of the so-called "food of the gods." Interdisciplinary course readings will introduce the history of cacao cultivation, the present day state of the global chocolate industry, the diverse cultural constructions surrounding chocolate, and the implications for chocolate's future of scientific study, international politics, alternative trade models, and the food movement. Assignments will address pressing real world questions related to chocolate consumption, social justice, responsible development, honesty and the politics of representation in production and marketing, hierarchies of quality, and myths of purity.

### **[African and African American Studies 120x. African American Theatre, Drama, and Performance]**

Catalog Number: 73581

*Robin M. Bernstein*

*Half course (fall term). M., W., at 11.*

A study of African American practices of performance from the 19th century through the present. This seminar will meet twice each week: first, in a classroom to discuss scholarship on black performance, and second, in a Harvard archive to work directly with primary materials. Topics include abolitionism, the Harlem Renaissance, the Black Arts Movement, and hiphop.

*Note:* Expected to be given in 2016–17.

### [\*\*African and African American Studies 122x. The History of African Americans from the Civil War to the Present - \(New Course\)\*\*](#)

Catalog Number: 68147

*Elizabeth Kai Hinton*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*



This course traces the social, political, and economic developments that shaped black history and culture from the Civil War to the present. Coming at a critical juncture in national and world history, the course surveys the diverse currents of African American experiences in the United States.

**[African and African American Studies 123x. Mass Incarceration in Historical Perspective ] - (New Course)**

Catalog Number: 47995

*Elizabeth Kai Hinton*

*Half course (fall term). Hours to be arranged.*

Today 1 in 3 African American boys will spend part of their lives behind bars, a profound reflection of the limitations of law and democracy in the United States. By examining the connections between race and the development of legal and penal systems over time, this course investigates the historical process that eventually gave rise to the mass incarceration of black and Latino Americans in the late twentieth century. The course is structured according to the major punitive changes that often emerged after the expansion of constitutional and civil rights for African Americans. Our historical consideration will provide us the necessary background to address the ongoing consequences of racial disparities in the criminal justice system and the momentous public policy implications of this dynamic.

*Note:* Expected to be given in 2015–16.

**[African and African American Studies 124x. Afro-Latino Letters] - (New Course)**

Catalog Number: 34575

*Doris Sommer and Alejandro de la Fuente*

*Half course (spring term). Hours to be arranged.*

Exploration of literary, historical, philosophical writings by Afro-Latin Americans including Latinos in the United States.

*Note:* Expected to be given in 2015–16.

**[African and African American Studies 125x. Urban Inequality after Civil Rights ] - (New Course)**

Catalog Number: 52267

*Elizabeth Kai Hinton*

*Half course (spring term). Hours to be arranged.*

Why is the United States more segregated today than ever before? By examining the impact of social, political, and economic transformations in the decades after the civil rights movement, this course addresses historical developments that functioned to increase segregation and income stratification in African American communities in the late twentieth century and into the twenty-first.

*Note:* Expected to be given in 2015–16.

**African and African American Studies 128. Black Nationalism**

Catalog Number: 3426

*Tommie Shelby*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

This course surveys that diverse yet thematically connected set of social philosophies generally



classified under the broad rubric "black nationalism." We will take an interdisciplinary approach to reading the canonical primary documents in the tradition, focusing primarily on black nationalism as a social theory, a political philosophy, and an intellectual tradition. Though some attention will be given to black nationalist organizations and social movements, the main focus will be on black nationalist ideas. We will critically examine the ideas of a few key theorists and iconic spokespersons and take up the core themes of the tradition. Topics to be explored include the varieties of black nationalism; black self-determination; black capitalism; the ideas of "race" and "nation"; racial solidarity and group self-reliance; self-defense and political resistance; the construction of gender roles and configurations of class within black nationalist discourses; the relationship between black identity and black liberation goals; the role of black artistic and cultural expression in black freedom struggles; the significance of Africa for black nationalist ideals; and the relevance of black nationalism for contemporary African American politics. In addition to critics of black nationalism such as Frederick Douglass and Martin Luther King Jr, we will discuss some contemporary critical assessments of the tradition and its legacy. The figures to be considered include David Walker, Martin Delany, W.E.B. Du Bois, Marcus Garvey, Frantz Fanon, Malcolm X, Stokely Carmichael, Amiri Baraka, and Huey Newton.

**African and African American Studies 130x. Richard Wright: Literature, Philosophy, and Politics - (New Course)**

Catalog Number: 61782

*Glenda R. Carpio and Tommie Shelby*

*Half course (fall term). W., 1–3. EXAM GROUP: I*

This course examines the major fiction and nonfiction works of Richard Wright from a literary, philosophical, and political perspective. We will take an interdisciplinary approach to this wide-ranging and canonical American author, contextualizing him within the broader tradition of black letters. Readings include but are not limited to Uncle Tom's Children, Native Son, Black Boy, American Hunger, 12 Million Black Voices, The Outsider, Black Power, The Color Curtain, White Man Listen!, and Eight Men. The course also explores major influences in Wright's development including the work of Marx, Sartre, and Freud.

**African and African American Studies 131. African American Literature from the Beginnings to the Harlem Renaissance**

Catalog Number: 2589

*Jamaica Kincaid*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

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 and end with Jean Toomer's Cane.

**[African and African American Studies 136. Black Religion and Economic Thought]**

Catalog Number: 16591

*Marla F. Frederick*



*Half course (fall term). Tu., 2–4.*

Since Emancipation African American religious leaders and their congregants have employed religion not only as a means of achieving social and political mobility, but also as a means of securing economic growth and independence in light of the conditions created under American capitalism. These approaches have varied from the pragmatic strategies of Booker T.

Washington, the socialist leanings of Rev. George Washington Woodbey, the "poor people's campaign" of Rev. Martin Luther King, Jr., and the increasingly popular prosperity ministries of today's neo-Pentecostal and Word of Faith communities. Such changes in strategies often coincide with changes in America's political economy over the past century. This course attempts to interrogate the development of these various strands of economic thought using texts by scholars like Max Weber (The Protestant Ethic and the Spirit of Capitalism), E. Franklin Frazier (The Black Bourgeoisie), and David Harvey (An Introduction to Neoliberalism) as anchoring texts to frame the social, economic and political contexts in which these strategies emerge. Other texts, including autobiographies, ethnographies, and histories offer details of how these religious understandings are framed and practiced.

*Note:* Expected to be given in 2015–16.

### African and African American Studies 137. Literature, Oratory, Popular Music and the Politics of Liberation

Catalog Number: 3258

*Biodun Jeyifo*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

Against the historic background of the civil rights struggles in the United States and the decolonizing liberation struggles in Africa and the Caribbean, this course explores how utopian or emancipatory aspirations in diverse genres and media like literature, oratory, and popular music impact people of different racial groups, gendered identities and social classes. Among the authors, public intellectuals and performers whose works we will explore are Ralph Ellison and James Brown, Wole Soyinka and Fela Kuti, Derek Walcott and Bob Marley, and Toni Morrison and Aretha Franklin.

### African and African American Studies 140x. Film, Fiction and Diaspora

Catalog Number: 67506

*Biodun Jeyifo*

*Half course (spring term). Th., 1–3:30. EXAM GROUP: 1*

An exploration of recent fiction and films on the African and Caribbean immigrant communities of Europe and North America.

### African and African American Studies 141x. Prejudice and Racism in Modern Society

Catalog Number: 26136 Enrollment: Enrollment: Limited to 15.

*James Sidanius*

*Half course (fall term). Th., 4–6. EXAM GROUP: 16*

This course provides a survey of the psychology of prejudice and racism, the scientific study of human feeling, thinking, and behavior in situations involving conflict between groups. More broadly, we will consider the psychological factors that contribute to the perpetuation of inequality and discrimination. Throughout the course, we will consider both proximate (immediate) influences on behavior, such as the immediate social situation as well as distal



(more remote) influences on behavior, such as human evolution. We will also consider both conscious and unconscious attitudes and behavior.

**[African and African American Studies 142. Hiphop and Don't Stop: The Word]**

Catalog Number: 92126

*Marcyliena Morgan*

*Half course (spring term). M., W., at 10.*

Hiphop is a global phenomenon that influences social life far beyond the music and entertainment industries. Yet beyond descriptions and critiques of its mass appeal, few have considered hip-hop's development of standards and evaluations across all artistic areas and culture. Moreover, the consequences of an audience trained in the changing standards of hip-hop and charged with upholding them, has not been thoroughly explored. This course provides a critical examination of hip-hop in the US and its role as a cultural, political and artistic resource for youth. It will explore the artistic, social, cultural, linguistic and political implications of hip-hop. It is taught from the perspective of cultural and linguistic anthropology and media studies. Each year the course will include a special topic with guest lecturers. Topics include: gender and sexuality, spirituality, health, psychology, philosophy, education, politics, art, nationalism, etc.

*Note:* Expected to be given in 2015–16.

**[African and African American Studies 143. Representing Blackness: Media, Technology and Power in Hiphop Culture]**

Catalog Number: 0444

*Marcyliena Morgan*

*Half course (spring term). Tu., 2–4.*

This course explores the concept of race and ethnicity through the analysis of media systems and institutions, communication frames and symbolic representations and social constructions.

*Note:* Expected to be given in 2015–16.

**African and African American Studies 151x. Hiphop Activism: From Katrina to Ferguson - (New Course)**

Catalog Number: 52962 Enrollment: Limited to 15.

*Marcyliena Morgan*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

This course examines how Hiphop political and social activism has changed how young Americans understand citizenship and active participation in society. We draw on prior research on youth activism in the U.S. and the racial and social class critique introduced in what is known as the 'golden era' of Hiphop. The 'golden era' occurred between the late 1980s and the mid 1990s. It is generally described as a period of experimentation in music and the introduction of socially conscious lyrics. It was during this period that social activists argued that Hiphop culture would lead to social change. In fact several Hiphop related organizations did develop including: Russell Simmons Hiphop Summit, League of Pissed Off Voters, Bad Boy's Vote or Die campaign and Black August. The overall influence of hiphop activism became apparent in 2005, when Katrina devastated the Gulf areas. For example, Lil Wayne's "Tie My Hands" told the heartbreaking, yet important, story of New Orleans' destruction after Hurricane Katrina and the political mismanagement that compounded the tragedy. The movement against police conduct in Ferguson has also resulted in Hiphop's response. While many are supportive, established leaders



lament what they perceive to be a lack of leadership. This course addresses key questions: How do we define activism in the age of Hiphop? What is the relationship and differences between movements like Freedom Summer and Katrina and Ferguson activism. In addition to the traditional aspects of assigned readings, lectures and class discussions, this class will include a significant research component on Katrina and Ferguson protests. There will also be visits with experts in the field, and several activities beyond the classroom.

**African and African American Studies 153x. Hiphop America: Hiphop Feminism From "Ladies First" to "Ride or Die" - (New Course)**

Catalog Number: 71008

*Marcyliena Morgan*

*Half course (spring term). M., W., at 2. EXAM GROUP: 18*

Women have been an important part of Hiphop culture since its beginnings in the 1970s. As more artists, bloggers and scholars debate feminism and sexuality, young feminist scholars are introducing new approaches and theories that incorporate the multiple and intertwining layers of gender, sexuality, race and social class within Hiphop and as a basis for revealing and understanding the social lives of women and girls. Hiphop feminism disrupts second-wave conceptualizations of good or bad feminist identities and essentialism. This course seeks to address, analyze, explore and contest the political aspects of Hiphop music and culture through a close examination of feminism. It is an analytic space for debate and discussion about the impact of Hiphop culture on the sexual, gender and political understandings of Americans and others around the world. In addition to the traditional aspects of assigned readings, lectures and class discussions this class will include a significant independent research component, visits with experts in the field, and several activities beyond the classroom.

**African and African American Studies 160. Christianity, Identity, and Civil Society in Africa**

Catalog Number: 88142

*Jacob Olupona*

*Half course (spring term). Th., 10–12. EXAM GROUP: 12*

This course is a historical survey of the centuries-old Christian traditions in Africa. It begins with an outline of the trajectory of Christianity's origins and presence in Africa from its beginning in ancient Mediterranean lands through the early period of European missionaries to the contemporary period. The course provides the ethnography of the old mission churches, indigenous independent African churches, and contemporary evangelical and Pentecostal Charismatic movements. The course explores the role of Christianity in relation to historical, cultural, social, and material realities of the African continent. It examines a broad range of topical issues related to conversion, missionization, and the development and growth of Christian agencies in Africa in relation to the construction of social, theological, and religious identities, as well as Christianity's response to cultural pluralism, nationhood, citizenship, and civil society.

*Note:* Offered jointly with the Divinity School as 2337.

**[African and African American Studies 161. Religion, Diaspora, and Migration: Seminar]**

Catalog Number: 51727

*Jacob Olupona*

*Half course (spring term). Th., 4–6.*



This seminar explores critical and interdisciplinary approaches to the place of religion and the emergence of the new immigrant and diaspora communities in the modern world, and the discourses emerging from the practice of diaspora and migration scholarship. Using historical, ethnographic, and textual sources, the course will illuminate the lived religious experiences of immigrant and diaspora communities in the United States and elsewhere. It introduces critical perspectives on forms of interaction between religion and other aspects of social identity - ethnicity, gender, nationality, race, age, and sexuality, as well as transnational and global influences on social and cultural identity. The course also examines the complex networks of economic, cultural, and technological innovations that the "new" diaspora and immigrant communities have developed to make sense of their spiritual and cultural lives in new situations.

*Note:* Expected to be given in 2016–17. Offered jointly with the Divinity School as 3702.

**African and African American Studies 162. Indigenous Religious Traditions and Modernity: Seminar**

Catalog Number: 66834

*Jacob Olupona*

*Half course (spring term). Th., 4–6. EXAM GROUP: 6*

This seminar explores historical, theoretical, methodological, and conceptual issues central to the study of indigenous religions of the world. It examines the critique of indigeneity and explores emerging topics about the role that religion plays in indigenous peoples' lives, communities, and societies. Special topics will explore issues related to land, environment, conversion, health, the state, gender, aggression, violence, justice, and human rights. The seminar examines the interface of indigenous religions and modernity, colonial and postcolonial conditions, and local and global forces that shape the practices of indigenous traditions in various regions of the world.

*Note:* Offered jointly with the Divinity School as 3703.

**[African and African American Studies 164. Mother Tongue: African American English and Social Change]**

Catalog Number: 96803

*Marcyliena Morgan*

*Half course (spring term). Tu., 1–3.*

This course focuses on African American English and discourse and provides a critical exploration into the notions of language life, death and power. It is concerned with the language, discourse and symbolic systems that construct and represent race, class and gender in the US. We use methods from linguistic anthropology and philosophy to explore language ideologies and the relationship between power and powerful speech. In this course we will review and critique theories of language, communication, culture, and identity as they relate to ethnicity, race, gender, and power. In particular, we are interested in how language mediates and constructs identity, how we associate language with race, class and gender, and how we resist and manipulate these associations. To answer these questions we examine both public and popular culture, as well as education, literature, film and other media. Topics include: Discourse of Politics, Race, Class, Radical Language Theory and Ideology, Breaking and Making Linguistic Rules. Marking Blackness, Normalizing Blackness, Grammaticalization and Ideology.

*Note:* Expected to be given in 2015–16.



**[African and African American Studies 165. Anthropology of the Black Community]**

Catalog Number: 70818

*Marcyliena Morgan*

*Half course (spring term). W., 2–4.*

This course examines anthropological theory, research and practice that relates to constructions of blackness as well as African-diasporic identities. African-diasporic contributions to anthropology as well as anthropological research and theory concerning Africana identities will be explored. This course introduces students to basic concepts and qualitative methods in the social sciences including ethnographic fieldwork and the analysis of face-to-face communication. It focuses on the details of everyday activities across a number of communities and interactive environments. It is meant to provide a bridge between communications, the social sciences, linguistics and socio-cultural anthropology through the introduction of concepts and analytical techniques that privilege observation, participation, video recording and transcription of spontaneous interaction (as opposed to experimental tasks or introspection).

*Note:* Expected to be given in 2015–16.

**[African and African American Studies 166. Women's Language and Discourse in the African Diaspora]**

Catalog Number: 54187

*Marcyliena Morgan*

*Half course (spring term). W., 1–3.*

The course focuses on language as a social construct and its importance and constitutive function in culture, appropriation, and performance of gender within and across traditional and national lines. The purpose of this course is to study, analyze and critique theories concerning the discursive construction of gender identity(s) and forms of representation of cultures. It will explore the relationship between power and powerful speech through reviews and critiques of theories of language, culture, and identity as they relate to gender, and nationalism. In particular, we will focus on how language and identity are constructed and mediated in literature, film and other media. Finally we will explore language and discourse surrounding women's language as well as language discourse styles used in the construction of regional, national, and global communities.

*Note:* Expected to be given in 2015–16.

**[African and African American Studies 170x. African Landscape and Environment]**

Catalog Number: 39183

*Suzanne P. Blier*

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

**[African and African American Studies 171x. African Art: An Introduction]**

Catalog Number: 63151

*Suzanne P. Blier*

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.



**[African and African American Studies 173x. Primitivism]**

Catalog Number: 24506

*Suzanne P. Blier*

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

**[African and African American Studies 174. The African City]**

Catalog Number: 6977

*Suzanne P. Blier*

*Half course (spring term). M., 1–3.*

This seminar investigates critical issues in Africa's rich urban centers. Architecture, city planning, spatial framing, popular culture, and new art markets will be examined.

*Note:* Expected to be given in 2015–16.

**African and African American Studies 178. Health, Society, and Subjectivity in the American Context**

Catalog Number: 39051

*Laurence A. Ralph*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

While diseases are often imagined to be scientific, medical conditions, they are also social constructs. In the nineteenth century, for example, the condition of Dysaesthesia Aethiopis (an ailment that made its sufferers "mischievous") was considered nearly universal among free blacks. Today, diseases like AIDS and tuberculosis are often associated with personal attributes, while the social forces at work to structure risk for acquiring these illnesses are glossed over. This course examines the ways people reproduce and challenge contemporary visions of society through the lens of social injury, and in the process cultivate subjectivities that are marked by race, gender, class.

**African and African American Studies 179. Jazz, Freedom, and Culture**

Catalog Number: 9532

*Ingrid Monson*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

This course explores the history of the musical tradition known as jazz from its roots in African American popular musical styles at the turn of the 20th century to its contemporary life as a global improvisational art music. We devote considerable attention to the history of jazz improvisation as a musical process and also explore the cultural, aesthetic, racial, and social debates that shaped the development of the music. On the one hand, jazz fashioned itself as the ultimate modern music with freedom and justice for all, and, on the other, provided an arena in which complex debates about race, cultural ownership, and social disparity repeatedly took place.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

**[African and African American Studies 180x. Race, Class and the Making of American Religion]**

Catalog Number: 68933



*Marla F. Frederick*

*Half course (spring term). W., 10–12.*

This class explores the ways in which both race and class are implicated in the development and practice of religion in the U.S. Through historical, anthropological and sociological works we explore the theoretical underpinnings of race and class and ponder their influence upon varying expressions of Islam, Judaism and Christianity.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2599.

**[African and African American Studies 182. From R & B to Neo Soul: Black Popular Music and Cultural Transformation]**

Catalog Number: 7973

*Ingrid Monson*

*Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged.*

The course focuses on the history of African American popular music from Ray Charles to P-Funk to Erykah Badu with particular emphasis on its long-term impact on American culture. The rise of classic R & B, Soul, Motown, Funk, the Philly Sound and Neo-Soul are featured. Key artists include Ray Charles, Aretha Franklin, the Supremes, Curtis Mayfield, James Brown, Stevie Wonder, George Clinton, Michael Jackson, Prince, Jill Scott, Erykah Badu, Usher, Alicia Keys, and D'Angelo. The course is especially concerned with tracing the interrelationships among music, politics, spirituality, and race relations during the Civil Rights and Black Power years and their legacy for today. During these years the sound of African America indelibly shaped mainstream American popular culture in far reaching and transformative ways.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for either Culture and Belief or Aesthetic and Interpretive Understanding, but not both.

**[African and African American Studies 183x. Queer of Color Theory]**

Catalog Number: 58474

*Robin M. Bernstein*

*Half course (spring term). Tu., 1–3.*

An advanced seminar in theories and processes of theory-making by queer people of color in the US from the Harlem Renaissance through the present. Topics include feminism, AIDS, spirituality, community, migration, affect, and performance. Texts include works by Audre Lorde, Cherríe Moraga, Gloria Anzladúa, Marlon Riggs, Cathy Cohen, E. Patrick Johnson, José Esteban Muñoz, Cheryl Dunye, David Eng, Sharon Bridgforth, Omi Osun Joni Jones, Roderick Ferguson, and Jewelle Gomez.

*Note:* Expected to be given in 2015–16.

**[African and African American Studies 186x. Childhood in African America]**

Catalog Number: 22059

*Robin M. Bernstein*

*Half course (fall term). M., 1–3.*

A seminar on children and childhood in African American history and cultures from 1773 through the present. Authors may include Phillis Wheatley, Frederick Douglass, W. E. B. Du Bois, Langston Hughes, Toni Morrison, and Suzan-Lori Parks; topics may include slavery, abolition, literacy, popular performance, film and television, Civil Rights, celebrity, the



Moynihan Report, systemic violence (including poverty), education, and the American Girl Dolls.

*Note:* Expected to be given in 2015–16.

### **African and African American Studies 187. African Religions**

Catalog Number: 0094

*Jacob Olupona*

*Half course (fall term). Th., 4–6. EXAM GROUP: 16*

This course is a basic introduction to the history and phenomenology of traditional religions of the African peoples. Using diverse methodological and theoretical approaches, the course will explore various forms of experiences and practices that provide a deep understanding and appreciation of the sacred meaning of African existence: myth, ritual arts, and symbols selected from West, East, Central, and Southern Africa.

*Note:* Offered jointly with the Divinity School as 3690.

### **\*African and African American Studies 188x (formerly \*History of Art and Architecture 196). Contemporary Art in Africa : Proseminar**

Catalog Number: 8120 Enrollment: Limited to 15.

*Suzanne P. Blier*

*Half course (fall term). M., 1–3. EXAM GROUP: 1*

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.

### **[African and African American Studies 189x. Medicine, Culture, and Society]**

Catalog Number: 26092 Enrollment: Limited to 50.

*Jean Comaroff*

*Half course (spring term). W., 12–2.*

This course examines the changing place of medicine in the long history of modernity. Focusing on key moments - the birth of the clinic, the colonial frontier (where biomedicine met its therapeutic "others"), the consolidation of medicine as self-governing profession, the age of genomics and biocapital - it explores the distinctive role of medical knowledge in the making of modernist persons, identities, and social worlds. Readings are drawn from across the social sciences, with material from Africa, Europe, and North America. Part lecture, part discussion, the class will be open to upper-level undergraduates and graduates.

*Note:* Expected to be given in 2015–16.

### **[African and African American Studies 190x. The Anthropology of Law: Perspectives from Africa and Elsewhere]**

Catalog Number: 92721 Enrollment: Limited to 25.

*John Comaroff*

*Half course (spring term). W., 2–4.*

The course will cover (i) classical readings in the field, (ii) conceptual questions focusing on the often counter-intuitive theoretical insights to be gained from the non-Western legal systems, (iii)



law and colonialism, (iv) liberalism, difference, and the law in the postcolonial world, and (v) the judicialization of politics around the globe. Throughout, attention will be given to the lessons to be learned from legal anthropology for interrogating the present moment in the global north.

Grades will be based on class participation, course presentations, and a term paper.

*Note:* Expected to be given in 2015–16. Offered jointly with the Law School as 2535.

### **African and African American Studies 191x. African American Lives in the Law**

Catalog Number: 32391

*Evelyn Brooks Higginbotham*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

This seminar focuses on biographical and autobiographical writings in a historical examination of the role of the individual in the American legal process. We will seek to understand how specific African Americans (as lawyers, judges, and litigants) made a difference—how their lives serve as a "mirror to America"—and also to understand the ways personal experience informs individual perspectives on the law and justice.

### **[African and African American Studies 192x. Religion and Society in Nigeria]**

Catalog Number: 8241

*Jacob Olupona*

*Half course (spring term). Th., 10–12.*

The seminar examines the historical development of religion in Nigeria and explores its intersection with ethnic identity, culture, and society in pre-colonial, colonial, and contemporary periods. The course provides an understanding of various cultural tradition, historical events, and social forces that have shaped Nigeria's religious express. Many topical issues will be explored such as indigenous religious culture, Christian and Muslim identities, civil religion, and civil society and democratization, as well as religion and politics in present-day Nigeria.

*Note:* Expected to be given in 2016–17. Offered jointly with the Divinity School as 3704.

### **African and African American Studies 196x. Contemporary Africa and Sustainable Development**

Catalog Number: 71091 Enrollment: Limited to 20.

*Patrick Vinck (Medical School, Public Health)*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

How do we understand development in Africa? This introductory course explores the question of sustainable development through a number of methods and perspectives, such as education, health, governance, (post-)conflict, and human rights. The course will examine the challenges of development, understood as the interaction between economic, environmental, political, and social processes. Students will gain the tools needed to examine African contexts today, including policy choices and the use of indicators and comparative analysis.

### **[African and African American Studies 197. Poverty, Race, and Health]**

Catalog Number: 5172

*David Williams*

*Half course (spring term). Th., 4–6.*

This course critically examines the health status of the poor, and of African Americans and other socially disadvantaged racial and ethnic groups in the US. Attention will be focused on the



patterned ways in which the health of these groups is embedded in the social, cultural, political, and economic contexts, and arrangements of US society. Topics covered include the meaning and measurement of race, the ways in which racism affects health, the historic uses of minorities in medical research, how acculturation and migration affects health, and an examination of the specific health problems that disproportionately affect nondominant racial groups.

*Note:* Expected to be given in 2015–16.

**[African and African American Studies 198x. Scientific Racism: A History] - (New Course)**

Catalog Number: 54038

*Alejandro de la Fuente*

*Half course (fall term). Hours to be arranged.*

This course focuses on the history of "race" as a category of difference and explores why "race" has become a globally-accepted idiom to classify humans. It assesses the prominent roles that science and scientists have played in the process of naturalizing "race" and analyzes how "scientific" theories of race were developed and disseminated globally in the modern period. We trace the formation of these ideas in the North Atlantic, their diffusion to various areas of the world, and the manner in which cultural and political elites adopted or challenged them. We will devote considerable time to the emergence of eugenics, the science of racial improvement, in Europe, the Americas, and Africa and study the process of institutionalization of this science in Nazi Germany and elsewhere, including the United States. A final section of the course discusses the impact of contemporary science on ideas of race. Students in this class will work with texts and archival materials related to these scientists, some of whom were Harvard faculty.

*Note:* Expected to be given in 2015–16.

**[African and African American Studies 199x. Social Revolutions in Latin America] - (New Course)**

Catalog Number: 33659

*Alejandro de la Fuente*

*Half course (spring term). Hours to be arranged.*

This course seeks to explain why social revolutions have taken place in Latin America and analyzes their impact on the region. The objective is for students to gain a critical understanding of the origins, development, and impact of revolutionary movements in Latin America during the twentieth century. We will try to identify: (1) the historical factors that led to revolutions in the region (the so-called revolutionary situations); (2) the strategies followed by different movements and how successful they were; (3) the programs and policies instituted by the different revolutionary governments; (4) the social and political forces opposed to those policies, including international forces; and (5) the ability of these revolutionary movements to hold on to power for extended periods of time. The course examines several case studies, which may include Mexico, Cuba, Chile, Nicaragua, the Zapatista uprising in Chiapas, and the so-called "Bolivarian revolution" of Venezuela. Our goal is to identify similarities and differences among these cases.

*Note:* Expected to be given in 2015–16.

***Primarily for Graduates***



### [African and African American Studies 209a. Africa Rising? New African Economies/Cultures and Their Global Implications](#)

Catalog Number: 56306 Enrollment: Limited to 15.

*Jean Comaroff and John Comaroff*

*Half course (fall term). M., 12–1:30 and 6–7:30 p.m. EXAM GROUP: 11*

In a story titled Africa Rising (2011), The Economist argued that the continent epitomizes both the "transformative promise of [capitalist] growth and its bleakest dimensions. This workshop will explore Africa's changing place in the world - and the new economies, legalities, socialities, and cultural forms that have arisen there. It will also interrogate the claim that the African present is a foreshadowing of processes beginning to occur elsewhere; that, therefore, it is a productive source of theory about current conditions world-wide. The workshop, open to faculty and students, will meet Mondays from 6:00-7:30. 15 students will be permitted to take it as a course; they will also meet on Mondays, 12:00-1:30. Grades will be based on participation and a term essay.

### [African and African American Studies 209b. Africa Rising? New African Economies/Cultures and Their Global Implications](#)

Catalog Number: 65212 Enrollment: Limited to 15.

*George Paul Meiu*

*Half course (spring term). Spring: M., 12–1:30 and M., 6–7:30 p.m. EXAM GROUP: 7*

In a story titled Africa Rising (2011), The Economist argued that the continent epitomizes both the "transformative promise of [capitalist] growth" and its bleakest dimensions. This workshop will explore Africa's changing place in the world - and the new economies, legalities, socialities, and cultural forms that have arisen there. It will also interrogate the claim that the African present is a foreshadowing of processes beginning to occur elsewhere; that, therefore, it is a productive source of theory about current conditions world-wide. The workshop, open to faculty and students, will meet Mondays, 6:00-7:30. 15 students will be permitted to take it as a course; they will also meet on Mondays, 12:00-1:30. Grades will be based on participation and a term essay.

### [African and African American Studies 212. Entrepreneurship in Africa](#)

Catalog Number: 40417

*Jacob Olupona*

*Half course (spring term). Tu., 10–1. EXAM GROUP: 12*

The Entrepreneurship in Africa (EIA) course, AAAS 212 is designed for students who have a passion for development in Africa. The goal of the course is to inspire and equip potential (social) entrepreneurs with knowledge and skills necessary for driving economic and social development in Africa. Students will examine challenges and innovation in various spheres, dialogue on solutions and identify viable routes to leapfrog change on the continent. The course will expose students to the important role of leadership and how entrepreneurs can leverage their ideas to create policy-level change. The course is designed to run as a seminar course, featuring faculty from across and beyond Harvard. A distinctive feature of the AAAS 212 course is the sessions with successful entrepreneurs from Africa who will come in to share practical experience, interact with students and reinforce learning. Students will form teams to develop a project or business plan that address enterprise and development needs. The course is open for cross-registration to all Harvard graduate students, limited by capacity to college students.



**[African and African American Studies 216. Mau Mau on Trial: History, Law and the High Court of Justice]**

Catalog Number: 18125

*Caroline M. Elkins*

*Half course (spring term). Tu., 1–3.*

This course will offer an in-depth examination of the historic Mau Mau reparations case in London's High Court of Justice, and the ways in which historical and legal expertise combined to produce a landmark settlement more than fifty years after British colonial rule in Kenya. Drawing upon the instructors' direct involvement in the case, this course will look at the revisionist history that provided the basis for the claims, the particulars of the case, and the historic nature of the two strike out hearings, as well as the British government's settlement of the claims in 2013. The course will also place this case in comparative perspective, both with regard to other historical reparations cases, as well as potential future cases from the former British Empire and elsewhere.

*Note:* Expected to be given in 2015–16. Undergraduates are permitted to enroll in this course with permission from the instructor.

**[African and African American Studies 217. Graduate Seminar: Themes in Modern African History]**

Catalog Number: 42627

*Caroline M. Elkins*

*Half course (spring term). M., 2–4.*

This proseminar introduces students to some of the main themes and core literature in the history of modern Africa. The focus of this proseminal will be on the major questions that have dominated the historiography, as well as current and future trends in the field. Sources and methods will be an implicit part of this course, as will theory, ranging from classical theorists, such as Marx and Weber, to more recent theorists such as the Comaroffs, Chakrabarty, and others. This course is designed to let students sample ways of interpreting the histories of modern Africa, and to provide a framework that will enable them to think critically when reading the field on their own.

*Note:* Expected to be given in 2015–16. Undergraduates are permitted to enroll in this course with permission from the instructor.

**African and African American Studies 218. Topics in African American History**

Catalog Number: 9951

*Evelyn Brooks Higginbotham*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

This graduate readings seminar surveys African American history from the slave trade through the early twentieth century. We will examine the experiences of African Americans alongside the history of race relations in a larger American context. Topics include slavery, abolition, and the transition to freedom; regional and cultural differences among African Americans; black politics; and issues of gender and class in black communities. We will also discuss the nature of historical inquiry and differing modes of historical interpretation.

**African and African American Studies 219. Proseminar: Race and Ethnicity in Latin America - (New Course)**



Catalog Number: 45583

*Alejandro de la Fuente*

*Full course (indivisible). W., 12–2. EXAM GROUP: Fall: 11; Spring: 7*

This yearlong seminar introduces students to current questions and debates in the study of race and ethnicity in Latin America. The course analyzes how different "racial formations," incorporating different combinations of indigenous, African, and European peoples and their descendants, have developed in Latin America since colonial times. Through the systematic comparison of several cases, the course discusses how ideas of race and nation have interacted in Latin America, shaping opportunities for mobilization and public policies; how racial identities have been formed and invoked for different cultural and political purposes; and how ideas of race and ethnicity have contributed to the stratification of Latin American societies, which are among the most unequal in the world. A final section looks at the creation of transnational networks of cooperation by indigenous and black activists and how their exchanges have shaped ideas of race and forms of mobilization in their respective societies. Students in this class will have the opportunity to meet with the authors of some of the works we are reading.

**African and African American Studies 220. Seminar: New Themes in the Study of the African Diaspora: Editorial Internship with Transition - (New Course)**

Catalog Number: 60717

*Alejandro de la Fuente*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

Students in this seminar will work with the editor of Transition to design, edit, and produce the journal. Housed at the Hutchins Center for African and African American Research (<http://hutchinscenter.fas.harvard.edu/transition>), Transition is the longest running Pan African cultural magazine in history. Founded in Uganda in 1961, the journal quickly became Africa's leading intellectual forum. It was later edited by Nobel Laureate Wole Soyinka in Ghana before arriving at Harvard in 1991, with publishers Henry Louis Gates, Jr. and Kwame Anthony Appiah. Some of the best scholars and minds of the Diaspora have contributed to this journal, including Martin Luther King Jr., Chinua Achebe, James Baldwin, Julius Nyerere and many others. Students in this class will familiarize themselves with the history of Transition; chart new directions for the journal; identify topics of Pan African significance and potential contributors on those topics; and serve as critical readers of materials submitted for publication to the journal. Students will be listed in the issues of the journal they help produce as "student associate editors".

**[African and African American Studies 221. Proseminar: Afro-Americas I: Comparative Slavery and the Law in the Americas] - (New Course)**

Catalog Number: 51301

*Alejandro de la Fuente*

*Half course (spring term). Hours to be arranged.*

This seminar introduces students to the booming historiography of slavery and the law in Latin America and the United States. Earlier generations of scholars of race and slavery (Frank Tannenbaum, Stanley Elkins) relied heavily on the law to draw sharp contrasts between U.S. and Latin American slavery. Although the social historians of the 1970s and 1980s were highly critical of this approach, due to its lack of attention to economic and social factors, in the last twenty years scholars have turned again to the study of slave legal regimes. The most recent



scholarship, however, does not approach the legal history of slavery through the study of legal codes, as previous scholars used to do, but through slaves' own legal initiatives and actions. In short, these scholars analyze how slaves themselves participated in the creation of legal institutions, understandings, and "rights." How do slave regimes in the United States and Latin America compare in light of this recent scholarship? New works of comparative synthesis are just beginning to appear.

*Note:* Expected to be given in 2015–16.

**[African and African American Studies 222. Proseminar: Afro-Americas II: Comparative Race Relations in the US and Latin America] - (New Course)**

Catalog Number: 53068

*Alejandro de la Fuente*

*Half course (fall term). Hours to be arranged.*

This seminar offers a systematic comparison of race relations in the United States and Latin America after emancipation. Writing in 1950, Alfred Métraux, a Swiss-American anthropologist who became the Director of the UNESCO Division for the Study of Race Problems, captured the then prevalent view that race operated very differently in "Anglo-Saxon" and "Latin" America. He made reference to the "favorable impressions produced by Brazil's race relations" and to the fact it had "been hailed as one of the rare countries which have achieved a 'racial democracy'." Whereas rigid forms of racial segregation characterized the United States, most countries in Latin America were seen as mestizo, racially-mixed nations that did not have a rigid color-line. Scholars have been debating the accuracy of these characterizations during the last sixty years. This seminar offers an introduction to this scholarship, assesses the current state of the field, and seeks to identify problems and questions for future research.

*Note:* Expected to be given in 2015–16. Afro-Americas I is not required.

### **Graduate Courses**

**\*African and African American Studies 301. Graduate Proseminar**

Catalog Number: 3120

*Marcyliena Morgan 2212, and members of the Department*

*Half course (fall term). Tu., 12–2. EXAM GROUP: 15*

Students are introduced to major themes, classic texts, and representative current work in the broad interdisciplinary field of African and African American Studies, with a focus on the Humanities (Literature, Art, Music, and Religion).

*Note:* Required for all graduates in African and African American Studies in their first year.

**\*African and African American Studies 302. Graduate Seminar**

Catalog Number: 7559

*James Sidanius 5371 and members of the Department*

*Half course (spring term). Th., 4–6. EXAM GROUP: 3*

Students are introduced to major themes, debates and texts in the broad interdisciplinary field of African and 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.

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

*Emmanuel K. Akyeampong 3421, Ali S. Asani 7739, Robert H. Bates 1251 (on leave fall term),  
Robin M. Bernstein 5411 (on leave 2014-15), Homi K. Bhabha 4100 (on leave 2014-15),  
Suzanne P. Blier 3472, Lawrence D. Bobo 2919, Vincent Brown 4638, Glenda R. Carpio 4408,  
Jean Comaroff 6484 (on leave spring term), John Comaroff 6485 (on leave spring term),  
Caroline M. Elkins 3961 (on leave 2014-15), Marla F. Frederick 4728, Henry Louis Gates, Jr.  
2899, Claudine Gay 5485, Evelyn M. Hammonds 4545, Evelyn Brooks Higginbotham 3517,  
Elizabeth Kai Hinton 7591, Jennifer L. Hochschild 3785, Biodun Jeyifo 1001, Walter Johnson  
5616 (on leave fall term), Michael R. Kremer 2112, Michèle Lamont 4634 (on leave 2014-15),  
George Paul Meiu 7708, Ingrid Monson 1591, Marcyliena Morgan 2212, John M. Mugane  
4776, Jacob Olupona 5608, Orlando Patterson 1091, Laurence A. Ralph 1676, Tommie Shelby  
3863, Kay Kaufman Shelemay 3483, James Sidanius 5371, Werner Sollors 7424 (on leave 2014-  
15), Doris Sommer 2744, John Stauffer 1006 (on leave fall term), Mark R. Warren (Education  
School) 2010, David Williams 5778 (on leave spring term), and William Julius Wilson 2401*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

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, Ali S. Asani 7739, Robert H. Bates 1251 (on leave fall term),  
Robin M. Bernstein 5411 (on leave 2014-15), Homi K. Bhabha 4100 (on leave 2014-15),  
Suzanne P. Blier 3472, Lawrence D. Bobo 2919, Vincent Brown 4638, Glenda R. Carpio 4408,  
Jean Comaroff 6484 (on leave spring term), John Comaroff 6485 (on leave spring term),  
Caroline M. Elkins 3961 (on leave 2014-15), Marla F. Frederick 4728, Henry Louis Gates, Jr.  
2899, Claudine Gay 5485, Evelyn M. Hammonds 4545, Evelyn Brooks Higginbotham 3517,  
Elizabeth Kai Hinton 7591, Jennifer L. Hochschild 3785, Biodun Jeyifo 1001, Walter Johnson  
5616 (on leave fall term), Michael R. Kremer 2112, Michèle Lamont 4634 (on leave 2014-15),  
George Paul Meiu 7708, Ingrid Monson 1591, Marcyliena Morgan 2212, John M. Mugane  
4776, Jacob Olupona 5608, Orlando Patterson 1091, Laurence A. Ralph 1676, Tommie Shelby  
3863, Kay Kaufman Shelemay 3483, Werner Sollors 7424 (on leave 2014-15), Doris Sommer  
2744, John Stauffer 1006 (on leave fall term), Mark R. Warren (Education School) 2010, David  
Williams 5778 (on leave spring term), and William Julius Wilson 2401*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

Requires students to identify and carry out a research project under the guidance of a member of the faculty. Graduate students may use this course to begin work on the research paper required for admission to candidacy.

### **\*African and African American Studies 391. Directed Writing**

Catalog Number: 4587

*Emmanuel K. Akyeampong 3421, Ali S. Asani 7739, Robert H. Bates 1251 (on leave fall term),  
Robin M. Bernstein 5411 (on leave 2014-15), Homi K. Bhabha 4100 (on leave 2014-15),  
Suzanne P. Blier 3472, Lawrence D. Bobo 2919, Vincent Brown 4638, Glenda R. Carpio 4408,  
Jean Comaroff 6484 (on leave spring term), John Comaroff 6485 (on leave spring term),*



*Caroline M. Elkins 3961 (on leave 2014-15), Marla F. Frederick 4728, Henry Louis Gates, Jr. 2899, Claudine Gay 5485, Evelyn M. Hammonds 4545, Evelyn Brooks Higginbotham 3517, Elizabeth Kai Hinton 7591, Jennifer L. Hochschild 3785, Biodun Jeyifo 1001, Walter Johnson 5616 (on leave fall term), Michael R. Kremer 2112, Michèle Lamont 4634 (on leave 2014-15), George Paul Meiu 7708, Ingrid Monson 1591, Marcyliena Morgan 2212, John M. Mugane 4776, Jacob Olupona 5608, Orlando Patterson 1091, Laurence A. Ralph 1676, Tommie Shelby 3863, Kay Kaufman Shelemyay 3483, James Sidanius 5371, Werner Sollors 7424 (on leave 2014-15), Doris Sommer 2744, John Stauffer 1006 (on leave fall term), Mark R. Warren (Education School) 2010, David Williams 5778 (on leave spring term), and William Julius Wilson 2401 Half course (fall term; repeated spring term). . EXAM GROUP: 5*

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 398. Reading and Research**

Catalog Number: 0427

*Emmanuel K. Akyeampong 3421, Ali S. Asani 7739, Robert H. Bates 1251 (on leave fall term), Robin M. Bernstein 5411 (on leave 2014-15), Homi K. Bhabha 4100 (on leave 2014-15), Suzanne P. Blier 3472, Lawrence D. Bobo 2919, Vincent Brown 4638, Glenda R. Carpio 4408, Jean Comaroff 6484 (on leave spring term), John Comaroff 6485 (on leave spring term), Caroline M. Elkins 3961 (on leave 2014-15), Marla F. Frederick 4728, Henry Louis Gates, Jr. 2899, Claudine Gay 5485, Evelyn M. Hammonds 4545, Evelyn Brooks Higginbotham 3517, Elizabeth Kai Hinton 7591, Jennifer L. Hochschild 3785, Biodun Jeyifo 1001, Walter Johnson 5616 (on leave fall term), Michael R. Kremer 2112, Michèle Lamont 4634 (on leave 2014-15), George Paul Meiu 7708, Ingrid Monson 1591, Marcyliena Morgan 2212, John M. Mugane 4776, Jacob Olupona 5608, Orlando Patterson 1091, Laurence A. Ralph 1676, Tommie Shelby 3863, Kay Kaufman Shelemyay 3483, James Sidanius 5371, Werner Sollors 7424 (on leave 2014-15), Doris Sommer 2744, John Stauffer 1006 (on leave fall term), Mark R. Warren (Education School) 2010, David Williams 5778 (on leave spring term), and William Julius Wilson 2401 Half course (fall term; repeated spring term). . EXAM GROUP: 3*

*Note:* Permission of the instructor and the Director of Graduate Studies is required for enrollment.

### **\*African and African American Studies 399. Direction of Doctoral Dissertations**

Catalog Number: 8411

*Emmanuel K. Akyeampong 3421, Robert H. Bates 1251 (on leave fall term), Robin M. Bernstein 5411 (on leave 2014-15), Homi K. Bhabha 4100 (on leave 2014-15), Suzanne P. Blier 3472, Lawrence D. Bobo 2919, Vincent Brown 4638, Glenda R. Carpio 4408, Jean Comaroff 6484 (on leave spring term), John Comaroff 6485 (on leave spring term), Caroline M. Elkins 3961 (on leave 2014-15), Marla F. Frederick 4728, Henry Louis Gates, Jr. 2899, Claudine Gay 5485, Evelyn M. Hammonds 4545, Evelyn Brooks Higginbotham 3517, Elizabeth Kai Hinton 7591, Jennifer L. Hochschild 3785, Biodun Jeyifo 1001, Walter Johnson 5616 (on leave fall term), Michael R. Kremer 2112, Michèle Lamont 4634 (on leave 2014-15), George Paul Meiu 7708, Ingrid Monson 1591, Marcyliena Morgan 2212, John M. Mugane 4776, Jacob Olupona 5608, Orlando Patterson 1091, Laurence A. Ralph 1676, Tommie Shelby 3863, Kay Kaufman Shelemyay 3483, James Sidanius 5371, Werner Sollors 7424 (on leave 2014-15), Doris Sommer*



2744, David Williams 5778 (on leave spring term), and William Julius Wilson 2401  
Half course (fall term; repeated spring term). . EXAM GROUP: 10

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

[Aesthetic and Interpretive Understanding 54 (formerly Culture and Belief 12). For the Love of God and His Prophet: Religion, Literature, and the Arts in Muslim Cultures]

[Anthropology 1988. Kinship, Citizenship, and Belonging: Seminar - \(New Course\)](#)

[\\*Anthropology 2626. Research Design/Proposal Writing](#)

\*Anthropology 3200. Dissertation Writing Workshop in Social Anthropology

\*BPH 322. Study of Epidemiologic and Biological Characteristics of HIV Viruses in Africa

[Culture and Belief 19. Understanding Islam and Contemporary Muslim Societies](#)

[Egyptian Aa. The Language of the Pharaohs: Introduction to Egyptian hieroglyphs I](#)

[Egyptian Ab. The Language of the Pharaohs: Introduction to Egyptian hieroglyphs II](#)

[\*Egyptian 150. Voices from the Nile: Ancient Egyptian Literature in Translation]

[\\*Freshman Seminar 37y. Muslim Voices in Contemporary World Literatures](#)

[Government 1197. The Political Economy of Africa](#)

[History 1412. African Diaspora in the Americas]

[History 1700. The History of Sub-Saharan Africa to 1860](#)

[History 1701. West Africa from 1800 to the Present](#)

[History 1704 (formerly Societies of the World 39). Slavery and Slave Trade in Africa and the Americas]

[\*History 1912. History Design Studio]

[\\*History 2708. Sources, Methodology, and Themes in African History: Seminar](#)

[Islamic Civilizations 175. Islam in African History](#)

[Islamic Civilizations 176. Islam in Modern West Africa]

[Literature 141. Modern Anglophone Drama - From Ireland to the Caribbean and Africa ]

[Religion 1802. Introduction to Islamic Mysticism: The Sufi Tradition](#)

[\\*Social Studies 980a. Human Rights in Africa](#)

[Societies of the World 26. Africa and Africans: The Making of a Continent in the Modern World]

[Societies of the World 34. The Caribbean: Globalization, Socio-Economic Development & Cultural Adaptation](#)

[\\*Studies of Women, Gender, and Sexuality 1249. Gender in African History](#)

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

[Aesthetic and Interpretive Understanding 13. Cultural Agents](#)

[Aesthetic and Interpretive Understanding 23. Interracial Literature]

[Aesthetic and Interpretive Understanding 26. Race, Gender, and Performance]

[Anthropology 1682. Gangsters and Troublesome Populations](#)

[Anthropology 2706. Disease, Disability, and the Body]

[Culture and Belief 49. American Protest Literature from Tom Paine to Tupac]

[Economics 1816. Race in America]

[\\*English 68. Migrations: American Immigrant Literature - \(New Course\)](#)

[\\*English 90bc. Black Global Cities: Seminar - \(New Course\)](#)



- [\*\*\\*English 90hv. When Harlem Was in Vogue: Seminar - \(New Course\)\*\*](#)
- [\*\*English 177. American Law, Race, and Narrative - \(New Course\)\*\*](#)
- [\*English 276x. African-American Literary Tradition: Graduate Seminar]
- [\*Folklore and Mythology 90s. African-American Folktales]
- [\*History 84h. The Northern Side of the Civil Rights Movement]
- [\*\*\\*History 97h. "What is Urban History?" - \(New Course\)\*\*](#)
- [\*\*History 1010. History of the Prison - \(New Course\)\*\*](#)
- [History 1412. African Diaspora in the Americas]
- [History 1704 (formerly Societies of the World 39). Slavery and Slave Trade in Africa and the Americas]
- [\*History 1912. History Design Studio]
- [\*\*History 2442. Readings in the History of the U.S. in the 19th Century: Proseminar\*\*](#)
- [\*\*\\*History 2463. Graduate Readings in 20th-Century African-American History: Seminar\*\*](#)
- [\*\*History 2469hf. Multimedia History and Literature: New Directions in Scholarly Design: Seminar - \(New Course\)\*\*](#)
- [\*\*\\*History and Literature 90az. The African American Great Migration\*\*](#)
- [\*\*\\*History and Literature 90l. Stories of Slavery and Freedom\*\*](#)
- [\*\*History of Art and Architecture 191w. Image of the Black in Western Art\*\*](#)
- [\*\*History of Science 245. The Changing Concept of Race in Science and Medicine in the United States: From Jefferson to Genomics \(Graduate Seminar in General Education\)\*\*](#)
- [Literature 141. Modern Anglophone Drama - From Ireland to the Caribbean and Africa ]
- [\*\*Music 193r. Topics in Music from 1800 to the Present: Proseminar\*\*](#)
- [Music 209r. Ethnomusicology: Seminar]
- [\*\*Music 280r. Theorizing Improvisation - \(New Course\)\*\*](#)
- [\*\*\\*Psychology 2570r. Intergroup Relations: Research Seminar\*\*](#)
- [Religion 1018. African American Religions: An Introduction]
- [\*\*Societies of the World 34. The Caribbean: Globalization, Socio-Economic Development & Cultural Adaptation\*\*](#)
- [\*Sociology 98L. Racism and Anti-Racism in Comparative Perspective]
- [\*\*\\*Sociology 98Wb. Race, Poverty, and Justice\*\*](#)
- [\*\*Sociology 119. From Plantations to Prisons\*\*](#)
- [Sociology 183. Race and Ethnic Relations]
- [Sociology 236. Cultural Processes in the Production of Inequality]
- [\*\*Sociology 248. Race, Politics, and Social Inequality: Seminar\*\*](#)
- [Sociology 254. Social Structure and Culture in the Study of Race and Urban Poverty]
- [\*\*United States in the World 15. Is the American Racial Order Being Transformed?\*\*](#)
- [United States in the World 28. Slavery/Capitalism/Imperialism: The US in the Nineteenth Century]
- [\*\*United States in the World 33. Religion and Social Change\*\*](#)
- [United States in the World 34. The Civil War from Nat Turner to *Birth of a Nation*]



# African Studies

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Committee on African Studies*

Caroline M. Elkins, Professor of History (*Chair*) (*on leave 2014-15*)

Leila N. Ahmed, Victor S. Thomas Professor of Divinity (*Divinity School*)

Emmanuel K. Akyeampong, Professor of History and of African and African American Studies

Ali S. Asani, Professor of Indo-Muslim and Islamic Religion and Cultures

Robert H. Bates, Eaton Professor of the Science of Government and Professor of African and African American Studies (*on leave fall term*)

Theresa Stichick Betancourt, Associate Professor of Child Health and Human Rights (*Public Health*)

Jacqueline Bhabha, Professor of the Practice of Health and Human Rights, Director of Research FXB Center (*Public Health*)

Suzanne P. Blier, Allen Whitehill Clowes Professor of Fine Arts and Professor of African and African American Studies

David E. Bloom, Clarence James Gamble Professor of Economics and Demography (*Public Health*)

Lawrence D. Bobo, W. E. B. Du Bois Professor of the Social Sciences

Thomas F. Burke, Assistant Professor of Surgery (*Medical School*)

Jessica L. Cohen, Assistant Professor of Global Health (*Public Health*)

Jean Comaroff, Alfred North Whitehead Professor of African and African American Studies and of Anthropology (*on leave spring term*)

John Comaroff, Hugh K. Foster Professor of African and African American Studies and of Anthropology (*on leave spring term*)

Alejandro de la Fuente, Robert Woods Bliss Professor of Latin-American History and Economics and Professor of African and African American Studies and of History

Sarah Elizabeth Dryden-Peterson, Assistant Professor of Education (*Faculty of Education*)

Christopher Paul Duggan, Associate Professor of Pediatrics (*Medical School*), Associate Professor in the Department of Nutrition (*Public Health*)

Myron Essex, Mary Woodard Lasker Professor of Health Sciences (*Public Health*)

Susan Farbstein, Assistant Clinical Professor of Law (*Law School*)

Wafaie W. Fawzi, Richard Saltonstall Professor of Population Sciences, and Professor of Nutrition (*Public Health*)

Günther Fink, Associate Professor of International Health Economics (*Public Health*)

Deborah D. Foster, Senior Lecturer on Folklore and Mythology

Henry Louis Gates, Jr., Alphonse Fletcher, Jr. University Professor



Susanne J. Goldie, Roger Irving Lee Professor of Public Health; Director, Center for Health Decision Science; Director, Harvard Global Health Institute; Professor of Global Health and Social Medicine (*Public Health, Medical School*)

Evelynn M. Hammonds, Barbara Gutmann Rosenkrantz Professor of the History of Science and of African and African American Studies

Michael J. Hiscox, Clarence Dillon Professor of International Affairs (*on leave fall term*)

Michael Hooper, Associate Professor of Urban Planning and Design (*Design School*)

Bassey E. Irele, Librarian for Sub-Saharan Africa (*ex officio*)

Biodun Jeyifo, Professor of African and African American Studies and of Comparative Literature

Calestous Juma, Professor of the Practice of International Development at the John F. Kennedy School of Government (*Kennedy School*)

Ousmane Kane, Professor of Near Eastern Languages and Civilizations, and Prince Alwaleed Bin Talal Professor of Contemporary Islamic Religion and Society (*Divinity School*)

Michael R. Kremer, Gates Professor of Developing Societies

Jennifer Leaning, Francois-Xavier Bagnoud Professor of the Practice of Health and Human Rights, Director of the Francois-Xavier Bagnoud Center for Health and Human Rights (*Public Health*)

Ann Marie Lipinski, Curator, Nieman Foundation for Journalism

Gwyneth McClendon, Assistant Professor of Government and of Social Studies

George Paul Meiu, Assistant Professor of Anthropology and African and African American Studies

Ingrid Monson, Quincy Jones Professor of African-American Music, Supported by the Time Warner Endowment

Marcyliena Morgan, Professor of African and African American Studies

John M. Mugane, Professor of the Practice of African Languages and Cultures and Director of the African Language Program

Nawal Mohamed Nour, Associate Professor of Obstetrics, Gynecology and Reproductive Biology (*Medical School*)

Nathan J. Nunn, Professor of Economics

Jacob Olupona, Professor of African and African American Studies and Professor of African Religious Traditions

Phuong Pham, Research Scientist, Harvard Humanitarian Initiative (*Public Health*)

Mindy Roseman, Lecturer on Law, and Academic Director of Human Rights Program (*Law School*)

Kay Kaufman Shelemay, G. Gordon Watts Professor of Music and Professor of African and African American Studies

Christian Alexander Tryon, Assistant Professor of Anthropology

Michael J. VanRooyen, Professor of Medicine, and Professor in the Department of Global Health and Population (*Medical School, Public Health*)

Patrick Vinck, Lecturer on Medicine, and Visiting Scientist (*Medical School, Public Health*)

Lucie E. White, Louis A. Horvitz Professor of Law (*Law School*)

The Committee on African Studies is a multidisciplinary group of scholars whom the Dean of the Faculty of Arts and Sciences appoints to coordinate teaching and research on sub-Saharan Africa across the Faculty of Arts and Science's departments and all of the graduate and



professional schools. The Committee serves as an intellectual hub, connecting faculty and students with a shared interest in Africa; it is also concerned with the planned development of African Studies across the University.

The Committee's goal is to advance knowledge and understanding of African peoples and cultures throughout the University. So in addition to supporting classes about Africa, the Committee organizes and sponsors lectures, seminars, conferences, films, and exhibitions about Africa. Its non-credit Africa Seminar Series is open to all faculty members and students.

The Committee also offers semester grants to student groups with an Africa focus and summer grants for students traveling to Africa. To stay current with all of the latest African activities at Harvard, students, faculty, and members of the broader Harvard community can subscribe to a weekly e-newsletter by visiting the Committee's Website, [www.africa.harvard.edu](http://www.africa.harvard.edu). For additional information about African Studies at Harvard, please consult the Committee's Website at [www.africa.harvard.edu](http://www.africa.harvard.edu) or e-mail [cafrika@fas.harvard.edu](mailto:cafrika@fas.harvard.edu).

Students interested in pursuing an undergraduate or doctoral degree in African Studies should consult the African and African American Studies (AAAS) chapter in this catalog. The Department of African and African American Studies offers a number of courses on African topics and is home to the African Language Program, which teaches 31 African languages.

The following FAS departments offer courses on Africa. A more detailed description of these courses may be found in this catalog under the appropriate department or committee heading.

*Departments with Courses of Interest:*

General Education

Freshman Seminars

African and African American Studies

Anthropology

Economics

English and American Literature and Language

Environmental Science and Public Policy

Folklore and Mythology

Government

History



History and Literature

History of Art and Architecture

History of Science

Literature and Comparative Literature

Music

Near Eastern Languages and Civilizations

Romance Languages and Literatures

Study of Religion

Social Studies

Sociology

Visual and Environmental Studies

Women, Gender, and Sexuality

In addition to the departmental offerings in the Faculty of Arts and Sciences, courses on Africa can also be found in the catalogs of the Schools of Business, Design, Divinity, Education, Government, Law, Medicine, Public Health, and the Extension School. A listing can be found in the Academics section of the Committee's Website: [www.africa.harvard.edu/academics.html](http://www.africa.harvard.edu/academics.html).

## American Studies

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

*Committee on Higher Degrees in American Studies*

Jennifer L. Roberts, Elizabeth Cary Agassiz Professor of the Humanities (*Chair*)

David J. Alworth, Assistant Professor of English and of History and Literature (*on leave 2014-15*)



- Sven Beckert, Laird Bell Professor of History  
 Aisha Mahina Beliso-De Jesus, Associate Professor of African American Religions (*Divinity School*)  
 Robin M. Bernstein, Professor of African and African American Studies and of Women, Gender and Sexuality (*on leave 2014-15*)  
 Steven Biel, Senior Lecturer on History and Literature  
 Ann D. Braude, Lecturer, Director of the Women's Studies in Religion Program (*Divinity School*)  
 Catherine A. Brekus, Charles Warren Professor of the History of Religion in America (*Divinity*)  
 Vincent Brown, Charles Warren Professor of American History and Professor of African and African American Studies  
 Daniel P. Carpenter, Allie S. Freed Professor of Government  
 Glenda R. Carpio, Professor of English and of African and African American Studies  
 Joyce E. Chaplin, James Duncan Phillips Professor of Early American History (*on leave 2014-15*)  
 Amanda Claybaugh, Professor of English  
 Nancy F. Cott, Jonathan Trumbull Professor of American History  
 Christine Desan, Leo Gottlieb Professor of Law (*Law School*)  
 Lorgia H. García Peña, Assistant Professor of Romance Languages and Literatures and of History and Literature  
 Henry Louis Gates, Jr., Alphonse Fletcher, Jr. University Professor  
 Claudia Goldin, Henry Lee Professor of Economics  
 David Neil Hempton, Dean of the Faculty of Divinity, and John Lord O'Brian Professor of Divinity, Alonzo L. McDonald Family Professor of Evangelical Theological Studies (*Divinity School*)  
 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  
 David Frank Holland, Associate Professor of North American Religious History (*Divinity School*)  
 Andrew Jewett, Associate Professor of History and of Social Studies  
 Walter Johnson, Winthrop Professor of History and Professor of African and African American Studies (*on leave fall term*)  
 Alexander Keyssar, Matthew W. Stirling, Jr. Professor of History and Social Policy at the Kennedy School of Gov't (*Kennedy School*)  
 Ju Yon Kim, Assistant Professor of English  
 James T. Kloppenberg, Charles Warren Professor of American History  
 Carrie Lambert-Beatty, Professor of History of Art and Architecture and of Visual and Environmental Studies (*on leave 2014-15*)  
 Jill M. Lepore, David Woods Kemper '41 Professor of American History, Harvard College Professor  
 Lisa M. McGirr, Professor of History  
 Daniel P. McKanan, Ralph Waldo Emerson Unitarian Universalist Association Senior Lecturer in Divinity (*Divinity School*)  
 Louis Menand, Anne T. and Robert M. Bass Professor of English



Ingrid Monson, Quincy Jones Professor of African-American Music, Supported by the Time Warner Endowment

Elisa New, Powell M. Cabot Professor of American Literature (*on leave 2014-15*)

Carol J. Oja, William Powell Mason Professor of Music

Orlando Patterson, John Cowles Professor of Sociology

Julie A. Reuben, Charles Warren Professor of the History of American Education (*Faculty of Education*)

Mayra Rivera Rivera, Associate Professor of Theology and Latina/o Studies, Affiliate of the Department of Romance Languages and Literatures (*Divinity School*) (*spring term*)

Marc Shell, Irving Babbitt Professor of Comparative Literature and Professor of English

Doris Sommer, Ira Jewell Williams, Jr. Professor of Romance Languages and Literatures and of African and African American Studies

John Stauffer, Professor of English and of African and African American Studies (*on leave fall term*)

Laurel Thatcher Ulrich, 300th Anniversary University Professor

Kirsten A. Weld, Assistant Professor of History (*on leave spring term*)

### ***Other Faculty Offering Instruction in American Studies***

Ann M. Blair, Henry Charles Lea Professor of History, Harvard College Professor (*on leave 2014-15*)

Allan M. Brandt, Amalie Moses Kass Professor of the History of Medicine in the Faculty of Medicine, and Professor of the History of Science in the Faculty of Arts and Sciences

Lawrence Buell, Powell M. Cabot Professor of American Literature, Emeritus

Davíd L. Carrasco, Neil L. Rudenstine Professor for the Study of Latin America (*Divinity School and Faculty of Arts and Sciences*)

Lizabeth Cohen, Howard Mumford Jones Professor of American Studies, and Dean of the Radcliffe Institute for Advanced Study (*on leave 2014-15*)

Philip J. Fisher, Felice Crowl Reid Professor of English

Peter L. Galison, Joseph Pellegrino University Professor (*on leave fall term*)

Mark D. Jordan, Andrew W. Mellon Professor of Christian Thought in the Faculty of Divinity, and Professor of Studies of Women, Gender, and Sexuality in the Faculty of Arts and Sciences (*Divinity School*)

Robin E. Kelsey, Shirley Carter Burden Professor of Photography (*on leave 2014-15*)

Erez Manela, Professor of History (*on leave 2014-15*)

Charles E. Rosenberg, Ernest E. Monrad Professor of the Social Sciences, Emeritus

Werner Sollors, Henry B. and Anne M. Cabot Professor of English Literature and Professor of African and African American Studies (*on leave 2014-15*)

John R. Stilgoe, Robert and Lois Orchard Professor in the History of Landscape Development

Maria Tatar, John L. Loeb Professor of Germanic Languages and Literatures and of Folklore and Mythology (*on leave 2014-15*)

Helen Vendler, Arthur Kingsley Porter University Professor

Ruth R. Wisse, Martin Peretz Professor of Yiddish Literature and Professor of Comparative Literature, Emeritus

This program is interdisciplinary. Students are also referred to course offerings at the Divinity,



Graduate School of Education, 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; 617-495-3325; [americanstudies@fas.harvard.edu](mailto:americanstudies@fas.harvard.edu).

### ***Primarily for Graduates***

#### **\*American Studies 200 (formerly \*American Civilization 200). Major Works in American Studies**

Catalog Number: 3662

*Jill M. Lepore*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

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 Studies and open to others by permission of the instructor.

#### **[\*American Studies 201 (formerly \*American Civilization 201). Themes in American Studies]**

Catalog Number: 6797

*John Stauffer and Daniel P. McKanan (Divinity School)*

*Half course (fall term). W., 10–12.*

Interdisciplinary study of one or several topics.

*Note:* Expected to be given in 2015–16. Required of first and second-year graduate students in American Studies and open to others by permission of the instructor.

### ***Graduate Courses***

#### **\*American Studies 398 (formerly \*American Civilization 398). Reading and Research**

Catalog Number: 1710

*Sven Beckert 2415, Robin M. Bernstein 5411 (on leave 2014–15), Ann M. Blair 2467 (on leave 2014–15), Allan M. Brandt 3031, Vincent Brown 4638, Lawrence Buell 2655, Glenda R. Carpio 4408, Joyce E. Chaplin 1058 (on leave 2014–15), Amanda Claybaugh 5800, Elizabeth Cohen 3627 (on leave 2014–15), Nancy F. Cott 4261, Philip J. Fisher 1470, William W. Fisher (Law School) 4257, Peter L. Galison 3239 (on leave fall term), Henry Louis Gates, Jr. 2899, Claudia Goldin 2667, David D. Hall (Divinity School) 2510, Janet E. Halley (Law School) 4431, Evelyn Brooks Higginbotham 3517, Morton J. Horwitz (Law School) 6272, Bioudun Jeyifo 1001, Walter Johnson 5616 (on leave fall term), Geoffrey Jones (Business School) 5105, Mark D. Jordan (Divinity School) 6279, Robin E. Kelsey 4132 (on leave 2014–15), Alexander Keyssar (Kennedy School) 4323, Ju Yon Kim 2986, James T. Kloppenberg 3157, Jill M. Lepore 4830, Erez Manela 4762 (on leave 2014–15), Thomas K. McCraw (Business School) 7371, Lisa M. McGirr 2543, Louis Menand 4752, Ingrid Monson 1591, Elisa New 2428 (on leave 2014–15), Carol J. Oja 4599, Julie A. Reuben (Faculty of Education) 4428, Jennifer L. Roberts 4407, Werner Sollors 7424 (on leave 2014–15), Doris Sommer 2744, John Stauffer 1006 (on leave fall term), Maria Tatar 3645 (on leave 2014–15), Laurel Thatcher Ulrich 1886, Helen Vendler 7226, Kirsten A. Weld 6494 (on leave spring term), and Alejandro de la Fuente 7369*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*



**\*American Studies 399 (formerly \*American Civilization 399). Direction of Doctoral Dissertation**

Catalog Number: 8803

*Sven Beckert 2415, Robin M. Bernstein 5411 (on leave 2014-15), Allan M. Brandt 3031, Lawrence Buell 2655, David L. Carrasco (Divinity School and Faculty of Arts and Sciences) 4213, Joyce E. Chaplin 1058 (on leave 2014-15), Lizabeth Cohen 3627 (on leave 2014-15), Nancy F. Cott 4261, Philip J. Fisher 1470, William W. Fisher (Law School) 4257, Peter L. Galison 3239 (on leave fall term), Henry Louis Gates, Jr. 2899, David D. Hall (Divinity School) 2510, Evelyn Brooks Higginbotham 3517, Morton J. Horwitz (Law School) 6272, Andrew Jewett 5878, Walter Johnson 5616 (on leave fall term), Geoffrey Jones (Business School) 5105, Alexander Keyssar (Kennedy School) 4323, James T. Kloppenberg 3157, Jill M. Lepore 4830, Erez Manela 4762 (on leave 2014-15), Thomas K. McCraw (Business School) 7371, Louis Menand 4752, Carol J. Oja 4599, Julie A. Reuben (Faculty of Education) 4428, Jennifer L. Roberts 4407, Charles E. Rosenberg 3784, Marc Shell 3176, Werner Sollors 7424 (on leave 2014-15), John Stauffer 1006 (on leave fall term), John R. Stilgoe 8032, Laurel Thatcher Ulrich 1886, and Ruth R. Wisse 3177*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

Cross-listed courses are no longer listed here. For a list of courses offered by members of the Committee on Higher Degrees in American Studies, and other courses of interest in American Studies, contact the program office at [americanstudies@fas.harvard.edu](mailto:americanstudies@fas.harvard.edu).

## Anthropology

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

***Faculty of the Department of Anthropology***

Rowan K. Flad, Professor of Anthropology (*Acting Chair*)

Asad A. Ahmed, Associate Professor of Anthropology

Anya Bernstein, Assistant Professor of Anthropology and of Social Studies (*on leave spring term*)

Theodore C. Bestor, Reischauer Institute Professor of Social Anthropology (*on leave 2014-15*)

Patricia Capone, Lecturer on Anthropology

David L. Carrasco, Neil L. Rudenstine Professor for the Study of Latin America (*Divinity School and Faculty of Arts and Sciences*)

Lucien G. Castaing-Taylor, Professor of Visual Arts and of Anthropology

Steven C. Caton, Khalid Bin Abdullah Bin Abdulrahman Al Saud Professor of Contemporary



**Arab Studies (*on leave fall term*)**

Jessica Ines Cerezo-Román, College Fellow in the Department of Anthropology

Jean Comaroff, Alfred North Whitehead Professor of African and African American Studies and of Anthropology (*on leave spring term*)

John Comaroff, Hugh K. Foster Professor of African and African American Studies and of Anthropology (*on leave spring term*)

William L. Fash, Bowditch Professor of Central American and Mexican Archaeology and Ethnology (*on leave spring term*)

Susan Greenhalgh, John King and Wilma Cannon Fairbank Professor of Chinese Society (*on leave fall term*)

Nicholas H. Harkness, Assistant Professor of Anthropology

Michael Herzfeld, Ernest E. Monrad Professor of the Social Sciences

Ernst Karel, Lecturer on Anthropology

Arthur Kleinman, Esther and Sidney Rabb Professor of Anthropology in the Faculty of Arts and Sciences and Professor of Medical Anthropology in the Faculty of Medicine, Harvard College Professor

C. C. Lamberg-Karlovsky, Stephen Phillips Professor of Archaeology and Ethnology

Catalina Laserna, Lecturer on Anthropology

Matthew Joseph Liebmann, Associate Professor of Anthropology (*on leave fall term*)

Diana Loren, Lecturer on Anthropology

Peter Der Manuelian, Philip J. King Professor of Egyptology

Richard H. Meadow, Senior Lecturer on Anthropology (*Director of Undergraduate Studies, and Archaeology Program Head Tutor*)

George Paul Meiu, Assistant Professor of Anthropology and African and African American Studies

David R. Odo, Lecturer on Anthropology

Federico Perez, College Fellow in the Department of Anthropology

Jeffrey Quilter, Senior Lecturer on Anthropology

Laurence A. Ralph, Assistant Professor of African and African American Studies and Anthropology

Ramyar Dagoberto Rossoukh, Lecturer on Anthropology

Mary M. Steedly, Professor of Anthropology (*Director of Graduate Studies*)

Nicolas Igor Sternsdorff cisterna, Lecturer on Anthropology

Ajantha Subramanian, Professor of Anthropology

Christian Alexander Tryon, Assistant Professor of Anthropology

Jason A. Ur, Professor of Anthropology

Gary Urton, Dumbarton Oaks Professor of Pre-Columbian Studies (*on leave 2014-15*)

Christine Yano, Edwin O. Reischauer Visiting Professor of Japanese Studies

***Other Faculty Offering Instruction in Anthropology***

Ofer Bar-Yosef, George Grant MacCurdy and Janet G. B. MacCurdy Professor of Prehistoric Archaeology, Emeritus

Vincent Brown, Charles Warren Professor of American History and Professor of African and African American Studies

Thomas B. F. Cummins, Dumbarton Oaks Professor of the History of Pre-Columbian and



### Colonial Art

Alasdair Simon Donald, Lecturer on Global Health and Social Medicine (*Medical School*)  
 Mary-Jo Del Vecchio Good, Professor of Global Health and Social Medicine (*Medical School*)  
 Sally F. Moore, Victor S. Thomas Professor of Anthropology, Emerita  
 Michael J. Puett, Walter C. Klein Professor of Chinese History  
 James L. Watson, John King and Wilma Cannon Fairbank Professor of Chinese Society,  
 Emeritus

### ***Affiliates of the Department of Anthropology***

Paul Farmer, Kolokotrones University Professor of Global Health and Social Medicine (*Medical School*)  
 Byron J. Good, Professor of Medical Anthropology in the Department of Social Medicine  
*(Medical School)*

Within the Anthropology concentration, there are two principal tracks: Archaeology and Social Anthropology. For the undergraduate requirements in these programs, consult the department website, [www.anthropology.fas.harvard.edu](http://www.anthropology.fas.harvard.edu) and the Undergraduate Office of the Anthropology Department.

There is also a track in biological anthropology that is supervised, along with the concentration in Human Evolutionary Biology, within the newly formed Department of Human Evolutionary Biology, as part of the Life Sciences cluster of concentrations. See [www.lifesciences.fas.harvard.edu](http://www.lifesciences.fas.harvard.edu).

Department of Anthropology course listings are numerically ordered as follows:

1000-1299 and 2000-2299: Archaeology

1300-1599 and 2300-2599: Integrated courses in Archaeology and Social Anthropology

1600-1999 and 2600-2999: Social Anthropology

### ***Archaeology***

#### ***Primarily for Undergraduates***

##### **\*Anthropology 91xr. Supervised Reading and Research in Archaeology**

Catalog Number: 5660

*Richard H. Meadow*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 14; Spring: 11*

Special study of selected topics in archaeology, 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 Head Tutor for Archaeology or



downloadable from the department's Anthropology[Archaeology] website), signed by the adviser with whom he or she wishes to study, and a proposed plan of study.

### **\*Anthropology 92xr. Archaeological Research Methods in Museum Collections**

Catalog Number: 9029

*Richard H. Meadow*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

Special (individual) study of Peabody Museum (PM) collections approved by the PM Director and directly supervised by a member of the PM curatorial staff. Requires a project involving a museum collection developed in consultation with the supervisor.

*Note:* Must be taken for a letter grade. Priority given to students in Anthropology and related departments. To enroll, submit a petition form (available on the Anthropology [Archaeology] website), signed by the supervisor, the PM Director, and the Head Tutor for Archaeology and including a proposed research agenda, preferably during the term preceding the term of enrollment. See the Head Tutor for Archaeology or members of the Peabody Museum curatorial staff for more information.

### **\*Anthropology 97x. Sophomore Tutorial in Archaeology**

Catalog Number: 0400

*Jason A. Ur and Matthew Joseph Liebmann*

*Half course (spring term). M., 3–5. EXAM GROUP: 17*

This course will focus on archaeological thinking, the cognitive skeleton of the discipline of archaeology, the principles and the logic that are the foundation of all archaeological conclusions and research. Central to this is an understanding of research design, archaeological theory and interpretation, culture and material culture; as well as an understanding of how to examine and construct an archaeological argument.

*Note:* Required of all concentrators in Archaeology.

### **\*Anthropology 98xa. Junior Tutorial in Archaeology**

Catalog Number: 2959

*Richard H. Meadow*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

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, and several short writing assignments.

*Note:* Required of all concentrators in Archaeology.

### **\*Anthropology 98xb. Junior Tutorial in Archaeology**

Catalog Number: 3568

*Richard H. Meadow*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 8*

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 Head Tutor for Archaeology, or downloadable from the department's Anthropology [Archaeology] website) with a proposed course plan of study and the tutorial adviser's signature.

*Note:* Required of candidates for honors in Archaeology.

#### **\*Anthropology 99x. Thesis Tutorial in Archaeology - Senior Year**

Catalog Number: 6656

*Richard H. Meadow*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 13; Spring: 9*

Research and writing of the Senior Thesis. Limited to honors candidates. Signature of the faculty adviser on a departmental form is required. This form is available from the Head Tutor for Archaeology or downloadable from the department's Anthropology (Archaeology) website.

#### ***For Undergraduates and Graduates***

#### **Anthropology 1010. The Fundamentals of Archaeological Methods & Reasoning**

Catalog Number: 8727 Enrollment: Limited to 150.

*Jason A. Ur and Christian Alexander Tryon*

*Half course (fall term). M., W., at 10. EXAM GROUP: 5*

A comprehensive introduction to the practice of archaeology and major themes from our human past: how do archaeologists know where to dig? How do we analyze and understand what we find? What do we know about the origins of the human species, agriculture, cities, and civilization? The course integrates methods and theory, and utilizes Peabody Museum collections, to show how we reconstruct ancient diet, trade, and political systems. We also explore the role of archaeology in colonialism, modern politics, and film.

*Note:* One 2 hour section per week. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **[Anthropology 1025r. Museum Anthropology, Thinking with Objects: Kayaks: Seminar]**

Catalog Number: 48543 Enrollment: Limited to 15.

*Patricia Capone*

*Half course (spring term). Tu., 2:30–4:30.*

By considering early Peabody Museum kayak collections from Alaska, students will explore the history of anthropology and museum collecting, representation of indigenous people in museum display, and modern stewardship of museum collections. Students will take part in a conservation and exhibition consultation project between the Peabody Museum and Alaska Native consultants. Students will utilize knowledge gained from the consultations, readings, and demonstrations to contribute to synthesize and further the modern conservation and exhibition of kayaks and co-development of knowledge related to Peabody Museum collections.

*Note:* Expected to be given in 2015–16.

#### **[Anthropology 1040. Origins of the Food We Eat]**

Catalog Number: 1837



*Richard H. Meadow*

*Half course (fall term). M., W., (F.), at 11.*

Focuses on arguably the most significant lifestyle revolution in the human past, namely, the change from hunting and gathering to agriculture and pastoralism. Working from representative meal menus, covers the emergence of cultivation and domestication along with the adoption and spread of key plant foods and animals in the Eastern and Western Hemispheres and between the two. Discusses the contributions of archaeology, anthropology, climatology, botany, zoology, genetics, and linguistics to these topics.

*Note:* Expected to be given in 2015–16. Given in alternate years.

### **[Anthropology 1045. Ancient Settlement Systems: Seminar]**

Catalog Number: 8978

*Jason A. Ur*

*Half course (spring term). Th., 1–4.*

Approaches to spatial patterning in human societies, including the structure of settlements and the regional distribution of populations. The seminar will consider how variation in settlement and settlement systems can be related to factors such as environment, economy, and social and political organization. Case studies will be drawn from a range of New and Old World societies of varying scales of sociopolitical complexity.

*Note:* Expected to be given in 2015–16.

### **Anthropology 1060. Archaeological Science**

Catalog Number: 2013

*Richard H. Meadow*

*Half course (spring term). M., 7-10 pm. EXAM GROUP: 13*

Focus on physical science and engineering methods and techniques used by archaeologists in the reconstruction of time, space, and human paleoecology, and analysis of archaeological materials. Topics include 14C dating, ice core and palynological analysis, stable isotope chemistry of paleodietary 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 1062 (formerly Anthropology 2062). Religions of Latin America: Mexico, Peru, El Caribe**

Catalog Number: 60945

*Davíd L. Carrasco (Divinity School and Faculty of Arts and Sciences)*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

This semester's course will focus on Mexico and the Mexican Americas from 1517-2017 while making comparisons with both Peru and religions of the Caribbean. While Mexican based religions will thread through the entire course, students can choose to also work on religious practices, sacred sites and migration stories from either Peru or El Caribe in comparative perspective. Examines symbols, root paradigms, saints, health practices, miracles and migration by integrating archaeological, artistic, documentary, novels and ethnographic source materials. Methods from anthropology, history of religions, religion and literature will be used to study race



mixture, architecture, women's roles, transculturation, liberation theology, and plastic arts.

*Note:* Offered jointly with the Divinity School as 3705.

**[Anthropology 1065. The Ancient Near East]**

Catalog Number: 28632

*C. C. Lamberg-Karlovsky*

*Half course (fall term). Tu., Th., at 10.*

From the earliest urban and literate civilizations to the formation of empire we shall review the political, economic, and religious beliefs of the Sumerians, Babylonians, and Egyptians. These early civilizations will then be discussed in the context of the first internationalism that brought them into contact with their near and distant neighbors from eastern Europe to Central Asia, Africa, and South Asia. The political use of the past by modern nation states will be reviewed.

*Note:* Expected to be given in 2015–16.

**[Anthropology 1080. North American Archaeology: Lost Tribes and Ancient Capitals of Native America]**

Catalog Number: 5190

*Matthew Joseph Liebmann*

*Half course (spring term). Tu., Th., 11:30–1.*

Archaeology of Native North America, from the first appearance of humans on the continent to the arrival of Europeans in the 1500s. Topics to be covered include: history of the discipline; megafaunal extinctions; Archaic deep-sea fishers in the Northeast; buffalo hunters on the Northern Plains; origins of agriculture; moundbuilding cultures of the Midwest; Pueblo peoples of the Southwest; complex foragers of the Northwest coast; dynamic contact period interactions; and current political debates and ethical issues relating to the archaeology of North America.

*Note:* Expected to be given in 2015–16.

**[Anthropology 1090. Ethnography and Archaeology]**

Catalog Number: 8716

*Gary Urton*

*Half course (fall term). M., 3–5.*

Archaeologists often draw on ethnographic studies of Western and non-Western societies as sources of explanation for ancient cultural practices. But the questions remain: how valid is the use of ethnographic analogy in the study of the past? What assumptions do archaeologists make about past social processes in their uses of ethnographic studies? These are some of the questions addressed in this course.

*Note:* Expected to be given in 2015–16.

**Anthropology 1095. Urban Revolutions: Archaeology and the Investigation of Early States**

Catalog Number: 4409

*C. C. Lamberg-Karlovsky*

*Half course (fall term). Tu., Th., at 1. EXAM GROUP: 8*

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.

### **Anthropology 1130. Archaeology of Harvard Yard**

Catalog Number: 1634

*Patricia Capone and Diana Loren*

*Half course (fall term). Th., 1–4. EXAM GROUP: 8*

Archaeological data recovered from Harvard Yard provide a richer and more nuanced view of the 17th through 19th century lives of students and faculty in Harvard Yard, an area that includes the Old College and Harvard Indian College. Students will excavate in Harvard Yard, process and analyze artifacts, and report on the results. Additional topics to be covered include regional historical archaeology, research design, surveying, archival research, stratigraphy, and artifact analysis.

### **Anthropology 1131. Archaeology of Harvard Yard II: Laboratory Methods and Analysis**

Catalog Number: 0655

*Patricia Capone and Diana Loren*

*Half course (spring term). Th., 1–4. EXAM GROUP: 1*

Open to students who participated in the fall term investigations in Harvard Yard, this course focuses on the detailed analysis of the materials recovered in the excavations, within the context of archival and comparative archaeological and historical research. The analysis will also include an evaluation of the results of the ground-penetrating radar surveys conducted prior to the excavations, as part of the research design for the next season of investigations of the Indian College site.

*Prerequisite:* Anthropology 1130, Archaeology of Harvard Yard.

### **[Anthropology 1150. Ancient Landscapes]**

Catalog Number: 4736

*Jason A. Ur*

*Half course (spring term). W., 3–6.*

Archaeological approaches to settlement and land use at the regional scale. Issues will include settlement systems, agricultural and pastoral systems, the role of humans environmental change, and also the methods used to investigate them.

*Note:* Expected to be given in 2015–16.

### **Anthropology 1155. The Archaeology of Cities in Ancient Mesopotamia**

Catalog Number: 8450

*Jason A. Ur*

*Half course (spring term). M., W., at 2. EXAM GROUP: 18*

The world's first cities emerged in Mesopotamia and were the defining characteristic of ancient civilizations in what is today Iraq, Syria, and Turkey. They were inhabited by large populations, powerful kings, and the gods themselves. The course will consider the origins, ecology, spatial arrangement, socioeconomic religious organization, religious institutions, and collapse of cities



from Gilgamesh to Saddam. Through archaeology and ancient texts, students will become familiar with cities such as Uruk, Babylon, Nineveh, and Baghdad. The course will include visits to collections of the Peabody Museum and the Harvard Semitic Museum.

**[Anthropology 1158. Maya Narratives: Gods, Lords, and Courts]**

Catalog Number: 86159

*Alexandre Andreevich Tokovinine*

*Half course (fall term). M., W., at 11.*

This course explores the continuing investigation of Classic Maya texts and images, and how new decipherments have changed our understanding of the ancient Maya world. The Classic Maya are the only Pre-Columbian civilization with a substantial corpus of inscriptions produced well before any contact with the Old World. Maya written and visual narratives reveal details of history and myth, life at the courts of lords and nobles, and religion and worldview. Their testimonies are often striking, unique, and hard to understand, but they are not mediated by non-indigenous interpreters and open a window into a world long gone.

*Note:* Expected to be given in 2015–16.

**[Anthropology 1165. Digging the Glyphs: Adventures in Decipherment]**

Catalog Number: 9906

*Alexandre Andreevich Tokovinine*

*Half course (fall term). M., W., at 1.*

This course focuses on the method and theory of decipherment, but also considers epistemology and the significance and enduring relevance of ancient writing systems in the modern era. It begins with the distinction between notational, iconographic and phonetic communication—only the latter can truly be considered ‘writing’ (a linear, graphic record of speech)—and then discusses the various different types of writing systems (including logographic, logosyllabic, syllabic and alphabetic scripts). This is followed by several case studies: the great decipherments (Egyptian, the Cuneiform scripts, Linear B and Mayan); scripts whose languages have become extinct (Etruscan and Meroitic); scripts that remain entirely mysterious (the scripts of Phaistos, the Indus Valley and Easter Island); the major scripts of the Pre-Columbian New World (Zapotec, Isthmian and Aztec writing); and invented scripts from popular literature. Each provides its own unique insights into the enduring and engaging mystery of writing.

*Note:* Expected to be given in 2015–16.

**[Anthropology 1166. Amerindian Languages and Literatures]**

Catalog Number: 21112

*Alexandre Andreevich Tokovinine*

*Half course (fall term). Tu., Th., at 1.*

This course surveys the indigenous literatures (both Pre-Columbian and Colonial) of several New World civilizations (the Aztecs, Inka and Maya) from a comparative anthropological perspective. Included are brief introductions to the languages of these early documents (Nahuatl, Quechua and Mayan), as well as a discussion of their literary conventions, contents, and significance for an understanding of the cultures that produced them. A particular focus will be on the diachronic changes in these literatures since Precolumbian times, indicative of the complex and contested landscape of Spanish Colonization.

*Note:* Expected to be given in 2015–16.



### [Anthropology 1167. Colonial and Modern Ch'olan Literatures]

Catalog Number: 53933

*Alexandre Andreevich Tokovinine*

*Half course (fall term). Th., 3–6.*

This course centers on three Cho'lan languages and associated body of literary works that may be of interest to students in anthropology, linguistics, comparative literatures, and history. Even though Ch'olan languages, particularly Ch'olti' and Ch'orti', have been crucial for the continuing decipherment of ancient Maya writing, they remain understudied and underpublished. The course will be based on a series of recent publications on Ch'olti', an extinct Ch'olan language, and modern Ch'orti', its closest surviving relative. While some classes will be devoted to the grammar, vocabulary, and literary tradition of Ch'orti' as spoken today, other sections of the course will introduce the fundamentals of Colonial Ch'olti' and Chontal grammars (which are broadly similar to Ch'orti' but diverge on several important issues) and then proceed to explore Moran's manuscript, the only surviving Ch'olti' text, and the Maldonado-Paxbolon Papers, a highly important source on Chontal Maya history and literature and one of the few surviving Maya documents detailing events immediately before and after the Spanish conquest.

*Note:* Expected to be given in 2015–16.

### Anthropology 1168. Maya Glyphs

Catalog Number: 71052

*Alexandre Andreevich Tokovinine*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

Learn to read and write in Maya glyphs to discover the most spectacular civilization in the Americas in its own words! This course covers the basics of Maya writing and art using the outstanding visual and material collections of the Corpus of Maya Hieroglyphic Inscriptions and Peabody Museum of Archaeology and Ethnology. It explores the indigenous Maya myths, histories, and stories of life at the ancient courts of lords and nobles.

### [Anthropology 1170. Mesoamerican Writing Systems ]

Catalog Number: 3706

*Alexandre Andreevich Tokovinine*

*Half course (fall term). M., W., 1–2:30.*

This course explores the role of writing broadly defined in the social, political, and religious fabric of ancient civilizations of Mexico, Guatemala, Belize, and Honduras. This region known as Mesoamerica is characterized by an amazing variety of indigenous writing systems, from phonetic ones like Maya hieroglyphs, to largely pictographic notations such as Mixtec records. The course offers a survey of Mesoamerican writing systems that centers on the basic properties of the scripts and their uses. It highlights how specific features of Mesoamerican writing systems reflect broader regional traditions with respect to the role of writing in social, political, and religious life.

*Note:* Expected to be given in 2015–16.

### [Anthropology 1172. Archaeology of the Moche] - (New Course)

Catalog Number: 71803

*Luis Jaime Castillo*

*Half course (fall term). Hours to be arranged.*



The Moche or Northern Peru were among the earliest state societies in the New World. Emerging from simpler levels of economic and political complexity, the Moche developed degrees of political and territorial organization never seen before in the region; developed into a peculiar form of multiple territorial states and, by the 9th century, collapsed and transformed themselves into rather different cultural manifestations. Thus they describe, full circle, the life and times of the first attempts to consolidate political structures of great complexity. In this course we will analyze several aspects of the processes in several regions, form the economic basis of the Moche states, the ideological basis for their legitimization systems, to their collapse and transformation to the even more complex Chimu and Lambayeque phenomena.

*Note:* Expected to be given in 2015–16.

### [Anthropology 1175. The Archaeology of Ethnicity]

Catalog Number: 1022

*Gary Urton*

*Half course (fall term). Tu., Th., 1:30–3.*

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 2015–16.

### [Anthropology 1185. The Talking Dead: Archaeology of Death, Burials and Commemoration - \(New Course\)](#)

Catalog Number: 89285

*Jessica Ines Cerezo-Román*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: I*

The dead can tell us many secrets if we know how to "listen" to their stories. We will explore the social significance of death, burial and commemoration among diverse groups around the world. Using cutting edge archaeological methods and theories, we will unlock secrets of the dead and learn what they reveal about themselves and past societies. We will examine different cases to explore the creation and use of sacred landscapes, religion, ancestral veneration, funerary treatments (e.g., inhumation, cremation, and mummification), deviant burials (e.g., witches, vampires, and criminals), cannibalism, different identity intersections (e.g., gender, age and social status), memory and commemoration, and ethical and legal aspects of exhumation and reburial. We also will consider different stages of death, including the roles of different rituals, actors, and participants; the diverse purposes and places of participants within these rituals; and how these actions are likely to be materialized in the archaeological record.

### [Anthropology 1190. Encountering the Conquistadors]

Catalog Number: 9956

*Matthew Joseph Liebmann*

*Half course (spring term). Tu., Th., 11:30–1.*

This course examines the effects of the Spanish Conquest on indigenous peoples of the Americas between the fifteenth and eighteenth centuries, providing an introduction to the archaeology of first encounters in the Caribbean, Southeast and Southwest US, Central Mexico, highland and



lowland Mesoamerica, the Amazon basin, and in the Andes. Topics addressed include the roles of disease, indigenous politics, native rebellions, and ecological change in the colonization of the ‘New’ World.

*Note:* Expected to be given in 2015–16.

### **Anthropology 1202. Forensic Anthropology: CSI Harvard**

Catalog Number: 70564

*Jessica Ines Cerezo-Román*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

This course will explore the developing role of the archaeologist and anthropologist in forensic investigations (both ancient and modern). It will follow the process undertaken by forensic specialists during their investigation and look at their role in a number of contexts ranging from missing persons to crimes against humanity. It will consider the ethical responsibilities of the archaeologist/anthropologist and the presentation of their findings.

### **Anthropology 1210. The Archaeology of Ancient China**

Catalog Number: 1793

*Rowan K. Flad*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 15*

A survey of the archaeology of China from the origins of humans during the Palaeolithic into the Bronze Age (ca. 220 BCE), with an emphasis on the origins of agriculture and the emergence of complex society during the late Neolithic and Early Bronze Age. We survey important archaeological finds from these periods and examine relevant issues in anthropological archaeology. Sections will involve the discussion and use of materials from the Peabody and Sackler Museums.

### **[Anthropology 1212. The Archaeology of Modern Human Origins: Seminar]**

Catalog Number: 27876

*Christian Alexander Tryon*

*Half course (spring term). Tu., 11–1.*

One of the key areas of debate in paleoanthropology today is the emergence and dispersal of biologically and culturally modern humans. This seminar provides students with the scientific foundation to contribute to this debate and to understand its significance in a broader anthropological context. Using readings, discussion, hands on analysis of ancient artifacts and student-driven presentations, we will examine the history of investigation, relevant methodological, interpretive and epistemological issues, and a detailed survey of the empirical data from our African roots to the subsequent global dispersal and replacement of hominin populations that included the Neanderthals.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Anthropology 1010

### **[Anthropology 1230. African Archaeology]**

Catalog Number: 54188

*Christian Alexander Tryon*

*Half course (fall term). M., W., 1:30–3.*

This course focuses on ancient human populations in Africa from the earliest Stone Age foragers



more than 2.5 million years ago to more recent periods characterized by food production, urbanism, and inter-continental networks of trade and exchange, situating the African evidence into a broader understanding of the evolution of human diversity. The course uses lectures, in-class discussions, museum collections, and student projects, and in addition to archaeology, draws on a number of allied disciplines including history, ethnography, linguistics, art history, geography, geology, paleontology, and biology.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Anthropology 1010 or some archaeology background preferred.

### **Anthropology 1250. The Pyramids of Giza: Technology, Archaeology, History: Seminar**

Catalog Number: 48924

*Peter Der Manuelian*

*Half course (fall term). M., W., at 11, with occasional sections and field trips to be arranged.*

*EXAM GROUP: 18*

Focuses on the Pyramids, Sphinx, and tombs at Giza (ca. 2500 BC), in the context of ancient Egyptian history, art, and archaeology. The HU-MFA Expedition excavated Giza, resulting in today's Giza Project at Harvard. Seminar takes place in Harvard's Visualization Center with 3D viewing of the Giza Necropolis on a 23-foot screen, and consists of introductory lectures, student presentations, and field trips. Topics range from challenges of archaeological information processing to Old Kingdom mortuary art and architecture, to issues of ownership and repatriation. Students will also contribute to the (real world) Giza Project at Harvard.

*Primarily for Graduates*

### **\*Anthropology 2000. Osteoarchaeology Lab**

Catalog Number: 0363 Enrollment: Limited to 12.

*Richard H. Meadow*

*Half course (fall term). W., 2:30-5:30, and at least three hours of laboratory weekly. EXAM*

*GROUP: 7*

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. Fulfils laboratory course requirement for archaeology graduate students and archaeological science requirement for undergraduate concentrators.

### **Anthropology 2010ar. Materials in Ancient Societies:Ceramics**

Catalog Number: 7163 Enrollment: Online CMRAE Lab PRE-REGISTRATION required by week of September 8, 2014

*C. C. Lamberg-Karlovsky*

*Half course (fall term). Tu., 7:30–10:30. Course begins on M.I.T. calendar, week of Sept. 15, 2014. EXAM GROUP: 3*

This seminar-laboratory subject provides in-depth study of the technologies of ancient societies.

*Note:* Open to senior undergraduates with permission of instructor.



### **Anthropology 2010br. Materials in Ancient Societies: Ceramics**

Catalog Number: 1753

*C. C. Lamberg-Karlovsky*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 6*

This seminar-laboratory subject provides in-depth study of the technologies of ancient societies.

*Note:* Anthropology 2010ar is commonly taken before Anthropology 2010br.

### **[\*Anthropology 2020. GIS & Spatial Analysis In Archaeology]**

Catalog Number: 3729 Enrollment: Limited to 8.

*Jason A. Ur*

*Half course (spring term). Tu., Th., 1–2:30.*

An introduction to the GIS and remote sensing methods used by archaeologists to document and analyze datasets at the regional scale. This class will involve the hands-on use of maps, aerial photography, satellite imagery, digital terrain models and GPS-based observations to frame and approach archaeological research questions. Labs will use sample datasets from a variety of regions but students will be responsible for assembling a GIS database for their own region of interest.

*Note:* Expected to be given in 2015–16.

### **[\*Anthropology 2022. Picturing the Past: An Introduction to Digital Epigraphy and Archaeological Illustration]**

Catalog Number: 80064 Enrollment: Limited to 10. Open to advanced undergraduates

*Peter Der Manuelian and Alexandre Andreevich Tokovinine*

*Half course (fall term). Tu., 1–3:30.*

Explores the history, development, and current methodology behind archaeological illustration based on two sample cultures, ancient Egyptian (Old World) and Mayan (New World). Students will focus on epigraphy -- the creation of facsimile line drawings of relief sculpture, inscriptions, and selected three-dimensional objects (via photography and 3D scanning) for publication. Labs will furnish access to today's computer and tablet devices, and students will gain practical experience working directly from objects in the various archaeological collections of Harvard University and beyond. No previous artistic training is assumed.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* General background: Interest in any of the following: Anthropology, archaeology, epigraphy, graphic design, Egyptology, Mayan archaeology

### **Anthropology 2038. Bioarchaeology - (New Course)**

Catalog Number: 93911

*Jessica Ines Cerezo-Román*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

In the broadest of terms, bioarchaeology as used in the United States is the study of human skeletal remains from archaeological contexts. This includes a myriad of interconnected phenomena including mortuary contexts, paleodemography, paleopathology, and assessing human variation and adaptation. It also encompasses scientific approaches and applications of social theory, and carries weighted concerns for historical context and ethical issues. Since its inception in the 1970's bioarchaeology has evolved into a mature and diversified approach to understanding human biology and behavior in the past. This course will provide an overview of



contemporary bioarchaeological research. Students will develop a historical perspective on bioarchaeology within the larger context of American anthropology. Emphases also are placed on recent discoveries, new interpretations and theoretical approaches.

**[\*Anthropology 2070a. Archaeological Method and Theory: Seminar]**

Catalog Number: 4634

*Matthew Joseph Liebmann*

*Half course (fall term). Th., 10–1.*

The class covers archaeological method and theory emphasizing the 1950s onwards. Large-scale trends in social theory will be balanced with attention to the ideas and writings of significant anthropologists and archaeologists.

*Note:* Expected to be given in 2015–16. Required of graduate students in the Archaeology Program of Anthropology; this class is designed for graduate students but enthusiastic and energetic undergraduates are most welcome.

**[Anthropology 2070b. Case Studies and Research Proposal Preparation]**

Catalog Number: 4238

*Christian Alexander Tryon*

*Half course (spring term). Th., 10–12.*

Seminar for graduate students that will focus on grant and paper writing, and will also include selected case studies.

*Note:* Expected to be given in 2015–16. Anthropology 2070a is commonly taken before Anthropology 2070b, but is not a prerequisite. Required of students in the Archaeology Program of Anthropology; open to other graduate students and advanced undergraduates with permission of instructor.

**[Anthropology 2085. Archaeology of Ritual and Religion]**

Catalog Number: 72634

*Rowan K. Flad and Matthew Joseph Liebmann*

*Half course (spring term). W., 2–5.*

Graduate seminar exploring ritual and religious practices in archaeological contexts. Topics to be covered include anthropological perspectives on religion; origins of religion; religion and political economy; burial practices; materiality in/of ritual practice; and revitalization movements.

*Note:* Expected to be given in 2015–16.

**Anthropology 2110r. Issues in Mesoamerican Archaeology: Ritual and Power in Mesoamerica**

Catalog Number: 7276

*William L. Fash and Thomas B. F. Cummins*

*Half course (fall term). Th., 2:30–5:30. EXAM GROUP: 14*

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.



**Anthropology 2111. Changes in the Land: The Archaeology of Humans and the Earth (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 50321

*Christian Alexander Tryon and Jeffrey Quilter*

*Half course (spring term). Th., 2–5. EXAM GROUP: 11*

How have humans shaped the environment and how has the environment shaped humans throughout their (pre)history? We will explore key theories and case studies and students will further explore these questions through independent research.

*Note:* The seminar will design and develop a General Education course on these themes for undergraduates.

**Anthropology 2155. The Archaeology of Cities of Ancient Mesopotamia - (New Course)**

Catalog Number: 32369 Enrollment: Limited to 16.

*Jason A. Ur*

*Half course (spring term). M., W., at 2. EXAM GROUP: 18*

The world's first cities emerged in Mesopotamia and were the defining characteristic of ancient civilizations in what is today Iraq, Syria, and Turkey. They were inhabited by large populations, powerful kings, and the gods themselves. The course will consider the origins, ecology, spatial arrangement, socioeconomic religious organization, religious institutions, and collapse of cities from Gilgamesh to Saddam. Through archaeology and ancient texts, students will become familiar with cities such as Uruk, Babylon, Nineveh, and Baghdad. The course will include visits to collections of the Peabody Museum and the Harvard Semitic Museum.

*Note:* Students must attend all meetings of Anthropology 1155 and a weekly section.

**[Anthropology 2177. South American Archaeology]**

Catalog Number: 60232

*Gary Urton*

*Half course (fall term). Tu., 11–1.*

Provides an overview of Pre-Columbian civilizations on the continent of South America from the earliest record of human habitation 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 2015–16.

**Anthropology 2210. Archaeology and the Ancient Economy**

Catalog Number: 3586

*C. C. Lamberg-Karlovsky and Rowan K. Flad*

*Half course (spring term). M., 1–4. EXAM GROUP: 8*

Numerous theories are advanced for the structure of the ancient economy. Different perspectives on the nature of trade, the market, reciprocity-redistribution, etc. will be reviewed. An evolutionary and global perspective will be pursued from the Neolithic to the Iron Age.

*Note:* Open to undergraduates.

**[Anthropology 2212. The Archaeology of Enlightenment]**

Catalog Number: 21424 Enrollment: Open to undergraduates.



*C. C. Lamberg-Karlovsky*

*Half course (spring term). Th., 2:30–5:30.*

This seminar will review the contributions made by the major social and natural philosophers of the Enlightenment that structured the debates of the late 17th and 18th centuries involving the nature of State governance, the changing role of religion within the State, colonialist undertakings, emergent imperialism, and racism. All of the above will be examined in the context of the evolving nature of the emergent disciplines of anthropology and archaeology.

*Note:* Expected to be given in 2015–16.

**[Anthropology 2240. Archaeology of Production: Seminar]**

Catalog Number: 8589

*Rowan K. Flad*

*Half course (spring term). W., 2–5.*

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.

*Note:* Expected to be given in 2015–16.

**Anthropology 2250a. Proseminar in Archaeology**

Catalog Number: 79363

*Rowan K. Flad and Christian Alexander Tryon*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

This graduate seminar reviews critical issues in archaeological approaches to small-scale societies, including methods and interpretations relating to the study of mobility, sedentism, seasonality, plant and animal exploitation, and migration.

**[Anthropology 2250b. Proseminar in Archaeology]**

Catalog Number: 64588

*Gary Urton and C. C. Lamberg-Karlovsky*

*Half course (fall term). W., 3–5.*

This graduate seminar reviews critical issues in archaeological approaches to the study of complex societies, including writing, trade, craft specialization, technology, landscape, urbanism, and political organization.

*Note:* Expected to be given in 2015–16.

***Archaeology Cross-listed Courses***

**Ancient Near East 113. Environmental Archaeology of the Ancient Near East - (New Course)**

**Ancient Near East 117. Biblical Archaeology**

**[Ancient Near East 155r. Ancient Mesopotamia: Archaeology and Texts]**

**Ancient Near East 212 (formerly Ancient Near East 115). Archaeology of the Levant**  
**Culture and Belief 21. Pathways through the Andes—Culture, History, and Beliefs in**  
**Andean South America**

**Egyptian Aa. The Language of the Pharaohs: Introduction to Egyptian hieroglyphs I**

**Egyptian Ab. The Language of the Pharaohs: Introduction to Egyptian hieroglyphs II**



[\***Egyptian 150. Voices from the Nile: Ancient Egyptian Literature in Translation**]

\***Egyptian 300. Reading and Research in Egyptology**

**Societies of the World 30. Moctezuma's Mexico: Then and Now (2012)!**

**Societies of the World 38. Pyramid Schemes: The Archaeological History of Ancient Egypt**

[**Societies of the World 40. The Incas: The Last Great Empire of Pre-Columbian South America**]

### *Integrated courses in Archaeology and Social Anthropology*

#### *For Undergraduates and Graduates*

##### **Anthropology 1400. Quests for Wisdom: Religious, Moral and Aesthetic Experiences in the Art of Living**

Catalog Number: 53142 Enrollment: Limited to undergraduates.

*Arthur Kleinman, David L. Carrasco (Divinity School and Faculty of Arts and Sciences), and Michael J. Puett*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

New interdisciplinary curriculum centered on 5 kinds of quests for wisdom that involve moral, religious and aesthetic pursuits and that focus on practices of mentoring and caregiving. Students will engage in short lectures, interactive discussions, student led seminars, and music and film. Students' required projects include a personal story that narrates an experience in the art of living and writing assignments that focus on assisting and accompanying experiences of others.

*Note:* Limited to undergraduates.

#### *Primarily for Graduates*

#### *Social Anthropology*

#### *Primarily for Undergraduates*

##### **Anthropology 91zr. Supervised Reading and Research and Research in Social Anthropology**

Catalog Number: 3619

*Richard H. Meadow (fall term) and Ramyar Dagoberto Rossoukh (spring term)*

*Half course (fall term; repeated spring term). Spring: Tu., 3–4:30. EXAM GROUP: Fall: 2; Spring: 16*

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 to the Anthropology Undergraduate Office, Tozzer 103B, a course form signed by the adviser under whom s/he wishes to study and a proposed plan of study. Anthro 91zr form available from the Undergrad Office, or the department website.

##### **Anthropology 92zr. Social Anthropology Research Methods in Museum Collections**

Catalog Number: 4742

*Richard H. Meadow (fall term) and Ramyar Dagoberto Rossoukh (spring term)*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 7;*



*Spring: 18*

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, Tozzer 103B), signed by both supervisors, a proposed research agenda, during the term preceding the term of enrollment. Information sheets with Museum contacts available in Tozzer 103B.

**Anthropology 97z. Sophomore Tutorial in Social Anthropology**

Catalog Number: 5832

*Asad A. Ahmed*

*Half course (spring term). Tu., 11:30–1. EXAM GROUP: 15*

The course is designed as a foundational course with the specific purpose of introducing the principal social theorists whose work has been crucial to the discipline of social anthropology, that is: Marx, Durkheim, Weber, and Foucault. The first objective is to delineate the broad outlines of their thought and the central questions that informed their intellectual and political interventions. The second objective is to provide a solid grounding in the key concepts as well as the theoretical and methodological contributions of these social theorists. Finally, we will seek to demonstrate how contemporary anthropological theory continues to engage with their work.

*Note:* Required of all concentrators. Weekly 2-hour sections to be arranged.

**Anthropology 98za (formerly Anthropology 98z). Junior Tutorial in Social Anthropology**

Catalog Number: 4503

*Richard H. Meadow*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 18*

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.

**Anthropology 98zb. Junior Tutorial for thesis writers in Social Anthropology**

Catalog Number: 35711

*Ramyar Dagoberto Rossoukh*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 8*

This individual tutorial is for social anthropology students intending to write a senior thesis, and is normally undertaken with an advanced graduate student during the second term of junior year. Students will have weekly meetings with the project advisor for the purposes of developing the appropriate background research on theoretical, thematic, regional, and methodological literature relevant to their thesis topic, and fully refining their summer research proposal. The tutorial's final paper will be comprised of a research proposal representing the research undertaken during the semester.

*Note:* Strongly recommended for any social anthropology junior intending to write a senior thesis. Taken in addition to the required fall term group junior tutorial, Anthropology 98za (formerly 98z).



### **Anthropology 99z. Thesis Tutorial in Social Anthropology - Senior Year**

Catalog Number: 0787

*Richard H. Meadow (fall term) and Ramyar Dagoberto Rossoukh (spring term)*

*Full course. Spring: Tu., W., 6:30–8 p.m. EXAM GROUP: Fall: 8; Spring: 6*

This is a full year research and writing seminar limited to senior honors candidates. The course is intended to provide students with practical guidance and advice during the thesis writing process through structured assignments and peer feedback on work-in-progress. It is intended to supplement not replace faculty thesis advising (with the requirement of consulting regularly with the advisor built into the assignments) and, most importantly, allow students to share their work and experiences with other thesis writers in a collegial and supportive environment. The seminar will be run jointly by the Department of Anthropology Assistant Director of Undergraduate Studies and the Writing Tutor.

#### ***For Undergraduates and Graduates***

### **Anthropology 1600. Grounding the Global: Anthropological Approaches**

Catalog Number: 8296

*Michael Herzfeld (fall term) and Steven C. Caton (spring term)*

*Half course (fall term; repeated spring term). Fall: M., W., at 10; Spring: M., W., at 2. EXAM GROUP: Fall: 5; Spring: 18*

What is the value of anthropology for understanding today's world? This course illustrates the importance of an anthropological perspective for engaging with a wide range of pressing global issues such as border regimes, climate change, human rights, and health epidemics. Over the semester, students will grapple with what it means to "ground the global" through an emphasis on everyday experience, cultural particularity, subject formation, and collective action.

*Note:* Freshmen welcome. This course is now specifically required of all Social Anthropology students, beginning with those who entered the concentration in 2013-14.

### **Anthropology 1606. Being Asian American: Representations and Realities - (New Course)**

Catalog Number: 58559 Enrollment: Limited to 30.

*Christine Yano*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course tackles the broad, unwieldy category "Asian American" as a historically contingent, politically derived conglomeration of ethno-racial groups. Examining "Asian American" as a racialized umbrella that encompasses groups differing by national origin, culture, social class, and immigrant history, this course asks: - what kinds of stereotypes does Asian American encompass?- how do immigrant histories shape contemporary experiences?- how does the category "Asian American" shape lives? Embracing both critical and celebratory aspects of Asian American experiences, the course addresses relevant issues of race/ethnicity (including mixed-race), diaspora, cosmopolitanism, citizenship, class, gender, body, sexuality, and affect.

### **\*Anthropology 1610. Ethnographic Research Methods**

Catalog Number: 2622 Enrollment: Limited to 20.

*Laurence A. Ralph*

*Half course (fall term). M., 1–3. EXAM GROUP: 1*

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:* Open to undergraduates only. Preference given to anthropology concentrators.

#### **[\*Anthropology 1619. Cinema and Desire: Studio course]**

Catalog Number: 88079 Enrollment: Limited to 10. Admission through interview with instructors

*Lucien G. Castaing-Taylor and Haden R. Guest*

*Half course (spring term). Tu., 12–4.*

Students produce audio-visual works that explore the body, desire, and sexuality, and their significance in human existence.

*Note:* Expected to be given in 2015–16. Offered in Visual and Environmental Studies as 161n.

#### **Anthropology 1636. Latin American Cities: urban images, landscapes, and citizens - (New Course)**

Catalog Number: 29174 Enrollment: Limited to 20.

*Federico Perez*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

This course examines urbanization and urban culture in Latin America. Drawing on an interdisciplinary set of works from anthropology, urban studies, and contemporary film, we will explore themes such as planning, space, violence, inequality, informality, citizenship, and consumption, among others. The course studies Latin American cities as developing at the intersection of projects that seek to impose order and everyday practices of contestation. In looking at the tensions between these visions of urban life, we will consider what Latin America reveals about the future of contemporary urbanism and its utopian and dystopian imaginaries.

*Note:* Course will include film screenings.

#### **Anthropology 1640. Language and Culture**

Catalog Number: 5844

*Nicholas H. Harkness*

*Half course (fall term). Tu., Th., at 11, with a section to be arranged. EXAM GROUP: 15*

This is a course in linguistic anthropology. We explore key theoretical issues in the semiotic anthropology of language use, focusing on communication, social (inter)action, representation, cultural conceptualization, and language ideology. By presenting many of the most influential and innovative contributions to the study of language in culture and society—both recent and classic—the course aims to guide students in asking fundamental questions about language and communication more broadly as facts of everyday sociocultural experience.

*Note:* No previous knowledge of linguistics or of anthropology is required. This course may fulfill the Entry Course requirement for Social Anthropology.

#### **[Anthropology 1648. Latin@s Remaking America: Immigration, Culture and Language]**

Catalog Number: 90682 Enrollment: Limited to 75.

*David L. Carrasco (Divinity School and Faculty of Arts and Sciences) and Maria Luisa Parra-Velasco*

*Half course (spring term). Tu., Th., at 11.*

An introduction to the multiple ways the Latino diaspora is challenging and contributing to the



revitalization of the cultural, religious and democratic processes in the United States. Special focus on migration histories to and from Latin America, cultural exchange and social practices in families, citizenship, the arts and religious traditions. Attention to the robust debates about immigration reform, ethnic identity, Dreamers, education, bilingualism, and American cultures as cores and borderlands.

*Note:* Expected to be given in 2015–16. Sections offered in English and Spanish, based on course enrollment. This course, when taken for a letter grade, may count as a related field in the Romance Languages and Literatures concentration (Spanish or Latin American Studies tracks) or Secondary Field in Spanish. Offered jointly in Harvard Divinity School as HDS 3164.

### **Anthropology 1650 (formerly Anthropology 159). Thinking with Collections**

Catalog Number: 4185 Enrollment: Limited to 15.

*David R. Odo*

*Half course (spring term). Tu., 3–5. EXAM GROUP: 16*

Anthropologists have to varying degrees been interested in the social nature of works of art and other material objects since the founding of the discipline, but especially in objects created outside of western societies, the traditional domain of art historians. In art history, recent years have witnessed a shift toward a more global scope of research and away from Eurocentric definitions of what constitutes art, even as anthropological interest in all forms of art and art making continues to expand. This seminar will examine broad issues in material anthropology using objects from across multiple Harvard collections, including the Harvard Art Museums, Peabody Museum of Archaeology and Ethnology, Houghton Library, the Collection of Historical Scientific Instruments, and other collecting entities. Ample consideration will be given to the making of objects, in a variety of artistic, cultural, and historical contexts. Theoretically and historically informed object-based investigations will enable seminar participants to discover new ways of using Harvard collections as an intellectual resource, critically examine exhibitionary strategies, and gain an understanding of complex collecting practices and politics, all within a comparative, cross-institution framework. Students will produce original work based on primary research conducting in Harvard collections.

### **[Anthropology 1656. History and Anthropology of Pakistan: seminar]**

Catalog Number: 16337

*Asad A. Ahmed*

*Half course (fall term). W., 1–3.*

Pakistan, it is argued, was created on the basis of religious nationalism and religion has been incorporated into governmental apparatuses and political life. This course will explore the relationship between religion and politics from the initial demands for a Muslim polity, through the post-independence debates on the role of Islam, its subsequent judicial and political incorporation and finally how these unresolved struggles continue to inform the present moment.

*Note:* Expected to be given in 2015–16.

### **Anthropology 1658. Law, Culture, and Islam - (New Course)**

Catalog Number: 84175

*Asad A. Ahmed*

*Half course (fall term). M., W., at 11-12:30, and weekly section to be arranged. EXAM GROUP: 18*



From Afghanistan, through the Middle-East and to the United States, the Shari'a has become a site of intense conflict and controversy. Regarded as backward and barbaric by some and a source of ethical and religious life by others it marks deep divides and seemingly incommensurable world views. This course examines the Shari'a, primarily understood as law through an anthropological lens in recent and contemporary life. It will attend to the conjunctures, imaginaries and practices between 'law', culture and morality initially in the Muslim world before shifting to debates on incorporating Sharia law in the West.

### **Anthropology 1682. Gangsters and Troublesome Populations**

Catalog Number: 34637

*Laurence A. Ralph*

*Half course (spring term). M., 12–2. EXAM GROUP: 7*

The term "gang" has been used to describe all kinds of collectives, from well-dressed mobsters to petty criminals to juvenile delinquents. About the only thing that has remained consistent about gangs is their characterization as the internal Other. This class will investigate how the category of "the gang" serves to provoke discourses of "dangerous" subjects in urban enclaves. More broadly, we will examine the methods and means by which liberal democratic governments maintain their sovereign integrity through the containment of threatening populations.

### **[Anthropology 1698 (formerly Anthropology 2732). Anthropology of Death and the Afterlife: Seminar]**

Catalog Number: 54824 Enrollment: Limited to 15.

*Anya Bernstein*

*Half course (spring term). Th., 3–5.*

This course explores how different cultures imagine death and the afterlife, drawing on insights from the anthropology of religion, politics, and medical anthropology. Based on readings that range from classical ethnographies of death and dying to contemporary debates on the politics of death, we will discuss cultural theories on what constitutes the moment of death and what happens after, as well as investigate the political lives of dead bodies. The topics covered include conceptualizations of the body and mind, ideas of the spirit world, witchcraft, mortuary rituals, relic veneration, royal and communist corpses, organ donation, end-of-life care, and concepts of biopolitics and bare life.

*Note:* Expected to be given in 2015–16.

### **[Anthropology 1720. Anthropology, Cultural Studies, and Film (The Frankfurt School)]**

Catalog Number: 1522 Enrollment: Limited to 25.

*Steven C. Caton*

*Half course (spring term). M., W., at 11; film screening: F., 5–9 pm.*

Focuses on feature-length commercial film (rather than ethnographic or documentary film) and some of the culture industries (Hollywood, Iran, and Egypt) that produce them, paying particular attention to the Middle East. 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, orientalism, media studies, modernity, nationalism, and transnationalism.

*Note:* Expected to be given in 2015–16.



**Anthropology 1727. Sensory Korea - (New Course)**

Catalog Number: 44967

*Nicholas H. Harkness*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

Spicy stews and softer soju, warm hearts and clean voices, fire illness and refreshing prayer: these are various sites through which Korean social life materializes. This course introduces contemporary South (and North) Korea through the cultural semiotics of the senses. Lectures and discussion will explore social class and mobility through the tastes and smells of food and drink; gender and religion through bodily experiences of illness and healing; politics and kinship through mass spectacle and feelings of human contact; and urban modernity through sound. Course materials combine history and ethnography, social and semiotic theory, and multimedia documentation.

*Prerequisite:* None. Korean language is helpful but not necessary.

**[Anthropology 1732. China Through Ethnography and Film: Seminar]**

Catalog Number: 44236

*Susan Greenhalgh*

*Half course (spring term). Th., 3–5, W., 5–8 p.m.*

The rapid rise of China on the global stage is one of the most stunning developments of our time. Since the early 1980's, when China reopened its doors to research by foreign scholars, growing numbers of anthropologists have been conducting fieldwork in the People's Republic. What have anthropologists learned about the transformations underway there? What new constructs and field strategies does the anthropology of China have to contribute to anthropology generally? In this course we seek answers in film and ethnography. Following existing emphases in the literature, we will focus on issues of transformation in governance, subjectivity, and difference in a nation under an increasingly neoliberal regime.

*Note:* Expected to be given in 2015–16.

**[Anthropology 1733. Intimate Ethnographic Film]**

Catalog Number: 17518 Enrollment: Limited to 7.

*Michael Herzfeld*

*Half course (fall term). M., 7–9 p.m.*

A small studio methodology course (capped at 7 students) to explore the use of small video cameras (camcorders) and other equipment in the course of field research. Explores relationship among visual imagery, sound recording, and the social dimensions necessary to achieving cultural intimacy, as well as the relationship between image and caption/subtitle in conveying ethnographic knowledge and historical depth. Assignments include production of a short ethnographic film and a final essay.

*Note:* Expected to be given in 2015–16.

**Anthropology 1742. Housing and Heritage: Conflicts over Urban Space**

Catalog Number: 61658

*Michael Herzfeld*

*Half course (spring term). M., W., at 9. EXAM GROUP: 10*

The celebration of national and local forms of heritage often rides roughshod over the interests of the local citizenry it is intended to serve. In this course we look at how such conflicts play out in



several cities - notably Athens, Bangkok, Beijing, Istanbul, Jerusalem and Rome - and address the ethical, practical, and architectural conflicts that arise from an anthropological perspective.

### [Anthropology 1745. Planners, Experts, and Bureaucrats: Seminar - \(New Course\)](#)

Catalog Number: 29962

*Federico Perez*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

How is state authority and control achieved? What kinds of knowledge, objects, spaces, and practices do state bureaucracies mobilize? In this course we will read recent ethnographic and historical works on state planning, expertise, and bureaucracy. The course aims to build a nuanced account of the workings of state bureaucracies and the everyday processes through which they exercise power. We will examine the wide array of agents, artifacts, and practices that are at the core of state action. Topics include bureaucratic materiality, documentary practices, planning technologies, development, environmental policies, and architecture and design, among others.

### [Anthropology 1795. The Politics of Language and Identity in Latin America](#)

Catalog Number: 7265

*Catalina Laserna*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

Introduces theory and research in linguistic anthropology in the context of ethnographic research, film and popular music, from cumbia to hip-hop in Latin America. Examines how the multiplicity and contention of language ideologies play out in the everyday practices. What are the social, linguistic and discursive means by which social identity is constructed? How do ways of speaking, such as border talk and code switching, link face to face communities to the national and transnational spheres? Texts include regional ethnographies, music and documentaries from the region as well as the literature in the burgeoning new field of linguistic anthropology.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief.

### [Anthropology 1804. Tasting Food: Politics, Science and the Senses - \(New Course\)](#)

Catalog Number: 42183 Enrollment: Limited to 15.

*Nicolas Igor Sternsdorff cisterna*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

This course interrogates the processes that underlie the act of eating and tasting food. We approach this question from the anthropology of science, the anthropology of the senses and political economy. We explore the ways we use our senses to taste food, and the intersection between sensual experiences and language. How do our senses interact with each other to constitute the taste experience and how do we verbalize it? How do individual sensorial experiences become part of broader social phenomena? A second strand of analysis will consider the relationship between food and systems of knowledge: how do we distinguish between safe and unsafe food and what is the difference between natural and industrial? The third strand of analysis will consider the question of how taste is formulated before it arrives to our plates. What are the conditions of production and circulation of food, and the connection between place and taste. We will read a variety of case studies with an emphasis on East Asia.



### [\*\*Anthropology 1812. Cities of the Global South: Seminar - \(New Course\)\*\*](#)

Catalog Number: 74114

*Federico Perez*

*Half course (spring term). W., 12–2 with film screenings to be arranged. EXAM GROUP: 7*

What do the sprawling cities of the global South tell us about the contemporary urban condition? How is urban space produced and experienced in an era of increased interconnectedness, but also of great inequality and instability? How does the view from the South change our understanding of urban forms and processes, especially when so much of the “South” seems to be located in the “North”? To address these questions we will explore urban lives and spaces across cities in Africa, Asia, Latin America, and the Middle East. The course will include works in anthropology, geography, urban studies, and documentary film.

### [Anthropology 1815. Empire, Nation, Diaspora: Asians in the U.S.]

Catalog Number: 60047

*Ajantha Subramanian*

*Half course (fall term). Hours to be arranged.*

The U.S. is commonly described as a multicultural society and Asian Americans as "model minorities" with strong group identities. But when did multiculturalism become a defining characteristic of American society? What is its relationship to race and class? Why did migrants from Asia come here and how has their reception changed over time? When do they call themselves "Asians" and when do they privilege other self-representations? We will explore these questions through history, anthropology, literature, and film.

*Note:* Expected to be given in 2015–16.

### [Anthropology 1820. Japan in the Ethnographic Gaze: Seminar]

Catalog Number: 1267 Enrollment: Limited to 12.

*Theodore C. Bestor*

*Half course (spring term). W., 1–3.*

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, from different theoretical interests such as culture-and-personality, modernization, and tradition, structuralist, post-structuralist, and cultural studies.

*Note:* Expected to be given in 2015–16. No prerequisites; open to all concentrators, esp. in Anthropology, East Asian Studies, and Music.

### [\*\*\\*Anthropology 1832cr \(formerly Anthropology 1836r\). Sensory Ethnography III: Studio Course\*\*](#)

Catalog Number: 23312 Enrollment: Limited to 10. Interview required.

*Lucien G. Castaing-Taylor*

*Half course (fall term). M., W., (F.), 2–4. EXAM GROUP: 7*

Third in a three-term sequence in which students apply media anthropological theory and conduct ethnography using film, video, sound, and/or still photography.

*Note:* Offered in Visual and Environmental Studies as 158cr.

### [\*\*\\*Anthropology 1836ar \(formerly \\*Anthropology 1836aar\). Sensory Ethnography I:: Studio course\*\*](#)



Catalog Number: 7583 Enrollment: Limited to 10.

*Lucien G. Castaing-Taylor*

*Half course (spring term). M., W., 2–4; Tu., 6–8 p.m. EXAM GROUP: 18*

First half of a year-long sequence in which students apply media anthropological theory and conduct ethnography using film, video, sound, and/or still photography.

*Note:* Students must also attend all VES 158ar classes. Emphasis is on pre-production and production in the spring, and on post-production in the fall. Interview with instructor and teaching assistant required for admission.

**[\*Anthropology 1836br (formerly \*Anthropology 1836bbr). Sensory Ethnography II: Studio Course]**

Catalog Number: 6213 Enrollment: Limited to 10.

*Lucien G. Castaing-Taylor*

*Half course (fall term). M., W., 1–4.*

Second half of a year-long sequence (including 1836aar, spring 2013) in which students apply media anthropological theory and conduct ethnography using film, video, sound, still photography, and/or hypermedia. Emphasis is on pre-production and production in the spring, and on post-production in the fall.

*Note:* Expected to be given in 2015–16. Interview with instructor and teaching assistant required for admission.

**Anthropology 1850. Ethnography as Practice and Genre**

Catalog Number: 1686

*Mary M. Steedly*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

For sociocultural anthropologists, ethnography is both a way of studying human communities and a way of writing about them. Ethnographic fieldwork raises issues of participation, power, and perspective; cultural relativism; the nature of evidence; and the ethics of engagement.

Writing ethnography highlights other issues, such as the politics of representing “others.” This course explores these and related issues through close reading and intensive discussion of selected texts.

**[Anthropology 1876. Society, Culture, and Modernity in Greece]**

Catalog Number: 80078

*Michael Herzfeld*

*Half course (spring term). M., W., at 10.*

This course explores the socio-cultural dynamics of modern Greece through ethnographies, films, and media representations. Special attention will be paid to Greek notions of tradition, history, and heritage; resistance, anarchy, and social banditry; the impact of urbanization; and the ongoing economic crisis in relation to concepts of interpersonal and international debt.

*Note:* Expected to be given in 2015–16.

**[Anthropology 1882. The Woman and the Body]**

Catalog Number: 15985

*Susan Greenhalgh*

*Half course (spring term). Tu., Th., 11:30–1.*



This course probes the culture and politics of the body in America today, stressing America's role as a center of bodily ideals that now dominate global imaginations. Emphasizing the intersections of gender with race/ethnicity, class, and sexuality, the course examines the diverse notions of beauty, bodily practices, and body politics embraced by American women (and, to a lesser extent, men) of different classes, ethnicities, and sexualities. It deals with critical issues facing our society in the early 21st century -- the growing prevalence of eating disorders, the normalization of cosmetic surgery, rising levels of childhood and adult obesity using contemporary theory to tease out their complex sources and effects. Lying at the intersection of the anthropology of the body, medical anthropology, and women's/gender studies, the course outlines an important new arena for critical inquiry.

*Note:* Expected to be given in 2015–16.

**[\*Anthropology 1923. Japan's 2011 Disasters and Their Aftermath: A workshop on digital research]**

Catalog Number: 34485 Enrollment: Limited to 15.

*Theodore C. Bestor and Andrew Gordon*

*Half course (fall term). W., 2–5.*

This course explores the historical and ethnographic contexts of Japan's compound disasters of March 2011. As people sought to survive and make sense of the disasters, social media as well as photos, videos and websites played critical roles. We examine the role of these records, using a participatory digital archive developed at Harvard. Student teams will develop research questions, collect digital material, and create multimedia narratives. Students will complement their research with study of responses to similar global events as well as critical reflection on digital scholarship and the emerging practice of "crisis archiving."

*Note:* Expected to be given in 2015–16. This course is also offered in the History Department as History 1923.

**[Anthropology 1935. Secularism in Question: Seminar]**

Catalog Number: 52752

*Asad A. Ahmed*

*Half course (fall term). Tu., 1–3.*

Secularism, once understood as a normative political arrangement that promoted social peace and multiple religiousities, has recently been critiqued for circumscribing or denying people's abilities to live according to their religious understandings. However, such arguments have also stimulated strident responses that re-instantiate secular values and the enlightenment critique of religion as divisive and irrational. This course will examine recent controversies in France, India, the US and Turkey that have put secularism into question.

*Note:* Expected to be given in 2015–16.

**[Anthropology 1936. Anthropology of Religion]**

Catalog Number: 79416

*Anya Bernstein*

*Half course (fall term). W., 3–5.*

What happened to religion in the modern world? We start off by exploring traditional anthropological themes, such as animism, magic, and ritual, while paying particular attention to the classic secularization thesis advanced by social scientists. We will then focus on the crucial



contemporary issues, such as debates on secularism, political theologies, globalization and commodification of religion, body and sexuality, and the emergence of "new age" spirituality. This course is not a survey of specific religions, but a theoretical introduction to the main themes in the anthropological study of religion.

*Note:* Expected to be given in 2015–16.

### [Anthropology 1975. Culture and Social Relations]

Catalog Number: 22928

*Nicholas H. Harkness*

*Half course (spring term). Tu., 1–3.*

What is a social relation? This course addresses this question by combining foundational readings in social theory with contemporary ethnographies in socio-cultural anthropology. We explore the cultural dimensions of social relations through different themes, such as politics, economics, religion, ethnicity, kinship, and language.

*Note:* Expected to be given in 2015–16.

### Anthropology 1988. Kinship, Citizenship, and Belonging: Seminar - (New Course)

Catalog Number: 17287

*George Paul Meiu*

*Half course (fall term). W., 1–3. EXAM GROUP: I*

The domains of family life, kinship, and intimacy represent central sites for the construction and contestation of social and political belonging. This course introduces students to classic and contemporary theories of society, kinship, and citizenship by way of theorizing how economic production, sovereignty, and everyday life emerge through the regulation of relatedness.

Anthropologists of the late nineteenth century and of the first half of the twentieth century turned kinship into a key domain for understanding social cohesion and political organization. In the past three decades -- following feminist, Marxist, and queer critiques -- anthropologists explored how discourses about kinship and the family anchored the ideologies and practices of modernity, colonialism, nationalism, and globalization. In this course, we ask: What can various forms of kinship teach us about the politics of social reproduction and the making of citizenship -- its modes of belonging and exclusion -- in the contemporary world?

### [Anthropology 1995. Food, Culture, and Society]

Catalog Number: 3940

*Theodore C. Bestor*

*Half course (spring term). M., W., (F.), at 12, and a weekly section to be arranged.*

Food is an entirely mundane but simultaneously elaborate aspect of human life, both pragmatic necessity and symbolic statement. This course examines how cultural systems of meaning and belief interact with social institutions and material reality. Lectures, films, discussions, fieldtrips, and ethnographic research assignments focus on the myriad ways in which food shapes (and reflects) identity (national, ethnic, religious, gendered, class-based), and how in turn how social institutions (from domestic units to the global food system) shape and transform food and its meanings, drawing on examples from many parts of the globe, both historically and contemporaneously.

*Note:* Expected to be given in 2015–16.



### **Anthropology 1996. Angels, Ghosts, and Hustlers: Bangkok Live**

Catalog Number: 97643

*Michael Herzfeld*

*Half course (spring term). M., W., at 11. EXAM GROUP: 14*

This ethnographic exploration of a huge Asian metropolis emphasizes the changing role of markets and temples; the impact of tourism and new transportation systems; religious doctrine and popular worship; and urban political dynamics.

***Primarily for Graduates***

### **[Anthropology 2614. Sexuality and Political Economy] - (New Course)**

Catalog Number: 59567

*George Paul Meiu*

*Half course (spring term). Hours to be arranged.*

This course provides students with a basic conceptual language for understanding the complex relations between sexuality, capitalism, power, and the cultural politics of globalization.

Throughout the past four decades, sexuality became an important topic of interdisciplinary debate that resulted in a vast and complex array of studies and perspectives. After Michel Foucault's *The History of Sexuality*, the role of modern forms of power that work to discipline subjects and regulate populations has become central to how scholars conceptualize sexuality. By comparison, however, the relation between sexuality and the capitalist economy remains relatively undertheorized. How do the processes by which subjects produce, commodify, and consume goods shape desires, affects, and sexual subjectivities? What are the relations between commodities, discourses of sexuality, and the erotic practices of concrete historical actors? And what do we learn about globalization when we think of sexuality as a central domain of economic production, social reproduction, and political belonging?

*Note:* Expected to be given in 2015–16.

### **[Anthropology 2615. Meaning and Practice]**

Catalog Number: 59343

*Nicholas H. Harkness*

*Half course (spring term). Th., 1–3.*

What is meaningful social behavior? This course explores theories of practice (and praxis) through the semiotic pragmatics of social action.

*Note:* Expected to be given in 2015–16.

### **[Anthropology 2618. The Body in the Age of Obesity]**

Catalog Number: 53474 Enrollment: Limited to 15.

*Susan Greenhalgh*

*Half course (fall term). W., 10–12.*

This course takes a critical, anthropological look at the nation's cultural and political obsession with the "obesity epidemic." Placing the growing girth of Americans in historical and global context, it asks how the weighty body replaced smoking as the focus of the latest national "crisis," how the problem of "obesity" has been framed, what solutions have been put in place to address it, and with what effects for individuals and society at large. The course draws on work in many fields — from public health and the anthropologies of science and medicine; to



American and fat studies; to political ecology, food systems, and food justice studies — in an effort to stimulate interdisciplinary conversations about what today's intense focus on obese bodies means for us as human scientists and as citizens of the world.

*Note:* Expected to be given in 2015–16.

### **\*Anthropology 2626. Research Design/Proposal Writing**

Catalog Number: 9193 Enrollment: Limited to 12.

*Jean Comaroff and John Comaroff*

*Half course (fall term). W., 12–2. EXAM GROUP: 11*

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:* By permission only. Limited to doctoral candidates, with preference given to second and third year students in Anthropology and African and African American Studies.

### **Anthropology 2628. Ethnographic Methods for Anthropological Research**

Catalog Number: 32957

*Byron J. Good (Medical School) and Alasdair Simon Donald (Medical School)*

*Half course (spring term). Tu., 12–3. EXAM GROUP: 9*

This course will review methods used by contemporary anthropologists conducting ethnographic research. Special focus of the course will be on ethnographic interviewing. Will also consider such topics as use of visual material, mixed methods linking qualitative, quantitative and ethnographic material, and approaches to data analysis. Course will include observational and interviewing exercises.

### **\*Anthropology 2635. Image/Media/Publics: Seminar**

Catalog Number: 9515 Enrollment: Limited to 15.

*Mary M. Steedly*

*Half course (spring term). M., 12–2. EXAM GROUP: 7*

Explores the relations among technologies of image production and circulation, the nature and intensity of the circulating image, and the generation of publics and counter-publics. Questions of scale, mediation, publicity, and mobilization will be considered.

*Note:* Open to advanced undergraduates with permission of instructor.

### **\*Anthropology 2650a. History and Theory of Social Anthropology: Proseminar**

Catalog Number: 1752

*Mary M. Steedly*

*Half course (fall term). Th., 10–1. EXAM GROUP: 12*

A critical review of the major theoretical approaches in social anthropology.

*Note:* In conjunction with Anthropology 2840 in 2009-10, required of candidates for the PhD in Social Anthropology. Limited to, and aimed at, doctoral candidates. Not open to undergraduates.

### **\*Anthropology 2650b. History and Theory of Social Anthropology: Proseminar**

Catalog Number: 7971

*Ajantha Subramanian*



*Half course (spring term). Th., 10–1. EXAM GROUP: 12*

Continuation of Anthropology 2650a.

*Note:* Required of candidates for the PhD in Social Anthropology. Not open to undergraduates.

### **Anthropology 2660. The Anthropology of Knowledge: Seminar**

Catalog Number: 7070

*Michael Herzfeld*

*Half course (fall term). M., 1–3. EXAM GROUP: 1*

Comparative exploration of local epistemologies from craft apprentices and skilled manual workers to schoolchildren, journalists and scientists, emphasizing the embodiment, inculcation, and transmission of practical knowledge and the relationships among cosmology, social context, and pragmatic understanding.

### **Anthropology 2662. Anthropology of Consumer Cultures - (New Course)**

Catalog Number: 63723

*Christine Yano*

*Half course (spring term). W., 10–12. EXAM GROUP: 5*

In the twenty-first century, consumer cultures tie local and global worlds together in complex, shifting, and interactive ways. This course explores issues of class, gender/sexuality, modernity, identity, nation, globalism, and desire, asking:- what are the mutual influences of culture and the marketplace?- what are the conditions and practices of consumption that shape meaning in contemporary life? - how has a marketplace template shaped mental mappings of our social worlds? In the contemporary world, to buy is to become, as well as to engage in practices and politics of modernity. This course explores the dynamics of consumption embedded within our lives.

### **[Anthropology 2674. Legal Anthropology and Modern Governance]**

Catalog Number: 82966

*Asad A. Ahmed*

*Half course (spring term). W., 4–6.*

This course is split into two parts. The first part introduces classic themes and texts in legal anthropology and the second part examines debates on the expansion of law as a means of modern governance.

*Note:* Expected to be given in 2015–16.

### **Anthropology 2675. Religion, Nation, and Government in Modern South Asia**

Catalog Number: 2639

*Asad A. Ahmed*

*Half course (spring term). Th., 12–2. EXAM GROUP: 9*

This course attempts to understand the recent successes of religio-political movements in South Asia. This involves both a theoretical interrogation and genealogy of religion, nationalism, and secularism as well as attention to their historical elaboration.

*Note:* Open to undergraduate students with permission of instructor.

### **[Anthropology 2676. Muslims, Islam and Anthropology]**

Catalog Number: 84531



*Asad A. Ahmed*

*Half course (spring term). M., 11–1.*

This is a survey course to the anthropology of Islam. We first critically examine seminal texts by Evans-Pritchard, Ernst Gellner and Clifford Geertz before turning to Talal Asad's analysis of anthropological categories, and attempt to situate the study of Islam as a discursive tradition. In the second half we focus on recent ethnographic materials that explore Muslim engagements with, and responses to, various features of modernity such as the state, democracy, gender equality as well as the management and securitization of Muslims in the West.

*Note:* Expected to be given in 2015–16.

**[\*Anthropology 2682. Anthropology of Urbanism: Japan in Comparative Perspective]**

Catalog Number: 95848

*Theodore C. Bestor*

*Half course (spring term). M., W., F., at 1 and section to be arranged.*

This course examines patterns of Japanese urbanism -- social, cultural, historical, and built-environmental -- through interdisciplinary discussion. It is open to graduate students in any department or programs. Students are required to attend lectures of SW 33 Tokyo; students in Anthro 2682 will participate in specialized discussion sections and will frame term projects tailored to their future research plans in close consultation with the professor. The seminar is equally open to graduate students with strong interests in urban anthropology, in urban design and planning, and in Japanese/Asian Studies in history, the social sciences, and the humanities.

*Note:* Expected to be given in 2015–16. Students must also attend all lectures of Societies of the World 33 "Tokyo" MW(F) 1 pm.

**Anthropology 2688. The Frankfurt School, Film, and Popular Culture**

Catalog Number: 1182 Enrollment: Limited to 15.

*Steven C. Caton*

*Half course (spring term). Tu., 5–7 p.m. EXAM GROUP: 6*

Focus in the Frankfurt School and such concepts as the culture industry, critical theory and research, art and mass media reproduction, negative dialectic, public sphere, and other of its contributions to social and aesthetic theory.

**Anthropology 2695. Design Anthropology: Objects, Landscapes, Cities**

Catalog Number: 39129 Enrollment: Limited to 16.

*Gareth Gerard Doherty (Design School)*

*Half course (spring term). F., 9–12. EXAM GROUP: 10*

This course will examine the intersections between design and anthropology. In recent years, there has been a movement in anthropology toward a focus on objects, while design, which has traditionally been concerned with objects, has been moving toward the understanding of objects as part of a greater milieu. This course explores the common ethnographic ground. No background in anthropology or design required.

*Note:* Offered jointly with the Graduate School of Design as GSD 3336.

**Anthropology 2704. Linguistic Pragmatics and Cultural Analysis in Anthropology**

Catalog Number: 4411

*Nicholas H. Harkness*



*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

Exploring classic theory and recent innovations in linguistic anthropology and the semiotic anthropology of communication, we connect the social life of language to its role in culture.

*Note:* Limited to graduate students, who will also be expected to attend all Anthropology 1640 lectures.

*Prerequisite:* Limited to graduate students, who will also be expected to attend all Anthropology 1640 lectures.

### [Anthropology 2706. Disease, Disability, and the Body]

Catalog Number: 87741

*Laurence A. Ralph*

*Half course (fall term). M., 1–3.*

This course will theorize the ways in which disability and disease become linked to inequality. We will explore the social factors that produce forms of suffering, as well as kinds of violence that people experience when social difference is mapped onto the materiality of their bodies.

*Note:* Expected to be given in 2015–16.

### [Anthropology 2712. Ethnographies of Food]

Catalog Number: 31444

*Theodore C. Bestor*

*Half course (fall term). W., 1–3.*

We will discuss the "food turn" in anthropology through reading contemporary (and classic) ethnographies of food in contexts of production, distribution, social exchange, gender, and science. Note: Undergraduates encouraged to participate.

*Note:* Expected to be given in 2015–16.

### **\*Anthropology 2722. Sonic Ethnography**

Catalog Number: 68581 Enrollment: Limited to 12.

*Ernst Karel*

*Half course (fall term). F., 1–4. EXAM GROUP: 1*

This is a practice-based course in which students record, edit, and produce anthropologically informed audio works which interpret culture and lived experience. Listening sessions will provide a broad context of contemporary work using location recordings, and readings will situate the practice within the growing field of sound studies. In their projects, students will experiment with technical and conceptual strategies of recording and composition as they engage with questions of ethnographic representation through the sensory dimension of sound.

*Note:* Course will also include additional weekly two-hour listening session, and occasional required technique/technology workshops, to be scheduled.

*Prerequisite:* Experience in media production helpful but not required.

### **Anthropology 2725. Anthropology and History**

Catalog Number: 48056 Enrollment: Limited to 20.

*Ajantha Subramanian and Vincent Brown*

*Half course (spring term). Tu., 10–12. EXAM GROUP: 12*

Explores exchanges between the disciplines of History and Anthropology, emphasizing overlaps and distinctions in the treatment of mutual concerns such as the representation of time and space,



the conceptualization of power, and the making of the subject.

*Note:* This course is also offered through the History Department as History 2725. Credit may be earned for either Anthropology 2725 or History 2725, but not both.

### [Anthropology 2740. Culture, Mental Illness, and the Body]

Catalog Number: 6013

*Byron J. Good (Medical School)*

*Half course (spring term). Tu., 1–3.*

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 2015–16.

### [Anthropology 2745. Psychological Approaches to the Anthropology of Subjectivity]

Catalog Number: 77819

*Byron J. Good (Medical School) and Alasdair Simon Donald (Medical School)*

*Half course (spring term). Tu., 1–3.*

This course will trace the history of psychological theories in anthropological studies of subjectivity and their influence on ethnographic writing. Although more general topics in the history of psychological anthropology will be considered, the course will give particular focus to the relevance of diverse psychoanalytic theories and clinical writing for anthropology. The course will include recent writings on topics such as violence, post-colonialism, and affect, and the place of contemporary theorists within and influenced by psychoanalysis for an anthropology of the subject and subjectivity. Theoretical, methodological and interviewing issues, as well as approaches to writing, will be considered.

*Note:* Expected to be given in 2015–16.

### [Anthropology 2750. Local Biologies: Perspectives on the Interaction Between Culture and Biology]

Catalog Number: 8267

*Arthur Kleinman*

*Half course (spring term). Th., 1–3.*

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 2015–16. Open to advanced undergraduates with permission of instructor.

### [Anthropology 2785. Theories of Subjectivity in Current Anthropology]

Catalog Number: 1995

*Byron J. Good (Medical School)*

*Half course (spring term). Tu., 1–3.*

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.

*Note:* Expected to be given in 2015–16.

**[Anthropology 2795. Medical Anthropology: Theoretical Trajectories, Emergent Realities]**

Catalog Number: 55818

*Byron J. Good (Medical School) and Mary-Jo Del Vecchio Good (Medical School)*

*Half course (spring term). Tu., 1–3.*

Provides a critical reading of the history of medical anthropology to the present. Focuses on theoretical perspectives and debates, as well as methodologies and positioning of actors in the field.

*Note:* Expected to be given in 2015–16.

**[Anthropology 2805. Biopolitics]**

Catalog Number: 89606 Enrollment: Limited to 15.

*Susan Greenhalgh*

*Half course (spring term). W., 10–12.*

The modern era has seen the rise of a new field of knowledge and power that takes as its object human life itself, in the biological sense. This course traces the emergence of an anthropology of biopolitics, teasing out the concepts, problems, and ethnographic practices by which this domain is being studied. Through explorations of biological and therapeutic citizenship, new practices of biosociality and biosecurity, and the creation of world-quality populations and persons, the course identifies new assemblages of technologies, logics, and ethics that are emerging in different spaces in an increasingly globalized world.

*Note:* Expected to be given in 2015–16. Students will be required to attend selected lectures of the undergraduate course The Woman and the Body.

**[Anthropology 2812. Space and Power]**

Catalog Number: 29833 Enrollment: Limited to 12.

*Ajantha Subramanian*

*Half course (fall term). Tu., 10–12.*

This course considers space as a structuring principle of social life and as a product of political activity. It treats space as a dynamic force animating human existence rather than as its static backdrop.

*Note:* Expected to be given in 2015–16.

**[Anthropology 2816. Law for Anthropologists, Anthropology for Lawyers]**

Catalog Number: 89528 Enrollment: Restricted to graduate students

*Sally F. Moore*

*Half course (fall term). Th., 1–3.*

Theoretical and practical ideas, old and new, about law in society. Looking at the academic literature and at ethnographic description. The uses of the legal in fieldwork. Interpreting the place, shape, claims and efficacy of law in particular social and cultural contexts.

*Note:* Expected to be given in 2015–16.

**[Anthropology 2817r. Law as a Dimension of Fieldwork: Instances and Interpretations]**

Catalog Number: 12667



*Sally F. Moore*

*Half course (spring term). Th., 1–3.*

This course is intended for advanced graduate students in the Anthropology Department and in the Law School who will be doing fieldwork projects for their dissertations. The emphasis will be on a wide variety of field situations and their analysis. Legal matters are shown to be a useful entry point for the study of the larger society, and can often serve as a way of identifying the major social processes that are under way at the time of observation. The writings of various social theorists will also be touched on to ask how pertinent their concepts are to the analysis of actually observed events.

*Note:* Expected to be given in 2015–16.

**[\*Anthropology 2830. Creative Ethnography]**

Catalog Number: 98073

*Mary M. Steedly*

*Half course (fall term). Tu., 1–3.*

A writing-intensive seminar in which students explore various genres and styles of ethnographic representation by sharing work in progress. A range of supplemental readings provide descriptive models and theoretical orientations.

*Note:* Expected to be given in 2015–16.

**[Anthropology 2840. Ethnography and Personhood]**

Catalog Number: 3560

*Michael Herzfeld*

*Half course (spring term). M., 1–3.*

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 2015–16. Given in alternate years.

**[\*Anthropology 2850r. Practicum in Foreign-Language Ethnography]**

Catalog Number: 9856

*Michael Herzfeld*

*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:* Expected to be given in 2015–16. Offered when demand and availability permit. Primarily for doctoral students.

**Anthropology 2855. Deep China: The Moral Life of the Person: What Anthropology and Psychiatry Tell Us About China today**

Catalog Number: 1679

*Arthur Kleinman*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

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?

*Note:* Open to undergraduates.

**\*Anthropology 2856. Biography, the Novel, Psychotherapy and Ethnography: Deep Ways of Knowing Persons in the Moral Context**

Catalog Number: 8459

*Arthur Kleinman*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

Compares deep ways of knowing the person in his/her cultural, political, economic and, most especially, moral context. Reads strong examples from each field to learn about individual and collective experience under uncertainty and danger.

*Note:* Open to graduate students and advanced undergraduates.

**[Anthropology 2862. Anthropology of Biomedicine]**

Catalog Number: 10624

*Arthur Kleinman*

*Half course (spring term). Th., 2–4.*

Examines the culture, history, institutional arrangements, social relationships, technology, training, political economy and local worlds of contemporary biomedicine. Readings are from medical anthropology, anthropology of science, history of medicine, and sociology and political science.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* For graduate students and advanced undergraduates

**[Anthropology 2876. New Ethnographies in the Anthropology of Social Experience and Moral Life]**

Catalog Number: 5029

*Arthur Kleinman*

*Half course (spring term). Th., 2–4.*

New ethnographies of social experience, moral life, and subjectivity are remaking theory and scholarship. Students in this course will critically examine studies of illness, violence, and cultural responses to other forms of human problems as well as to other human conditions. Our emphasis is on the methodology and style of writing experience-oriented ethnographies. We also examine studies of change in subjectivity and moral experience in times of social transformation, and the contribution they make to social theory, scholarship, and policy.

*Note:* Expected to be given in 2015–16. Open to advanced undergraduates.

**[Anthropology 2925. Legality, Security, Emergency] - (New Course)**

Catalog Number: 41673

*Asad A. Ahmed*

*Half course (spring term). Hours to be arranged.*

Legal protections against executive power have been central to the theorization and practice of liberalism but developments in the extension, intensification and modalities of power have led to the erosion and limitation of rights. In particular, the emergence of diverse forms of securitization and emergency have led not just to conceding freedom for security but the deployment of law to further these aims. Beginning in Weimar Germany with the reflection of



theorists as diverse as Weber, Schmitt, Kelsen and Benjamin we shift to contemporary legal and ethnographic accounts with a focus on the US, Latin America and the Muslim world.

*Note:* Expected to be given in 2015–16.

### **Anthropology 2932. Anthropology of Governance - (New Course)**

Catalog Number: 45335 Enrollment: Limited to 15.

*Susan Greenhalgh*

*Half course (spring term). M., 10–12. EXAM GROUP: 5*

This course examines the nature of governance in the contemporary era of corporate ascendancy, widespread violence, shifting responsibilities for social welfare, and pervasive feelings of insecurity. It asks what configurations of actors - states, corporations, citizens, NGOs, transnational bodies, para-states - are trying to manage social life in different domains, devoting particular attention to the role of scientists and scientific logics in informing debate and practice. Drawing on recent ethnographies, we investigate key technologies of governance (statistics, audit, documents, policy) in the administration of such fields as health/disease, environment, urban planning, public health, and security. The course is designed to help students currently developing PhD projects incorporate an interest in governance through science into their dissertation projects.

### ***Social Anthropology Cross-listed Courses***

#### **African and African American Studies 97. Sophomore Tutorial**

[African and African American Studies 102x. Urban Problems and the Role of the Expert]

#### **African and African American Studies 108x. Exploring Race and Community in the Digital World**

#### **African and African American Studies 119x. Chocolate, Culture, and the Politics of Food**

#### **African and African American Studies 178. Health, Society, and Subjectivity in the American Context**

[African and African American Studies 189x. Medicine, Culture, and Society]

[African and African American Studies 190x. The Anthropology of Law: Perspectives from Africa and Elsewhere]

#### **African and African American Studies 209a. Africa Rising? New African Economies/Cultures and Their Global Implications**

#### **African and African American Studies 209b. Africa Rising? New African Economies/Cultures and Their Global Implications**

[Culture and Belief 58. Case Studies in the Medical Humanities: Interdisciplinary Perspectives on the Experience of Illness and Healing]

#### **History 2725. History and Anthropology: Seminar**

#### **History of Science 136. History of Biotechnology**

#### **History of Science 164. Sense and Scientific Sensibility**

#### **Societies of the World 25. Case Studies in Global Health: Biosocial Perspectives**

#### **Societies of the World 30. Moctezuma's Mexico: Then and Now (2012)!**

[Societies of the World 33. Tokyo]

[Societies of the World 46. The Anthropology of Arabia]

#### **Societies of the World 51 (formerly Anthropology 1655). Politics of Nature**

#### **South Asian Studies 196. Capitalism and Cosmology in Modern India**



**\*Visual and Environmental Studies 351hf (formerly \*Visual and Environmental Studies 350hf). Film Study Center Non Fiction Filmmaking Workshop**  
**\*Visual and Environmental Studies 355r. Critical Media Practice - (New Course)**

### *Graduate Courses of Reading and Research*

#### **\*Anthropology 3000. Reading Course**

Catalog Number: 3454

*Asad A. Ahmed 5567, Ofer Bar-Yosef 1887, Anya Bernstein 7259 (on leave spring term), Theodore C. Bestor 2292 (on leave 2014-15), Davíd L. Carrasco (Divinity School and Faculty of Arts and Sciences) 4213, Lucien G. Castaing-Taylor 4584, Steven C. Caton 2307 (on leave fall term), Jean Comaroff 6484 (on leave spring term), John Comaroff 6485 (on leave spring term), William L. Fash 1512 (on leave spring term), Rowan K. Flad 5059, Byron J. Good (Medical School) 7648, Mary-Jo Del Vecchio Good (Medical School) 7721, Susan Greenhalgh 3297 (on leave fall term), Nicholas H. Harkness 6918, Michael Herzfeld 3122, Arthur Kleinman 7473, C. C. Lamberg-Karlovsky 2387, Matthew Joseph Liebmann 6555 (on leave fall term), Peter Der Manuelian 4279, Richard H. Meadow 1572, George Paul Meiu 7708, Sally F. Moore 7225, Federico Perez 7647, Jeffrey Quilter 5383, Laurence A. Ralph 1676, Mary M. Steedly 2783, Ajantha Subramanian 4618, Christian Alexander Tryon 7367, Jason A. Ur 5307, Gary Urton 4469 (on leave 2014-15), and James L. Watson 2172*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

Special reading in selected topics under the direction of members of the Department.

*Note:* Consult the appropriate member of the Department.

#### **\*Anthropology 3001. Reading for General Examination**

Catalog Number: 5689

#### *Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

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 3100. Old World Archaeology (Europe, Asia, and Africa)**

Catalog Number: 3463

*Ofer Bar-Yosef 1887, C. C. Lamberg-Karlovsky 2387, and Richard H. Meadow 1572*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

#### **\*Anthropology 3111. Asiatic Archaeology and Ethnography**

Catalog Number: 5398

*Rowan K. Flad 5059 and C. C. Lamberg-Karlovsky 2387*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

#### **\*Anthropology 3120. Scientific Archaeology**

Catalog Number: 0284

*Richard H. Meadow 1572*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*



**\*Anthropology 3130. Archaeology and Ethnography of the Near and Middle East**

Catalog Number: 3787

*Ofer Bar-Yosef 1887 and C. C. Lamberg-Karlovsky 2387*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Anthropology 3140. Methods and Theory in Archaeology**

Catalog Number: 5440

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Anthropology 3150. Law and Theory**

Catalog Number: 41344

*Sally F. Moore 7225*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Anthropology 3200. Dissertation Writing Workshop in Social Anthropology**

Catalog Number: 36774

*Mary M. Steedly 2783 (fall term only) and Ajantha Subramanian 4618 (spring term only)*

*Half course (fall term; repeated spring term). Fall: W., 12–2; Spring:TBA. EXAM GROUP: 4*

**\*Anthropology 3214. Thailand and Ethnography - (New Course)**

Catalog Number: 73394

*Michael Herzfeld 3122*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Anthropology 3300. Supervised Field Work in Anthropology**

Catalog Number: 5683

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

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 3400. Reading and Research**

Catalog Number: 6699

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

*Note:* Consult the appropriate member of the Department.

**\*Anthropology 3500. Direction of Doctoral Dissertations**

Catalog Number: 1864

*Members of the Department*



*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*  
*Note: Consult the appropriate member of the Department.*

**\*Anthropology 3502. Thesis Writing Workshop (China dissertations)**

Catalog Number: 7300

*James L. Watson 2172 and members of the Department*

*Half course (spring term). . EXAM GROUP: 8*

## Applied Computation

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

#### *Faculty of the School of Engineering and Applied Sciences Offering Instruction in Applied Computation*

Ryan Prescott Adams, Assistant Professor of Computer Science

Katia Bertoldi, John L. Loeb Associate Professor of the Natural Sciences

Michael P. Brenner, Glover Professor of Applied Mathematics and Applied Physics and Professor of Physics, Harvard College Professor,

David M. Brooks, Haley Family Professor of Computer Science

Cristopher R. Cecka, Lecturer on Computational Science

Yiling Chen, John L. Loeb Associate Professor of the Natural Sciences

Stephen N. Chong, Associate Professor of Computer Science

Krzysztof Z. Gajos, Associate Professor of Computer Science

Steven J. Gortler, Robert I. Goldman Professor of Computer Science

Efthimios Kaxiras, John Hasbrouck Van Vleck Professor of Pure and Applied Physics

Verena S. Kaynig-fittkau, Lecturer on Computational Science

Edward W. Kohler, Associate Professor of Computer Science, Microsoft Professor of Computer Science

Zhiming Kuang, Gordon McKay Professor of Atmospheric and Environmental Science

H. T. Kung, William H. Gates Professor of Computer Science and Electrical Engineering

Harry R. Lewis, Interim Dean of the School of Engineering and Applied Sciences, and Gordon McKay Professor of Computer Science

L. Mahadevan, Lola England de Valpine Professor of Applied Mathematics, of Organismic and Evolutionary Biology, and of Physics (*on leave 2014-15*)

Michael D. Mitzenmacher, Thomas J. Watson, Sr. Professor of Computer Science

John G. Morrisett, Allen B. Cutting Professor of Computer Science

Cherry Murray, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, and Professor of Physics (*on leave spring term*)



Radhika Nagpal, Fred Kavli Professor of Computer Science  
 David C. Parkes, George F. Colony Professor of Computer Science, Harvard College Professor, Area Dean for Computer Science  
 Hanspeter Pfister, An Wang Professor of Computer Science (*on leave 2014-15*)  
 Pavlos Protopapas, Lecturer on Computational Science  
 Margo I. Seltzer, Herchel Smith Professor of Computer Science  
 Sadasivan Shankar, Margaret and Will Hearst Visiting Lecturer in Computational Science and Engineering  
 Stuart M. Shieber, James O. Welch, Jr. and Virginia B. Welch Professor of Computer Science  
 Michael D. Smith, Edgerley Family Dean of the Faculty of Arts and Sciences, and John H. Finley, Jr. Professor of Engineering and Applied Sciences  
 Sauro Succi, Visiting Professor in Computational Science  
 Vahid Tarokh, Perkins Professor of Applied Mathematics and Vinton Hayes Senior Research Fellow of Electrical Engineering, Area Dean for Electrical Engineering  
 Eli Tziperman, Pamela and Vasco McCoy, Jr. Professor of Oceanography and Applied Physics  
 Salil P. Vadhan, Vicky Joseph Professor of Computer Science and Applied Mathematics  
 Leslie G. Valiant, T. Jefferson Coolidge Professor of Computer Science and Applied Mathematics  
 James H. Waldo, Gordon McKay Professor of the Practice of Computer Science  
 Gu-Yeon Wei, Gordon McKay Professor of Electrical Engineering and Computer Science (*on leave 2014-15*)  
 Daniel S. Weinstock, Lecturer in Computational Science  
 Woodward Yang, Gordon McKay Professor of Electrical Engineering and Computer Science

The School of Engineering and Applied Sciences ([www.seas.harvard.edu](http://www.seas.harvard.edu)) offers undergraduate and graduate courses in Applied Computation, Applied Mathematics, Applied Physics, Computer Science, and Engineering Sciences. Engineering and Applied Sciences faculty also offer several courses in the section entitled Freshman Seminars, Extra-Departmental Courses, and House Seminars.

### ***Primarily for Graduates***

#### **Applied Computation 209. Data Science**

Catalog Number: 46831

*Rafael A. Irizarry (Public Health) and Verena S. Kaynig-Fittkau*

*Half course (fall term). Tu., Th., 2:30–4, and a weekly section. EXAM GROUP: 14*

Learning from data in order to gain useful predictions and insights. This course introduces methods for five key facets of an investigation: data wrangling, cleaning, and sampling to get a suitable data set; data management to be able to access big data quickly and reliably; exploratory data analysis to generate hypotheses and intuition; prediction based on statistical methods such as regression and classification; and communication of results through visualization, stories, and interpretable summaries. Built around three modules: prediction and elections, recommendation and business analytics, and sampling and social network analysis.

*Note:* Only one of CS 109, AC 209, or Stat 121 can be taken for credit. Only admitted graduate students can take AC 209, in which case we expect significant differences in readings, assignments, and projects.



*Prerequisite:* Programming knowledge at the level of CS 50 or above, and statistics knowledge at the level of Stat 100 or above (Stat 110 recommended).

**[Applied Computation 263. Data and Computation on the Internet]**

Catalog Number: 83688

*Instructor to be determined*

*Half course (fall term). M., W., 4–5:30.*

This course explores the Internet as a central component of modern scientific data processing and computation. We will examine the architecture of the Internet and the models of computation and data with which it is compatible. Through readings and exercises, students will explore the trade-offs of these various models and gain an appreciation for successful Internet-oriented system design for modern, federated, data- and compute-intensive scientific research. Students will complete a team project to develop an Internet-based system for scientific data processing. Python will be used for examples.

*Prerequisite:* A course in object-oriented programming (e.g. Computer Science 51) and familiarity with the Unix operating system or variants.

**[Applied Computation 272 (formerly Applied Mathematics 272r). Kinetic Methods for Fluids: Theory and Applications]**

Catalog Number: 27235

*Instructor to be determined*

*Half course (spring term). W., 3–5, M., 7–9 p.m.*

Systematic introduction to kinetic methods for studying fluids, based on the lattice Boltzmann equation. Emphasizes theory, including discrete dynamics and symmetry, as well as hands-on programming of basic algorithms for fluid flow simulations, paying attention to understanding of the theoretical basis and connection to real fluid physics. The course lays the foundation for further research on the method extensions, particularly in complex fluids and micro/nano-fluidics and presents specific applications in various science and engineering problems.

*Prerequisite:* Knowledge of basic classical physics, fluid dynamics, and numerical methods are desirable.

**Applied Computation 274 (formerly Applied Mathematics 274). Computational Modeling of Fluids and Soft Matter**

Catalog Number: 70261

*Sauro Succi*

*Half course (fall term). Tu., Th., 2:30–4:30. EXAM GROUP: 14*

The course will describe major computational techniques for fluid flows, as described by the Navier-Stokes equations of continuum mechanics. In addition, the course will cover a new class of mesoscale techniques for complex flows and soft matter systems, which do not fit within the continuum Navier-Stokes description. The latter encompass a broad class of flowing materials of special interest to micro-nano engineering and biology.

*Note:* Applied Computation 274 is also offered as Applied Physics 274. Students may not take both for credit.

*Prerequisite:* Basic notions of numerical analysis and scientific computing.



### [Applied Computation 275 \(formerly Applied Mathematics 275\). Computational Design of Materials](#)

Catalog Number: 18739

*Sadasivan Shankar*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

This course will provide the background and an extensive set of examples showing how computational methods are applied to modern design of materials with desired functionality. The methods will span multiple length and time scales, including molecular dynamics simulations, first-principles approaches, stochastic methods for optimization and sampling, and continuum elasticity theory. Examples will include problems in electronic and photonic devices, materials for energy conversion, storage, and environmental protection, and those related to mechanical strength of materials.

*Note:* Applied Computation 275 is also offered as Applied Physics 275. Students may not take both for credit.

*Prerequisite:* Undergraduate coursework in quantum mechanics, solid state physics, thermodynamics and statistical mechanics is recommended. Knowledge of physical chemistry and solid mechanics is required.

### [Applied Computation 297r. Computational Science and Engineering Capstone Project - \(New Course\)](#)

Catalog Number: 45671

*Pavlos Protopapas and Christopher R. Cecka*

*Half course (spring term). W., 9–11. EXAM GROUP: 10*

The CSE capstone project is intended to integrate and apply the skills and ideas CSE students acquire in their core courses and electives. By requiring students to complete a substantial and challenging collaborative project, the capstone course will prepare students for the professional world and ensure that they are trained to conduct research. There will be no homework or lectures. Students will be dealing with real-world problems, messy data sets, and the chance to work on an end-to-end solution to a problem using computational methods.

### [Applied Computation 298r. Interdisciplinary Seminar in Computational Science & Engineering](#)

Catalog Number: 46142

*Daniel S. Weinstock*

*Half course (fall term). F., 12–3. EXAM GROUP: 11*

This course, centered on the Institute for Applied Computation Science (IACS) seminar series, will provide broad exposure to cutting-edge topics, applications, and unifying concepts in Computational Science & Engineering. Students will read, present and discuss journal articles related to IACS talks, attend the seminars and meet with visiting speakers. Possible topics to be covered include scientific visualization, computational approaches to disease, mathematical neuroscience, computational archeology, and computational finance.

### [Applied Computation 299r. Special Topics in Applied Computation](#)

Catalog Number: 93975

*Pavlos Protopapas*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 7;*



*Spring: 18*

Supervision of experimental or theoretical research on acceptable applied computation problems and supervision of reading on topics not covered by regular courses of instruction.

*Note:* Open to graduate students and AB/SM candidates only. 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 Student Affairs Office, Pierce Hall 110.

***Graduate Courses of Reading and Research***

**\*Applied Computation 301,302. Special Topics in Computational Science and Engineering**

*- (New Course)*

Catalog Number: 60195,52109

Daniel S. Weinstock 7246

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6

## Applied Mathematics

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

***Faculty of the School of Engineering and Applied Sciences Offering Instruction in Applied Mathematics***

Ariel Amir, Assistant Professor of Applied Mathematics and Applied Physics

Michael P. Brenner, Glover Professor of Applied Mathematics and Applied Physics and Professor of Physics, Harvard College Professor,

Yiling Chen, John L. Loeb Associate Professor of the Natural Sciences

Thomas Fai, Lecturer on Applied Mathematics

Verena S. Kaynig-fittkau, Lecturer on Computational Science

Zhiming Kuang, Gordon McKay Professor of Atmospheric and Environmental Science

Margo S. Levine, Lecturer on Applied Mathematics

L. Mahadevan, Lola England de Valpine Professor of Applied Mathematics, of Organismic and Evolutionary Biology, and of Physics (*on leave 2014-15*)

Elisabetta Matsumoto, Lecturer on Applied Mathematics

Cherry Murray, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, and Professor of Physics (*on leave spring term*)

Pavlos Protopapas, Lecturer on Computational Science

Sharad Ramanathan, Professor of Molecular and Cellular Biology and Gordon McKay Professor



of Applied Physics (*on leave 2014-15*)

James R. Rice, Mallinckrodt Professor of Engineering Sciences and Geophysics (*on leave spring term*)

Christopher Rycroft, Assistant Professor of Applied Math

Mauricio Santillana, Lecturer on Applied Mathematics

Avi M. Shapiro, Preceptor in Applied Mathematics

Yaron Singer, Assistant Professor of Computer Science

Vahid Tarokh, Perkins Professor of Applied Mathematics and Vinton Hayes Senior Research

Fellow of Electrical Engineering, Area Dean for Electrical Engineering

Eli Tziperman, Pamela and Vasco McCoy, Jr. Professor of Oceanography and Applied Physics

Nitin Upadhyaya, Lecturer on Applied Mathematics

Salil P. Vadhan, Vicky Joseph Professor of Computer Science and Applied Mathematics

Leslie G. Valiant, T. Jefferson Coolidge Professor of Computer Science and Applied Mathematics

The School of Engineering and Applied Sciences ([www.seas.harvard.edu](http://www.seas.harvard.edu)) offers undergraduate and graduate courses in Applied Computation, Applied Mathematics, Applied Physics, Computer Science, and Engineering Sciences. Engineering and Applied Sciences faculty also offer several courses in the section entitled Freshman Seminars, Extra-Departmental Courses, and House Seminars.

For information concerning the concentration in Applied Mathematics, please consult the Director of Undergraduate Studies or the Office of Student Affairs, School 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

*Margo S. Levine*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 3*

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.

Applications in electrical and mechanical engineering.

*Note:* May not be taken for credit by students who have passed Mathematics 21a. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Mathematics 1b or equivalent.

#### **Applied Mathematics 21b. Mathematical Methods in the Sciences**

Catalog Number: 5074

*Todd Zickler*



*Half course (spring term). M., W., F., at 11. EXAM GROUP: 3*

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.

Applications in electrical and mechanical engineering.

*Note:* May not be taken for credit by students who have passed Mathematics 21b. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Applied Mathematics 21a or equivalent.

### **Applied Mathematics 50. Introduction to Applied Mathematics**

Catalog Number: 9344

*Christopher Rycroft and Avi M. Shapiro*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

Introduction to the problems and issues of applied mathematics. This will be accomplished both through the reading of papers that use mathematical arguments to have substantial impact on some field of human activity, as well as guest lecturers from around Harvard to discuss how mathematics is used in their field.

### **\*Applied Mathematics 91r. Supervised Reading and Research**

Catalog Number: 7607

*Michael P. Brenner and Margo S. Levine*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 14; Spring: 11*

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 recommend 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

*Michael P. Brenner and Margo S. Levine*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 13*

Provides an opportunity for students to engage in preparatory research and the writing of a senior thesis. Graded on a SAT/UNS basis as recommended 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 101. Statistical Inference for Scientists and Engineers**

Catalog Number: 3350

*Vahid Tarokh*

*Half course (fall term). M., W., 11–12:30. EXAM GROUP: 18*

Introductory statistical methods for students in the applied sciences and engineering. Random variables and probability distributions; the concept of random sampling, including random samples, statistics, and sampling distributions; the Central Limit Theorem and its role in statistical inference; parameter estimation, including point estimation and maximum likelihood methods; confidence intervals; hypothesis testing; simple linear regression; and multiple linear regression. Introduction to more advanced techniques as time permits.

*Note:* May not be taken in addition to Engineering Sciences 101. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Math 21a or Applied Math 21a or equivalent.

#### **Applied Mathematics 104. Series Expansions and Complex Analysis**

Catalog Number: 7732

*Nitin Upadhyaya*

*Half course (fall term). M., W., F., at 1. EXAM GROUP: 1*

Introduces fundamental concepts for solving real-world problems and emphasizes their applications through examples from the physical and social sciences. Topics: series expansions and their convergence; complex functions, mappings, differentiation, integration, residues, Taylor and McLaurin expansions; wave (Fourier) and wavelet expansions and transformations, and their uses in signal and image analysis and solving differential equations.

*Prerequisite:* Applied Mathematics 21a and 21b, or Mathematics 21a and 21b.

#### **Applied Mathematics 105. Ordinary and Partial Differential Equations**

Catalog Number: 6316

*Michael Brenner and Sabetta Matsumoto*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

Ordinary differential equations: power series solutions; special functions; eigenfunction expansions. Review of vector calculus. Elementary partial differential equations: separation of variables and series solutions; diffusion, wave and Laplace equations. Brief introduction to nonlinear dynamical systems and to numerical methods.

*Prerequisite:* Applied Mathematics 21a and 21b, or Mathematics 21a and 21b.

#### **Applied Mathematics 106. Applied Algebra**

Catalog Number: 3871

*Vahid Tarokh*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*



Introduction to abstract algebra and its applications. Sets, subsets, and partitions; mappings, operations, and equivalence relations; groups, rings, and fields, polynomials, encryption, computer coding, application of modular arithmetic, combinatorial designs, lattices, application of trellis representation of lattices, fast algorithms.

*Prerequisite:* Applied Mathematics 21a and 21b, or Mathematics 21a and 21b.

### **Applied Mathematics 107. Graph Theory and Combinatorics**

Catalog Number: 6411

*Leslie G. Valiant*

*Half course (spring term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

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

*Thomas Fai*

*Half course (spring term). Tu., Th., 1-2:30. EXAM GROUP: 1*

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. The purpose of the course is to introduce methods that are useful in applications and research and to give the students hands-on experience with these methods.

*Note:* Applied Mathematics 111 is also offered as Engineering Sciences 111. Students may not take both for credit. Undergraduate Engineering Students should enroll in Engineering Sciences 111.

*Prerequisite:* Applied Mathematics 21a and 21b, or Mathematics 21a and 21b, or permission of instructor.

### **Applied Mathematics 115. Mathematical Modeling**

Catalog Number: 1768

*Zhiming Kuang (fall term) and Ariel Amir (spring term)*

*Half course (fall term; repeated spring term). Fall: M., W., 11-12:30; Spring: M., W., 1-2:30.*

*EXAM GROUP: Fall: 18; Spring: 8*

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 approaches a number of problems without the prejudice of trying to apply a particular method of solution. Topics drawn from biology, economics, engineering, physical and social sciences.

*Note:* Applied Mathematics 115 is also offered as Engineering Sciences 115. Students may not take both for credit. Undergraduate Engineering Students should enroll in Engineering Sciences 115.

*Prerequisite:* Mathematics at least at the level of Applied Mathematics 21a, b but preferably at the level of Applied Mathematics 105 (formerly Applied Mathematics 105b). 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

*Avi M. Shapiro*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

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.

*Prerequisite:* Applied Mathematics 21b, or Mathematics 21b, or equivalent.

### **Applied Mathematics 121. Introduction to Optimization: Models and Methods**

Catalog Number: 3187 Enrollment: Limited to 60.

*Yiling Chen and David C. Parkes*

*Half course (fall term). M., W., 10–11:30. EXAM GROUP: 5*

Introduction to basic mathematical ideas and computational methods for solving deterministic and stochastic optimization problems. Topics covered: linear programming, integer programming, branch-and-bound, branch-and-cut, Markov chains, Markov decision processes. Emphasis on modeling. Examples from business, society, engineering, sports, e-commerce. Exercises in AMPL, complemented by Maple or Matlab.

*Note:* Applied Mathematics 121 is also offered as Engineering Sciences 121. Students may not take both for credit. Undergraduate Engineering Students should enroll in Engineering Sciences 121.

*Prerequisite:* Applied Mathematics 21b or Mathematics 21b (linear algebra) and some knowledge of probability and statistics at the level of Statistics 110 or Applied Mathematics 101 or permission of instructor.

### **Applied Mathematics 126. Statistics and Inference in Biology**

Catalog Number: 89788

*Michael Manish Desai and Erel Levine*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

We often deal with incomplete information when going about our lives: recognizing a friend's face covered by a shadow, having a phone conversation where the reception is poor, reading a document with lots of spelling and grammatical errors. In such circumstances, we make good guesses to process and understand the data. How do we do this? What kind of mathematical framework do we need to interpret noisy and incomplete data? This course will develop a set of statistical tools that will help us solve such poorly posed problems. We will draw on examples from primary literature in biology to study optical illusions, text recognition, sequence alignment, decoding cryptographs, processing of chemo-attractive signals to find food, and survival strategies of bacteria in unpredictable environments to motivate the underlying mathematical framework.

*Prerequisite:* Mathematics 19a/b or Mathematics 21a/b.

### **[Applied Mathematics 140r. Computational Geometry]**

Catalog Number: 30645



*Instructor to be determined*

*Half course (fall term). Section 1: M., W., F., 1–3; Section 2: M., W., F., 2–4.*

An inquiry based and hands on exploration in computational geometry. Topics include: projective geometry (duality between points/lines, symmetry among spheric/planar/hyperbolic geometry), linear algebra (vectors, matrices, symmetry groups) and recursion. We will draw pretty pictures (fractals, tessellations, algebraic curves, etc.). We will write computer programs in Mathematica (and possibly Java, if time permits).

*Note:* Grading based on final project, in-class assignments, in-class participation. No written exams, no written homework outside class. You will present your finished programs and pretty pictures to the class.

*Prerequisite:* Applied Mathematics 21a/b or Mathematics 21a/b. You know how to multiply matrices and vectors. No previous programming experience required.

**Applied Mathematics 141r. Mathematical Modeling of Cancer**

Catalog Number: 46959

*Franziska Michor (Public Health)*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

The mathematical investigation of cancer began in the 1950s, when Nordling, Armitage and Doll, and Fisher set out to explain the age-dependent incidence curves of human cancers. These seminal studies led to the idea that several probabilistic events are required for the somatic evolution of cancer. In the early 1970s, Knudson used a statistical analysis of the incidence of retinoblastoma in children to explain the role of tumor suppressor genes in sporadic and inherited cancers. This work was later extended to a two-stage stochastic model for the process of cancer initiation and progression, which inspired much subsequent work. Later on, considerable effort was devoted to the development of specific mathematical models for drug resistance, angiogenesis, immune responses against tumors, and genetic instabilities. This course will introduce the seminal mathematical models of cancer and will discuss both deterministic and probabilistic approaches. The course is focused on methodology; some limited theory will be covered. Computational techniques are now a standard research tool in mathematical modeling and as a result, there will also be discussion of computation. Students are expected to be familiar with a programming language such as Fortran, Matlab, C, C++, or equivalent.

*Prerequisite:* Applied Math 101, Statistics 110 or permission of instructor.

**Applied Mathematics 147. Nonlinear Dynamical Systems**

Catalog Number: 7708

*Avi M. Shapiro*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

An introduction to nonlinear dynamical phenomena, covering the behavior of systems described by ordinary differential equations. Topics include: stability; bifurcations; chaos; routes to chaos and universality; approximations by maps; strange attractors; fractals. Techniques for analyzing nonlinear systems are introduced with applications to physical, chemical, and biological systems such as forced oscillators, chaotic reactions, and population dynamics.

*Prerequisite:* Mathematics 21a and 21b, or Applied Mathematics 21a and 21b.

***Cross-listed Courses***



**[Earth and Planetary Sciences 100. The Missing Matlab Course: An Introduction to Programming and Data Analysis]**

**MCB 111. Mathematics in Biology**

**MCB 131. Computational Neuroscience**

**[MCB 198. Advanced Mathematical Techniques for Modern Biology ]**

*Primarily for Graduates*

**Applied Mathematics 201. Physical Mathematics I**

Catalog Number: 3241

*Mauricio Santillana and Avi M. Shapiro*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

Introduction to methods for developing accurate approximate solutions for problems in the sciences that cannot be solved exactly, and integration with numerical methods and solutions.

Topics include: approximate solution of integrals, algebraic equations, nonlinear ordinary differential equations and their stochastic counterparts, and partial differential equations.

Introduction to "sophisticated" uses of MATLAB.

*Prerequisite:* Applied Mathematics 104 (formerly Applied Mathematics 105a), Applied Mathematics 105 (formerly Applied Mathematics 105b) or equivalent.

**Applied Mathematics 202. Physical Mathematics II**

Catalog Number: 6559

*Eli Tziperman*

*Half course (spring term). M., W., F., at 10. EXAM GROUP: 5*

Theory and techniques for finding exact and approximate analytical solutions of partial differential equations: eigenfunction expansions, Green functions, variational calculus, transform techniques, perturbation methods, characteristics, integral equations, selected nonlinear PDEs including pattern formation and solitons, introduction to numerical methods.

*Note:* Applied Mathematics 201 and Applied Mathematics 202 are independent of each other and may be taken at any order.

*Prerequisite:* Applied Mathematics 105 or equivalent. Also useful: Applied Mathematics 104 or equivalent.

**Applied Mathematics 203. Introduction to Disordered Systems and Stochastic Processes - (New Course)**

Catalog Number: 33713

*Ariel Amir*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

The course will familiarize the students with various applications of probability theory, stochastic modeling and random processes, using examples from various disciplines, including physics, biology and economics.

*Prerequisite:* Calculus and linear algebra, basic knowledge of probability theory. Knowledge of MATLAB will be helpful.

**Applied Mathematics 205. Advanced Scientific Computing: Numerical Methods**

Catalog Number: 1370



*Christopher Rycroft*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

An examination of the mathematical foundations of a range of well-established numerical algorithms, exploring their use through practical examples drawn from a range of scientific and engineering disciplines. Emphasizes theory and numerical analysis to elucidate the concepts that underpin each algorithm. There will be a significant programming component. Students will be expected to implement in Matlab a range of numerical methods through individual and group-based project work to get hands-on experience with modern scientific computing.

*Prerequisite:* Familiarity with linear algebra and calculus; basic programming knowledge at the Computer Science 50 level.

### **Applied Mathematics 206. Advanced Applied Algebra**

Catalog Number: 6018

*Vahid Tarokh*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*

Sets, subsets, and partitions; mappings, operations, and equivalence relations; groups, rings, and fields, polynomials, encryption, computer coding, application of modular arithmetic, combinatorial designs, lattices, application of trellis representation of lattices, fast algorithms; selected readings.

*Note:* Meets with Applied Mathematics 106. Students enrolled in Applied Mathematics 206 will be assigned additional readings.

### **Applied Mathematics 207. Advanced Scientific Computing: Stochastic Optimization Methods**

Catalog Number: 78757

*Verena S. Kaynig-fittkau and Pavlos Protopapas*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Develops skills for computational research with focus on stochastic approaches, emphasizing implementation and examples. Stochastic methods make it feasible to tackle very diverse problems when the solution space is too large to explore systematically, or when microscopic rules are known, but not the macroscopic behavior of a complex system. Methods will be illustrated with examples from a wide variety of fields, ranging from simulating the immune system to strategies for investing in financial markets.

*Prerequisite:* Basic knowledge of a computer programming language (such as C or/and Python).

### **[\*Applied Mathematics 215. Fundamentals of Biological Signal Processing]**

Catalog Number: 23661 Enrollment: Limited to 20.

*Instructor to be determined*

*Half course (spring term). Tu., Th., 10–11:30.*

The course will introduce Bayesian analysis, maximum entropy principles, hidden markov models and pattern theory. These concepts will be used to understand information processing in biology. The relevant biological background will be covered in depth.

*Prerequisite:* A strong background in Calculus, Linear Algebra, Fourier Analysis, complex analysis at the advanced undergraduate level and an introductory knowledge of probability theory is required. Knowledge of Statistical Mechanics and comfort with programming will be useful.



### [Applied Mathematics 221. Advanced Optimization]

Catalog Number: 84323

*To be determined*

*Half course (spring term). M., W., 10–11:30.*

This is a graduate level course on optimization which provides a foundation for applications such as statistical machine learning, signal processing, finance, and approximation algorithms. The course will cover fundamental concepts in optimization theory, modeling, and algorithmic techniques for solving large-scale optimization problems. Topics include elements of convex analysis, linear programming, Lagrangian duality, optimality conditions, and discrete and combinatorial optimization. Exercises and the class project will involve developing and implementing optimization algorithms.

*Note:* Offered jointly with the Business School as 4460.

*Prerequisite:* Applied Mathematics 21b or Mathematics 21b (linear algebra) and Applied Mathematics 121 or equivalent or permission of instructor. Comfort with programming.

### [Applied Mathematics 222. Stochastic Modeling ]

Catalog Number: 78317

*Nikos Trichakis*

*Half course (spring term). Tu., Th., 4:15–5:45.*

The course covers the modeling, analysis, and control of stochastic systems. Topics include a review of probability fundamentals, Markov chains, Markov decision processes and dynamic programming, Poisson processes, queuing theory, and optimization under uncertainty.

Applications will be presented in production planning, inventory management, service systems, and sports. The goal of the course is to introduce archetypical problems in each area as well as foundational theoretical results. Coming out of this course, students should be well-positioned to take further graduate courses on any of the areas covered.

*Note:* Expected to be given in 2015–16. Offered jointly with the Business School as 4465.

*Prerequisite:* Applied Mathematics 121.

### Applied Mathematics 299r. Special Topics in Applied Mathematics

Catalog Number: 5798

*Michael P. Brenner*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 18; Spring: 14*

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 School of Engineering and Applied Sciences. 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 Student Affairs Office, Pierce Hall 110.

### ***Cross-listed Courses***

### **[Applied Computation 272 (formerly Applied Mathematics 272r). Kinetic Methods for Fluids: Theory and Applications]**



**Applied Computation 274 (formerly Applied Mathematics 274). Computational Modeling of Fluids and Soft Matter**

**Applied Computation 275 (formerly Applied Mathematics 275). Computational Design of Materials**

\*Computer Science 365. SEAS Teaching Practicum

***Graduate Courses of Reading and Research***

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

**\*Applied Mathematics 311,312. Numerical Mathematics: Analysis, Synthesis and Computation**

Catalog Number: 7333,6118

*Donald G. M. Anderson 1061*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Applied Mathematics 315,316. Stochastic Processes, Dynamical Systems, Applied Differential Geometry**

Catalog Number: 2458,2459

*Roger W. Brockett 3001*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Applied Mathematics 317,318. Special Topics in Physical Mathematics**

Catalog Number: 9160,2166

*Michael P. Brenner 4101*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Applied Mathematics 319,320. Topics in Macroscopic Physics and Quantitative Biology**

Catalog Number: 2084,4567

*L. Mahadevan 4758 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Applied Mathematics 321,322. Biological Applications of Mathematics and Automatic Computers**

Catalog Number: 7615,4243

*William H. Bossert 1049*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Applied Mathematics 323,324. Scientific Computation and Mathematical Modeling - (New Course)**

Catalog Number: 39975,57304

*Christopher Rycroft 7383*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Applied Mathematics 331,332. Theoretical Mechanics in the Earth and Engineering Sciences**



Catalog Number: 0112,0251

*James R. Rice 7270 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Applied Mathematics 341,342. Applied Probability and Statistical Inference, Classical and Quantum Information Theory**

Catalog Number: 0970,6033

*Navin Khaneja 4192 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

## Applied Physics

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

**Faculty of the School of Engineering and Applied Sciences Offering Instruction in Applied Physics**

Joanna Aizenberg, Amy Smith Berylson Professor of Materials Science

Michael J. Aziz, Gene and Tracy Sykes Professor of Materials and Energy Technologies (*on leave spring term*)

David C. Bell, Gordon McKay Professor of the Practice of Electron Microscopy

Michael P. Brenner, Glover Professor of Applied Mathematics and Applied Physics and Professor of Physics, Harvard College Professor,

Federico Capasso, Robert L. Wallace Professor of Applied Physics and Vinton Hayes Senior Research Fellow in Electrical Engineering

David R. Clarke, Extended Tarr Family Professor of Materials (*on leave fall term*)

Philippe Cluzel, Professor of Molecular and Cellular Biology and Gordon McKay Professor of Applied Physics (*on leave 2014-15*)

Cynthia M. Friend, Theodore William Richards Professor of Chemistry and Professor of Materials Science

Jene A. Golovchenko, Rumford Professor of Physics and Gordon McKay Professor of Applied Physics

Fawwaz Habbal, Senior Lecturer on Applied Physics

Donhee Ham, Gordon McKay Professor of Electrical Engineering and Applied Physics

Lene V. Hau, Mallinckrodt Professor of Physics and of Applied Physics

Evelyn Hu, Tarr-Coyne Professor of Applied Physics and of Electrical Engineering (*on leave 2014-15*)

Efthimios Kaxiras, John Hasbrouck Van Vleck Professor of Pure and Applied Physics

David Keith, Gordon McKay Professor of Applied Physics



Philip Kim, Professor of Physics and of Applied Physics  
 Carolann Koleci, Preceptor in Applied Physics  
 Jennifer Lewis, Hansjorg Wyss Professor of Biologically Inspired Engineering  
 Marko Loncar, Tiansai Lin Professor of Electrical Engineering  
 Vinothan N. Manoharan, Gordon McKay Professor of Chemical Engineering and Professor of Physics  
 Eric Mazur, Balkanski Professor of Physics and Applied Physics, Area Dean for Applied Physics  
 Kelly Anne Miller, Lecturer on Applied Physics  
 Ian D. Morrison, Lecturer on Applied Physics  
 Cherry Murray, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, and Professor of Physics (*on leave spring term*)  
 Venkatesh Narayananamurti, Benjamin Peirce Professor of Technology and Public Policy (*on leave fall term*)  
 Daniel Joseph Needleman, Associate Professor of Applied Physics and of Molecular and Cellular Biology  
 David R. Nelson, Arthur K. Solomon Professor of Biophysics and Professor of Physics and Applied Physics  
 Kevin K. Parker, Tarr Family Professor of Bioengineering and Applied Physics  
 Peter S. Pershan, Frank B. Baird, Jr. Professor of Science (*on leave fall term*)  
 Sharad Ramanathan, Professor of Molecular and Cellular Biology and Gordon McKay Professor of Applied Physics (*on leave 2014-15*)  
 Shriram Ramanathan, Associate Professor of Materials Science (*on leave fall term*)  
 James R. Rice, Mallinckrodt Professor of Engineering Sciences and Geophysics (*on leave spring term*)  
 Shmuel Rubinstein, Assistant Professor of Applied Physics  
 Frans A. Spaepen, John C. and Helen F. Franklin Professor of Applied Physics  
 Eli Tziperman, Pamela and Vasco McCoy, Jr. Professor of Oceanography and Applied Physics  
 David A. Weitz, Mallinckrodt Professor of Physics and of Applied Physics  
 Robert M. Westervelt, Mallinckrodt Professor of Applied Physics and of Physics (*on leave fall term*)  
 Tai T. Wu, Gordon McKay Professor of Applied Physics and Professor of Physics  
 Amir Yacoby, Professor of Physics and of Applied Physics

The School of Engineering and Applied Sciences ([www.seas.harvard.edu](http://www.seas.harvard.edu)) offers undergraduate and graduate courses in Applied Computation, Applied Mathematics, Applied Physics, Computer Science, and Engineering Sciences. Engineering and Applied Sciences faculty also offer several courses in the section entitled Freshman Seminars, Extra-Departmental Courses, and House Seminars.

### ***Primarily for Undergraduates***

#### **\*Applied Physics 50a. Physics as a Foundation for Science and Engineering, Part I**

Catalog Number: 77155 Enrollment: Limited to 70.

*Eric Mazur*

*Half course (fall term). Tu., Th., 10–1. EXAM GROUP: 12*

AP 50a is the first half of a one-year, team-based and project-based introduction to physics. This



course teaches students to develop scientific reasoning and problem-solving skills. AP50a topics include: kinematics; linear and rotational motion; relativity; conservation of momentum and energy; forces; gravitation; and oscillations and waves. Multivariable and vector calculus is introduced and used extensively in the course. Students work in teams on three, month-long projects, each culminating in a project fair. The twice-weekly class periods are all inclusive: there are no separate labs or discussion sections.

*Note:* AP50a satisfies the premedical requirements and is equivalent in content and rigor to a standard introductory physics course for scientists and engineers (Physical Sciences 2, Physical Sciences 12a, Physics 15a), but focuses on the application of physics to real-world problems. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.

*Prerequisite:* Mathematics preparation at least at the level of Mathematics 1b concurrently is required. However, some elementary ideas from multivariable calculus are used and students are encouraged to take Applied Mathematics 21a or Mathematics 21a concurrently. The mathematics content of Applied Physics 50a will be coordinated with Applied Mathematics 21a. This course can be taken concurrently with AM 21a to meet the calculus prerequisite. This course can be taken concurrently with AM 21a to meet the calculus prerequisite.

### **\*Applied Physics 50b. Physics as a Foundation for Science and Engineering, Part II**

Catalog Number: 92262 Enrollment: Limited to 70.

*Eric Mazur*

*Half course (spring term). Tu., Th., 10–1. EXAM GROUP: 12*

AP 50b is the second half of a one-year, team-based and project-based introduction to physics. This course teaches students to develop scientific reasoning and problem-solving skills. AP50b topics include: electrostatics; electric currents; magnetostatics; electromagnetic induction; Maxwell's Equations; electromagnetic radiation; geometric optics; and, wave optics.

Multivariable and vector calculus is introduced and used extensively in the course. Students work in teams on three, month-long projects, each culminating in a project fair. The twice-weekly class periods are all inclusive: there are no separate labs or discussion sections.

*Note:* AP50b satisfies the premedical requirements and is equivalent in content and rigor to a standard introductory physics course for scientists and engineers (Physical Sciences 3, Physical Sciences 12b, Physics 15b), but focuses on the application of physics to real-world problems. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.

*Prerequisite:* A solid knowledge of multivariable calculus at the level of Applied Math 21a or Math 21a is required. Mathematics 21a can be taken concurrently.

### ***For Undergraduates and Graduates***

#### **Applied Physics 195. Introduction to Solid State Physics**

Catalog Number: 1842

*Jennifer E. Hoffman*

*Half course (fall term). W., F., 1–2:30. EXAM GROUP: 1*

Fundamental physical properties of crystalline solids discussed in terms of the basic principles of quantum physics. Crystal structure, energy band structure of metals, semiconductors and insulators. Fermi gas, phonons, thermal properties, electronic transport, optical properties. Low



dimensional solids including quantum nanostructures and graphene. Magnetism, superconductivity. Spintronic and photonic applications.

*Note:* Designed as a first course in solid state physics for students with knowledge of elementary quantum mechanics. Students who intend to take Applied Physics 295, and who have not previously taken a formal course in solid state physics, are strongly advised to take this course first.

### ***Cross-Listed Courses***

#### **Applied Mathematics 147. Nonlinear Dynamical Systems**

**[Earth and Planetary Sciences 131. Introduction to Physical Oceanography and Climate]**

#### **Physics 129. Energy Science**

### ***Primarily for Graduates***

Additional courses of interest to graduate students in Applied Physics include: Applied Mathematics 203, Engineering Sciences 220, 225r, 240, 241, 242r, 246, 247, and 274.

#### **Applied Physics 216. Electromagnetic Interactions with Matter**

Catalog Number: 4691

*Jene A. Golovchenko*

*Half course (spring term). W., F., 10:30–12. EXAM GROUP: 5*

This course will focus on how electromagnetic fields and matter interact. Deterministic, statistical, classical, and quantum mechanical considerations will be covered. The course will be useful for experimental and applied physics students in atomic, solid state, optical, chemical, and biophysics.

*Prerequisite:* An advanced undergraduate course at the level of Physics 153 is required.

#### **Applied Physics 217. Applications of Modern Optics**

Catalog Number: 6965

*Lene V. Hau*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Optical systems and lasers have recently revolutionized both technology and basic research. We cover simple models of light-matter interactions, Fourier optics and holography, light scattering, and optics in biology: single-molecule studies, optical coherence tomography, nonlinear imaging techniques.

*Prerequisite:* An undergraduate course in electromagnetism and quantum mechanics.

#### **Applied Physics 218. Electrical, Optical, and Magnetic Properties of Materials**

Catalog Number: 9804

*Shriram Ramanathan*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

Classical and quantum description of electrical, optical and magnetic properties, and their fundamental physical origins; experimental techniques. Properties of compositionally complex materials such as ceramics. Structure-property relations. Applications in semiconductor,



information storage, and energy industries.

*Prerequisite:* Introductory solid-state physics or equivalent course.

### [Applied Physics 225. Introduction to Soft Matter](#)

Catalog Number: 5298

*Shmuel Rubinstein and Jennifer Lewis*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Introduction to the physics of soft matter, also called complex fluids or squishy physics, includes the study of capillarity, thin films, polymers, polymer solutions, surfactants, and colloids,. Emphasis is on physical principles which scale bulk behavior. Students will understand the concepts, experimental techniques, and, especially, the open questions. Lecture notes are supplied in place of a textbook.

*Prerequisite:* Knowledge of basic thermodynamics, statistical mechanics and differential equations.

### [Applied Physics 226. Introduction to Soft Matter - Capillarity and Wetting](#)

Catalog Number: 5796

*Ian D. Morrison*

*Half course (spring term). F., 9–12. EXAM GROUP: 10*

Consider phenomena strongly influenced by surface tensions, high curvatures, thin films, diffusion, adsorption, wetting, which are variously mobile, dynamic, polymeric, transient, and fragile. Emphasis on the physics, thermodynamics, rheological, and scaling laws that govern bulk behavior.

*Note:* Offered in alternate years.

*Prerequisite:* Knowledge of thermodynamics and basic statistical mechanics and some familiarity with phase diagrams and differential equations.

### [Applied Physics 235. Chemistry in Materials Science and Engineering](#)

Catalog Number: 5081

*Joanna Aizenberg*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Select topics in materials chemistry, focusing on chemical bonds, crystal chemistry, organic and polymeric materials, hybrid materials, surfaces and interfaces, self-assembly, electrochemistry, biomaterials, and bio-inspired materials synthesis.

*Prerequisite:* Introductory thermodynamics, chemistry or equivalent.

### [Applied Physics 274. Computational Modeling of Fluids and Soft Matter - \(New Course\)](#)

Catalog Number: 91399

*Sauro Succi*

*Half course (fall term). Tu., Th., 2:30–4:30. EXAM GROUP: 14*

The course will describe major computational techniques for fluid flows, as described by the Navier-Stokes equations of continuum mechanics. In addition, the course will cover a new class of mesoscale techniques for complex flows and soft matter systems, which do not fit within the continuum Navier-Stokes description. The latter encompass a broad class of flowing materials of special interest to micro-nano engineering and biology.

*Note:* Applied Physics 274 is also offered as Applied Computation 274. Students may not take



both for credit.

*Prerequisite:* Basic notions of numerical analysis and scientific computing.

### [Applied Physics 275. Computational Design of Materials](#)

Catalog Number: 76133

*Sadasivan Shankar*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

This course will provide the background and an extensive set of examples showing how computational methods are applied to modern design of materials with desired functionality. The methods will span multiple length and time scales, including molecular dynamics simulations, first-principles approaches, stochastic methods for optimization and sampling, and continuum elasticity theory. Examples will include problems in electronic and photonic devices, materials for energy conversion, storage, and environmental protection, and those related to mechanical strength of materials.

*Note:* Applied Physics 275 is also offered as Applied Computation 275. Students may not take both for credit.

*Prerequisite:* Undergraduate coursework in quantum mechanics, solid state physics, thermodynamics and statistical mechanics is recommended. Knowledge of physical chemistry and solid mechanics is required.

### [Applied Physics 282. Solids: Structure and Defects](#)

Catalog Number: 5737

*Frans A. Spaepen*

*Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 9*

Bonding, crystallography, diffraction, phase diagrams, microstructure, point defects, dislocations, and grain boundaries.

*Note:* Intended for students in applied mechanics, materials science, condensed matter physics, and chemistry.

### [Applied Physics 284. Statistical Thermodynamics](#)

Catalog Number: 2257

*Vinothan N. Manoharan*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 18*

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 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 16.

*David C. Bell*

*Half course (spring term). M., 2:30–4, and a three-hour laboratory session to be arranged.*

*EXAM GROUP: 18*

Lectures and laboratory instruction on transmission electron microscopy (TEM) and Cs



corrected, aberration-correction microscopy and microanalysis. Lab classes include; diffraction, dark field imaging, X-ray spectroscopy, electron energy-loss spectroscopy, atomic imaging, materials sample preparation, polymers, and biological samples.

*Note:* Primarily for graduate students planning to use TEM for their research.

### [Applied Physics 292. Kinetics of Condensed Phase Processes]

Catalog Number: 3733

*Frans A. Spaepen*

*Half course (spring term). Tu., Th., 8:30–10.*

Kinetic principles underlying atomic motions, transformations, and other atomic transport processes in condensed phases. Application to atomic diffusion, continuous phase transformations, nucleation, growth, coarsening and mechanisms of plastic deformation.

*Note:* Offered in alternate years.

*Prerequisite:* An undergraduate-level course in thermodynamics.

### [Applied Physics 293. Dislocations and Deformation Behavior of Materials]

Catalog Number: 6796

*Frans A. Spaepen*

*Half course (spring term). Tu., Th., 10:30–12.*

Dislocations are fundamental defects in crystalline solids affecting deformation and crystal growth. The use of dislocations to establish constitutive behavior for the deformation of materials over a wide variety of stresses and temperatures, as well as in modeling stress distributions and interfacial reactions will be included.

*Note:* Offered in alternate years.

*Prerequisite:* Knowledge of thermodynamics, electromagnetism 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 4. EXAM GROUP: Fall: 16; Spring: 6*

Special topics in materials science.

*Prerequisite:* See instructor.

### Applied Physics 295a. Introduction to Quantum Theory of Solids

Catalog Number: 6937

*Bertrand I. Halperin*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Electrical, optical, thermal, magnetic, and mechanical properties of solids will be treated based on an atomic scale picture and using the independent electron approximation. Metals, semiconductors, and insulators will be covered, with possible special topics such as superconductivity.

*Note:* Applied Physics 295a is also offered as Physics 295a. Students may not take both for credit.

*Prerequisite:* Applied Physics 195 or equivalent, and a graduate level quantum mechanics course similar to Physics 251a. (Physics 251b would be helpful and may be taken concurrently.)



### Applied Physics 295b. Quantum Theory of Solids

Catalog Number: 3610

*Subir Sachdev*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Theory of the electron liquid, Fermi liquid theory. Ferromagnetism of metals, BCS theory of superconductivity. Lattice models of correlated electrons: antiferromagnetism. Graphene: semi metals and quantum phase transitions. Non-fermi liquids in correlated metals.

*Note:* Applied Physics 295b is also offered as Physics 295b. Students may not take both for credit.

*Prerequisite:* Physics 251a,b, an introductory course in solid state physics, or permission of instructor.

### [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., 1–2:30.*

Materials-related topics chosen from: Structure and Self-Assembly; Mechanical Properties; Surfaces and Interfaces; Biomaterials; Synthesis and Fabrication; Characterization Techniques; Soft Materials, and Complex Fluids.

*Note:* The class will be divided into teams and each team will spend 4 weeks investigating a current research problem posed by a faculty member. This will entail reading and lab work and will be followed by a presentation to the full class. Each team will work on 3 problems through the term. Suitable for graduate students with undergraduate concentrations in chemistry, engineering, or physics having present or potential research interests in this field. The course will provide an introduction to current research problems as well as the methodology of research and presentation. A final paper based on one theme will also be required. Taught by faculty from Chemistry, Physics, and the School of Engineering and Applied Sciences who are associated with Harvard's Materials Research Science and Engineering Center.

### Applied Physics 299r. Special Topics in Applied Physics

Catalog Number: 2103

*Eric Mazur*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 14; Spring: 11*

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 School of Engineering and Applied Sciences. 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 Student Affairs Office, Pierce Hall 110.

### ***Cross-Listed Courses***



### Engineering Sciences 220. Fluid Dynamics

\*Physics 215. Biological Dynamics

Physics 232. Advanced Classical Electromagnetism

### *Graduate Courses of Reading and Research*

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

#### **\*Applied Physics 301,302. Ultrafast Electronic Devices**

Catalog Number: 6859,6068

*Donhee Ham 4519*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

#### **\*Applied Physics 303,304. Materials Science of Biological Inorganic Nanostructures**

Catalog Number: 3564,9306

*Joanna Aizenberg 5876*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

#### **\*Applied Physics 321,322. Materials Physics and Engineering**

Catalog Number: 24677,91306

*David R. Clarke 6684 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 10*

#### **\*Applied Physics 323,324. Topics in Materials Science**

Catalog Number: 5947,5970

*Shriram Ramanathan 5341 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

#### **\*Applied Physics 325,326. Optics with Cold Atoms, Nano-structures, and Bio-molecules**

Catalog Number: 0488,7669

*Lene V. Hau 2151*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

#### **\*Applied Physics 329,330. Heterogeneous Nanophotonic Devices and Bio-templated Electronic Materials**

Catalog Number: 69998,18476

*Evelyn Hu 6682 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

#### **\*Applied Physics 331,332. Experimental Condensed Matter Physics**

Catalog Number: 0467,1560

*Robert M. Westervelt 6148 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

#### **\*Applied Physics 333,334. Electronic Properties of Nanostructures, Interaction of Biomolecules with Nanostructures, and X-Ray Physics**



Catalog Number: 1033,6126

*Jene A. Golovchenko 1986*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*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*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*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 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Applied Physics 339,340. Topics in Electromagnetic Theory**

Catalog Number: 4258,3127

*Tai T. Wu 1051*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Applied Physics 341,342. Nano-Lasers and Single-Photon Sources**

Catalog Number: 1441,0650

*Marko Loncar 5703*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Applied Physics 343,344. Topics in Electromagnetic Theory and Molecular Spectroscopy**

Catalog Number: 2695,4213

*Patrick Thaddeus 1398*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Applied Physics 345,346. Energy Storage System Analysis**

Catalog Number: 98679,35431

*David Keith 3221*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Applied Physics 347,348. Mechanics in Earth and Environmental Science**

Catalog Number: 4033,3514

*James R. Rice 7270 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Applied Physics 349,350. Experimental Physics in Low Dimensional Materials - (New Course)**

Catalog Number: 64914,15311

*Philip Kim 7612*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*



**\*Applied Physics 351,352. Statistical and Condensed Matter Theory**

Catalog Number: 3992,3993

*Paul C. Martin 2103*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Applied Physics 353,354. Physics of Bacterial Growth - (New Course)**

Catalog Number: 20629,89798

*Ariel Amir 7580*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Applied Physics 355,356. Special Topics in Theoretical Engineering**

Catalog Number: 4864,9197

*Michael P. Brenner 4101*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Applied Physics 357,358. Nanophotonics**

Catalog Number: 3865,5593

*Kenneth B. Crozier 5146*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Applied Physics 359,360. Nonlinear Laser Physics and Materials Engineering**

Catalog Number: 5760,3525

*Eric Mazur 7952*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Applied Physics 361,362. Photonics, Quantum Devices and Nanostructures**

Catalog Number: 9431,9506

*Federico Capasso 4571*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Applied Physics 363,364. Experimental Soft Condensed Matter Physics**

Catalog Number: 8975,7242

*David A. Weitz 2497*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Applied Physics 365,366. Experimental Condensed Matter: Ballistic Transport in Semiconductors, Nanostructures, and Tunneling Microscopy**

Catalog Number: 9195,0425

*Venkatesh Narayanamurti 5445 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Applied Physics 367,368. Topics on Condensed Matter Physics**

Catalog Number: 6975,4173

*David R. Nelson 5066*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*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 fall term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Applied Physics 371,372. Biological Physics and Quantitative Biology**

Catalog Number: 6003,9040

*Daniel Joseph Needleman 6151**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Applied Physics 373,374. Signaling Processing and Systems Biology**

Catalog Number: 59715,74822

*Sharad Ramanathan 6015 (on leave 2014-15)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Applied Physics 375,376. Nonlinear Dynamics of Soft Interfaces**

Catalog Number: 21788,64808

*Shmuel Rubinstein 7296**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Applied Physics 383,384. Topics in Atmospheric and Climate Dynamics**

Catalog Number: 3214,3221

*Zhiming Kuang 5285**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Applied Physics 387,388. Climate Dynamics and Physical Oceanography**

Catalog Number: 3549,8599

*Eli Tziperman 4748**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Applied Physics 391,392. Experimental Soft Condensed Matter and Materials Physics**

Catalog Number: 1164,5559

*Vinothan N. Manoharan 5251**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Applied Physics 393,394. Experimental Studies of Interfaces and Surfaces**

Catalog Number: 1331,5451

*Cynthia M. Friend 7446**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Applied Physics 395,396. Topics in Materials Science**

Catalog Number: 4012,5003

*Michael J. Aziz 1337 (on leave spring term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*



**\*Applied Physics 397,398. Materials Science**

Catalog Number: 4266,5010

*Frans A. Spaepen 4991*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

***Cross-Listed Courses***

**\*Computer Science 365. SEAS Teaching Practicum**

## Archaeology

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

***Faculty of the Committee on Archaeology***

Richard H. Meadow, Senior Lecturer on Anthropology (*Chair*)

Rowan K. Flad, Professor of Anthropology

Ioli Kalavrezou, Dumbarton Oaks Professor of Byzantine Art

Peter Der Manuelian, Philip J. King Professor of Egyptology

Stephen A. Mitchell, Professor of Scandinavian and Folklore

Jerry X. Mitrovica, Professor of Geophysics (*on leave spring term*)

Laura S. Nasrallah, Professor of New Testament and Early Christianity (*Divinity School*)

Jeffrey Quilter, Senior Lecturer on Anthropology

Daniel L. Smail, Professor of History

Adrian Stähli, Professor of Classical Archaeology

Piotr Steinkeller, Professor of Assyriology

Jason A. Ur, Professor of Anthropology

The Committee on Archaeology is a multidisciplinary group of scholars appointed to promote the teaching of archaeology at Harvard and advance knowledge of archaeological activity, research, fieldwork, and techniques in the many and varied fields where archaeology is employed as an approach to past cultures and histories around the world. Archaeology can be seen as the study of past human societies through the recovery, analysis, and interpretation of material remains. Those who practice archaeology employ a wide range of methods, techniques, and theoretical orientations drawn from across the spectrum of academic disciplines to further their specific intellectual goals. Likewise, scholars of many disciplines who do not consider themselves to be practicing archaeologists nevertheless use the results of archaeological work in their teaching and research.



The listing below is a compilation of courses in which the practice of archaeology is taught or the use of archaeological information is integral. The interested student is urged to consult the full listings of the various departments for related courses, relevant undergraduate tutorials, and graduate-level reading courses. The courses listed below are ordinarily acceptable for the Secondary Field in Archaeology with the approval of the Secondary Field Adviser. Additional courses including courses in other departments may also be deemed acceptable. See the [Standing Committee's iSite](#) for information about the Secondary Field in Archaeology.

### *Freshman Seminars*

#### **\*Freshman Seminar 44s. Neanderthals and Human Evolutionary Theory**

### *General Education*

#### **Culture and Belief 21. Pathways through the Andes—Culture, History, and Beliefs in Andean South America**

**Science of Living Systems 16. Human Evolution and Human Health**

**Societies of the World 30. Moctezuma's Mexico: Then and Now (2012)!**

**Societies of the World 38. Pyramid Schemes: The Archaeological History of Ancient Egypt**

[Societies of the World 40. The Incas: The Last Great Empire of Pre-Columbian South America]

[Societies of the World 41. Medieval Europe]

[Societies of the World 53 (formerly History 1040). The Fall of the Roman Empire]

### *African and African American Studies*

#### **African and African American Studies 11. Introduction to African Studies**

[African and African American Studies 174. The African City]

### *Anthropology*

#### **\*Anthropology 91xr. Supervised Reading and Research in Archaeology**

**\*Anthropology 92xr. Archaeological Research Methods in Museum Collections**

**Anthropology 1010. The Fundamentals of Archaeological Methods & Reasoning**

[Anthropology 1025r. Museum Anthropology, Thinking with Objects: Kayaks: Seminar]

[Anthropology 1040. Origins of the Food We Eat]

[Anthropology 1045. Ancient Settlement Systems: Seminar]

**Anthropology 1060. Archaeological Science**

**Anthropology 1062 (formerly Anthropology 2062). Religions of Latin America: Mexico, Peru, El Caribe**

[Anthropology 1065. The Ancient Near East]

[Anthropology 1080. North American Archaeology: Lost Tribes and Ancient Capitals of Native America]

[Anthropology 1090. Ethnography and Archaeology]

**Anthropology 1095. Urban Revolutions: Archaeology and the Investigation of Early States**



[\*\*Anthropology 1130. Archaeology of Harvard Yard\*\*](#)

[\*\*Anthropology 1131. Archaeology of Harvard Yard II: Laboratory Methods and Analysis\*\*](#)

[Anthropology 1150. Ancient Landscapes]

[\*\*Anthropology 1155. The Archaeology of Cities in Ancient Mesopotamia\*\*](#)

[Anthropology 1165. Digging the Glyphs: Adventures in Decipherment]

[\*\*Anthropology 1168. Maya Glyphs\*\*](#)

[Anthropology 1175. The Archaeology of Ethnicity]

[\*\*Anthropology 1185. The Talking Dead: Archaeology of Death, Burials and Commemoration - \(New Course\)\*\*](#)

[Anthropology 1190. Encountering the Conquistadors]

[\*\*Anthropology 1202. Forensic Anthropology: CSI Harvard\*\*](#)

[\*\*Anthropology 1210. The Archaeology of Ancient China\*\*](#)

[Anthropology 1212. The Archaeology of Modern Human Origins: Seminar]

[Anthropology 1230. African Archaeology]

[\*\*Anthropology 1250. The Pyramids of Giza: Technology, Archaeology, History: Seminar\*\*](#)

[\*\*\\*Anthropology 2000. Osteoarchaeology Lab\*\*](#)

[\*\*Anthropology 2010ar. Materials in Ancient Societies:Ceramics\*\*](#)

[\*\*Anthropology 2010br. Materials in Ancient Societies: Ceramics\*\*](#)

[\*Anthropology 2020. GIS & Spatial Analysis In Archaeology]

[\*Anthropology 2022. Picturing the Past: An Introduction to Digital Epigraphy and Archaeological Illustration]

[\*Anthropology 2070a. Archaeological Method and Theory: Seminar]

[Anthropology 2070b. Case Studies and Research Proposal Preparation]

[Anthropology 2085. Archaeology of Ritual and Religion]

[\*\*Anthropology 2110r. Issues in Mesoamerican Archaeology: Ritual and Power in Mesoamerica\*\*](#)

[Anthropology 2177. South American Archaeology]

[\*\*Anthropology 2210. Archaeology and the Ancient Economy\*\*](#)

[Anthropology 2212. The Archaeology of Enlightenment]

[Anthropology 2240. Archaeology of Production: Seminar]

[\*\*Anthropology 2250a. Proseminar in Archaeology\*\*](#)

[Anthropology 2250b. Proseminar in Archaeology]

*Celtic Languages and Literatures*

[Celtic 101. The Hero of Irish Myth and Saga]

[Celtic 103. Celts: People or Myth?]

*The Classics*

[\*\*Classical Archaeology 100. Greek Antiquity\*\*](#)

[Classical Archaeology 101. Roman Antiquity]

[\*\*Classical Archaeology 133. Representing the Emperor - \(New Course\)\*\*](#)

[\*\*Classical Archaeology 221. Roman Greece - \(New Course\)\*\*](#)

*History*



### [\*\*History 1011. The World of the Roman Empire\*\*](#)

### [\*\*History 1700. The History of Sub-Saharan Africa to 1860\*\*](#)

[History 1940. Science and the Global Human Past: Case Studies at the Cutting Edge]

[History 2055. Early Medieval History, Archaeology and Archaeoscience: Seminar]

### *History of Art and Architecture*

[History of Art and Architecture 139j. Greek Myths on Roman Sarcophagi]

[\*\*History of Art and Architecture 143r. The Art of the Court of Constantinople : Proseminar\*\*](#)

[\*\*History of Art and Architecture 161v. Rome: Eternal City\*\*](#)

[History of Art and Architecture 197. The Imperial Arts of the Inca and the Aztec]

[\*\*History of Art and Architecture 224k. Islamic Art Historiography: Concepts and Controversies - \(New Course\)\*\*](#)

### *Human Evolutionary Biology*

[Human Evolutionary Biology 1411. Evolution and Adaptation of the Human Diet]

[\*\*Human Evolutionary Biology 1419. Laboratory Methods in Human Evolutionary Biology\*\*](#)

[Human Evolutionary Biology 1435r. Primate Ecology and Evolution]

[\*\*Human Evolutionary Biology 1490r. Primate Evolution\*\*](#)

[\*Human Evolutionary Biology 1530. Hominid Paleontology and Evolution]

[\*\*Human Evolutionary Biology 1540. Human Migration\*\*](#)

[\*\*Human Evolutionary Biology 1590. Ancient Biomolecules - \(New Course\)\*\*](#)

### *Near Eastern Languages and Civilizations*

[\*\*Ancient Near East 100. History of the Ancient Near East\*\*](#)

[\*\*Ancient Near East 102. Introduction to Mesopotamian Religion\*\*](#)

[\*\*Ancient Near East 103. Ancient Lives\*\*](#)

[\*\*Ancient Near East 113. Environmental Archaeology of the Ancient Near East - \(New Course\)\*\*](#)

[\*\*Ancient Near East 117. Biblical Archaeology\*\*](#)

[Ancient Near East 155r. Ancient Mesopotamia: Archaeology and Texts]

[\*\*Ancient Near East 212 \(formerly Ancient Near East 115\). Archaeology of the Levant\*\*](#)

### *The Study of Religion*

[\*\*Religion 1012. Religion and Archaeology - \(New Course\)\*\*](#)

[\*\*Religion 1325. Ancient Greek Sanctuaries: Mysteries of Initiation - \(New Course\)\*\*](#)

[\*\*Religion 1400. Introduction to the New Testament\*\*](#)

[\*\*\\*Religion 2348ab. Archaeology and the World of the New Testament: Seminar\*\*](#)



# Architecture, Landscape Architecture and Urban Planning

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Committee on the Degree of Doctor of Philosophy in Architecture, Landscape Architecture, and Urban Planning*

Erika Naginski, Professor of Architectural History (*Design School*) (*Chair*)

Eve Marion Blau, Adjunct Professor of the History of Urban Form (*Design School*)

Svetlana Boym, Curt Hugo Reisinger Professor of Slavic Languages and Literatures and Professor of Comparative Literature (*on leave spring term*)

Giuliana Bruno, Emmet Blakeney Gleason Professor of Visual and Environmental Studies (*on leave 2014-15*)

Diane Emily Davis, Professor of Urbanism and Development (*Design School*)

Sonja Duempelmann, Associate Professor of Landscape Architecture (*Design School*)

Edward Eigen, Associate Professor of Architecture and Landscape Architecture (*Design School*)

Peter L. Galison, Joseph Pellegrino University Professor (*on leave fall term*)

K. Michael Hays, Eliot Noyes Professor in Architectural Theory (*Design School*)

Sheila Jasanoff, Pforzheimer Professor of Science and Technology Studies, Professor of Environmental Science and Public Policy (*Kennedy School*)

Jerold Kayden, Frank Backus Williams Professor of Urban Planning and Design (*Design School*)

Michèle Lamont, Robert I. Goldman Professor of European Studies and Professor of Sociology and of African and African American Studies (*on leave 2014-15*)

Ali Malkawi, Professor of Architectural Technology (*Design School*)

Alina A. Payne, Alexander P. Misheff Professor of History of Art and Architecture

Antoine Picon, G. Ware Travelstead Professor of the History of Architecture and Technology (*Design School*)

A. Hashim Sarkis, Aga Khan Professor of Landscape Architecture and Urbanism in Muslim Societies (*Design School*)

Christine Smith, Robert C. and Marian K. Weinberg Professor of Architectural History (*Design School*)

### *Other Faculty Offering Instruction in Architecture, Landscape Architecture, and Urban Planning*

Lizabeth Cohen, Howard Mumford Jones Professor of American Studies, and Dean of the Radcliffe Institute for Advanced Study (*on leave 2014-15*)



Neil Levine, Emmet Blakeney Gleason Professor of History of Art and Architecture, Emeritus  
 Erika Naginski, Professor of Architectural History (*Design School*)  
 Gülru Necipoglu-Kafadar, Aga Khan Professor of Islamic Art  
 Katharine Park, Samuel Zemurray, Jr. and Doris Zemurray Stone Radcliffe Professor of the History of Science  
 John R. Stilgoe, Robert and Lois Orchard Professor in the History of Landscape Development

The PhD in Architecture, Landscape Architecture, and Urban Planning is administered by a joint committee of the Faculty of Design and of the Faculty of Arts and Sciences. The program is intended for persons who wish to enter careers in scholarship and advanced research as distinct from the professional practice of architecture, landscape architecture, or urban planning.

Students must master a major area of their field and achieve a thorough grounding (equivalent to one year of full-time study) in the theory and methods of one of the arts and sciences related to their major subject, such as fine arts, history, philosophy, or sociology. Major areas of study include the history and theory of architecture, landscape architecture and urban form from antiquity to the present; or the analysis and development of cities, landscapes, and regions with emphasis on social, economic, ecological, transportation, and infrastructural systems.

Applicants must show evidence of distinguished work at the bachelor's or master's level, and should indicate their major subject of interest and the department of the Faculty of Arts and Sciences in which they will carry out their minor discipline.

The Harvard Design School also offers a separate, three-year program leading to the Doctor of Design degree, which is oriented to the practice of architecture, landscape architecture, and urban design. This program requires a separate and different application. For information, contact the Admissions Office, Harvard University, Graduate School of Design, 48 Quincy Street, Cambridge, MA 02138. The phone number is 617-495-5453.

### ***Graduate Courses of Reading and Research***

#### **\*Design 300. Reading and Research in Architecture, Landscape Architecture, or Urban Planning**

Catalog Number: 6076

*Alan Altshuler (Kennedy School, Design School) 3541, Eve Marion Blau (Design School) 5078, Svetlana Boym 1926 (on leave spring term), Giuliana Bruno 2658 (on leave 2014-15), Lizabeth Cohen 3627 (on leave 2014-15), Susan S. Fainstein (Design School) 5504, Richard T. T. Forman (Design School) 1207, José A. Gomez-Ibáñez (Kennedy School, Design School) 4586, K. Michael Hays (Design School) 2759, Michael Hooper (Design School) 7386, Jerold Kayden (Design School) 2442, Neil Levine 4178, Gülru Necipoglu-Kafadar 1688, Katharine Park 2974, Alina A. Payne 4605, Antoine Picon (Design School) 4295, A. Hashim Sarkis (Design School) 4594, Christine Smith (Design School) 2445, and John R. Stilgoe 8032*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

#### **\*Design 304. Direction of Doctoral Dissertations in Architecture**

Catalog Number: 2503



*Eve Marion Blau (Design School) 5078, Giuliana Bruno 2658 (on leave 2014-15), Peter L. Galison 3239 (on leave fall term), K. Michael Hays (Design School) 2759, Neil Levine 4178, Gülru Necipoglu-Kafadar 1688, Alina A. Payne 4605, Antoine Picon (Design School) 4295, A. Hashim Sarkis (Design School) 4594, Christine Smith (Design School) 2445, and John R. Stilgoe 8032*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Design 307. Direction of Doctoral Dissertations in Landscape Architecture**

Catalog Number: 7028

*Richard T. T. Forman (Design School) 1207, K. Michael Hays (Design School) 2759, Gülru Necipoglu-Kafadar 1688, and John R. Stilgoe 8032*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Design 310. Direction of Doctoral Dissertations in Urban Planning**

Catalog Number: 5219

*Alan Altshuler (Kennedy School, Design School) 3541, Lizabeth Cohen 3627 (on leave 2014-15), Susan S. Fainstein (Design School) 5504, José A. Gomez-Ibáñez (Kennedy School, Design School) 4586, Jerold Kayden (Design School) 2442, and A. Hashim Sarkis (Design School) 4594*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

## Arts and Humanities

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

The Humanities include a range of disciplines that explore the ways in which people have articulated their understanding of themselves and the world. Humanities courses are taught by teams of faculty from several departments and fulfill requirements in Humanities concentrations and General Education.

The Frameworks in the Humanities courses, which include Humanities 11a: The Art of Looking, Humanities 11b: The Art of Listening, and Humanities 11c: The Art of Reading, introduce students to fundamental problems, histories, and critical methods that prepare students for more advanced work in a wide variety of concentrations. The Frameworks courses include an attention to exemplary texts, sounds, images, and objects and address how basic acts of looking, listening, and reading can disclose unexpected cultural, historical, and aesthetic richness.

#### ***Humanities***

##### **Humanities 10a. The Humanities Colloquium: Essential Works 1 - (New Course)**

Catalog Number: 50362 Enrollment: Limited to 75. The course will be lotteried by application



process administered at or before the first meeting.

*Louis Menand (English), Stephen J. Greenblatt (English), Amanda Claybaugh (English), Panagiotis Roilos (The Classics; Comparative Literature), and Alison Simmons (Philosophy)*  
*Half course (fall term). Tu., 10-11:30, and a weekly section on W., 3-4:30 or Th., 10-11:30.*

**EXAM GROUP: 12**

Five professors. 2500 years. Thirteen essential works. Homer, Plato, Aristotle, Sophocles, Dante, Shakespeare, Descartes, Mozart, Rousseau, Austen, Nietzsche, Kafka, Joyce. Join the conversation.

*Note:* Sections in this course are led by the professors. The course is designed for freshmen and sophomores interested in further work in the Humanities, but all students are welcome.

Humanities 10b, which meets in the spring, includes works from the Iliad to the twentieth century, read in chronologically reverse order. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course, when taken for a letter grade together with Humanities 10b, meets the General Education requirements for both Aesthetic and Interpretive Understanding and Culture and Belief. Students may take either course, or both courses in either order. The courses also count for concentration credit in English, Philosophy, and Comparative Literature. The course may not be taken Pass/Fail, and auditors are not permitted.

**Humanities 10b. The Humanities Colloquium: Essential Works 2 - (New Course)**

Catalog Number: 26495 Enrollment: Limited to 75. The course will be lotteried by application process administered at or before the first meeting.

*Louis Menand (English), Stephen J. Greenblatt (English), Emma Dench (The Classics; History), Ned Hall (Philosophy), and Katharina Piechocki (Comparative Literature)*

*Half course (spring term). Tu., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

Five professors. 2,500 years. Twelve essential works. Beckett, Woolf, Dostoevsky, Wagner, Mary Shelley, Hume, Shakespeare, Augustine, Tacitus, Herodotus, Sophocles, Homer. Join the conversation.

*Note:* Sections in this course are led by the professors. The course is designed for freshmen and sophomores interested in further work in the Humanities, but all students are welcome.

Humanities 10a, which meets in the fall, includes works from the Odyssey to the twentieth century. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course, when taken for a letter grade together with Humanities 10a, meets the General Education requirements for both Aesthetic and Interpretive Understanding and Culture and Belief. Students may take either course, or both courses in either order. The courses also count for concentration credit in English, Philosophy, and Comparative Literature. The course may not be taken Pass/Fail, and auditors are not permitted.

**Humanities 12 (formerly Humanities 114). Masterpieces of World Literature - (New Course)**

Catalog Number: 44736

*David Damrosch and Martin Puchner*

*Half course (spring term). Tu., 2-4. EXAM GROUP: 11*

With readings from Gilgamesh and The Odyssey to Salman Rushdie and Orhan Pamuk, this



course explores how great writers refract their world and how their works are transformed when they intervene in our global cultural landscape today.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

### ***Humanities: Frameworks***

#### **Humanities: Frameworks 11a. Frameworks: The Art of Looking**

Catalog Number: 66831 Enrollment: Limited to 105.

*Jennifer L. Roberts (History of Art and Architecture)*

*Half course (spring term). T., 11:30 -1:00, and a 2-hour weekly section to be arranged. EXAM GROUP: 15*

Visual information today is superabundant thanks to our smartphones, tablets, and other screen-based gadgets. But few of us recognize how thoroughly our habits and experiences of looking have been conditioned by interfaces with long and complex histories. Participants in this new Framework Course, developed as part of the Humanities Project at Harvard, will approach looking through a consideration of key technologies from its history, such as the telescope, the television, and the easel painting. Students will learn about the hidden intricacies of looking and hone skills of visual, material, and spatial analysis through encounters with aesthetic objects from Harvard's collections.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

#### **Humanities: Frameworks 11b. Frameworks: The Art of Listening**

Catalog Number: 69722

*John T. Hamilton (Comparative Literature)*

*Half course (spring term). Tu., 11:30-1, and a weekly section to be arranged. EXAM GROUP: 15*

Our world is steeped in sound, but we must learn to pay attention to listening. Sounds produce emotions, mark out spaces, call up memories; silence can be deafening; voice is a marker of identity. This course will sharpen our ears. We explore the sonic world through diverse readings and creative projects with sound. Discussions and assignments will open our minds (and ears) to listening practices, what the arts teach us about listening, and how we describe our experiences as listeners. We examine the relationships between sound and time, community, responsibility and attentiveness, and explore the soundscape in which we live.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

#### **Humanities: Frameworks 11c. Frameworks: The Art of Reading**

Catalog Number: 84969

*Julie A. Buckler (Slavic Languages and Literatures; Comparative Literature) and Michael J. Puett (East Asian Languages and Civilizations)*

*Half course (spring term). Tu., 2 -3:30, and a 2-hour weekly section Th., 2-4. EXAM GROUP: 11*

This course introduces "reading" as a wide-ranging practice of interpretation, applicable to social phenomena and historical narratives as well as to literary texts. Participants in this introduction



to the humanities will examine a range of texts, from poems and political journalism to graphic novels and blogs, both to practice close and subtle reading and to see how these texts seek to establish rules for their own interpretation. Rather than look at a particular artistic tradition or literary history, we will develop a set of "all-terrain" interpretive skills that can be deployed on a range of intellectual and cultural objects.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

### ***Humanities: Essential Questions***

#### **[Humanities: Essential Questions 51 (formerly Humanities: Essential Questions 21). Major Themes in the Humanities: Love and Freedom] - (New Course)**

Catalog Number: 87828

*John T. Hamilton (Germanic Languages and Literatures; Comparative Literature) and Svetlana Boym (Slavic Languages and Literatures; Comparative Literature)*

*Half course (spring term). Tu., 2-3:30, and a mandatory weekly Th., 2-4..*

Notions of "love" and "freedom" have persistently informed works of literature, visual art, and music since antiquity, exhibiting a complex variety of meanings, functions and values. The aim of this course is to investigate exemplary works that highlight some of the major tensions and questions related to distinct formulations of these two key terms. In reviewing a broad range of material, attention is paid throughout to specific historical, social, and cultural differences.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

#### **Humanities: Essential Questions 52. Human History - (New Course)**

Catalog Number: 70054

*Maya Jasanoff (History) and Niall Ferguson (History)*

*Half course (spring term). M., W., at 10, and a weekly section to be arranged. EXAM GROUP: 5*  
 Six hundred years of world history through the prism of twelve encounters between "the West" and "the Rest" -- beginning with the clash between Portuguese buccaneers and Chinese eunuchs in 1517 and ending yesterday. Human History takes globalization personally, but views it from at least two very different perspectives--those of the professors. (We also show how to resurrect the dead.)

### ***Humanities Studio***

Open to all FAS students, Humanities Studios are project-based courses designed to foster translational thinking. They combine in-depth research, design thinking, and hands-on training with digital tools and media in an environment that involves sustained cross-disciplinary teamwork. At once practical and experimental, Humanities Studio courses renew the relevance of the critical and narrative tools of the arts and sciences for a world in which technology is a means of inquiry.

#### **[Humanities Studio 3. Architectures of the Book: Book making-past, present, future ] - (New Course)**

Catalog Number: 42018 Enrollment: Limited to 18.



*Jeffrey Schnapp and the metaLAB team*

*Half course (fall term). Hours to be arranged.*

Contemporary speculations regarding print-plus or post-print publishing represent just the latest in the legion of mutations undergone by that most venerable and resistant of literary supports: the book. This Humanities Studio explores the past, present, and future of books as designed and programmable artifacts from both a historical and hands-on perspective. Book making in a broad array of consolidated and experimental forms will serve both as object of critical study and focus for projects, as students explore and evaluate claims about the history of books by making them in paper, pixels, and other media.

*Note:* Expected to be given in 2015–16. Humanities Studios are project-based courses designed to foster translational thinking. They combine in-depth research, design thinking, and hands-on training with digital tools and media in an environment that involves sustained cross-disciplinary teamwork. At once practical and experimental, Humanities Studio courses renew the relevance of the critical and narrative tools of the arts and sciences for a world in which technology is a means of inquiry.

**Humanities Studio 4. The Mixed-Reality City - (New Course)**

Catalog Number: 28071 Enrollment: Limited to 18.

*Jeffrey Schnapp and the metaLAB team*

*Half course (spring term). W., 8:30–10:30, and a 60-minute weekly section immediately following lecture. EXAM GROUP: 10*

The contemporary city is constituted by multiple overlapping realities articulated across built form and imagined space, individual experience and collective memory, embodied sensation and digital mediation. Often, these multiple realities are invisible or illegible. However, realities always leave traces, to be excavated and reconstructed. The Mixed-Reality City is a combined seminar and workshop in which students pursue studies of urbanism-in-the-making through means and methods emerging in the digital arts and humanities, including: data narrative, digital ethnography, adversarial design, and critical technical practice. The course focuses in equal parts on unpacking discourses and developing interpretative digital artifacts.

*Note:* Humanities Studios are project-based courses designed to foster translational thinking. They combine in-depth research, design thinking, and hands-on training with digital tools and media in an environment that involves sustained cross-disciplinary teamwork. At once practical and experimental, Humanities Studio courses renew the relevance of the critical and narrative tools of the arts and sciences for a world in which technology is a means of inquiry.

***Medical Humanities***

Storytelling and listening are central to understanding medical and physical circumstances and to diagnosis and treatment. The following courses link literature, philosophy, reasoning, and writing with our understanding of medical, ethical and biosocial realities.

**Aesthetic and Interpretive Understanding 50. Literature and Medicine**

[African and African American Studies 189x. Medicine, Culture, and Society]

[Classical Studies 165. Medicine in the Greco-Roman World]

[Culture and Belief 11. Medicine and the Body in East Asia and in Europe]

[Culture and Belief 58. Case Studies in the Medical Humanities: Interdisciplinary]



**Perspectives on the Experience of Illness and Healing]**

**\*Freshman Seminar 23k. Insights from Narratives of Illness**

**\*Freshman Seminar 26f. Dreams: Our Mind by Night**

**[History of Science 112. Magic, Medicine and Miracles: Health and Healing in the Middle Ages and Renaissance]**

## Asian Studies Programs

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

#### *Faculty of the Council on Asian Studies*

Arthur Kleinman, Esther and Sidney Rabb Professor of Anthropology in the Faculty of Arts and Sciences and Professor of Medical Anthropology in the Faculty of Medicine, Harvard College Professor (*Chair*)

Ryūichi Abé, Reischauer Institute Professor of Japanese Religions (*on leave spring term*)

Asad A. Ahmed, Associate Professor of Anthropology

William P. Alford, Henry L. Stimson Professor of Law (*Law School*)

Ali S. Asani, Professor of Indo-Muslim and Islamic Religion and Cultures

Theodore C. Bestor, Reischauer Institute Professor of Social Anthropology (*on leave 2014-15*)

Homi K. Bhabha, Anne F. Rothenberg Professor of the Humanities (*on leave 2014-15*)

Barry R. Bloom, Harvard University Distinguished Service Professor and Joan L. and Julius H. Jacobson Professor of Public Health (*Public Health*)

Peter K. Bol, Charles H. Carswell Professor of East Asian Languages and Civilizations

Sugata Bose, Gardiner Professor of Oceanic History and Affairs (*on leave 2014-15*)

Mary C. Brinton, Reischauer Institute Professor of Sociology

Paul Y. Chang, Assistant Professor of Sociology

James K. M. Cheng, Librarian of the Harvard-Yenching Library

Diana L. Eck, Fredric Wertham Professor of Law and Psychiatry in Society, Harvard College Professor

Carter J. Eckert, Yoon Se Young Professor of Korean History

Mark C. Elliott, Mark Schwartz Professor of Chinese and Inner Asian History

Rowan K. Flad, Professor of Anthropology

Byron J. Good, Professor of Medical Anthropology in the Department of Social Medicine (*Medical School*)

Mary-Jo Del Vecchio Good, Professor of Global Health and Social Medicine (*Medical School*)

Andrew Gordon, Lee and Juliet Folger Fund Professor of History (*on leave 2014-15*)

Susan Greenhalgh, John King and Wilma Cannon Fairbank Professor of Chinese Society (*on*



*leave fall term)*

Janet Gyatso, Hershey Professor of Buddhist Studies (*Divinity School*)

Nicholas H. Harkness, Assistant Professor of Anthropology

Michael Herzfeld, Ernest E. Monrad Professor of the Social Sciences

David Howell, Professor of Japanese History

William C. Hsiao, K.T. Li Professor of Economics (*Public Health*)

C.-T. James Huang, Professor of Linguistics

Wesley M. Jacobsen, Professor of the Practice of the Japanese Language and Director of the Japanese Language Program

Jay Jasanoff, Diebold Professor of Indo-European Linguistics and Philology

Sheila Jasanoff, Pforzheimer Professor of Science and Technology Studies, Professor of Environmental Science and Public Policy (*Kennedy School*)

Tarun Khanna, Jorge Paulo Lemann Professor (*Business School*)

Jinah Kim, Assistant Professor of History of Art and Architecture

Sun Joo Kim, Harvard-Yenching Professor of Korean History (*on leave 2014-15*)

William C. Kirby, T. M. Chang Professor of China Studies and Spangler Family Professor of Business Administration (*on leave spring term*)

Shigehisa Kuriyama, Reischauer Institute Professor of Cultural History (*on leave 2014-15*)

Jie Li, Assistant Professor of East Asian Languages and Civilizations (*spring term*)

Wai-yee Li, Professor of Chinese Literature (*on leave 2014-15*)

Yukio Lippit, Professor of History of Art and Architecture

Erez Manela, Professor of History (*on leave 2014-15*)

Michael B. McElroy, Gilbert Butler Professor of Environmental Studies (*on leave 2014-15*)

Ian J. Miller, Professor of History

Anne E. Monius, Professor of South Asian Religions, Acting Director, Center for the Study of World Religions (*Divinity School*)

Stephen Owen, James Bryant Conant University Professor

Si Nae Park, Assistant Professor of East Asian Languages and Civilizations

Parimal G. Patil, Professor of Religion and Indian Philosophy

Elizabeth J. Perry, Henry Rosovsky Professor of Government

Susan J. Pharr, Edwin O. Reischauer Professor of Japanese Politics (*on leave spring term*)

Michael J. Puett, Walter C. Klein Professor of Chinese History

J. Mark Ramseyer, Mitsubishi Professor of Japanese Legal Studies (*Law School*)

James Robson, Professor of East Asian Languages and Civilizations

Peter G. Rowe, Harvard University Distinguished Service Professor, Raymond Garbe Professor of Architecture and Urban Design (*Design School*)

Anthony Saich, Daewoo Professor of International Affairs at the John F. Kennedy School of Government (*Kennedy School*)

Daniel M. Smith, Assistant Professor of Government

Mary M. Steedly, Professor of Anthropology

Ajantha Subramanian, Professor of Anthropology

Jeannie Chi Young Suk, Professor of Law (*Law School*)

Michael A. Szonyi, Professor of Chinese History

Hue-Tam Ho Tai, Kenneth T. Young Professor of Sino-Vietnamese History

Karen Thornber, Professor of Comparative Literature and of East Asian Languages and Civilizations



Xiaofei Tian, Professor of Chinese Literature (*on leave spring term*)  
Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies (*on leave spring term*)  
Charles A. Waldheim, John E. Irving Professor of Landscape Architecture (*Design School*)  
David Der-Wei Wang, Edward C. Henderson Professor of Chinese Literature and of Comparative Literature (*on leave spring term*)  
Eugene Wang, Abby Aldrich Rockefeller Professor of Asian Art  
Martin K. Whyte, John Zwaanstra Professor of International Studies and of Sociology  
Michael Witzel, Wales Professor of Sanskrit  
Richard K. Wolf, Professor of Music  
Mark Wu, Assistant Professor of Law (*Law School*)  
Tomiko Yoda, Takashima Professor of Japanese Humanities  
Alexander Nikolas Zahlten, Assistant Professor of East Asian Languages and Civilizations (*on leave spring term*)

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 is supervised by the Council and is 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 General Education, Anthropology, Economics, Government, History, History of Art and Architecture, 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 Asia Center is located at the Center for Government and International Studies (CGIS), 1730 Cambridge Street, room S113.



***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  
 Carter J. Eckert, Yoon Se Young Professor of Korean History  
 Andrew Gordon, Lee and Juliet Folger Fund Professor of History (*on leave 2014-15*)  
 David Howell, Professor of Japanese History  
 Sun Joo Kim, Harvard-Yenching Professor of Korean History (*on leave 2014-15*)  
 William C. Kirby, T. M. Chang Professor of China Studies and Spangler Family Professor of Business Administration (*on leave spring term*)  
 Shigehisa Kuriyama, Reischauer Institute Professor of Cultural History (*on leave 2014-15*)  
 Ian J. Miller, Professor of History  
 Michael J. Puett, Walter C. Klein Professor of Chinese History  
 Michael A. Szonyi, Professor of Chinese History  
 Hue-Tam Ho Tai, Kenneth T. Young Professor of Sino-Vietnamese History

As of 2006, the Standing Committee on the PhD in History and East Asian Languages is not accepting new applications to the program. Interested students should consult the listing for the Department of East Asian Languages and Civilizations under “Degree in History and East Asian Languages” in the Graduate School of Arts and Sciences Handbook.

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

Michael A. Szonyi, Professor of Chinese History (*Chair*)  
 Ian J. Miller, Professor of History  
 James Robson, Professor of East Asian Languages and Civilizations  
 Karen Thornber, Professor of Comparative Literature and of East Asian Languages and Civilizations

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 1730 Cambridge Street, Cambridge, MA, 02138 or 617-495-3777.

***Graduate Courses of Reading and Research***

**\*Regional Studies — East Asia 300. Thesis Research and Writing**

Catalog Number: 4614

*Karen Thornber 5764 and members of the Faculty*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

Candidates for the A.M. degree in Regional Studies—East Asia may undertake A.M. thesis



reading and research in an approved area of their choice under the direction of a member of the Faculty.

*Prerequisite:* Permission of the faculty member and the Director of Graduate Studies of the RSEA program required. Only one course graded SAT/UNSAT may be used to fulfill the RSEA course requirement.

**\*Regional Studies — East Asia 399. Reading and Research**

Catalog Number: 92282

*Karen Thornber 5764 and members of the Faculty*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

Candidates for the A.M. degree in Regional Studies—East Asia may undertake reading and research in an approved area of their choice under the direction of a member of the Faculty.

*Prerequisite:* Permission of the faculty member and the Director of Graduate Studies of the RSEA program required. Only one course graded SAT/UNSAT may be used to fulfill the RSEA course requirement.

## Astronomy

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

*Faculty of the Department of Astronomy*

Abraham Loeb, Frank B. Baird, Jr. Professor of Science (*Chair*)

Charles Alcock, Professor of Astronomy

Edo Berger, Professor of Astronomy (*Director of Undergraduate Studies*)

David Charbonneau, Professor of Astronomy

Charles Conroy, Assistant Professor of Astronomy

Daniel James Eisenstein, Professor of Astronomy

Douglas Finkbeiner, Professor of Astronomy and of Physics (*on leave 2014-15*)

Alyssa Goodman, Professor of Astronomy

Jonathan E. Grindlay, Paine Professor of Practical Astronomy

Lars Hernquist, Mallinckrodt Professor of Astrophysics

John Asher Johnson, Professor of Astronomy (*Director of Graduate Studies*)

Robert P. Kirshner, Clowes Professor of Science

John M. Kovac, Associate Professor of Astronomy

James M. Moran, Donald H. Menzel Professor of Astrophysics (*on leave 2014-15*)

Ramesh Narayan, Thomas Dudley Cabot Professor of the Natural Sciences

Karin Oberg, Assistant Professor of Astronomy

Dimitar D. Sasselov, Phillips Professor of Astronomy



Irwin I. Shapiro, Timken University Professor  
 Alicia M. Soderberg, Thomas D. Cabot Associate Professor of Astronomy (*on leave fall term*)  
 Christopher Stubbs, Samuel C. Moncher Professor of Physics and of Astronomy, Harvard College Professor (*on leave 2014-15*)

***Other Faculty Offering Instruction in the Department of Astronomy***

Sean M. Andrews, Lecturer on Astronomy  
 Steven Robert Cranmer, Lecturer on Astronomy  
 Thomas M. Dame, Lecturer on Astronomy  
 Rosanne Di Stefano, Lecturer on Astronomy  
 Giovanni G. Fazio, Lecturer on Astronomy  
 Christine Jones Forman, Lecturer on Astronomy  
 William R. Forman, Lecturer on Astronomy  
 Youli E. Gordon, Lecturer on Astronomy  
 Matthew Holman, Lecturer on Astronomy  
 Vinay L. Kashyap, Lecturer on Astronomy  
 Justin C. Kasper, Lecturer on Astronomy  
 Charles J. Lada, Lecturer on Astronomy  
 David W. Latham, Lecturer on Astronomy  
 Jeffrey E. McClintock, Lecturer on Astronomy  
 John Charles Raymond, Lecturer on Astronomy  
 Philip M. Sadler, Frances W. Wright Senior Lecturer on Celestial Navigation and Astronomy  
 Aneta Lucja Siemiginowska, Lecturer on Astronomy  
 Howard A. Smith, Lecturer on Astronomy  
 Andrew Szentgyorgyi, Lecturer on Astronomy  
 Alexey A. Vikhlinin, Lecturer on Astronomy  
 David J. Wilner, Lecturer on Astronomy

***Affiliates of the Department of Astronomy***

Ruth Ann Murray-Clay, Lecturer on Astronomy

***Primarily for Undergraduates***

Astronomy 16 provides an introduction to stellar and planetary astrophysics, and Astronomy 17 provides an introduction to galactic and extragalactic astrophysics. Both courses use single-variable calculus and some introductory mechanics. Together these two courses, which may be taken in either order, provide a complete introductory survey of astrophysics. Astronomy 16 and 17 form the foundation for both the secondary field and the concentration in astrophysics. Both courses receive Gen Ed credit. Students interested in an introduction to the methods of observational astrophysics are encouraged to consider Astronomy 100, which includes a trip to use the telescopes located at the F. L. Whipple Observatory in Arizona. Astronomy 98 is a research tutorial intended for students pursuing the astrophysics concentration or secondary field, although this course is open in special cases to concentrators in related fields. Students interested in substantial independent research during their senior year should consider Astronomy 99,



leading to the senior thesis. Astronomy 110, 120, 130, 151, 191, and 193 each offer the opportunity for study of a particular field of astrophysics. Each of these courses requires preparation in mathematics and physics. Students interested in an introduction to astronomy that presumes no mathematical preparation above the level of high school algebra should consider SPU 19, SPU 21, SPU 22, SPU 30, and Astronomy 2. These courses use a variety of approaches aimed at introducing the key concepts that address some of the great questions of astronomy.

### **Astronomy 2. Celestial Navigation**

Catalog Number: 2179 Enrollment: Limited to 30.

*Philip M. Sadler*

*Half course (fall term). Tu., 11:30-1:30, Tu., 7-10 pm. EXAM GROUP: 16*

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 108-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. Culminating in a day-long cruise to practice navigation skills.

*Note:* Minimal lecturing; predominantly practical activities with individual attention from teaching staff. Math beyond high school trigonometry and geometry unnecessary. This course is offered each year.

### **Astronomy 16. Stellar and Planetary Astronomy**

Catalog Number: 8813

*John Asher Johnson*

*Half course (spring term). Tu., Th., 2:30-4. EXAM GROUP: 11*

This course provides an introduction to the physical principles describing the formation and evolution of stars and their planetary companions. Topics include thermal radiation and stellar spectra; telescopes; energy generation in stars; stellar evolution; orbital dynamics; the Solar system; and exoplanets. This course includes an observational component: students will determine the distance to the Sun, and use the Clay Telescope atop the Science Center to study stellar evolution and detect exoplanets.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe. This course is offered each year.

*Prerequisite:* An introductory course in mechanics, which may be taken concurrently, satisfied by Physics 11a, Physics 15a, Physics 16 or Physical Sciences 12a.

### **Astronomy 17. Galactic and Extragalactic Astronomy**

Catalog Number: 22304

*Daniel James Eisenstein*

*Half course (fall term). M., W., 2:30-4; . EXAM GROUP: 7*

This course provides an introduction to the physical principles describing galaxies and the composition and evolution of the Universe. Topics include the interstellar medium; star clusters; the structure and dynamics of the Milky Way; other galaxies; clusters of galaxies; active galaxies and quasars; cosmology; and the early universe. This course includes an observational component: In addition to observing galaxies with the Science Center Clay Telescope, students will use the millimeter-wavelength telescope at the Harvard-Smithsonian Center for



Astrophysics to measure the rotation velocity of the Milky Way galaxy and to determine its mass.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe. This course is offered each year.

*Prerequisite:* An introductory course in mechanics, which may be taken concurrently, satisfied by Physics 11a, Physics 15a, Physics 16, or Physical Sciences 12a.

### **\*Astronomy 91r. Supervised Reading and Research**

Catalog Number: 1545

*Abraham Loeb and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 14; Spring: 11*

Supervised reading and research in a subject of astrophysics that is 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 be counted only once toward the concentration requirements, and may not be taken more than twice. This course is offered each semester.

*Prerequisite:* Astronomy 16 or Astronomy 17.

### **\*Astronomy 98. Research Tutorial in Astrophysics**

Catalog Number: 3121

*Charles Conroy, and members of the Department*

*Half course (fall term). M., 2:30–4, W., 12:30–2. EXAM GROUP: 7*

This tutorial introduces students to research at the forefront of astrophysics, and provides opportunities for students to meet with research scientists and individuals active in science policy, education, and journalism. Students meet weekly for a lecture and discussion over dinner with a guest speaker, preceded by a reading and a preparatory seminar. Students will be mentored throughout the term on a research project of their choosing. The Harvard-Smithsonian Center for Astrophysics is home to one of the largest groups of astronomers in the world, providing extensive opportunities for undergraduate research.

*Note:* Open to students pursuing the concentration or secondary field in astrophysics, and in special cases to concentrators in other physical sciences. This course is offered each year.

*Prerequisite:* Astronomy 16 or Astronomy 17.

### **\*Astronomy 99. Senior Thesis in Astrophysics**

Catalog Number: 5413

*Charles Alcock*

*Full course. Tu., at 3. EXAM GROUP: Fall: 2; Spring: 16*

Individually supervised reading and research leading to the senior thesis. The Harvard-Smithsonian Center for Astrophysics is home to one of the largest groups of astronomers in the world, providing extensive opportunities for undergraduate research.

*Note:* This course is offered each year.

*Prerequisite:* Astronomy 98.

### ***Cross-listed Courses***



## [\*\*Earth and Planetary Sciences 52. Introduction to Global Geophysics\*\*](#)

[Empirical and Mathematical Reasoning 19. The Art of Numbers]

[\*\*Science of the Physical Universe 19. The Energetic Universe\*\*](#)

[\*\*Science of the Physical Universe 21. Stellar Understanding of the Cosmos\*\*](#)

[\*\*Science of the Physical Universe 22. The Unity of Science: From the Big Bang to the Brontosaurus and Beyond\*\*](#)

[\*\*Science of the Physical Universe 30. Life as a Planetary Phenomenon\*\*](#)

*For Undergraduates and Graduates*

## [\*\*Astronomy 100. Methods of Observational Astronomy\*\*](#)

Catalog Number: 95134

*Edo Berger*

*Half course (spring term). W., 12–2; F., 2–4. EXAM GROUP: 7*

In this course we will learn the basic tools of modern astronomical research, including telescopes, detectors, imaging, spectroscopy, and common software. Emphasis will be placed on both the theory behind telescopes and their use, and hands-on experience with real data. Using this basic knowledge we will analyze science-level astronomical data from a wide range of telescopes and review the basic properties of stars, galaxies, and other astronomical objects of interest. The course includes a trip to the F. L. Whipple Observatory on Mount Hopkins, Arizona, to gather data with various telescopes.

*Note:* This course is offered each year.

*Prerequisite:* Astronomy 16 or Astronomy 17.

## [\*\*Astronomy 120. Stellar Physics\*\*](#)

Catalog Number: 58719

*Alicia M. Soderberg*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Stars are the basic building blocks of galaxies and are responsible for the nucleosynthesis of most of the elements. Topics include stellar structure; energy transport in stars; stellar atmospheres; astroseismology; nuclear fusion in stars; stellar evolution; nucleosynthesis of the elements; stellar death and supernovae; the degenerate remnants of stars; black holes. This course will make use of thermodynamics, statistical mechanics, and quantum mechanics, but will review these subjects as necessary.

*Note:* Offered in alternate years.

*Prerequisite:* Astronomy 16. Physics 15c strongly recommended.

## [\*\*\[Astronomy 130. Cosmology\]\*\*](#)

Catalog Number: 73826

*Douglas Finkbeiner*

*Half course (spring term). Tu., Th., 2–3:30.*

The physical model describing the initial conditions, evolution, and ultimate fate of the Universe. Topics include cosmic dynamics; the Robertson-Walker Metric; curvature; estimating cosmological parameters; the accelerating universe; dark matter; gravitational lensing; the cosmic microwave background; nucleosynthesis; inflation and the very early universe; formation of structure. Note: Offered in alternate years.



*Note:* Expected to be given in 2015–16. This course offered alternate years.

*Prerequisite:* Astronomy 17 or Physics 15c.

### [Astronomy 151. Astrophysical Fluid Dynamics]

Catalog Number: 3025

*Lars Hernquist*

*Half course (spring term). M., W., F., at 9.*

Fluid and gas dynamics with applications drawn from astrophysical phenomena. Topics include: kinetic theory, diffusive effects, incompressible fluids, inviscid and viscous flows, boundary layer theory, accretion disks, fluid instabilities, turbulence, convection, gas dynamics, linear (sound) waves, method of characteristics, Riemann invariants, supersonic flow, non-linear waves, shocks, similarity solutions, blast waves, radiative shocks, ionization fronts, magnetohydrodynamics, hydromagnetic shocks, dynamos, gravitational collapse, principles of plasma physics, Landau damping, computational approaches, stability criteria, particle based (Lagrangian) methods, adaptive mesh refinement, radiation hydrodynamics.

*Note:* Expected to be given in 2015–16. This course offered alternate years.

### [Astronomy 185. Orders of Magnitude] - (New Course)

Catalog Number: 72213

*Instructor to be determined*

*Half course (fall term). Tu., Th., 1:30–3.*

This course offers an introduction to order-of-magnitude estimation, as applied to astrophysical systems. Emphasis will be placed on research triage---how to decide which theoretical and observational ideas merit in depth exploration. Example topics include diffusion and viscosity; material properties; gas drag; collisional dynamics; radiative and non-radiative cooling mechanisms; the structure of astrophysical disks; and turbulence.

*Note:* Expected to be given in 2015–16. Notes: This course is open to undergraduates, but familiarity with a broad range of physical topics at the level of incoming graduate students will be assumed.

### Astronomy 189. Exoplanet Systems

Catalog Number: 92184 Enrollment:

*David Charbonneau*

*Half course (spring term). M., W., F., at 10. EXAM GROUP: 5*

A survey of the rapidly evolving field of exoplanets with the goal of equipping students with the ability to identify and pursue research questions. Topics include observational methods and instrumentation to detect and characterize exoplanets; properties of stellar hosts; formation and dynamical evolution of planetary systems; composition and physical structure of planets; planetary atmospheres; habitable zones and biosignatures.

*Note:* This course is intended for graduate students and upper division undergraduates concentrating in astrophysics or related fields. Students who do not have a CfA computer account should contact the course head well in advance of the first day of class. Offered in alternate years.

*Prerequisite:* Astronomy 16, and a course in mechanics at the level of Physics 15a or above.



### **Astronomy 191. Astrophysics Laboratory**

Catalog Number: 3615

*John M. Kovac*

*Half course (spring term). F., 2-5, and lab hours to be arranged. EXAM GROUP: 18*

Laboratory and observational projects in astrophysics. Students design and undertake two projects from a selection including: observational studies of the cosmic microwave background radiation, molecules in interstellar clouds, the rotation of the galaxy, galactic molecular sources with the submillimeter array (SMA), stars and clusters with the Clay 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 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. This course is offered each year.

*Prerequisite:* Astronomy 16 or 17, or Physics 15c or equivalent.

### **Astronomy 193. Noise and Data Analysis in Astrophysics**

Catalog Number: 4495

*Aneta Siemiginowska & Vinay Kashyap*

*Half course (spring term). M., W., 2–3:30. EXAM GROUP: 18*

Introduction to Astronomical data and analysis with a view to obtaining reliable inferences.

Includes the basics of signal processing like Fourier Transforms and wavelets, non-parametric tests, and stochastic processes. Covers basic Bayesian analysis, starting from probability theory, model fitting and selection, parameter estimation, and MCMC. Also covers image processing, including filtering, deconvolution, adaptive smoothing, and source detection.

*Note:* This course offered alternate years.

*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 161. Planetary Physics and Global Tectonics]

#### **\*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. All graduate students in Astronomy are required to take Astronomy 200 and to register every year for Astronomy 301hf. Other 200 level courses below, along with Astronomy 151, 189 and 193 above, may be taken as graduate electives. Graduate students in Astronomy are required to take one 200 level Physics-based course selected from Physics 210, 251a and Astronomy 251. Other 200 level Physics courses may be substituted upon petition to the Director of Graduate Studies.

### **Astronomy 200 (formerly Astronomy 150). Radiative Processes in Astrophysics**



Catalog Number: 8993

*Ramesh Narayan*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

This course offers a survey of radiative processes of astrophysical importance from radio waves to gamma rays. Topics include thermal and non-thermal processes, including bremsstrahlung, synchrotron radiation, and Compton scattering; radiation in plasmas; atomic and molecular spectra.

*Note:* Open to seniors concentrating in Astrophysics or Physics. Juniors considering this course should contact the instructor. This course is offered each year.

*Prerequisite:* Physics 143a.

### **Astronomy 201a. Stellar Astrophysics**

Catalog Number: 4303

*Steven Robert Cranmer*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

Stars are the basic building blocks of the universe, and they are responsible for the production of most elements via nucleosynthesis. This course covers the energy generation and transport in stars, stellar atmospheres and radiative transfer, stellar evolution, and asteroseismology. The Sun and its heliosphere are also studied as the closest and best-studied examples of a star and its circumstellar plasma. This course also provides a brief survey of planetary astrophysics, including the dominant processes acting in the interiors and atmospheres of planets in our own solar system and in others.

*Note:* This course offered in alternate years.

*Prerequisite:* Astronomy 200 (may be taken concurrently).

### **Astronomy 201b. Interstellar Medium and Star Formation**

Catalog Number: 4206

*Karin Oberg*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

The interstellar medium (ISM) is the reservoir of gas and dust between stars. It is the nursery of new stars and planets, and the depository of energy and material from stellar winds and supernovae. This course will treat the often extreme physics and chemistry of the interstellar medium under its observed range of temperatures, densities, and radiation fields. It will cover the processes that govern the interactions between the ISM, stars and their host galaxies, including star and planet formation, and feedback from stellar deaths. The observational and laboratory methods and results that underpin the theories of interstellar environments will be highlighted.

*Note:* This course offered in alternate years.

### **[Astronomy 202a. Galaxies and Dynamics]**

Catalog Number: 8237

*Daniel James Eisenstein*

*Half course (fall term). M., W., 9:30–11.*

An overview of extragalactic astronomy. Galaxy formation, evolution and properties, galactic dynamics, clustering, gas dynamics, star formation and other topics at the frontiers of extragalactic astronomy.

*Note:* Expected to be given in 2015–16. This course offered in alternate years.



### [Astronomy 202b. Cosmology]

Catalog Number: 2446

*Daniel James Eisenstein and John M. Kovac*

*Half course (spring term). M., W., 10–11:30.*

The cosmological principle: isotropy and homogeneity, cosmological world models, thermal history of the Big Bang, the microwave background, inflation, growth of density fluctuations, large scale structure and other topics at the frontiers of cosmology.

*Note:* Expected to be given in 2015–16. This course offered in alternate years.

### [Astronomy 215hf. Topics in Contemporary Astrophysics]

Catalog Number: 38496

*Edo Berger*

*Half course (throughout the year). Tu., Th., 10–11:30.*

This full year half course will cover a broad range of contemporary topics in observational and theoretical astrophysics through a set of 10-12 two-week modules taught by members of the Astronomy Department faculty. The course will meet twice per week, and each module will be comprised of a stand-alone topic with a single homework assignment. Enrolled students will be required to sign up for the full year and attend half of the offered modules.

*Note:* Expected to be given in 2015–16. This course offered alternate years.

*Prerequisite:* This course is open to all astronomy graduate students.

### [Astronomy 218. Radio Astronomy]

Catalog Number: 2883

*James M. Moran*

*Half course (fall term). M., W., 2:30–4.*

Historical development; diffraction 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. Observational projects and laboratory exercises carried out with the Submillimeter Array, Haystack Observatory and the CMB Laboratory.

*Note:* Expected to be given in 2015–16. This course offered in alternate years.

*Prerequisite:* Astronomy 200 or Physics 153 recommended.

### [Astronomy 219. High Energy Astrophysics]

Catalog Number: 1858

*Jonathan E. Grindlay and Alexey A. Vikhlinin*

*Half course (spring term). M., W., 2–3:30.*

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.

*Note:* Expected to be given in 2015–16. This course offered in alternate years.

### Astronomy 231. Practical Optics for Astronomers

Catalog Number: 65534



*Andrew Szentgyorgyi*

*Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 11*

The primary goal of this course is to familiarize consumers of astronomical data with the fundamental physical principles that underlie the instruments that they use to gather data, as well as provide insight into the engineering constraints that bound the capabilities of available instruments. Topics will include first order optical design principles, the design of telescopes, cameras and spectrographs, as well as basic optical engineering principles and computer aided design.

*Note:* This course offered in alternate years.

*Prerequisite:* A solid grasp of 1st and 2nd year undergraduate physics and fluency in the application of differential and integral calculus to physical problems.

### **Astronomy 251. Quantum Mechanics for Astrophysics**

Catalog Number: 5381

*Lars Hernquist*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

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.

*Note:* This course offered in alternate years.

*Prerequisite:* Physics 143a or the equivalent, or permission of instructor.

### **[Astronomy 253. Plasma Astrophysics]**

Catalog Number: 64783

*Steven Robert Cranmer and Nicholas Murphy*

*Half course (spring term). M., W., 3:30–5.*

This course provides an introduction to plasma physics and plasma processes in an astrophysical context. Topics include charged particle motions, kinetic theory, magnetohydrodynamics, waves, instabilities, dynamos, shocks, particle acceleration, and magnetic reconnection. Specific applications may include solar and stellar coronae (including flares), interplanetary space plasmas, magnetized accretion disks, cosmic rays, galactic dynamos, and interstellar turbulence.

*Note:* Expected to be given in 2015–16. This course offered in alternate years.

*Prerequisite:* Knowledge of intermediate electromagnetism, partial differential equations, and fluid dynamics. Ay151 (Fluid Dynamics) is recommended but not required.

### ***Cross-listed Courses***

#### **Applied Mathematics 205. Advanced Scientific Computing: Numerical Methods**

**[Earth and Planetary Sciences 238. Spectroscopy and Radiative Transfer of Planetary Atmospheres]**

**Engineering Sciences 237. Planetary Radiation and Climate - (New Course)**

**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

*Charles Alcock 5194, Sean M. Andrews 6903, Edo Berger 6027, David Charbonneau 5225, Charles Conroy 7746, Steven Robert Cranmer 3185, Thomas M. Dame 2755, Rosanne Di Stefano 1508, Daniel James Eisenstein 6590, Martin S. Elvis 2530, Giovanni G. Fazio 1143, Douglas Finkbeiner 5556 (on leave 2014-15), Christine Jones Forman 5766, William R. Forman 6075, Alyssa Goodman 3348, Youli E. Gordon 7885, Jonathan E. Grindlay 4593, Lars Hernquist 4250, Matthew Holman 1260, John Asher Johnson 7400, Justin C. Kasper 6261, Robert P. Kirshner 1071, John M. Kovac 6553, Charles J. Lada 7823, David W. Latham 3716, Abraham Loeb 3349, Jeffrey E. McClintock 2108, James M. Moran 4090 (on leave 2014-15), Ruth Ann Murray-Clay 6913, Ramesh Narayan 2871, Karin Oberg 7422, Philip M. Sadler 2231, Dimitar D. Sasselov 1020, Irwin I. Shapiro 7660, Howard A. Smith 6880, Alicia M. Soderberg 6570 (on leave fall term), Christopher Stubbs 4856 (on leave 2014-15), Alexey A. Vikhlinin 7268, and David J. Wilner 2855*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 2; Spring: 16*

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 301hf. Journal Club**

Catalog Number: 5224

*Edo Berger 6027 and Alicia M. Soderberg 6570 (on leave fall term) (spring term only)*

*Half course (throughout the year). Tu., at 4. EXAM GROUP: Fall: 6; Spring: 17*

Each week two speakers (faculty, lecturers, and students) will report on current research in astronomy, providing students with an opportunity to practice the organization and presentation of technical material. A minimum of one presentation will be expected from each student each year focused on their own research or new results in the literature. Faculty will similarly discuss recent results from the literature, as well as their own research as a way to provide an overview of research activities at the Harvard Astronomy Department. The course is intended as an opportunity for substantive discussion, as an opportunity to find out about research activities, and to foster interaction between the students and faculty.

*Note:* This course is offered each semester and attendance is required for all registered graduate students in Astronomy.

#### **\*Astronomy 302. Scientists Teaching Science**

Catalog Number: 9869

*Philip M. Sadler 2231*

*Half course (spring term). Tu., 2–3:30. EXAM GROUP: 6*

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. Assignments help illustrate research findings from life, earth, and physical science education. Undergraduates with an interest in teaching at the pre-college level may be admitted with instructor permission. This course offered each year.

*Prerequisite:* Experience as a teaching fellow or tutor.

### **Cross-listed Courses**

#### **\*Statistics 310hfr (formerly \*Statistics 310hf). Topics in Astrostatistics**

## **Biological Sciences in Dental Medicine**

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### *Faculty of the Committee on Higher Degrees in Dental Medicine*

Bjørn R. Olsen, Hersey Professor of Cell Biology (*Medical School*), Professor of Developmental Biology, and Dean of Research (*Dental School*) (*Chair*)

Malcolm Whitman, Professor of Developmental Biology (*Dental School*) (*Vice Chair*)

Roland Elie Baron, Professor of Oral Medicine, Infection, and Immunity (*Dental School*), Professor of Medicine (*Medical School*)

Randy King, Harry C. McKenzie Professor of Cell Biology (*Medical School*)

Henry M. Kronenberg, Professor of Medicine (*Medical School*)

Beate K. M. Lanske, Professor of Oral Medicine, Infection, and Immunity (*Dental School*), Associate Professor of Medicine (*Medical School*)

Andrew B. Lassar, Professor of Biological Chemistry and Molecular Pharmacology (*Medical School*)

Yefu Li, Assistant Professor of Developmental Biology (*Dental School*)

Henry C. Margolis, Associate Professor of Developmental Biology (*Dental School*)

Bruce J. Paster, Professor of Oral Medicine, Infection, and Immunity (*Dental School*)

Vicki Rosen, Professor of Developmental Biology (*Dental School*)

Gary B. Ruvkun, Professor of Genetics (*Medical School*)

Charles N. Serhan, Simon Gelman Professor of Anaesthesia (*Medical School*)

Jagesh V. Shah, Associate Professor of Systems Biology, Associate Professor of Health Sciences and Technology, Associate Professor of Medicine (*Medical School*)

Kevin Struhl, David Wesley Gaiser Professor of Biological Chemistry and Molecular Pharmacology (*Medical School*)

Clifford J. Tabin, George Jacob and Jacqueline Hazel Leder Professor of Genetics (*Medical*



*School)*

Nathaniel Treister, Assistant Professor of Oral Medicine, Infection, and Immunity (*Dental School*)

Matthew L. Warman, Harriet M. Peabody Professor of Orthopedic Surgery, Professor of Genetics (*Medical School*)

### ***Other Faculty Offering Instruction in Dental Medicine***

James Hanken, Professor of Biology and Curator of Herpetology, Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology (*on leave fall term*)

Daniel E. Lieberman, Edwin M. Lerner II Professor of Biological Sciences, Harvard College Professor

Malcolm Whitman, Professor of Developmental Biology (*Dental School*)

The Biological Sciences in Dental Medicine (BSDM) Program, leading to the PhD degree combines faculty from the Department of 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 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*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

## **Biological Sciences in Public Health**

**AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**



### ***Faculty of the Committee on Higher Degrees in Public Health Sciences***

Michael Grusby, Professor of Molecular Immunology, and Senior Associate Dean for Academic Affairs (*Public Health*) (*Chair*)

### ***Faculty of the Subcommittee on the Doctor of Philosophy in Biological Sciences in Public Health***

Brendan D. Manning, Professor of Genetics and Complex Diseases (*Public Health*) (*Chair*)

Michael Grusby, Professor of Molecular Immunology, and Senior Associate Dean for Academic Affairs (*Public Health*) (*ex officio*)

Daniel L. Hartl, Higgins Professor of Biology (FAS) and Professor in the Department of Immunology and Infectious Diseases (*Public Health*)

Lester Kobzik, Professor in the Department of Environmental Health (*Public Health*), Professor of Pathology (*Medical School*)

Susan Mango, Professor of Molecular and Cellular Biology

Frank M. Sacks, Professor of Cardiovascular Disease Prevention (*Public Health*), Professor of Medicine (*Medical School*)

Marianne Wessling-Resnick, Professor of Nutritional Biochemistry (*Public Health*)

Dyann F. Wirth, Richard Pearson Strong Professor of Infectious Disease (*Public Health*)

### ***Other Faculty Offering Instruction in Biological Sciences in Public Health***

David Christiani, Professor of Medicine (*Medical School*)

Clifford Lo, Associate Professor in the Department of Nutrition (*Public Health*), Associate Professor of Pediatrics (*Medical School*)

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 201r. Laboratory Rotations**

Catalog Number: 32079

*Brendan D. Manning (Public Health)*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 12*

Members of the Division of Biological Sciences offer hands-on experimental methods of research in biological sciences. Students write a paper and give an oral presentation regarding their 10-week laboratory project.

*Note:* Offered jointly with the School of Public Health as DBS 300.

#### **BPH 206. Advanced Respiratory Physiology**

Catalog Number: 1049

*James Preston Butler (Medical School)*

*Half course (fall term). M., W., 9–10:20. EXAM GROUP: 10*

Respiratory measurements are an integral part of 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 208. Human Physiology**

Catalog Number: 3627

*Stephanie A. Shore (Public Health)*

*Half course (fall term). M., W., 10:30–12:20. EXAM GROUP: 5*

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 School of Public Health as EH 205. Required lab.

*Prerequisite:* College-level introductory biology or permission of the instructor.

#### **[BPH 210. Pathophysiology of Human Disease]**

Catalog Number: 3078

*Lester Kobzik*

*Half course (spring term). M., F., 1:30–3:20.*

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:* Expected to be given in 2015–16. Offered jointly with the Medical School as BPH 729.0 and with the School of Public Health as EH 208.

*Prerequisite:* A college-level human physiology course.

### **BPH 215. Principles of Toxicology**

Catalog Number: 5366

*Vishal S. Vaidya (Medical School)*

*Half course (fall term). M., W., 10:30–12:20. EXAM GROUP: 5*

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 School of Public Health as EH 504.

*Prerequisite:* Organic chemistry and mammalian physiology or equivalent.

### **BPH 222. The Science of Human Nutrition**

Catalog Number: 0216

*Frank M. Sacks (Medical School, Public Health), Clifford Lo (Medical School, Public Health) and members of the Department*

*Half course (spring term). Tu., Th., 1:30–3:20. EXAM GROUP: 1*

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.

### **\*BPH 225r. Advanced Topics in Biological Sciences in Public Health: Seminar**

Catalog Number: 58162

*Marianne Wessling-Resnick (Public Health)*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 16*

A series of discussions and seminars each running for a half term (7-8 weeks).

### ***Graduate Courses of Reading and Research***

#### **\*BPH 301. Biological Sciences Seminars**

Catalog Number: 1152

*Marianne Wessling-Resnick (Public Health) 1315, Brendan Manning (Public Health) 5293*

*Half course (fall term). Tu., Th., 9–10:20. EXAM GROUP: 15*

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 312. Regulation of the Cellular Uptake of Macromolecular Nutrients**

Catalog Number: 2736

*Marianne Wessling-Resnick (Public Health) 1315*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*BPH 315. Molecular Genetic Analysis of Gene Expression and Drug Resistance in**

**Parasitic Protozoan, Including Leishmania and Malaria**

Catalog Number: 2756

*Dyann F. Wirth (Public Health) 2492*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*BPH 319. Signaling Mechanisms of Peptide Hormones, Genetic and Molecular Basis of Obesity and Diabetes**

Catalog Number: 8425

*Gokhan S. Hotamisligil (Public Health) 2725*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*BPH 322. Study of Epidemiologic and Biological Characteristics of HIV Viruses in Africa**

Catalog Number: 4523

*Phyllis J. Kanki (Public Health) 2270*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*BPH 323. Human Lipoprotein Metabolism: Biochemistry and Metabolic Modeling**

Catalog Number: 5530

*Frank M. Sacks 2276*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*BPH 325. Assessment of the Impact of Workplace Pollutants on Health**

Catalog Number: 7448

*David Christiani (Public Health, Medical School) 1514*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*BPH 326. Environmental Epigenetics - (New Course)**

Catalog Number: 50436

*Andrea Baccarelli (Public Health) 7887*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*BPH 334. Molecular Basis of Host Cell Invasion, Signaling, Differentiation by the Human Pathogen, T. Cruzi**

Catalog Number: 2409



*Barbara Burleigh (Public Health) 2763*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*BPH 336. Study of Human and Primate T-lymphotrophic Retroviruses Including Agents that Cause AIDS**

Catalog Number: 3248

*Myron Essex (Public Health) 2499*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*BPH 339. Mechanical Basis of Airway and Lung Parenchymal Function**

Catalog Number: 6572

*Jeffrey J. Fredberg (Public Health) 1303*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*BPH 345. Lung Macrophage Differentiation and Function**

Catalog Number: 1495

*Lester Kobzik (Medical School, Public Health) 1313*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*BPH 348. Human and Related Primate Retroviruses**

Catalog Number: 3024

*Tun-hou Lee (Public Health) 2769*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*BPH 357. Physiological and Pharmacological Aspects of Bronchoconstriction.**

Catalog Number: 5047

*Stephanie A. Shore (Public Health) 1304*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*BPH 358. Human Immunodeficiency Virus Envelope Glycoproteins and Vaccine Development**

Catalog Number: 0241

*Joseph G. Sodroski (Medical School, Public Health) 1712*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*BPH 365. Virulence Factors of Mycobacteria**

Catalog Number: 5044

*Eric J. Rubin (Public Health) 4084*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*BPH 366. Approaches to Population Biology and the Epidemiology of Infectious Diseases**

Catalog Number: 7822

*Marc Lipsitch (Public Health) 4097*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*



**\*BPH 368. Host-pathogen Interactions of *Shigella***

Catalog Number: 6995

*Marcia Goldberg (Medical School) 3783*

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11

**\*BPH 372. Molecular Mechanisms Underlying the Pathogenesis of Human Malaria**

Catalog Number: 2598

*Manoj T. Duraisingh (Public Health) 5177*

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7

**\*BPH 374. Nuclear Lipid Receptors as Therapeutic Targets of Metabolic Diseases**

Catalog Number: 3153

*Chih-Hao Lee (Public Health) 5294*

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8

**\*BPH 375. Signaling Pathways Underlying Tumorigenesis and Metabolic Diseases**

Catalog Number: 3159

*Brendan D. Manning (Public Health) 5293*

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18

**\*BPH 376. Secretion and pathogenesis in *M. tuberculosis***

Catalog Number: 7620

*Sarah Merritt Fortune (Public Health) 5736*

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7

**\*BPH 377. Host-Pathogen Interactions in Malaria Parasites**

Catalog Number: 98913

*Matthias Marti (Public Health) 6439*

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18

**\*BPH 379. Transcriptional Mechanisms that Regulate Inflammatory Gene Expression**

Catalog Number: 21747

*Tiffany Horng (Public Health) 6612*

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17

**\*BPH 380. Interplay Between the Innate Immune System/Intestinal Microbial Communities**

Catalog Number: 73269

*Wendy S. Garrett (Public Health) 6613*

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18

**\*BPH 381. Receptor Signaling and Disease**

Catalog Number: 41678

*Quan Lu (Public Health) 6774*

Half course (fall term; repeated spring term). . EXAM GROUP: 15



**\*BPH 382. Aging, Stress Resistance and Dietary Restriction**

Catalog Number: 48113

*James Mitchell (Public Health) 6907*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*BPH 383. Gene regulation and environmental epigenetics**

Catalog Number: 85351

*Bernardo Lemos Silva (Public Health) 3606*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*BPH 384. Sex and reproduction Anopheles gambiae: targets for the control of malaria transmission**

Catalog Number: 43307

*Flaminia Catteruccia (Public Health) 3493*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*BPH 385. The Molecular Genetics of Aging**

Catalog Number: 36534

*William Mair (Public Health) 3550*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*BPH 386. Kidney Disease: From Translational Biomarkers to Molecular Mechanisms & Regenerative Medicine**

Catalog Number: 19866

*Vishal S. Vaidya (Medical School) 6964*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*BPH 387. The tumor suppressor p53-mediated stress response in human cancer**

Catalog Number: 67403

*Zhi-Min Yuan (Public Health) 9265*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*BPH 388. Functional analysis of microbial communities and the human microbiome**

Catalog Number: 96614

*Curtis Huttenhower (Public Health) 6551*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*BPH 389. Cell Metabolism: Biology and Disease - (New Course)**

Catalog Number: 60418

*Robert V. Farese, Jr. (Public Health) 7671*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*BPH 390. Cellular Mechanisms of Lipid Homeostasis - (New Course)**

Catalog Number: 92382

*Tobias Walther (Public Health) 7670*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*



### ***Quarter Courses for Graduate Students Only***

#### **\*BPH 301qc. Molecular Basis for Nutritional & Metabolic Diseases**

Catalog Number: 29149

*Chih-Hao Lee (Public Health) 5294 and Gokhan S. Hotamisligil (Public Health) 2725*

*Quarter course (spring term). M., 12:30–1:20, W., 10:30–12:10. EXAM GROUP: 7*

Students have an opportunity to review and analyze key papers that provide physiological and molecular evidence that bears on a topic of current interest in human nutrition and related disorders. Additionally, students learn skills necessary for critical thinking, and oral and written presentations.

*Note:* Offered jointly with the School of Public Health as ID 512.

#### **\*BPH 302qc. Interdisciplinary Training in Pulmonary Sciences Part II**

Catalog Number: 95778

*Quan Lu (Public Health) 6774 and Lester Kobzik 1313*

*Quarter course (spring term). Tu., 9:30–11:30, F., 12:30–1:20. EXAM GROUP: 17*

The intersection of environment and health is by necessity an interdisciplinary focus. The most promising advances in lung biology and respiratory disease are resulting from teams of scientists with diverse disciplinary training, including biology, medicine, engineering, and physics. In addition to a strong foundation in a specific discipline, the ability to recognize and act upon opportunities presented by outside disciplines is a crucial skill. This course is designed to train scientists to approach lung biology and respiratory diseases with an interdisciplinary perspective, in particular by bridging the gap between life sciences and physical/engineering sciences. With a focus on laboratory sciences and on mechanistic levels of understanding, course materials will cover 3 main problem areas: asthma, air pollution, and lung infection. The course consists of weekly course-meetings (lectures and case-studies) plus weekly research seminars from the physiology program. Students will gain skills in recognizing the relative strengths and weaknesses of different disciplinary approaches applied to pulmonary sciences, in designing interdisciplinary experiments effectively, and in interpreting interdisciplinary results critically.

*Note:* Offered jointly with the School of Public Health as EH 513.

#### **[\*BPH 303qc. Critical Reading in Pathophysiology of Human Diseases]**

Catalog Number: 44256

*Lester Kobzik 1313*

*Quarter course (spring term). Tu., 3:30–5.*

The objectives of this course are to enhance and supplement knowledge of pathophysiology learned in the main course. This course will use critical reading to explore primary literature, and is especially intended for graduate students in the biological sciences. The course materials and discussions will provide a deeper understanding of the application and translation of basic pathophysiology, as found in current biomedical research.

*Note:* Expected to be given in 2015–16. Offered jointly with the School of Public Health as EH 526.

#### **\*BPH 304qc. Ecological and Epidemiological Control of Parasitic Diseases**

Catalog Number: 59363

*Matthias Marti (Public Health) 6439 and Dyann F. Wirth (Public Health) 2492*



*Quarter course (fall term). M., W., F., 3:30–5:20. EXAM GROUP: 14*

Provides an introduction to ecological and epidemiological concepts basic to the control of infectious agents. Considers important parasitic diseases of particular significance in the developing areas of the world. Epidemiological principles of vector-associated diseases are elucidated through study of entities such as malaria and schistosomiasis.

*Note:* Offered jointly with School of Public Health as IID 201.

*Prerequisite:* Background in biology required; knowledge of pathogenesis of infectious diseases desirable.

### **\*BPH 305qc. Interdisciplinary Training in Pulmonary Sciences Part 1**

Catalog Number: 22948

*Quan Lu (Public Health) 6774 and Lester Kobzik 1313*

*Quarter course (fall term). Tu., 9:30–10:20, F., 12:30–1:20. EXAM GROUP: 2*

The intersection of environment and health is by necessity an interdisciplinary focus. The most promising advances in lung biology and respiratory disease are resulting from teams of scientists with diverse disciplinary training, including biology, medicine, engineering, and physics. In addition to a strong foundation in a specific discipline, the ability to recognize and act upon opportunities presented by outside disciplines is a crucial skill. This course is designed to train scientists to approach lung biology and respiratory diseases with an interdisciplinary perspective, in particular by bridging the gap between life sciences and physical/engineering sciences. With a focus on laboratory sciences and on mechanistic levels of understanding, course materials will cover 3 main problem areas: asthma, air pollution, and lung infection. The course consists of weekly course-meetings (lectures and case-studies) plus weekly research seminars from the physiology program. Students will gain skills in recognizing the relative strengths and weaknesses of different disciplinary approaches applied to pulmonary sciences, in designing interdisciplinary experiments effectively, and in interpreting interdisciplinary results critically.

*Note:* Offered jointly with School of Public Health as EH 512.

### **\*BPH 306qc. Tuberculosis**

Catalog Number: 89577

*Sarah Merritt Fortune (Public Health) 5736, Edward Anthony Nardell (Public Health) 6885, and Eric J. Rubin (Public Health) 4084*

*Quarter course (spring term). Tu., Th., 1:30–3:20. EXAM GROUP: 5*

This is a comprehensive survey course on tuberculosis featuring lectures by some of the leading authorities in the field. The first half of the course focuses on population issues (TB epidemiology in the US and the world), transmission, modeling, and programmatic issues (the essentials of good TB control both here and in high burden countries). The second month deals more with the biomedical aspects of TB, immunology, genetics, diagnosis, decision analysis, and treatment, again, both here and abroad. There is a field trip to the Massachusetts State Laboratory. Because of involvement of several of the faculty, special attention is paid to the global problem of multidrug resistant TB, and the work of Partners in Health, an NGO associated with the medical school. During the second month, medical students join the SPH students for an elective course involving patient interviews at the state TB hospital. They present these cases and related topics in class during the second month. SPH students are evaluated on the basis of class participation and one or more presentations on relevant TB topics of interest. The course ends on



or near World TB Day, with optional TB-related activities in the Boston area.  
*Note:* Offered jointly with School of Public Health as IID 202.

**\*BPH 308qc. Molecular Signals to Understand Exposure Biology**

Catalog Number: 25653

*Vishal S. Vaidya (Medical School) 6964*

*Quarter course (spring term). Fall: Th., 10:30-12:20; Spring: Hours to be arranged. EXAM*

*GROUP: 1*

This course will offer students a deeper understanding of molecular signals often termed, as "Biomarkers" that serve as highly useful tools for understanding the biology of the disease as well as nature and extent of human exposure from environmental contaminants and drugs. The course is divided in 4 modules: 1) Biomarker discovery, 2) Organ/Disease specific biomarkers, 3) Multiscale technologies for biomarker quantitation, and 4) Clinical and statistical considerations in biomarker research.

*Note:* Offered jointly with School of Public Health as EH 527.

**\*BPH 309qc. Tumor Cell Signaling and Metabolism**

Catalog Number: 63523 Enrollment: Limited to 15.

*Brendan D. Manning (Public Health) 5293*

*Quarter course (fall term). M., F., 1:30–3:30. EXAM GROUP: 8*

This course will focus on the metabolic reprogramming of cells as they undergo the transformation from normal to cancer cells. Emphasis will be placed on the unique nutrient and energy demands of growing tumors, the molecular mechanisms by which oncogenic signaling pathways alter cellular metabolism, and therapeutic opportunities arising from the profound differences in the metabolism of normal versus tumor cells. This course consists of one lecture and one session of critical reading of current primary literature related to the lecture each week.

*Note:* This course will be taught every other year (odd years). Offered jointly with the School of Public Health as GCD 213.

*Prerequisite:* Preference given to PhD students in HILS-affiliated programs (e.g., BPH, BBS, etc.)

**\*BPH 310qc. Molecular Mechanisms of Aging**

Catalog Number: 61482

*James Mitchell (Public Health) 6907*

*Quarter course (fall term). M., F., 1:30–3:30. EXAM GROUP: 5*

We will explore molecular mechanisms underlying aging and aging-related disease. Topics will include nutrient signaling and energy metabolism, genome stability and proteostasis, interventional approaches to extended longevity, and theories of aging including the free radical theory. Recent and classic literature will be critically discussed.

*Note:* This course will be taught every other year (odd years). Offered jointly with the School of Public Health as GCD 212.

*Prerequisite:* Preference given to PhD students in HILS-affiliated programs (e.g., BPH, BBS, etc.)

**\*BPH 316qc. Molecular and Cell Biology of Infectious Diseases**

Catalog Number: 36484 Enrollment: Limited to 20.



*Barbara Burleigh (Public Health) 2763 and Matthias Marti (Public Health) 6439*

*Quarter course (spring term). Tu., Th., 3:30–5:20. EXAM GROUP: 12*

This course will focus on medically important eukaryotic parasites (including malaria, toxoplasma, leishmania, trypanosomes, amoebae, and giardia). We will examine central themes in the pathogenesis of infectious diseases. Critical readings and discussions will emphasize biochemistry, cell and molecular biology of host-pathogen interactions during the establishment and maintenance of infection in hosts and host cells. To the extent to which it is possible, infection strategies of protozoan parasites will be compared and contrasted to those of bacterial and viral pathogens in hosts and host cells.

*Note:* Offered jointly with School of Public Health as IID216. Meeting Dates: January 28 - March 13. Offered with BPH 317qc.

**[\*BPH 317qc. Immunology of Infectious Diseases]**

Catalog Number: 6938 Enrollment: Limited to 35.

*Barbara Burleigh (Public Health) 2763*

*Quarter course (spring term). Tu., Th., 3:30–5:20.*

The available information on molecular and cellular basis of innate immune responses has exploded in the last decade. In particular the role of Toll-Like receptors, inflammasomes and nucleic acid-sensing cytoplasmatic receptors on resistance to and pathogenesis of infectious diseases have been scrutinized. The main focus of the course will be on the interface of the innate and acquired immune system with microbial pathogens, discussing the role that these interactions play in protective versus deleterious immune responses, and thereby, on disease outcome. The program will promote discussions on fundamental concepts as well as new advances in the role of innate immunity in host resistance and pathogenesis of infectious diseases, with special emphasis on infections of the tropics. Each lecture requires reading several relevant papers and completion of a problem set. A final paper, in the format of a research proposal, is required.

*Note:* Expected to be given in 2015–16. Offered jointly with the Medical School as BPH 724.0 and with the School of Public Health as IID 208. Each lecture requires reading several relevant papers and completion of a problem set. Meeting Dates: March 25 - May 15. Offered with BPH 316qc.

*Prerequisite:* An immunology course.

**\*BPH 319qc. Biology and Control of Insect Vectors in Human Disease - (New Course)**

Catalog Number: 15743

*Flaminia Catteruccia (Public Health) 3493*

*Half course (spring term). W., 3:30–6:20. EXAM GROUP: 3*

The course will provide an introduction to the biology, genetics and control of insect vectors of infectious diseases that are relevant for Public Health. The focus will be on the mosquito vectors of human malaria, however students will study other vector-borne diseases including African Trypanosomiasis, Dengue and Yellow Fever. The course will address the major biological components shaping vectorial capacity: vector/parasite interactions; immunity; host seeking behavior, reproduction; chemoreception. The role of symbionts and microbiota in insect physiology and disease transmission will also be discussed. Strengths and limitations of current control strategies based on the use of insecticides (bednets and sprays), traps, larvicidal compounds, biological agents and environmental strategies will be discussed, as well as novel



strategies based on genetically modified organisms and paratransgenic control (bacteria/fungi). Students will also learn current methods for functional and comparative genomics of principal disease vectors.

*Note:* The course runs from March 23, 2015 - May 13, 2015.

# Biomedical Engineering

## **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

### *Faculty of the School of Engineering and Applied Sciences Offering Instruction in Biomedical Engineering*

Joanna Aizenberg, Amy Smith Berylson Professor of Materials Science

Sujata K. Bhatia, Lecturer on Biomedical Engineering

David A. Edwards, Gordon McKay Professor of the Practice of Idea Translation

Robert D. Howe, Abbott and James Lawrence Professor of Engineering, Area Dean for Bioengineering

Neel S. Joshi, Associate Professor of Chemical and Biological Engineering

Jennifer Lewis, Hansjorg Wyss Professor of Biologically Inspired Engineering

David J. Mooney, Robert P. Pinkas Family Professor of Bioengineering (*on leave spring term*)

Cherry Murray, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, and Professor of Physics (*on leave spring term*)

Daniel Joseph Needleman, Associate Professor of Applied Physics and of Molecular and Cellular Biology

Kevin K. Parker, Tarr Family Professor of Bioengineering and Applied Physics

Maurice A. Smith, Thomas D. Cabot Associate Professor of Bioengineering, Gordon McKay Professor of Bioengineering

The School of Engineering and Applied Sciences ([www.seas.harvard.edu](http://www.seas.harvard.edu)) offers undergraduate and graduate courses in Applied Computation, Applied Mathematics, Applied Physics, Computer Science, and Engineering Sciences. Engineering and Applied Sciences faculty also offer several courses in the section entitled Freshman Seminars, Extra-Departmental Courses, and House Seminars.

### *Primarily for Undergraduates*

#### **\*Biomedical Engineering 91r. Supervised Reading and Research**

Catalog Number: 63962

*Robert D. Howe and Sujata K. Bhatia (fall term), Sujata K. Bhatia (spring term)*



*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 13; Spring: 9*

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 School of Engineering and Applied Sciences. Normally may not be taken for more than two terms; may be counted for concentration in Biomedical Engineering if taken for graded credit. Applicants should file a project sheet before study cards are filed. Project sheets may be obtained from the Student Affairs Office, Pierce Hall 110.

### ***Cross-listed Courses***

#### **Engineering Sciences 53. Quantitative Physiology as a Basis for Bioengineering**

##### ***For Undergraduates and Graduates***

#### **Biomedical Engineering 110 (formerly Engineering Sciences 145). Physiological Systems Analysis**

Catalog Number: 8197

*Daniel M. Merfeld (Medical School)*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

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. Physiology at the level of Engineering Sciences 53 suggested.

#### **\*Biomedical Engineering 121 (formerly \*Engineering Sciences 122). Cellular Engineering**

Catalog Number: 8439

*Neel S. Joshi*

*Half course (fall term). M., W., F., at 9, and laboratory to be arranged. EXAM GROUP: 10*

This is a combined introductory graduate/upper-level undergraduate course that focuses on examining modern techniques for manipulating cellular behavior and the application of these techniques to problems in the biomedical and biotechnological arenas. Topics will include expanding the genetic code, genetic circuits, rewiring signaling pathways, controlling behavior through cell-matrix interactions, and directed differentiation of stem cells. Lectures will review fundamental concepts in cell biology before delving into topical examples from current literature. Students will work individually and in teams to determine the boundaries of existing cellular engineering techniques using scientific literature and conduct original research in the laboratory.

*Note:* This course has a mandatory laboratory section, and it is taught concurrently with Engineering Sciences 222. Students interested in taking the course without the laboratory section should enroll in Engineering Sciences 222.

*Prerequisite:* At least one semester of college-level organic chemistry and molecular/cellular biology. Physics at the level of Physics AP50 or Physics 12.



### **[Biomedical Engineering 125 (formerly Engineering Sciences 130). Tissue Engineering]**

Catalog Number: 3169

*David J. Mooney*

*Half course (spring term). Tu., Th., 1-2:30, and a weekly lab.*

Fundamental engineering and biological principles underlying field of tissue engineering, along with examples and strategies to engineer specific tissues for clinical use. Students will prepare a paper in the field of tissue engineering, and participate in a weekly laboratory in which they will learn and use methods to fabricate materials and perform 3-D cell culture.

*Prerequisite:* Biochemistry or cell biology background.

### **Biomedical Engineering 130 (formerly Engineering Sciences 149). Neural Control of Movement**

Catalog Number: 0440

*Maurice A. Smith*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Approaches from robotics, control theory, and neuroscience for understanding biological motor systems. Analytical and computational modeling of muscles, reflex arcs, and neural systems that contribute to motor control in the brain. Focus on understanding how the central nervous system plans and controls voluntary movement of the eyes and limbs. Learning and memory; effects of variability and noise on optimal motor planning and control in biological systems.

*Note:* Offered in alternate years.

*Prerequisite:* Mathematics 21b or Applied Mathematics 21b or equivalent, probability and statistics, Physics 11a or equivalent.

### **Biomedical Engineering 153. Bioelectromagnetics - (New Course)**

Catalog Number: 90155

*Daniel M. Merfeld (Medical School)*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

This course will introduce bioelectricity and bioelectromagnetics starting with Maxwell Equations, which will quickly be simplified to the quasi-static form typically applicable in physiology. We will introduce the basics of membrane electrical biophysics, which we will use to study action potentials and action potential propagation. Applications will include electrocardiograms (ECGs), electro-myograms (EMGs), electro-oculograms (EOGs), and electro-encephalograms (EEGs). EEG investigations will include analyses of spatial resolution as well as dynamic properties. A course project will allow students to choose an area of specific interest for more in-depth investigation and analysis.

*Note:* The content and course requirements are similar to Engineering Sciences 153. Students may not take both courses for credit.

*Prerequisite:* Basic electromagnetism (Applied Physics 50b, Physics 11b or 15b, Physical Sciences 12b, or equivalent), basic vector calculus (Applied Math 21a or equivalent), basic differential equations (Applied Math 21b or equivalent).

### **Biomedical Engineering 160. Chemical Kinetics and Reactor Design - (New Course)**

Catalog Number: 63346

*David J. Mooney and Daniel Joseph Needleman*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*



Introduction to chemical kinetics and reactor design with applications to bioengineering, chemical engineering, environmental sciences and other areas.

*Prerequisite:* Applied Math 21a (Mathematical Methods in Science); Introductory chemistry course at the level of Life Sciences 1a, or Life and Physical Sciences A.

### **\*Biomedical Engineering 191. Introduction to Biomaterials**

Catalog Number: 30212 Enrollment: Limited to 30.

*Jennifer Lewis*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

A biomaterial is any form of matter that is produced by or interacts with biological systems. One of the pillars of biomedical engineering is to use naturally derived and synthetic biomaterials to treat, augment, or replace human tissues. This course examines the structure, properties and processing of biomaterials.

*Prerequisite:* Physical sciences 1, Math 1b.

### ***Cross-listed Courses***

### **\*Engineering Sciences 227. Medical Device Design**

## **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 (*on leave fall term*)

Stephen C. Blacklow, Gustavus Adolphus Pfeiffer Professor of Biological Chemistry and Molecular Pharmacology (*Medical School*)

George M. Church, Robert Winthrop Professor of Genetics (*Medical School*)

Adam E. Cohen, Professor of Chemistry and Chemical Biology and of Physics

Stephen C. Harrison, Giovanni Armenise - Harvard Professor of Basic Biomedical Science, Professor of Pediatrics (*Medical School*)

Venkatesh N. Murthy, Professor of Molecular and Cellular Biology

Aravinthan D. T. Samuel, Professor of Physics

Eugene I. Shakhnovich, Professor of Chemistry and Chemical Biology



Gerhard Wagner, Elkan Blout Professor of Biological Chemistry and Molecular Pharmacology  
*(Medical School)*  
 Xiaowei Zhuang, David B. Arnold, Jr. Professor of Science

### ***Other Faculty Offering Instruction in Biophysics***

William H. Bossert, David B. Arnold, Jr. Professor of Science, Emeritus  
 Vladimir Denic, Associate Professor of Molecular and Cellular Biology  
 Michael Manish Desai, Assistant Professor of Organismic and Evolutionary Biology and of Physics, Thomas D. Cabot Associate Professor of Organismic and Evolutionary Biology  
 Florian Engert, Professor of Molecular and Cellular Biology  
 Raymond L. Erikson, American Cancer Society Professor of Cellular and Developmental Biology  
 Ethan Garner, Assistant Professor of Molecular and Cellular Biology  
 Rachelle Gaudet, Professor of Molecular and Cellular Biology  
 Jene A. Golovchenko, Rumford Professor of Physics and Gordon McKay Professor of Applied Physics  
 Donald E. Ingber, Professor of Bioengineering  
 Nancy Kleckner, Herchel Smith Professor of Molecular Biology (*on leave spring term*)  
 Roberto G. Kolter, Professor of Microbiology and Molecular Genetics (*Medical School*)  
 Andres Leschziner, Associate Professor of Molecular and Cellular Biology  
 Erel Levine, Associate Professor of Physics  
 David R. Liu, Professor of Chemistry and Chemical Biology, Harvard College Professor  
 Jun S. Liu, Professor of Statistics  
 L. Mahadevan, Lola England de Valpine Professor of Applied Mathematics, of Organismic and Evolutionary Biology, and of Physics (*on leave 2014-15*)  
 Andrew W. Murray, Herchel Smith Professor of Molecular Genetics  
 Daniel Joseph Needleman, Associate Professor of Applied Physics and of Molecular and Cellular Biology  
 Erin K. O'Shea, Paul C. Mangelsdorf Professor of Molecular and Cellular Biology and of Chemistry and Chemical Biology  
 Bence P. Olveczky, John L. Loeb Associate Professor of the Natural Sciences  
 Mara Prentiss, Mallinckrodt Professor of Physics  
 Sharad Ramanathan, Professor of Molecular and Cellular Biology and Gordon McKay Professor of Applied Physics (*on leave 2014-15*)  
 Stuart L. Schreiber, Morris Loeb Professor of Chemistry  
 Jack Szostak, Professor of Chemistry and Chemical Biology; Professor of Genetics (*Medical School*)  
 Naoshige Uchida, Professor of Molecular and Cellular Biology (*on leave fall term*)  
 Gregory L. Verdine, Erving Professor of Chemistry in the Departments of Stem Cell and Regenerative Biology and of Chemistry and Chemical Biology  
 John Wakeley, Professor of Organismic and Evolutionary Biology  
 Ronald L. Walsworth, Senior Lecturer on Physics  
 George M. Whitesides, Woodford L. and Ann A. Flowers University Professor  
 Xiaoliang Sunney Xie, Mallinckrodt Professor of Chemistry and Chemical Biology



Biophysics students should consult course listings from the departments of Life Sciences, Chemistry and Chemical Biology, Physics, Molecular and Cellular Biology, the School of Engineering and Applied Sciences (Applied Computation, Applied Mathematics, Applied Physics, Biomedical Engineering, Computer Sciences, and Engineering Sciences), Systems Biology, and the Division of Medical Sciences.

***For Undergraduates and Graduates***

**Biophysics 170. Quantitative Genomics**

Catalog Number: 3598

*Shamil R. Sunyaev (Medical School), Isaac S. Kohane (Medical School), Leonid Mirny (Medical School), and members of the Committee*

*Half course (fall term). M., W., F., 2:30–4. EXAM GROUP: 7*

In-depth study of genomics: models of evolution and population genetics; comparative genomics: analysis and comparison; structural genomics: protein structure, evolution and interactions; functional genomics, gene expression, structure and dynamics of regulatory networks.

*Note:* Meets at MIT

***Cross-listed Courses***

[\*\*Applied Mathematics 104. Series Expansions and Complex Analysis\*\*](#)

[\*\*Applied Mathematics 105. Ordinary and Partial Differential Equations\*\*](#)

[\*\*Applied Mathematics 115. Mathematical Modeling\*\*](#)

[\*\*Applied Mathematics 147. Nonlinear Dynamical Systems\*\*](#)

[\*\*Biomedical Engineering 110 \(formerly Engineering Sciences 145\). Physiological Systems Analysis\*\*](#)

[\*\*Chemistry 160. The Quantum World\*\*](#)

[\*\*Chemistry 161. Statistical Thermodynamics\*\*](#)

[\*\*Chemistry 163. Frontiers in Biophysics\*\*](#)

[\*\*\\*Chemistry 165. Experimental Physical Chemistry\*\*](#)

[[\*\*\\*Chemistry 170. Chemical Biology\*\*](#)]

[\*\*Chemistry 190. Statistical Mechanics in Chemistry and Biology\*\*](#)

[\*\*Engineering Sciences 156. Signals and Systems\*\*](#)

[\*\*Mathematics 115. Methods of Analysis\*\*](#)

[\*\*MCB 105. Systems Neuroscience\*\*](#)

[\*\*MCB 111. Mathematics in Biology\*\*](#)

[\*\*MCB 115. Cellular Basis of Neuronal Function\*\*](#)

[\*\*\\*MCB 129. The Brain: Development, Plasticity and Decline\*\*](#)

[\*\*MCB 169. Molecular and Cellular Immunology\*\*](#)

[\*\*MCB 176. Biochemistry of Membranes\*\*](#)

[[\*\*SCRB 150. Human Genetics: Mining Our Genomes for an Understanding of Human Variation and Disease\*\*](#)]

***Primarily for Graduates***



### **Biophysics 205. Computational and Functional Genomics**

Catalog Number: 6777 Enrollment: Limited to 20.

*Martha L. Bulyk (Medical School), Suzanne Gaudet (Medical School), and Shamil R. Sunyaev (Medical School)*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*

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 than lectures.

*Prerequisite:* Molecular Biology (MCB 52 or equivalent), solid understanding of basic probability and statistics.

### **Biophysics 242r. Special Topics in Biophysics**

Catalog Number: 6011

*James M. Hogle (Medical School) and Stephen C. Harrison (Medical School)*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Biophysical topics emerging from special interest research not normally available in established curriculum. This year's focus to be on Structural Biology from Molecules to Cells.

*Note:* Weekly lectures with discussion sections.

### ***Cross-listed Courses***

**Applied Mathematics 201. Physical Mathematics I**

**Applied Mathematics 202. Physical Mathematics II**

**BCMP 200. Molecular Biology**

[BCMP 201. Biological Macromolecules: Structure, Function and Pathways]

**BCMP 228. Macromolecular NMR**

**Cell Biology 201. Molecular Biology of the Cell**

**\*Chemistry 242. Quantum Mechanics for Physical Chemistry**

**Genetics 201. Principles of Genetics**

**MCB 212. Topics in Biophysics**

**Microbiology 201. Molecular Biology of the Bacterial Cell**

**\*Microbiology 205. Mechanisms of Microbial Pathogenesis**

**Neurobiology 200. Neurobiology**

**Neurobiology 204. Neurophysiology of Central Circuits**

**OEB 242. Population Genetics**

**Systems Biology 200. Dynamic & Stochastic Processes in Cells**

**Systems Biology 204. Biomolecular Engineering and Synthetic 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. EXAM GROUP: Fall: 1;*

*Spring: 8*

Introductory lectures by associated Biophysics faculty members. Lectures Fall semester only



accompanied by three periods of instruction in laboratories of structural biology, cell and membrane biophysics, molecular genetics and development, neurobiology, bioinformatics, and physical biochemistry.

*Note:* Fall semester only: meets on both the Cambridge and HMS campuses. Contact department Admin for fall course schedule.

**\*Biophysics 301. Quantitative Proteomics of Cancer Progression**

Catalog Number: 1302

*Jarrod Marto (Medical School) 5326*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Biophysics 302. Quantitative Analysis of Regulatory Networks**

Catalog Number: 4405

*Erin K. O'Shea 5239*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Biophysics 303. NMR Studies of Macromolecular Structure and Function**

Catalog Number: 6135

*Gerhard Wagner (Medical School) 2626*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Biophysics 304. Basic Mechanisms of T cell Mediated Autoimmune Diseases**

Catalog Number: 5921

*Kai Wucherpfennig (Medical School) 2481*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Biophysics 305. Experimental Atomic Physics, Biophysics, and Soft Matter Physics**

Catalog Number: 8626

*Ronald L. Walsworth 2263*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Biophysics 306. Quantitative Models of Cellular Behavior to Investigate Protein Function**

Catalog Number: 4339

*Jagesh V. Shah (Medical School) 5248*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Biophysics 307. Dynamics of Network Motifs in Single Living Human Cells**

Catalog Number: 9749

*Galit Lahav (Medical School) 5247*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Biophysics 308. System-level Genetic Networks**

Catalog Number: 1036

*Roy Kishony (Medical School) 5501*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Biophysics 309. Motile Behavior of Bacteria**

Catalog Number: 2070

*Howard C. Berg 1377 (on leave fall term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Biophysics 310. Sensory Information in Neuronal Processes**

Catalog Number: 6651

*Naoshige Uchida 5745 (on leave fall term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Biophysics 311. Digital Computer Applications in Biophysics**

Catalog Number: 7606

*William H. Bossert 1049**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Biophysics 312. Multiphoton Microscopy in Imaging Alzheimer's Disease**

Catalog Number: 5860

*James M. Hogle (Medical School) 2943 and Brian Bacskai (Medical School) 6693**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Biophysics 313. Neurobiology of Vocal Learning**

Catalog Number: 9094

*Bence P. Olveczky 6003**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Biophysics 314. Structure of Viruses and Viral Proteins**

Catalog Number: 0687

*James M. Hogle (Medical School) 2943**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Biophysics 315. Structural Molecular Biology**

Catalog Number: 2805

*Stephen C. Harrison (Medical School) 3597**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Biophysics 316. Structural Biology of ATP-Dependent Chromatin Remodeling**

Catalog Number: 4680

*Andres Leschziner 5928**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Biophysics 319. Analysis of Structure and Function of Nicotinic Acetylcholine Receptors**

Catalog Number: 36825

*Adam E. Cohen 5761**Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Biophysics 320. Single Molecule Studies of Cellular Motors**

Catalog Number: 51932

*Samara Louise Reck-Peterson (Medical School) 6165**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Biophysics 321. Molecular and Mechanical Analysis of Chromosomes**

Catalog Number: 7297

*Nancy Kleckner 4697 (on leave spring term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Biophysics 322. Structural Diversification of Very Long-Chain Fatty Acids**

Catalog Number: 67039

*Vladimir Denic 6216**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Biophysics 323. Transcriptional Regulatory Circuits and Neuronal Circuits in Visual Recognition**

Catalog Number: 42674

*Gabriel Kreiman (Medical School) 6174**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Biophysics 324. Conformational Changes in Macromolecules**

Catalog Number: 2656

*Collin Melveton Stultz (Medical School) 6295**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Biophysics 325. Physics of Macromolecular Assemblies and Subcellular Organization**

Catalog Number: 15517

*Daniel Joseph Needleman 6151**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Biophysics 326. Statistical and Continuum Mechanics of Macromolecular Assemblies**

Catalog Number: 82146

*L. Mahadevan 4758 (on leave 2014-15)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Biophysics 327. Molecular Genetics**

Catalog Number: 4202

*Frederick Ausubel (Medical School) 4639**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Biophysics 329. Computational and Functional Genomics**

Catalog Number: 4437

*George M. Church (Medical School) 1608**Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Biophysics 330. Principles of Self vs. Non-self RNA Discrimination by the Immune System**

Catalog Number: 41395

*Sun Hur (Medical School) 6403**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Biophysics 331. Communication of Information In and Between Cells and Organisms**

Catalog Number: 56502

*Erel Levine 6304**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Biophysics 333. Topics in Biophysics and Molecular Biology**

Catalog Number: 0196

*Brian Seed (Medical School) 7619**Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*Biophysics 334. Decision Making in Cells and Organisms**

Catalog Number: 71609

*Sharad Ramanathan 6015 (on leave 2014-15)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Biophysics 335. Developing novel single-molecule methods to study multi-protein complexes**

Catalog Number: 72097

*Joseph John Loparo (Medical School) 6798**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Biophysics 336. Mass Spectrometric and Proteomic Studies of the Cell Cycle**

Catalog Number: 20087

*Hanno Steen (Medical School) 6572**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Biophysics 337. Membrane Structure and Function**

Catalog Number: 1800

*Keith W. Miller (Medical School) 4124**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Biophysics 338. Foundation of Information Directed Molecular Technology: Programming Nucleic Acid Self-Assembly**

Catalog Number: 20575

*Peng Yin (Medical School) 6848**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Biophysics 339. Theoretical and Experimental Approaches to Study Genetic Variation within Populations**

Catalog Number: 87204



*Michael Manish Desai* 6547

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Biophysics 340. Novel Theory and Experiments in NMR Spectroscopy**

Catalog Number: 35682

*Andrew J. M. Kiruluta (Medical School)* 4777

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Biophysics 341. Structure and Function of Ligand-Gated Ion Channels**

Catalog Number: 7567

*Jonathan B. Cohen (Medical School)* 1120

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Biophysics 342. Development and Application of Optical Detection, Treatment and Monitoring Approaches Targeting Major Human Diseases**

Catalog Number: 50789

*Conor L. Evans (Medical School)* 6802

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Biophysics 343. Theoretical Protein Science, Bioinformatics, Computational Chemistry**

Catalog Number: 6947

*Eugene I. Shakhnovich* 3147

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Biophysics 344. Directed Evolution and Design of Simple Cellular Systems**

Catalog Number: 6277

*Jack Szostak (Medical School)* 7096

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Biophysics 345. Regulation of RNA Polymerase Motor Mechanism In Vivo - (New Course)**

Catalog Number: 71231

*L. Stirling Churchman (Medical School)* 3222

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Biophysics 346. Biofilm Dynamics**

Catalog Number: 5538

*Roberto G. Kolter (Medical School)* 7727

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Biophysics 347. Membrane Dynamics; Membrane Structure**

Catalog Number: 5516

*David E. Golan (Medical School)* 1558

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Biophysics 348. Protein Kinases, Reversible Protein Phosphorylation**

Catalog Number: 4964



*Raymond L. Erikson 7506*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Biophysics 349. Structural Biochemistry and Cell Biology of Intracellular Membrane Traffic**

Catalog Number: 4487

*Tomas Kirchhausen (Medical School) 1155*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Biophysics 350. Organization, Structure and Dynamics of Prokaryotic Cytoplasm - (New Course)**

Catalog Number: 25902

*Ethan Garner 6700*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Biophysics 352. Mechanical Force in Nanoscale Biology; Hemostasis to Single-Molecule Centrifugation - (New Course)**

Catalog Number: 25439

*Wesley Philip Wong (Medical School) 6463*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Biophysics 353. Molecular Genetics of Development**

Catalog Number: 5016

*Gary B. Ruvkun (Medical School) 1366*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Biophysics 354. Structural Biology and Cancer Drug Discovery**

Catalog Number: 4420

*Gregory L. Verdine 1980*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Biophysics 355. Chemical Genetics and Genomics**

Catalog Number: 3035

*Stuart L. Schreiber 2166*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Biophysics 360. Functional Mapping of Neurons and their Axonal Inputs Across Cortical Laminae - (New Course)**

Catalog Number: 96008

*Mark Lawrence Andermann (Medical School) 7130*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Biophysics 361. Rational Drug Design; Biomaterials Science; Biophysics**

Catalog Number: 7080

*George M. Whitesides 7447*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Biophysics 362. Molecular Physiology of Ion Channels**

Catalog Number: 3784

*Gary I. Yellen (Medical School) 3268**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*Biophysics 363. Biophysics of Receptor-Ligand Interactions**

Catalog Number: 8687

*Stephen C. Blacklow (Medical School) 1462**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*Biophysics 364. Systems Cell Biology**

Catalog Number: 5528

*Pamela A. Silver (Medical School) 1595**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Biophysics 365. Visual Processing in Primates**

Catalog Number: 8145

*John A. Assad (Medical School) 2985**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Biophysics 366. Imaging, Optics, and Biology**

Catalog Number: 2877

*David E. Clapham (Medical School) 2987**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Biophysics 367. Structure Biology of Cytoplasmic Signal Transduction**

Catalog Number: 5512

*Michael J. Eck (Medical School) 1739**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Biophysics 368. Probing Polymers with Nanospores, Experimental Condensed Matter Physics**

Catalog Number: 1400

*Jene A. Golovchenko 1986**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*Biophysics 369. Organic Chemistry and Chemical Biology of Molecular Evolution**

Catalog Number: 6337

*David R. Liu 2717**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Biophysics 370. Cytoskeleton Dynamics; Mitosis and Cell Locomotion; Small Molecule Inhibitors**

Catalog Number: 8034

*Timothy J. Mitchison (Medical School) 3713**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Biophysics 371. Mechanisms of Synaptic Transmission and Plasticity**

Catalog Number: 2326

*Venkatesh N. Murthy* 2424*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Biophysics 372. Protein Transport Across the ER Membrane**

Catalog Number: 6922

*Tom Rapoport (Medical School)* 1815*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Biophysics 373. DNA Replication and Repair Mechanisms that Suppress Genomic****Instability - (New Course)**

Catalog Number: 24242

*Johannes Walter (Medical School)* 3846*Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Biophysics 374. High-Resolution Electron Microscopy**

Catalog Number: 8225

*Thomas Walz (Medical School)* 3778*Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*Biophysics 375. Single-Molecule Biophysics**

Catalog Number: 7900

*Xiaoliang Sunney Xie* 2290*Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Biophysics 376. Functional and Computational Genomics Studies of Transcription Factors and Cis Regulatory Elements**

Catalog Number: 2254

*Martha L. Bulyk (Medical School)* 4259*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Biophysics 377. Statistical Theory and Inference for Stochastic Processes: With Applications to Bioinformatics**

Catalog Number: 4768

*Jun S. Liu* 3760*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Biophysics 378. Structural and Cellular Biology of Insulin Signal Transduction**

Catalog Number: 4856

*Steven E. Shoelson (Medical School)* 3951*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Biophysics 379. Theoretical Population Genetics**

Catalog Number: 2274



*John Wakeley 5680*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Biophysics 380. Microarray Data: Issues and Challenges**

Catalog Number: 4402

*James M. Hogle (Medical School) 2943 and Leonid Mirny (Medical School) 5773*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Biophysics 381. Single-Molecule Biophysics**

Catalog Number: 3046

*Xiaowei Zhuang 3991*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Biophysics 382. Regulation of Synaptic Transmission and Dendritic Function in the Mammalian Brain**

Catalog Number: 6116

*Bernardo L. Sabatini (Medical School) 4300*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Biophysics 384. NMR Spectroscopy on Membrane-associated Proteins and Peptides**

Catalog Number: 4531

*James J. Chou (Medical School) 4950*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Biophysics 386. Synaptic Plasticity and Neuronal Networks**

Catalog Number: 3012

*Florian Engert 4290*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Biophysics 387. Structural Studies of the Stereochemistry of Signaling and Transport through Biological Membranes**

Catalog Number: 6869

*Rachelle Gaudet 4413*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Biophysics 390. Regulation of Mitosis**

Catalog Number: 2157

*Andrew W. Murray 3765*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Biophysics 391. Computational Methods in Genetics, Genomics and Proteomics**

Catalog Number: 7043

*Shamil R. Sunyaev (Medical School) 4671*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Biophysics 392. Biophysics of Mechanosensation**

Catalog Number: 2687

*David P. Corey (Medical School) 1345**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Biophysics 393. The Mechanics and Regulation of Mitosis**

Catalog Number: 6759

*David Pellman (Medical School) 3702**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Biophysics 394. Experimental Biophysics**

Catalog Number: 7138

*Mara Prentiss 2741**Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*Biophysics 395. Biophysics of Cell Adhesion and Vascular Shear Flow**

Catalog Number: 3918

*Timothy A. Springer (Medical School) 6145**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Biophysics 396. Behavioral Neuroscience and Neurophysiology**

Catalog Number: 0966

*Aravinthan D. T. Samuel 4625**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Biophysics 397. Research in Integrin Signaling, Cytoskeleton, and Control of Angiogenesis**

Catalog Number: 2982

*Donald E. Ingber 2832**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Biophysics 399. Biomolecular Nanotechnology**

Catalog Number: 8294

*William Shih (Medical School) 5256**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

## Biostatistics

**AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**



### ***Faculty of the Committee on Higher Degrees in Public Health Sciences***

Michael Grusby, Professor of Molecular Immunology, and Senior Associate Dean for Academic Affairs (*Public Health*) (*Chair*)

### ***Faculty of the Subcommittee on the Degree of Doctor of Philosophy in Biostatistics***

Victor Gerard DeGruttola, Henry Pickering Walcott Professor of Biostatistics (*Public Health*) (*Chair*)

David J. Hunter, Vincent L. Gregory Professor in Cancer Prevention, and Dean of Academic Affairs (*Public Health*), Professor of Medicine (*Medial School*) (*ex officio*)

Jun S. Liu, Professor of Statistics

Carl N. Morris, Professor of Statistics

Giovanni Parmigiani, Professor of Biostatistics (*Public Health*)

### ***Other Faculty Offering Instruction in Biostatistics in Public Health***

David P. Harrington, Professor of Statistics (*FAS*) and Professor of Biostatistics (*Public Health*)

David J. Hunter, Vincent L. Gregory Professor in Cancer Prevention, and Dean of Academic Affairs (*Public Health*), Professor of Medicine (*Medial School*)

Carl N. Morris, Professor of Statistics

### ***Primarily for Graduates***

Further details about the course descriptions below can be found in their entirety at [www.biostat.harvard.edu/courses/course.html](http://www.biostat.harvard.edu/courses/course.html).

#### **\*Biostatistics 230. Probability Theory and Applications I**

Catalog Number: 6183

*Marcello Pagano (Public Health)*

*Half course (fall term). M., W., 1:30–3:20, and a weekly 90-minute lab. EXAM GROUP: 1*

Axiomatic foundations of probability, independence, conditional probability, joint distributions, transformations, moment generating functions, characteristic functions, moment inequalities, sampling distributions, modes of convergence and their interrelationships, laws of large numbers, central limit theorem, and stochastic processes.

*Note:* Offered jointly with the School of Public Health as BIO230.

#### **\*Biostatistics 231. Statistical Inference I**

Catalog Number: 8773

*Judith Lok (Public Health)*

*Half course (spring term). M., W., 10:30-12:20, and a weekly 90-minute lab. EXAM GROUP: 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 required.

### **\*Biostatistics 232. Methods I**

Catalog Number: 0131

*Eric Tchetgen Tchetgen (Public Health)*

*Half course (fall term). M., W., 10:30-12:20, and a weekly 90-minute lab. EXAM GROUP: 5*  
 Introductory course in the analysis of Gaussian and categorical data. The general linear regression model, ANOVA, robust alternatives based on permutations, model building, resampling methods (bootstrap and jackknife), contingency tables, exact methods, logistic regression.

*Note:* Offered jointly with the School of Public Health as BIO232.

*Prerequisite:* Signature of instructor required.

### **\*Biostatistics 233. Methods II**

Catalog Number: 7804

*Sebastien Haneuse (Public Health)*

*Half course (spring term). M., W., 8:30-10:20, and a weekly 90-minute lab. EXAM GROUP: 10*  
 Intermediate course in the analysis of Gaussian, categorical, and survival data. The generalized linear model, Poisson regression, random effects and mixed models, comparing survival distributions, proportional hazards regression, splines and smoothing, the generalized additive model.

*Note:* Offered jointly with the School of Public Health as BIO233.

*Prerequisite:* Biostatistics 232 or signature of instructor required.

### **\*Biostatistics 235. Advanced Regression and Statistical Learning**

Catalog Number: 7549

*Robert James Gray (Public Health)*

*Half course (fall term). M., W., 10:30-12:20, and a weekly 90-minute lab. EXAM GROUP: 5*  
 An advanced course in linear models, including both classical theory and methods for high dimensional data. Topics include theory of estimation and hypothesis testing, multiple testing problems and false discovery rates, cross validation and model selection, regularization and the LASSO, principal components and dimension reduction, and classification methods. Background in matrix algebra and linear regression required.

*Note:* Offered jointly with the School of Public Health as BIO235.

*Prerequisite:* Biostatistics 231 and Biostatistics 233. Background in matrix algebra and linear regression required.

### **Biostatistics 238. Principles and Advanced Topics in Clinical Trials**

Catalog Number: 9623

*Michael David Hughes (Public Health)*

*Half course (spring term). M., W., 1:30-3:20. EXAM GROUP: 8*

This course focuses on selected advanced topics in design, analysis, and interpretation of clinical trials, including study design; choice of endpoints (including surrogate endpoints); interim analyses and group sequential methods; subgroup analyses; and meta-analyses.

*Note:* Offered jointly with the School of Public Health as BIO 238.



*Prerequisite:* BIST 230, and BIST 231 (may be taken concurrently) or signature of instructor required.

### **Biostatistics 244. Analysis of Failure Time Data**

Catalog Number: 2140

*Tianxi Cai (Public Health)*

*Half course (spring term). M., W., 10:30–12:20, and a weekly 90-minute lab. EXAM GROUP: 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, and Biostatistics 250, or signature of instructor required.

### **[Biostatistics 245. Analysis of Multivariate and Longitudinal Data]**

Catalog Number: 3247

*Xihong Lin (Public Health)*

*Half course (spring term). Tu., Th., 10:30–12:20, and a weekly 90-minute lab.*

The multivariate normal distribution, Hotelling's T<sub>2</sub>, 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:* Expected to be given in 2015–16. Offered jointly with the School of Public Health as BIO245.

*Prerequisite:* Biostatistics 231 and Biostatistics 235.

### **\*Biostatistics 249. Bayesian Methodology in Biostatistics**

Catalog Number: 0759

*Corwin Zigler (Public Health)*

*Half course (fall term). Tu., Th., 10:30–12:20, and a weekly 90-minute lab. EXAM GROUP: 12*  
General principles of the Bayesian approach, prior distributions, hierarchical models and modeling techniques, approximate inference, Markov chain Monte Carlo methods, model assessment and comparison. Bayesian approaches to GLMMs, multiple testing, nonparametrics, clinical trials, survival analysis.

*Note:* Offered jointly with the School of Public Health as BIO249.

*Prerequisite:* Biostatistics 231 and Biostatistics 232, or signature of instructor required.

### **\*Biostatistics 250. Probability Theory and Applications II**

Catalog Number: 5076

*Lorenzo Trippa (Public Health)*

*Half course (fall term). M., W., 1:30–3:20, and a weekly 90-minute lab. EXAM GROUP: I*

A foundational course in measure theoretic probability. Topics include measure theory, Lebesgue integration, product measure and Fubini's Theorem, Radon-Nikodym derivatives, conditional probability, conditional expectation, limit theorems on sequences of random variables, stochastic processes, and weak convergence.



*Note:* Offered jointly with the School of Public Health as BIO250.

*Prerequisite:* Biostatistics 231, or permission of instructor required.

### **Biostatistics 251. Statistical Inference II**

Catalog Number: 5280

*Giovanni Parmigiani (Public Health) and Andrea Gloria Rotnitzky (Public Health)*

*Half course (spring term). Tu., Th., 1:30–3:20, and a weekly 90-minute lab. EXAM GROUP: 1*

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 250, or permission of instructor required.

### **[Biostatistics 291. Statistical Methods for Causality]**

Catalog Number: 5654

*Andrea Gloria Rotnitzky (Public Health)*

*Half course (spring term). Tu., Th., 3:30–5:20.*

Theory of directed acyclic graph models. Identifiability of causal contrasts. Theory and applications of locally semiparametric efficient doubly-robust estimation in two models for counterfactual variables: marginal structural models and structural nested models.

*Note:* Expected to be given in 2015–16. Offered jointly with the School of Public Health as BIO 291.

*Prerequisite:* Biostatistics 231, or permission of instructor required.

### **Biostatistics 297. Genomic Data Manipulation**

Catalog Number: 67195 Enrollment: This course is targeted at students in experimental biology programs with an interest in understanding how available genomic techniques and resources can be applied in their research.

*Curtis Huttenhower (Public Health)*

*Half course (spring term). M., W., 3:30–5:20, and a weekly 90-minute lab. EXAM GROUP: 17*

Introduction to genomic data, computational methods for interpreting these data, and survey of current functional genomics research. Covers biological data processing, programming for large datasets, high-throughput data (sequencing, proteomics, expression, etc.), and related publications.

*Note:* Offered jointly with the School of Public Health as BIO508.

### **Biostatistics 298. Introduction to Computational Biology and Bioinformatics**

Catalog Number: 15673 Enrollment: Good quantitative skills, strong interest in biology, willingness and diligence to learn programming.

*Xiaole Shirley Liu (Public Health)*

*Half course (spring term). Tu., Th., 11:30–1, and a weekly 90-minute lab. EXAM GROUP: 15*

Basic problems, technology platforms, algorithms and data analysis approaches in computational biology. Algorithms covered include dynamic programming, hidden Markov model, Gibbs sampler, clustering and classification methods.

*Note:* Offered jointly with the School of Public Health as BIO512.

*Prerequisite:* STAT 110 or equivalent, CS 50 or equivalent, or Biostatistics major.



**[Biostatistics 299. Advanced Computational Biology and Bioinformatics]**

Catalog Number: 82302

*Winston Hide (Public Health) and Guocheng Yuan (Public Health)*

*Half course (fall term). M., W., 3:30–5:20.*

Students will explore current topics in computational biology in a seminar format with a focus on interpretation of 'omics data. They will develop skills necessary for independent research using computational biology.

*Note:* Expected to be given in 2015–16. Offered jointly with the School of Public Health as BIO513.

*Prerequisite:* Biostatistics 298 or permission of instructor required.

***Graduate Courses of Reading and Research***

**\*Biostatistics 350. Research**

Catalog Number: 0406

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

For doctoral candidates who have passed their written qualifying examination and who are undertaking advanced work along the lines of fundamental or applied dissertation research in the department.

## Business Studies

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

PhD programs in Business Economics and Organizational Behavior are administered by the Standing Committee on Higher degrees in Business Studies. These programs are intended for students who wish to enter careers in scholarship and advanced research. For the latest Doctoral Program course offerings from the Harvard Business School, please visit [www.hbs.edu/doctoral/registrar/course.html](http://www.hbs.edu/doctoral/registrar/course.html).

***Faculty of the Committee on Higher Degrees in Business Studies***

Kathleen Louise McGinn, Cahners-Rabb Professor of Business Administration (*Business School*) (*Chair*)

Mary C. Brinton, Reischauer Institute Professor of Sociology

Benjamin Edelman, Associate Professor, Marvin Bower Fellow (*Business School*)

Amy C. Edmondson, Novartis Professor of Leadership and Management (*Business School*)

Francesca Gino, Professor of Business Administration (*Business School*)



Oliver S. Hart, Andrew E. Furer Professor of Economics (*on leave fall term*)  
 Robin S. Lee, Assistant Professor of Economics  
 Joshua Lerner, Jacob H. Schiff Professor of Investment Banking (*Business School*)  
 Jeffrey T. Polzer, UPS Foundation Professor of Human Resource Management (*Business School*)  
 Matthew Rabin, Pershing Square Professor of Behavioral Economics  
 David S. Scharfstein, Edmund Cogswell Converse Professor of Finance and Banking (*Business School*)  
 Jeremy C. Stein, Moise Y. Safra Professor of Economics  
 Michael Tushman, Paul R. Lawrence MBA Class of 1942 Professor of Business Administration (*Business School*)  
 Luis M. Viceira, George E. Bates Professor (*Business School*)  
 Christopher Winship, Diker-Tishman Professor of Sociology  
 Dennis A. Yao, Lawrence E. Fouraker Professor of Business Administration (*Business School*)

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, chaired by Professor Kathleen McGinn (Business School), is composed of the following subcommittees:

***Subcommittee on the Degree of Doctor of Philosophy in Business Economics***

David S. Scharfstein, Edmund Cogswell Converse Professor of Finance and Banking (*Business School*) (*Co-Chair*)  
 Luis M. Viceira, George E. Bates Professor (*Business School*) (*Co-Chair*)  
 Benjamin Edelman, Associate Professor, Marvin Bower Fellow (*Business School*)  
 Oliver S. Hart, Andrew E. Furer Professor of Economics (*on leave fall term*)  
 Robin S. Lee, Assistant Professor of Economics  
 Joshua Lerner, Jacob H. Schiff Professor of Investment Banking (*Business School*)  
 Kathleen Louise McGinn, Cahners-Rabb Professor of Business Administration (*Business School*) (*ex officio*)  
 Matthew Rabin, Pershing Square Professor of Behavioral Economics  
 Jeremy C. Stein, Moise Y. Safra Professor of Economics  
 Dennis A. Yao, Lawrence E. Fouraker Professor of Business Administration (*Business School*)

***Subcommittee on the Degree of Doctor of Philosophy in Organizational Behavior***

Jeffrey T. Polzer, UPS Foundation Professor of Human Resource Management (*Business School*) (*Chair*)  
 Mary C. Brinton, Reischauer Institute Professor of Sociology  
 Amy C. Edmondson, Novartis Professor of Leadership and Management (*Business School*)  
 Francesca Gino, Professor of Business Administration (*Business School*)  
 Kathleen Louise McGinn, Cahners-Rabb Professor of Business Administration (*Business School*) (*ex officio*)  
 Michael Tushman, Paul R. Lawrence MBA Class of 1942 Professor of Business Administration (*Business School*)  
 Christopher Winship, Diker-Tishman Professor of Sociology



***Subcommittee on the Degree of Doctor of Philosophy in Science, Technology, and Management***

***Cross-listed Courses***

[Applied Mathematics 221. Advanced Optimization]

[\*\*\\*Economics 2020a. Microeconomic Theory I\*\*](#)

[\*\*\\*Economics 2020b. Microeconomic Theory II\*\*](#)

[Economics 2040. Experimental Economics]

[Economics 2041. Field Experiments]

[Economics 2056a. Market Design and Electronic Marketplaces]

[Economics 2056b. Topics in Market Design]

[Economics 2390c. Development Economics II: Macroeconomic Issues]

[Economics 2665. The Economics of Organizations Workshop]

[Economics 2670. Organizational Economics]

[\*\*Economics 2723. Asset Pricing I\*\*](#)

[\*\*Economics 2725. Corporate Finance and Banking\*\*](#)

[\*\*Economics 2726. Theoretical and Empirical Perspective on Entrepreneurship: Economics and Finance\*\*](#)

[\*\*Economics 2727. Empirical Methods in Corporate Finance\*\*](#)

[\*\*\\*Economics 2770hf. Research in Financial Economics\*\*](#)

\*Economics 3660hf. The Law, Economics, and Organizations Workshop

[\*\*\\*Psychology 2553r. Behavioral Insights Group Research Seminar\*\*](#)

[\*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***

Catherine McKenna, Margaret Brooks Robinson Professor of Celtic Languages and Literatures (*Chair; Director of Graduate Studies, spring term*)

William Gillies, Visiting Professor of Celtic Languages and Literatures

Tomás Ó Cathasaigh, Henry L. Shattuck Professor of Irish Studies (*Director of Graduate Studies, fall term*) (*on leave spring term*)

Patrick Wadden, Visiting Assistant Professor of Celtic Languages and Literatures (*spring term*)



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. EXAM GROUP: 4*

Instruction and direction of reading on topics not treated in regular courses of instruction.

***Celtic***

***For Undergraduates and Graduates***

**[Celtic 101. The Hero of Irish Myth and Saga]**

Catalog Number: 7817

*Tomás Ó Cathasaigh*

*Half course (spring term). M., W., (F.), at 1.*

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 2016–17.

**[Celtic 103. Celts: People or Myth?]**

Catalog Number: 51424

*Catherine McKenna*

*Half course (fall term). Tu., Th., at 11.*

This course examines the ways that an elusive population group called "The Celts" has been constructed from antiquity to the present. We study the linguistic, archaeological, genetic, mythological, literary and institutional bases of "Celticity" in the light of recent critiques of the ways in which these different kinds of evidence have been asked to walk hand in hand with one another in the service of certainty about Celtic identity.

*Note:* Expected to be given in 2015–16. All texts are read in translation.

**[Celtic 106. The Folklore of Gaelic Scotland]**

Catalog Number: 85544

*Instructor to be determined*

*Half course (spring term). M., W., (F.), at 2.*

An introduction to the oral traditions of Gaelic Scotland and Nova Scotia, including tales and song. The process of collecting is explored, and various folkloristic theories and approaches



applied in order to gain a deeper understanding of the material.

*Note:* Expected to be given in 2016–17. No knowledge of Gaelic required.

### **Celtic 107. History of Ireland: Saint Patrick to the Flight of the Earls**

Catalog Number: 43362

*Patrick Wadden*

*Half course (spring term). M., W., (F.), at 11. EXAM GROUP: 14*

This course will explore major themes in the first millennium of Irish history, from the coming of Christianity and the "Golden Age" of the Irish Church to the English invasions and the fall of Ireland's Gaelic civilization.

*Note:* Expected to be omitted in 2015–16.

### **[Celtic 109. The Finn Cycle]**

Catalog Number: 77175

*Instructor to be determined*

*Half course (spring term). M., W., (F.), at 11.*

This course explores the 'sprawling forest' of Gaelic literature from Ireland and Scotland surrounding Finn mac Cumaill (otherwise known as Finn MacCool). Finn is variously portrayed as a hunter-warrior-seer and is the leader of the intrepid *fíana* war-band. We survey this Fenian literature as it is presented to us by medieval and early modern Gaelic manuscript tradition. We also engage with the rich modern Fenian folklore of Scotland, Ireland and Nova Scotia. This includes the study of important texts such as *Acallam na Senórach* ('The Dialogue of the Ancients') and *Tóraigheacht Dhíarmada agus Ghráinne* ('The Pursuit of Diarmait and Gráinne'). We also consider the impact of this literature on the rest of Europe by examining the English-language-works published by James MacPherson in the 1760s and the ensuing Ossian controversy.

*Note:* Expected to be given in 2017–18. All readings in English translation.

### **Celtic 114. Early Irish Historical Tales**

Catalog Number: 0781

*Tomás Ó Cathasaigh*

*Half course (fall term). M., W., (F.), at 1. EXAM GROUP: 1*

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 omitted in 2015–16. All readings in English translation.

### **Celtic 118. The Gaelic World: 1100 - 1700**

Catalog Number: 34022

*William Gillies*

*Half course (fall term). M., W., (F.), at 11. EXAM GROUP: 18*

An introduction to the history and culture of Gaelic Scotland and Ireland, with particular attention to contemporary sources, including Gaelic literary sources.

*Note:* Expected to be omitted in 2015–16. All readings in English translation.

### **[Celtic 119. The Gaelic World: 17th Century to the Present]**

Catalog Number: 49129



*Instructor to be determined*

*Half course (spring term). M., W., (F.), at 11.*

An introduction to the later history and culture of Gaelic Scotland and Ireland, with particular attention to Gaelic literary sources. Language decline and revitalization efforts are also explored.

*Note:* Expected to be given in 2015–16. All readings in English translation.

### [Celtic 137. Celtic Mythology]

Catalog Number: 1300

*Tomás Ó Cathasaigh*

*Half course (fall term). M., W., (F.), at 1.*

A survey of the sources for the study of Celtic mythology, with special attention to selected texts from early Ireland and Wales.

*Note:* Expected to be given in 2017–18. All texts are read in English translation.

### [Celtic 138. Mabinogion: Narrative Traditions of Medieval Wales]

Catalog Number: 6480

*Catherine McKenna*

*Half course (spring term). Tu., Th., at 11.*

An exploration of the Four Branches of the Mabinogi, Welsh Arthurian romances and tales, and the bardic lore associated with them, in the context of the literary culture of Wales in the twelfth through fourteenth centuries.

*Note:* Expected to be given in 2015–16. All texts are read in English translation.

### [Celtic 151. The Literature of Medieval Celtic Christianity: The Hagiographical Tradition]

Catalog Number: 5560

*Catherine McKenna*

*Half course (spring term). Tu., Th., at 11.*

A study of selected texts associated with medieval saints' cults in Ireland, Wales, Brittany and Scotland, including saints' lives, voyage and vision narratives, hymns, prayers and poetry, in the context of the history of Christianity in the Celtic lands.

*Note:* Expected to be given in 2016–17. All texts are read in English translation.

### [Celtic 184. The Táin]

Catalog Number: 2150

*Tomás Ó Cathasaigh*

*Half course (fall term). M., W., (F.), at 1.*

A study of the exuberant Irish prose epic *Táin Bó Cúailnge* ('Cattle-Raid of Cooley').

*Note:* Expected to be given in 2018–19. Text read in English translation.

### [Celtic 188. Scottish Gaelic Poetry]

Catalog Number: 97048

*Instructor to be determined*

*Half course (fall term). M., W., (F.), at 11.*

An exploration of the different types of vernacular Gaelic poetry composed in Scotland from the 16th to the 19th century, including personal lyrics and public praise-poetry, and an examination of the poets' responses to the transformation of Gaelic society from the 'clan' period to the



Jacobite Risings, the Highland Clearances and the Gaelic revival at the time of the Land Wars. The course is built around the close study of a series of key texts to be read in English translation.

*Note:* Expected to be given in 2015–16.

### **Celtic 194. The World of the Celtic Bard**

Catalog Number: 66531

*Catherine McKenna*

*Half course (fall term). Tu., Th., at 11 and a weekly section to be arranged. EXAM GROUP: 15*  
 This course explores the role of the bard in the Celtic-speaking societies of Wales, Ireland and Scotland. Through the study of narrative sources concerning the origin and nature of poets and poetry, theoretical and legal texts, and, most especially, bardic poems from the early Middle Ages through the eighteenth century, we examine the physical, public and political power of a medium-poetic verse-now associated with "power" in the private and emotional sense only. We study bardic poems in various modes - eulogistic, satiric, commemorative, prophetic - and we examine the circumstances that support the institution of bardic poetry and those that contribute to its decline. Among the issues to be considered are patronage, convention, the relationship of rhetoric and truth, and the functions of poetic form. All readings in English translation, but there will be some exposure to the forms of bardic poetry in the original languages.

*Note:* Expected to be omitted in 2015–16. All texts are read in English translation.

### ***Primarily for Graduates***

### **Celtic 208. Irish Ethnogenesis: The Origins and Evolution of Irish Identity in the Early Middle Ages**

Catalog Number: 21331

*Patrick Wadden*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 15*

This course will seek to understand the motivation behind the creation and development of early expressions of Irish national unity and identity in the politically fragmented society of early medieval Ireland.

*Note:* Expected to be omitted in 2015–16.

### **Celtic 222. The Gaelic Manuscript Tradition**

Catalog Number: 1040

*William Gillies*

*Half course (fall term). M., W., (F.), at 2. EXAM GROUP: 7*

This course explores the central role of Gaelic manuscripts for Celtic Studies. We examine form, content and usage while also considering historical context. Practice with traditional and non-traditional Gaelic hands form an important part of this course. We cover a wide range of periods and Gaelic manuscript traditions; from the earliest Irish glosses to early modern Scottish and Irish manuscripts. Issues to be explored include: transmission, patronage, scribal practice and modern editorial methodology.

*Note:* Expected to be omitted in 2015–16.

*Prerequisite:* Some knowledge of either Irish or Scottish Gaelic (of any period). Students with a knowledge of Latin may be admitted in consultation with the course instructor.



## ***Irish***

### ***For Undergraduates and Graduates***

#### **Irish 132. Introduction to Modern Irish**

Catalog Number: 6725

*Tomás Ó Cathasaigh and others*

*Half course (fall term). M. through W., F., at 12. EXAM GROUP: 11*

An introduction to Irish as it is spoken and written today. Class work is participatory, and includes conversational role play and games as well as grammar study and drills. Audio and audiovisual resources reinforce pronunciation and aural comprehension. Songs, proverbs, and poems are an integral part of the course, introducing students to the vibrant oral and literary tradition of Gaelic Ireland.

*Note:* The combination of Irish 132 and 133r satisfies the language requirement. It is recommended in any case that this course be followed by Irish 133r. May not be taken Pass/Fail. Not open to auditors.

#### **Irish 133r. Intermediate Modern Irish**

Catalog Number: 6689

*Catherine McKenna and others*

*Half course (spring term). M. through W., F., at 12. EXAM GROUP: 7*

A continuation of Irish 132, developing students' fluency in spoken and written Irish. As our knowledge of the language expands, we venture into storytelling, journal writing and writing and performing short skits. Internet, audio and video resources complement the study of grammar and select prose texts.

*Note:* This course, when taken following Irish 132, satisfies the language requirement. May not be taken Pass/Fail. Not open to auditors.

*Prerequisite:* Irish 132 or permission of instructor.

#### **Irish 160r (formerly Irish 160). Advanced Modern Irish**

Catalog Number: 0704

*Tomás Ó Cathasaigh and others*

*Half course (fall term). M. at 11; TuTh at 3. EXAM GROUP: 18*

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.

*Prerequisite:* Irish 133r or permission of instructor.

#### **[Irish 161r. Continuing Advanced Modern Irish]**

Catalog Number: 4421

*Tomás Ó Cathasaigh and others*

*Half course (spring term). M. through W., F., at 2.*

Continuation of the fall term course.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Irish 160 or permission of instructor.



### ***Primarily for Graduates***

#### **[Irish 200. Introduction to Old Irish]**

Catalog Number: 8266

*Tomás Ó Cathasaigh*

*Half course (fall term). M., W., F., at 3.*

An introduction to the language of the eighth and ninth centuries, with elementary readings in prose texts.

*Note:* Expected to be given in 2015–16. It is suggested that this course be followed by Irish 201r.

#### **[Irish 201r. Continuing Old Irish]**

Catalog Number: 6073

*Tomás Ó Cathasaigh*

*Half course (spring term). M., W., F., at 3.*

Further grammatical study, with continued reading of saga texts.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Irish 200 or permission of the instructor.

#### **Irish 204r. Readings in Early Irish Poetry**

Catalog Number: 8493

*Tomás Ó Cathasaigh*

*Half course (fall term). M., W., (F.), at 3. EXAM GROUP: 6*

Readings in selected texts.

*Note:* Expected to be omitted in 2015–16.

*Prerequisite:* Irish 200 or permission of the instructor.

#### **Irish 205r. Readings in Early Irish Prose**

Catalog Number: 2705

*William Gillies*

*Half course (spring term). M., W., (F.), at 2. EXAM GROUP: 18*

Readings in selected texts.

*Note:* Expected to be omitted in 2015–16.

*Prerequisite:* Irish 200 or permission of the instructor.

### ***Scottish Gaelic***

#### ***For Undergraduates and Graduates***

#### **[Scottish Gaelic 130. Introduction to Scottish Gaelic]**

Catalog Number: 1846

*Instructor to be determined.*

*Half course (fall term). M. through W., F., at 9.*

An introduction to Gàidhlig (Scottish Gaelic) as it is spoken and written today. This course surveys the grammar while also emphasizing practice in speaking the language. This class is highly participatory; students are encouraged to take part in a range of communicative activities which enhance oral/aural ability. Translation exercises develop skills in the written language. A



range of audio/ audiovisual materials and online resources is used to support student learning.

*Note:* Expected to be given in 2015–16. The combination of Scottish Gaelic 130 followed by Scottish Gaelic 131r satisfies the language requirement. It is recommended in any case that this course be followed by Scottish Gaelic 131r. May not be taken Pass/Fail. Not open to auditors.

### [Scottish Gaelic 131r. Intermediate Scottish Gaelic]

Catalog Number: 4542

*Instructor to be determined.*

*Half course (spring term). M. through W., F., at 9.*

Direct continuation of the fall term course Scottish Gaelic 130.

*Note:* Expected to be given in 2015–16. This course, when taken following Scottish Gaelic 130, satisfies the language requirement. May not be taken Pass/Fail. Not open to auditors.

*Prerequisite:* Scottish Gaelic 130 or equivalent.

## **Welsh**

### **For Undergraduates and Graduates**

#### **Welsh 128. Introduction to Modern Welsh**

Catalog Number: 4148

*Catherine McKenna and others*

*Half course (fall term). M. through W., F., at 10. EXAM GROUP: 5*

Introduction to the Welsh language as spoken and written today, designed for those with little or no prior knowledge of this vibrant Celtic language. Intensive conversation practice is provided, and students learn to write fluently. Internet, audio and video exercises using dialogue, music and film augment a contextualized grammatical survey, and use of authentic literary texts increases as the course progresses.

*Note:* The combination of Welsh 128 followed by Welsh 129r satisfies the language requirement. It is recommended in any case that this course be followed by Welsh 129r. May not be taken Pass/Fail. Not open to auditors.

#### **Welsh 129r. Intermediate Modern Welsh**

Catalog Number: 4694

*Catherine McKenna and others*

*Half course (spring term). M. through W., F., at 10. EXAM GROUP: 5*

Direct continuation of Welsh 128, developing and deepening students' knowledge of, and skill in, the modern spoken and written language. By the end of the semester students will be able to converse, read and write in a number of registers of idiomatic Welsh (academic, literary, informal). Various media, featuring dialogue, music and film, augment the advanced grammatical survey. Central cultural and historical issues are discussed.

*Note:* This course, when taken following Welsh 128, satisfies the language requirement. May not be taken Pass/Fail. Not open to auditors.

*Prerequisite:* Welsh 128 or permission of instructor.

### ***Primarily for Graduates***



### **Welsh 225a. Medieval Welsh Language and Literature**

Catalog Number: 3960

*Catherine McKenna*

*Half course (fall term). Tu., Th., at 2. EXAM GROUP: 14*

Introduction to the language and culture of medieval Wales, with particular attention to narrative prose literature and its Celtic, Welsh and Norman contexts. By the end of the term we will have read in the original one of the *Four Branches of the Mabinogi* and selections from other texts.

*Note:* Expected to be omitted in 2015–16. It is suggested that this course be followed by Welsh 225b.

### **Welsh 225b. Medieval Welsh Poetry**

Catalog Number: 4167

*Catherine McKenna*

*Half course (spring term). Tu., Th., at 2. EXAM GROUP: 11*

Continued readings in medieval Welsh prose and an introduction to Welsh poetry down to 1400.

Continued study of grammar and practice in translation, as well as an introduction to the manuscript sources of the poetry and their cultural contexts, and the intricacies of medieval Welsh poetics.

*Note:* Expected to be omitted in 2015–16.

*Prerequisite:* Welsh 225a or equivalent preparation in Middle Welsh.

### **[Welsh 226r. Readings in Middle Welsh Prose]**

Catalog Number: 2796

*Catherine McKenna*

*Half course (fall term). Th., 2–4.*

An exploration of the enormous variety of medieval Welsh prose literature: selections from tales and romances, chronicles, laws, and lore.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Welsh 225b or permission of the instructor.

### **[Welsh 227. Seminar: Welsh Bardic Poetry]**

Catalog Number: 2580

*Catherine McKenna*

*Half course (spring term). Th., 2–4.*

Readings from the *hengerdd*, the *beirdd y twysogion* and the *beirdd yr uchelwyr*; consideration of the social and political contexts of their poetry, its forms, and its relationship to other medieval European poetic traditions.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Knowledge of Welsh or permission of the instructor.

### ***Cross-listed Courses***

#### **Culture and Belief 51. Making the Middle Ages**

**[Medieval Studies 201. The Auxiliary Disciplines of Medieval History: Proseminar]**

**\*Medieval Studies 202. Latin Palaeography and Manuscript Culture: Seminar**



**\*Medieval Studies 280 (formerly \*Comparative Literature 280). Literary Theory and Criticism in the Middle Ages: Seminar**

***Graduate Courses of Reading and Research***

**\*Celtic 300. Reading and Research**

Catalog Number: 5614

*William Gillies 6305, Catherine McKenna 5253, Tomás Ó Cathasaigh 1224 (on leave spring term) (fall term only), and Patrick Wadden 7544 (spring term only)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Celtic 305. Preparation of Doctoral Dissertation**

Catalog Number: 0375

*Catherine McKenna 5253 and Tomás Ó Cathasaigh 1224 (on leave spring term) (fall term only)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

## Chemical and Physical Biology

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

***Faculty of the Committee on Degrees in Chemical and Physical Biology***

Adam E. Cohen, Professor of Chemistry and Chemical Biology and of Physics (*Co-Chair*)

Andres Leschziner, Associate Professor of Molecular and Cellular Biology (*Co-Chair*)

Michael P. Brenner, Glover Professor of Applied Mathematics and Applied Physics and Professor of Physics, Harvard College Professor,

Michael Manish Desai, Assistant Professor of Organismic and Evolutionary Biology and of Physics, Thomas D. Cabot Associate Professor of Organismic and Evolutionary Biology

Rachelle Gaudet, Professor of Molecular and Cellular Biology

Stephen C. Harrison, Giovanni Armenise - Harvard Professor of Basic Biomedical Science, Professor of Pediatrics (*Medical School*)

Andrew W. Murray, Herchel Smith Professor of Molecular Genetics

Daniel Joseph Needleman, Associate Professor of Applied Physics and of Molecular and Cellular Biology

Pardis Sabeti, Associate Professor of Organismic and Evolutionary Biology

Gregory C. Tucci, Senior Lecturer on Chemistry and Chemical Biology

***Other Faculty Offering Instruction in Chemical and Physical Biology***



Adam E. Cohen, Professor of Chemistry and Chemical Biology and of Physics  
 Andres Leschziner, Associate Professor of Molecular and Cellular Biology  
 A. Thomas Torello, Lecturer on Molecular and Cellular Biology

The Chemical and Physical Biology (CPB) concentration provides students with a broad foundation in the physical and life sciences. This concentration is designed for students interested in applying quantitative tools, physical concepts, and chemical principles to the study of biology. Students who are interested in understanding living systems in detail will require considerable proficiency in mathematics and physics as well as a broad background in both chemistry and biology. In its emphasis on quantitative, physical, and chemical tools, this concentration represents a significant departure from traditional undergraduate programs of study in the biological and life sciences. Our goal is to provide the next generation of life scientists with the background needed to make new advances in the quantitative understanding of living systems. The CPB concentration is intended primarily for students considering careers in research. The concentration is administered by the Department of Molecular and Cellular Biology and overseen by a Standing Committee, which includes representatives from several departments of the Faculty of Arts and Sciences and from other schools as appropriate to ensure the required breadth of the program. For more information about the Chemical and Physical Biology Concentration, please visit the [CPB Life Sciences Page](#).

### ***Primarily for Undergraduates***

#### **\*Chemical and Physical Biology 91r. Introduction to Research**

Catalog Number: 9168

*A. Thomas Torello*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*  
 Laboratory research in topics related to the CPB concentration under the direction of, or approved by, members of the Board of Tutors in CPB. A paper must be submitted to the laboratory sponsor and to the CPB Student Affairs Office for review by the Head Tutor and Course Director.

*Note:* Limited to CPB concentrators; written permission of both the tutor and laboratory sponsor must be submitted to the CPB Concentration Office prior to enrolling in the course. Ordinarily may not be taken as a fifth course.

#### **\*Chemical and Physical Biology 99. Laboratory Research for Honors Thesis**

Catalog Number: 7918

*A. Thomas Torello*

*Full course (indivisible). Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*  
 For honors candidates writing a thesis in CPB. Indivisible for students enrolling in the fall term. Students intending to enroll in the fall are required to submit a written proposal to the Course Director. Students may enter the course at midyear only with the permission of the Course Director. The thesis proposal must be approved by the Course Director and Head Tutors prior to enrolling in CPB 99. Ordinarily may not be taken as a fifth course.



# Chemical Biology

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Committee on Higher Degrees in Chemical Biology*

Daniel E. Kahne, Professor of Chemistry and Chemical Biology, Harvard College Professor (*Co-Chair*)

Suzanne Walker, Professor of Microbiology and Immunobiology (*Medical School*) (*Co-Chair*)

Rachelle Gaudet, Professor of Molecular and Cellular Biology

David R. Liu, Professor of Chemistry and Chemical Biology, Harvard College Professor

Timothy J. Mitchison, Hasib Sabbagh Professor of Systems Biology (*Medical School*)

Stuart L. Schreiber, Morris Loeb Professor of Chemistry

### *Other Faculty Offering Instruction in Chemical Biology*

Emily Patricia Balskus, Assistant Professor of Chemistry and Chemical Biology

Jon Clardy, Hsien Wu and Daisy Yen Wu Professor of Biological Chemistry and Molecular Pharmacology, (*Medical School*)

Adam E. Cohen, Professor of Chemistry and Chemical Biology and of Physics

Vladimir Denic, Associate Professor of Molecular and Cellular Biology

Eric N. Jacobsen, Sheldon Emery Professor of Chemistry

Andrew G. Myers, Amory Houghton Professor of Chemistry and Chemical Biology

Erin K. O'Shea, Paul C. Mangelsdorf Professor of Molecular and Cellular Biology and of Chemistry and Chemical Biology

Tobias Ritter, Professor of Chemistry and Chemical Biology

Matthew D. Shair, Professor of Chemistry and Chemical Biology (*on leave 2014-15*)

Gregory L. Verdine, Erving Professor of Chemistry in the Departments of Stem Cell and Regenerative Biology and of Chemistry and Chemical Biology

Xiaoliang Sunney Xie, Mallinckrodt Professor of Chemistry and Chemical Biology

Xiaowei Zhuang, David B. Arnold, Jr. Professor of Science

Leonard I. Zon, Professor of Stem Cell and Regenerative Biology and Grousbeck Professor of Pediatrics, Harvard Medical School (*Medical School*)

### *Primarily for Graduates*

#### **\*Chemical Biology 2200. Introduction to Chemical Biology**

Catalog Number: 3459 Enrollment: Limited to 15.

*James Elliott Bradner (Medical School) and Ralph Mazitschek (Medical School)*



*Half course (spring term). M., through F., 9am - 5pm (January 7-18, 2013). EXAM GROUP: 10*

This course will provide a survey of major topics, technologies, and themes in Chemical Biology, with hands-on exposure to a variety of experimental approaches.

*Note:* Intended for first-year graduate students in the Chemical Biology Program; permission of the instructor required for all others.

### **Cross-listed Courses**

#### **BCMP 200. Molecular Biology**

[**BCMP 201. Biological Macromolecules: Structure, Function and Pathways**]

**BCMP 230. Principles and Practice of Drug Development**

**Cell Biology 201. Molecular Biology of the Cell**

**\*Chemistry 106. Advanced Organic Chemistry**

**\*Chemistry 115. Advanced Organic Chemistry: Synthesis of Complex Molecules**

**\*Chemistry 135. Experimental Synthetic Chemistry**

**Chemistry 163. Frontiers in Biophysics**

[**\*Chemistry 170. Chemical Biology**]

**Genetics 201. Principles of Genetics**

**Neurobiology 200. Neurobiology**

[**\*SCRB 185. Human Disease**]

**Virology 201. Virology**

### ***Graduate Courses of Reading and Research***

#### **\*Chemical Biology 300hf. Introduction to Chemical Biology Research**

Catalog Number: 95622 Enrollment: This course is limited to first year students in the Chemical Biology Program.

*Suzanne Walker (Medical School) 5087 and members of the Committee*

*Half course (throughout the year). Spring: W., 4:30–6. EXAM GROUP: Fall: 2; Spring: 16*

Lectures introduce the research areas of current program faculty in Chemical Biology.

#### **\*Chemical Biology 350. Chemical Biology Research**

Catalog Number: 9668

*Members of the Committee*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

Upper level Chemical Biology students register for this course when they permanently join a lab. Students should register under the supervising PI.

#### **\*Chemical Biology 370. Advanced Topics in Chemical Biology**

Catalog Number: 74314

*Daniel E. Kahne 5065 and Suzanne Walker (Medical School) 5087*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

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.



### **\*Chemical Biology 399. Introduction to Laboratory Research**

Catalog Number: 1888

*Daniel E. Kahne 5065, Suzanne Walker (Medical School) 5087, and Matthew D. Shair 2280 (on leave 2014-15) (spring term only)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

This course is intended for Chemical Biology lab rotations.

## 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, Abbott and James Lawrence Professor of Chemistry and Professor of Physics (*Chair*)

Alán Aspuru-Guzik, Professor of Chemistry and Chemical Biology

Adam E. Cohen, Professor of Chemistry and Chemical Biology and of Physics

John M. Doyle, Professor of Physics

Roy G. Gordon, Thomas Dudley Cabot Professor of Chemistry and Professor of Materials Science

Mikhail D. Lukin, Professor of Physics (*on leave spring term*)

David R. Nelson, Arthur K. Solomon Professor of Biophysics and Professor of Physics and Applied Physics

Kang-Kuen Ni, Assistant Professor of Chemistry and Chemical Biology

Eugene I. Shakhnovich, Professor of Chemistry and Chemical Biology

Xiaoliang Sunney Xie, Mallinckrodt Professor of Chemistry and Chemical Biology

Xiaowei Zhuang, David B. Arnold, Jr. Professor of Science

The degree of doctor of philosophy in chemical physics was established to meet the needs of students wishing to prepare themselves for the study of chemical problems by the methods and theories of modern physics. The Committee on the Degree of Doctor of Philosophy in Chemical Physics is composed of members of the Departments of Chemistry and Chemical Biology, Physics, and Astronomy, and of the School of Engineering and Applied Sciences, with special interests in the field commonly known as chemical physics. The program of study includes courses in these subjects, and research on an appropriate problem under the direction of a member of one of these departments.



# Chemistry and Chemical Biology

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Department of Chemistry and Chemical Biology*

Eric N. Jacobsen, Sheldon Emery Professor of Chemistry (*Chair*)

Joanna Aizenberg, Amy Smith Berylson Professor of Materials Science

James G. Anderson, Philip S. Weld Professor of Atmospheric Chemistry (*on leave fall term*)

Alán Aspuru-Guzik, Professor of Chemistry and Chemical Biology

Emily Patricia Balskus, Assistant Professor of Chemistry and Chemical Biology

Theodore A. Betley, Professor of Chemistry and Chemical Biology

Binny Joseph Cherayil, Visiting Professor of Chemistry and Chemical Biology

Adam E. Cohen, Professor of Chemistry and Chemical Biology and of Physics

Grace E. Ferris, Preceptor in Chemistry and Chemical Biology

Cynthia M. Friend, Theodore William Richards Professor of Chemistry and Professor of Materials Science

Roy G. Gordon, Thomas Dudley Cabot Professor of Chemistry and Professor of Materials Science

Eric J. Heller, Abbott and James Lawrence Professor of Chemistry and Professor of Physics

Lindsay M. Hinkle, Preceptor in Chemistry and Chemical Biology

Daniel E. Kahne, Professor of Chemistry and Chemical Biology, Harvard College Professor (*Director of Undergraduate Studies*)

Frank N. Keutsch, Stonington Professor of Engineering and Atmospheric Science and Professor of Chemistry and Chemical Biology

Eugene Elliott Kwan, Lecturer on Chemistry and Chemical Biology

Charles M. Lieber, Mark Hyman, Jr. Professor of Chemistry (*on leave 2014-15*)

David R. Liu, Professor of Chemistry and Chemical Biology, Harvard College Professor

Julie C. Schlenker Murthy, Lecturer on Chemistry and Chemical Biology

Andrew G. Myers, Amory Houghton Professor of Chemistry and Chemical Biology

Kang-Kuen Ni, Assistant Professor of Chemistry and Chemical Biology

Daniel Nocera, Patterson Rockwood Professor of Energy

Erin K. O'Shea, Paul C. Mangelsdorf Professor of Molecular and Cellular Biology and of Chemistry and Chemical Biology

Hongkun Park, Professor of Chemistry and Chemical Biology and of Physics

Tobias Ritter, Professor of Chemistry and Chemical Biology

Austin Bennett Scharf, Preceptor in Chemistry and Chemical Biology, Lecturer on Chemistry and Chemical Biology

Stuart L. Schreiber, Morris Loeb Professor of Chemistry



Matthew D. Shair, Professor of Chemistry and Chemical Biology (*Director of Graduate Studies, co-director) (on leave 2014-15)*)  
Eugene I. Shakhnovich, Professor of Chemistry and Chemical Biology  
Ryan M. Spoering, Lecturer on Chemistry and Chemical Biology  
Marie Colleen Spong, Preceptor in Chemistry and Chemical Biology  
Jack Szostak, Professor of Chemistry and Chemical Biology; Professor of Genetics (*Medical School*)  
Gregory C. Tucci, Senior Lecturer on Chemistry and Chemical Biology  
Gregory L. Verdine, Erving Professor of Chemistry in the Departments of Stem Cell and Regenerative Biology and of Chemistry and Chemical Biology  
Lu Wang, Preceptor in Chemistry and Chemical Biology  
George M. Whitesides, Woodford L. and Ann A. Flowers University Professor  
Xiaoliang Sunney Xie, Mallinckrodt Professor of Chemistry and Chemical Biology  
Xiaowei Zhuang, David B. Arnold, Jr. Professor of Science

***Other Faculty Offering Instruction in the Department of Chemistry and Chemical Biology***

Tamara J. Brenner, Lecturer on Molecular and Cellular Biology, Associate Director of Life Sciences Education  
David A. Evans, Abbott and James Lawrence Professor of Chemistry, Emeritus  
Efthimios Kaxiras, John Hasbrouck Van Vleck Professor of Pure and Applied Physics  
Richard M. Losick, Maria Moors Cabot Professor of Biology  
Robert A. Lue, Professor of the Practice of Molecular and Cellular Biology  
Susan Mango, Professor of Molecular and Cellular Biology  
Logan S. McCarty, Lecturer on Chemistry and Chemical Biology, Lecturer on Physics

Incoming students should take advantage of Harvard's Chemistry and Life Sciences Placement Test, as well as the science advising available in the Science Center the week before classes begin. Members of the Life and Physical Sciences departments will be available during this period to advise students. The Harvard Chemistry and Life Sciences Placement Test results recommend the appropriate starting level course for students interested in chemistry: Life and Physical Sciences A, Life Sciences 1a and/or Physical Sciences 10, or Chemistry 17/20.

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 School 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 should consult a member of the Chemistry Department in planning their first year. Advice may be obtained in the Co-Director of Undergraduate Studies' Office, Science Center 114.



## ***Life and Physical Sciences***

### **Life and Physical Sciences A. Foundational Chemistry and Biology**

Catalog Number: 3956

*Gregory C. Tucci and Tamara J. Brenner*

*Half course (fall term). M., W., F., at 9, and a weekly one-hour of discussion section, three-hour lab, and one-hour of review session. EXAM GROUP: 10*

This course introduces fundamental concepts in chemistry and biology. Topics in chemistry include stoichiometry, acids and bases, aqueous solutions, gases, thermochemistry, electrons in atoms, and chemical bonding. The course also examines biological molecules, the transfer of information from DNA to RNA to protein, and cell structure and signaling.

*Note:* Students should use their scores on the Chemistry and Biology Placement Tests to determine whether to enroll in Life and Physical Sciences A or Life Sciences 1a. This course assumes fluency with high school algebra. Students who have completed Life Sciences 1a, Physical Sciences 1, Physical Sciences 10, Physical Sciences 11, Chemistry 17 or Chemistry 20 may not take Life and Physical Sciences A for credit. This course, when taken for a letter grade, meets the General Education Requirement for Science of Living Systems.

### **Life Sciences 1a. An Integrated Introduction to the Life Sciences: Chemistry, Molecular Biology, and Cell Biology**

Catalog Number: 2137

*Robert A. Lue, Daniel E. Kahne, Richard M. Losick, and Susan Mango*

*Half course (fall term). Tu., Th., 1–2:30;. EXAM GROUP: 8*

What are the fundamental features of living systems? What are the molecules imparting them and how do their chemical properties explain their biological roles? The answers form a basis for understanding the molecules of life, the cell, diseases, and medicines. In contrast with traditional presentations of relevant scientific disciplines in separate courses, we take an integrated approach, presenting chemistry, molecular biology, biochemistry, and cell biology framed within central problems such as the biology of HIV and cancer.

*Note:* For more information about the assignment process, please see the course website in the fall. This course, in combination with Life Sciences 1b, constitutes an integrated introduction to the Life Sciences. This course, when taken for a letter grade, meets the General Education requirement in Science of Living Systems.

### **Physical Sciences 1. Chemical Bonding, Energy, and Reactivity: An Introduction to the Physical Sciences**

Catalog Number: 2225

*Hongkun Park, Lindsay M. Hinkle, and Sirinya Matchacheep*

*Half course (spring term). M., W., F., at 10. EXAM GROUP: 13*

The course covers the chemistry and physics underlying molecular phenomena in the world. Starting from a single electron, the course will build up to atoms, molecules, and materials. Interactions of molecules are studied through thermochemistry, equilibria, entropy and free energy, acids and bases, electrochemistry, and kinetics. Applications include physical principles in biology, global energy demands, and modern materials and technology.

*Note:* This course is part of an integrated introduction to the physical science intended for students who plan to pursue a concentration in the physical or life sciences and/or to satisfy a pre-medical requirement in general/inorganic chemistry. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or the Core



area requirement for Science A. Physical Sciences 1 and Physical Sciences 11 cannot both be taken for credit.

*Prerequisite:* A few operations of calculus are developed and used. Fluency in pre-calculus secondary school mathematics is assumed. Students are expected to have AP or honors level high school chemistry, or have completed Life Sciences 1a or Life and Physical Sciences A (LPS A) with a satisfactory grade.

### **Physical Sciences 2. Mechanics, Elasticity, Fluids, and Diffusion**

Catalog Number: 6053

*Logan S. McCarty*

*Half course (fall term). Tu., Th., 9:30-11, and a weekly section and lab to be arranged. EXAM*

*GROUP: 9*

An introduction to classical mechanics, with special emphasis on the motion of organisms in fluids. Topics covered include: kinematics, Newton's laws of motion, oscillations, elasticity, random walks, diffusion, and fluids. Examples and problem set questions will be drawn from the life sciences and medicine.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

*Prerequisite:* Physical Sciences 1 (or Chemistry 7), Mathematics 1b, or the equivalent.

### **Physical Sciences 3. Electromagnetism, Circuits, Waves, Optics, and Imaging**

Catalog Number: 5262

*Logan S. McCarty*

*Half course (spring term). Tu., Th., 9:30-11, and a weekly section and lab to be arranged. EXAM*

*GROUP: 2*

This course is an introduction to electromagnetism, digital information, waves, optics and sound. Topics covered include: electric and magnetic fields, electrical potential, circuits, simple digital circuits, wave propagation in various media, microscopy, sound and hearing. The course will draw upon a variety of applications to the biological sciences and will use real-world examples to illustrate many of the physical principles described. There are six laboratories.

*Note:* This course is part of an integrated introduction to the physical sciences intended for students who plan to pursue a concentration in the life sciences and/or satisfy pre-medical requirements in Physics. May not ordinarily be taken for credit in addition to Physics 1b, 11b, or 15b. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

*Prerequisite:* Physical Sciences 2 (or Physics 1a or 11a), Mathematics 1b, or equivalent.

### **Physical Sciences 10. Quantum and Statistical Foundations of Chemistry**

Catalog Number: 75544

*Adam E. Cohen*

*Half course (fall term). M., W., F., at 10 and a weekly section and lab to be arranged. EXAM*

*GROUP: 5*

An introduction to the fundamental theories of quantum mechanics and statistical mechanics and their role in governing the behavior of matter. The course begins with the quantum behavior of a single electron and develops the elements of the periodic table, the nature of the chemical bond, and the bulk properties of materials. Applications include semiconductor electronics, solar



energy conversion, medical imaging, and the stability and dynamism of living systems. Calculus will be used extensively.

*Note:* Physical Sciences 10 and Physical Sciences 11 may be taken in any order. The general chemistry requirement for medical school can be satisfied with any two of the following courses: Life and Physical Sciences A, Life Sciences 1a, Physical Sciences 1, Physical Sciences 10, or Physical Sciences 11. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.

*Prerequisite:* A strong background in chemistry (Chemistry AP score of 5, or Physical Sciences 1, or equivalent preparation), mathematics at the level of Mathematics 1b (may be taken concurrently), and some familiarity with physics (force, energy, work, and electric charge).

### **Physical Sciences 11. Foundations and Frontiers of Modern Chemistry: A Molecular and Global Perspective**

Catalog Number: 24022

*James G. Anderson and Gregory C. Tucci*

*Half course (spring term). M., W., F., at 10 and a weekly section and lab to be arranged. EXAM GROUP: 5*

The Physical Sciences hold the key to solving unprecedented problems at the intersection of science, technology, and an array of rapidly emerging global scale challenges. The course emphasizes a molecular scale understanding of energy and entropy; free energy in equilibria, acid/base reactivity, and electrochemistry; molecular bonding and kinetics; catalysis in organic and inorganic systems; the union of quantum mechanics, nanostructures, and photovoltaics; and the analysis of nuclear energy. Case studies are used both to develop quantitative reasoning and to directly link these principles to global strategies.

*Note:* Physical Sciences 10 and Physical Sciences 11 may be taken in any order. The general chemistry requirement for medical students can be satisfied with any two of the following courses: Life and Physical Sciences A, Life Sciences 1a, Physical Sciences 1, Physical Sciences 10, or Physical Sciences 11. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe. NOTE: Physical Sciences 1 and Physical Sciences 11 cannot both be taken for credit.

*Prerequisite:* A few operations of calculus are developed and used. Fluency in pre-calculus secondary school mathematics is assumed. Students are expected to have high school chemistry, or have completed Life and Physical Sciences A (LPS A) or Life Sciences 1a (LS 1a), or permission of the instructors.

### **Physical Sciences 12a. Mechanics from an Analytic, Numerical and Experimental Perspective**

Catalog Number: 43244

*Eftimios Kaxiras*

*Half course (spring term). Tu., Th., 9:30–11. EXAM GROUP: 2*

This is the first term of a two-semester introductory physical science and engineering course sequence. The focus is on quantitative scientific reasoning, with the first term's exploration framed in the context of basic mechanics. Students will gain competence in both analytic (using pencil, paper and single-variable calculus) and numerical (using computer modeling) approaches to modeling simple physical systems and for the analysis of experimental data. Topics include kinematics, linear and rotational motion, forces, energy, collisions, gravitation, simple fluids and



a brief introduction to waves. Examples are drawn from across the physical sciences and engineering. The course is aimed at first year students who have an interest in pursuing a concentration in the sciences and/or engineering. The course structure includes lecture, discussion and laboratory components.

*Note:* Physical Sciences 12a may not be taken for credit by students who have passed Physics 11a, 15a or 16. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

### ***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 Associate Director of Undergraduate Studies' Office, Science Center 114.

#### **Chemistry 17. Principles of Organic Chemistry**

Catalog Number: 5085

*Eric N. Jacobsen*

*Half course (fall term). M., W., 2:30 - 4:00 pm (\*Friday - optional lecture); and a weekly, ninety-minute section to be arranged. EXAM GROUP: 7*

An introduction to organic chemistry, with an emphasis on structure and bonding, reaction mechanisms, and chemical reactivity.

*Note:* The Chemistry 17/27 sequence is intended primarily for students in the life sciences, who have completed LS1a and one of the PS courses (PS1, PS10, PS11). The Chemistry 20/30 sequence is intended primarily for students planning a concentration in Chemistry or 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.

*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 Physical Sciences 1, 10, 11, or another college-level introductory chemistry course. Others may enter only by permission of the instructor.

#### **Chemistry 20. Organic Chemistry**

Catalog Number: 0876

*Ryan M. Spoering*

*Half course (spring term). M., W., F., at 9; weekly lecture review F. 2-3:30; one-hour weekly discussion section; five lab experiments each consisting of a lab-oriented lecture and 5 hours hands-on. EXAM GROUP: 10*

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 by infrared and NMR spectroscopy.

*Note:* Chemistry 20/30 is an integrated two-semester sequence that prepares students to study chemistry and other physical sciences, whereas the Chemistry 17/27 sequence focuses on application of organic chemistry concepts to the life sciences. Either sequence satisfies the organic chemistry requirement for medical school and the chemistry concentration. The content of Chemistry 17 is accelerated and overlaps with topics from both Chemistry 20 and 30. Students may not count both Chemistry 17 and 20 toward the degree. However, Chemistry 27 and Chemistry 20/30 cover different material, so students may choose to take Chemistry 27 after completing the 20/30 sequence.

*Prerequisite:* Open to students who scored 4 or 5 on the Chemistry Advanced Placement Examination, or who successfully completed Life Sciences 1A or Life and Physical Sciences A. Others should contact the instructor to discuss their preparation.

### **Chemistry 27. Organic Chemistry of Life**

Catalog Number: 5978

*Marie Colleen Spong*

*Half course (spring term). M., W., 2:30-4, and a weekly section and five-hour laboratory to be arranged. EXAM GROUP: 17*

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 enzymes, nucleic acids, drugs, natural products, cofactors), 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 General Education requirement for Science of Living Systems.

*Prerequisite:* Chemistry 17 or Chemistry 30 or Chemistry 20 with permission of the instructor.

### **Chemistry 30. Organic Chemistry**

Catalog Number: 6587

*Tobias Ritter*

*Half course (fall term). Lectures M., W., F., at 11, and laboratory, four to six hours a week, to be arranged. EXAM GROUP: 18*

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 given an introduction into organometallic chemistry. Laboratory: an introduction to organic chemistry laboratory techniques and experimental organic synthesis.

*Note:* Chemistry 27 and 30 may both be taken for degree credit. See note for Chemistry 17.

*Prerequisite:* Chemistry 20 or equivalent.

### **Chemistry 40. Inorganic Chemistry**

Catalog Number: 8201

*Daniel Nocera*



*Half course (spring term). M., W., 10–11:30. EXAM GROUP: 5*

An introduction to basic concepts of inorganic chemistry. Develops principles of chemical bonding and molecular structure on a basis of symmetry, applying these concepts to coordination chemistry (highlighting synthesis), organometallic chemistry (applications to catalysis), materials synthesis, and bioinorganic processes.

*Prerequisite:* Chemistry 17 or 20.

### **Chemistry 60. Foundations of Physical Chemistry**

Catalog Number: 5181

*Roy G. Gordon*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

A compact introduction to major principles of physical chemistry (statistical mechanics, thermodynamics, and chemical kinetics ), concurrently providing mathematical and physical foundations for these subjects and preparation for Chemistry 160 and 161.

*Prerequisite:* Physical Sciences 1 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

*Gregory C. Tucci and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 12*

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 Associate 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 whose signature must appear on each student's study card. Must be taken Sat/Unsat.

### **\*Chemistry 98r. Introduction to Research—Junior Year**

Catalog Number: 3124

*Gregory C. Tucci and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged; Spring: Tu., Th., at 1.*

*EXAM GROUP: Fall: 8; Spring: 1*

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 concentrators. Written permission of the research adviser must be filed at the office of the Co-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 whose signature must appear on each student's study card.

### **\*Chemistry 99r. Tutorial—Senior Year**

Catalog Number: 4508

*Gregory C. Tucci and members of the Department*



*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*

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 Chemistry 99r have the option of writing a thesis. Written permission of the research adviser must be filed at the office of the Associate 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 whose signature must appear on each student's study card.

### ***Cross-listed Courses***

#### **Life Sciences 1b. An Integrated Introduction to the Life Sciences: Genetics, Genomics, and Evolution**

#### **\*MCB 52. Molecular Biology**

#### ***For Undergraduates and Graduates***

#### **\*Chemistry 100r. Experimental Chemistry and Chemical Biology**

Catalog Number: 7796

*Ryan M. Spoering (fall term) and Austin Bennett Scharf (spring term)*

*Half course (fall term; repeated spring term). Fall: M., at 4; Spring: M., at 12, and two five-hour labs each week. EXAM GROUP: Fall: 17; Spring: 7*

A laboratory course where students carry out research. Projects will be drawn directly from faculty covering a range of methodologies in chemistry and chemical biology. Students will discuss their progress and write formal reports.

*Note:* Open to freshmen, sophomores, juniors, and seniors, regardless of concentration, and suitable for students either with or without extensive laboratory experience.

*Prerequisite:* Chemistry 30 or Chemistry 27, and permission of the instructor.

#### **Chemistry 101. Organic Synthesis Towards a Genomic Medicine**

Catalog Number: 7505

*Stuart L. Schreiber*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Organic Synthesis Towards a Genomic Medicine teaches students principles of modern organicsynthesis, chemical biology and genome biology relevant to the discovery of safe and effective therapeutics in the future. The course will then explore patient-based 'experiments of nature' that illuminate disease, including cancer, diabetes, infectious disease and psychiatric disease, among others. Students will then use their knowledge of chemistry and chemical biology to propose research yielding novel small molecules that emulate the experiments of nature. Chem 101 aims to prepare students for the next decade where academic research tests hypotheses emerging from humanbiology in humans using novel small-molecule probes.

*Prerequisite:* Chemistry 17/27, Chemistry 20/30, or the equivalent

#### **\*Chemistry 106. Advanced Organic Chemistry**

Catalog Number: 1063



*Eugene Elliott Kwan*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

This course will survey modern organic chemistry from a fundamental perspective. The foundations of structure and bonding, donor-acceptor interactions, and conformational analysis will be considered in the context of pericyclic reactions and cyclic and acyclic stereocontrol. The behavior of reactive intermediates, the basis for enantioselective catalysis, and patterns in functional group reactivity will also be discussed.

*Prerequisite:* Chemistry 30 or permission of instructor.

**[Chemistry 110. Small Molecules and Biological Processes]**

Catalog Number: 49486

*Matthew D. Shair*

*Half course (spring term). Tu., Th., 10–11:30.*

Small molecules are extraordinarily useful tools to investigate biological processes, perturb cell states and treat human diseases. They are complementary to many biological techniques (e.g. expression of mutant proteins, RNAi, genome editing and antibodies) in that they are fast-acting, typically cell permeable, easily reversible, and they can engage multiple targets simultaneously. In this course, we will discuss how these useful small molecules are discovered, how they have revealed deep insights into biological processes, and how they are employed as therapeutics.

*Note:* Expected to be given in 2015–16.

**\*Chemistry 115. Advanced Organic Chemistry: Synthesis of Complex Molecules**

Catalog Number: 0480

*Andrew G. Myers*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 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:* A grade of A in Chemistry 30.

**[Chemistry 117. Practical NMR Spectroscopy]**

Catalog Number: 1061

*Eugene Elliott Kwan*

*Half course (spring term). Tu., Th., 1–2:30.*

This course examines the application of modern NMR spectroscopic techniques to the structural elucidation of small molecules. Both the practical and theoretical aspects of 1D and 2D NMR experiments will be explored. Topics include: the chemical shift; coupling constants; the nuclear Overhauser effect and relaxation; chemical exchange; 2D homonuclear and heteronuclear correlation; analysis of complex molecules with overlapping signals and data tabulation; analysis of reactive intermediates; kinetics by NMR; the Fourier transform; quadrature detection; phase-sensitive detection; the vector model; the density matrix and the product operator formalism; pulsed field gradients; and spectrometer instrumentation.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Chemistry 17/27 or 20/30 or equivalent. The course is designed for organic chemists who do not have an extensive math or physics background. In fact, no prior knowledge of NMR spectroscopy is assumed. It is suitable for both undergraduate and graduate students.



### **\*Chemistry 135. Experimental Synthetic Chemistry**

Catalog Number: 3406

*Eugene Elliott Kwan*

*Half course (spring term). Lecture: M 1:00 - 3:00 pm, Lab -- - 8-16 hrs. per week: Tu., W., or Th., 12-8, or Sat., 10-8, beginning fourth week of the term. EXAM GROUP: 8*

An introduction to experimental problems encountered in the synthesis, isolation, purification, characterization, and identification of inorganic and organic compounds. Student work on projects in chemical synthesis, encouraging technical proficiency and simulating actual research.

*Note:* Preference given to concentrators in Chemistry. 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 98r and 99r.

### **Chemistry 145. Experimental Inorganic Chemistry**

Catalog Number: 79903 Enrollment: Limited to 6.

*Theodore A. Betley and Austin Bennett Scharf*

*Half course (fall term). One 90 minute lecture per week Tuesdays 6 - 7:30 pm; Labs Tuesday & Thursday 1 - 6 pm. EXAM GROUP: 16*

An introduction to experimental problems encountered in the synthesis, isolation, purification, characterization, and identification of inorganic compounds, with an emphasis in air-free synthetic techniques and spectroscopic characterization methods specifically applicable to complexes containing transition metals.

*Prerequisite:* Chemistry 40 and either Chemistry 27 or 30, or permission of the instructor.

### **[Chemistry 153. Organotransition Metal Chemistry]**

Catalog Number: 27616

*Tobias Ritter*

*Half course (fall term). Tu., Th., 2:30-4.*

An introduction to transition metal-mediated chemistry. Topics include organometallic reaction mechanisms and transition metal catalysis in synthesis. Design, development, and presentation of research ideas, relevant to contemporary catalysis and the current literature will be taught as part of the course.

*Note:* Expected to be given in 2015–16. Primarily for graduate students and advanced undergraduates in chemistry.

*Prerequisite:* The course requires knowledge in synthetic organic chemistry (Chemistry 30 or equivalent).

### **[Chemistry 154. Advanced Inorganic Chemistry]**

Catalog Number: 32665

*Daniel Nocera*

*Half course (spring term). M., W., 10–11:30.*

The physical inorganic chemistry of transition elements will be discussed. The course will emphasize group theoretical methods of analysis and attendant spectroscopic methods (e.g., electronic, vibrational, EPR, magnetic) derived therefrom. Connections between molecular structure and electronic structure and how that parlays into the properties of complexes and their reactivity will be illustrated throughout various modules, which will touch on advanced problems



of interest in the subjects of catalytic, organometallic, coordination, solid state and bioinorganic chemistries.

*Note:* Expected to be given in 2015–16.

### **Chemistry 155. Advanced Inorganic Chemistry II - (New Course)**

Catalog Number: 82571

*Theodore A. Betley*

*Half course (fall term). M., W., 9–10:30. EXAM GROUP: 10*

Transition element chemistry will be discussed with an emphasis on synthesis, structure, bonding, and reaction mechanisms. Connections between molecular structure and electronic structure and how that parlays into reactivity will be emphasized throughout. Advanced problems of interest to inorganic chemistry will be discussed in the context of catalysis, organometallics, and bioinorganic processes. The course will be discussion driven with a heavy reliance on the current literature.

### **[Chemistry 156. Chemistry of Positron Emission Tomography]**

Catalog Number: 14862

*Jacob M. Hooker (Medical School)*

*Half course (spring term). M., W., 1–2:30.*

This course will provide exposure to translational imaging from a unique chemical perspective. The focus of the course will be radiotracer chemistry but additional topics such as imaging physics, imaging equipment, and probe design based on biology, pharmacokinetics, and image analysis will be covered. Students will leave the course with working knowledge of radiotracer design and human translational imaging.

*Note:* Expected to be given in 2015–16. Laboratory sessions may be arranged.

*Prerequisite:* One year of Organic Chemistry.

### **[Chemistry 158. Nanoscience and Nanotechnology]**

Catalog Number: 7504

*Charles M. Lieber*

*Half course (spring term). M., W., 11:30–1.*

A survey of nanoscience and nanotechnology. Topics include: bottom-up versus top-down paradigms; synthesis and fabrication of zero-, one-and two-dimensional materials; physical properties of nanostructures, including electronic and optical properties; hierarchical organization in two and three dimensions; functional devices circuits and nanosystems; applications with emphasis on nano-bio interface and electronics.

*Note:* Expected to be given in 2015–16. For advanced undergraduate and graduate students.

*Prerequisite:* Chemistry 40, or equivalent.

### **Chemistry 160. The Quantum World**

Catalog Number: 3420

*Alán Aspuru-Guzik*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Many essential properties of atoms, molecules and materials stem from their quantum mechanical nature. In this course, we will focus on the quantum mechanical aspects of physical chemistry. The basic principles of quantum mechanics will be introduced in tandem with the



chemical concepts covered. We will describe the quantum mechanics of molecular bonding, vibrations and rotations. The fundamentals of molecular spectroscopy and photophysics will be seen in the light of quantum mechanics. We will end the course by introducing what goes behind the sciences in quantum chemistry packages for calculating molecular electronic structure and molecular properties. This year, the course will employ online forums for student discussions and turning in homework assignments. Most of the materials for evaluation will be take-home team programming exercises written in interactive Python (iPython). There will be no final exam.

*Prerequisite:* Applied Mathematics 21a and 21b, Mathematics 21a and 21b, or equivalent preparation in calculus and differential equations; Physical Sciences 1 or equivalent preparation in chemical bonding and fundamental principles; Physical Sciences 2 or Physics 11a, and Physical Sciences 3 or Physics 11b.

### **Chemistry 161. Statistical Thermodynamics**

Catalog Number: 3575

*Binny Joseph Cherayil*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

An introduction to statistical mechanics, thermodynamics, and chemical kinetics with applications to problems in chemistry and biology.

*Prerequisite:* Chemistry 160 or Physics 143a, or equivalent. Math 21a, or equivalent.

### **Chemistry 163. Frontiers in Biophysics**

Catalog Number: 3635

*Xiaoliang Sunney Xie*

*Half course (fall term). M., F., 1–2:30. EXAM GROUP: 1*

This course introduces the physical chemistry underpinnings of life processes, including thermodynamics, equilibrium and nonequilibrium statistical mechanics and chemical kinetics. These principles will be illustrated in the context of recent experimental advances, in particular single-molecule enzymology, molecular motors, live cell imaging, and stochastic gene expression. Statistical analyses and numerical simulations of important biological processes will be covered throughout the course.

*Note:* Primarily for advanced undergraduate students and graduate students with either biological or physical backgrounds.

*Prerequisite:* Chemistry 160, Chemistry 161, or permission of the instructor.

### **\*Chemistry 165. Experimental Physical Chemistry**

Catalog Number: 0667

*Cynthia M. Friend*

*Half course (spring term). Tu., 3-4, and sections on Th., 1-5, or 6-10 pm. EXAM GROUP: 16*

Hands-on introduction to physical methods and techniques used widely in chemistry and chemical physics research laboratories. Computer-based methods of data acquisition and analysis are used throughout.

*Note:* Recommended as an efficient preparation for research in experimental chemistry, chemical physics, engineering sciences, and related disciplines.

*Prerequisite:* Chemistry 7, or Physical Sciences 1, or equivalent; Applied Mathematics 21a or



Mathematics 21a; one full course in physics or equivalent. Recommended: Chemistry 160, Physics 143a or similar, a course in Quantum Mechanics.

### **[\*Chemistry 170. Chemical Biology]**

Catalog Number: 7754

*Alan Saghatelian*

*Half course (fall term). Tu., Th., 1–2:30.*

Applying chemical approaches to problems in biology. Topics include: protein engineering and directed evolution; RNA catalysis and gene regulation; chemical genetics, genomics, and proteomics; drug action and resistance; rational and combinatorial approaches to drug discovery; metabolic engineering.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* A strong background in organic chemistry and biochemistry.

### **Chemistry 171. Biological Synthesis**

Catalog Number: 49031

*Emily Patricia Balskus*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

This course will examine synthesis from a biological perspective, focusing on how organisms construct and manipulate metabolites, as well as how biological catalysts and systems can be used for small molecule production. Topics to be covered include mechanistic enzymology, biosynthetic pathways and logic, biocatalysis, protein engineering, and synthetic biology.

### **Chemistry 190. Statistical Mechanics in Chemistry and Biology**

Catalog Number: 45125

*Eugene I. Shakhnovich*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

This course will cover interdisciplinary aspects of Chemistry and Biology where Statistical Mechanics played a pivotal role. Topics include: Polymers in solution and condensed phases, equilibrium and dynamics of self-assembly -layers and micelles, protein folding, structure and bioinformatics, reaction dynamics on complex energy landscapes, dynamic and evolution of complex networks.

### ***Cross-listed Courses***

#### **Earth and Planetary Sciences 133. Atmospheric Chemistry**

**[Earth and Planetary Sciences 135. Physics and Chemistry: In the Context of Energy and Climate at the Global and Molecular Level]**

#### **Earth and Planetary Sciences 187. Low Temperature Geochemistry II: Modern and ancient biogeochemical processes**

#### **MCB 176. Biochemistry of Membranes**

#### **MCB 199. Statistical Thermodynamics and Quantitative Biology**

**[\*SCRB 185. Human Disease]**

### ***Primarily for Graduates***

**[Chemistry 205. Advanced Physical Organic Chemistry]**

Catalog Number: 6636

*Eric N. Jacobsen**Half course (spring term). Hours to be arranged.*

An in-depth perspective on mechanistic organic chemistry, with analysis of fundamental organic and organotransition metal reaction mechanisms, reactive intermediates, catalysis, stereochemistry, non-covalent interactions, and molecular recognition. Classical and modern tools of physical-organic chemistry, including reaction kinetics, computer modeling, isotope effects, and linear free-energy relationships will be evaluated in the context of literature case studies.

*Note:* Expected to be given in 2015–16.*Prerequisite:* Chemistry 206 or an equivalent upper-level course in organic chemistry, and Chemistry 160/161 or an equivalent sequence in physical chemistry; or permission of the instructor.**[Chemistry 207. Advanced Organic Synthesis and Reactions]**

Catalog Number: 86638

*Matthew D. Shair**Half course (fall term). Hours to be arranged.*

This course presents reactivity principles of organic molecules. Topics include frontier molecular orbital theory, stereoelectronic effects, conformational analysis, cationic, anionic, radical, and carbene intermediates. These reactivity principles are used in a presentation of target-oriented synthesis. Strategies and tactics for assembling complex organic molecules are presented.

*Note:* Expected to be given in 2015–16.*Prerequisite:* Undergraduates must take Chemistry 30 as a prerequisite.**Chemistry 218. Advanced Semiclassical Methods for Quantum Mechanics**

Catalog Number: 17666

*Eric J. Heller**Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Semiclassical approaches to quantum systems provide both intuitive understanding of quantum processes and methods for calculations that are vastly simpler than full quantum mechanical simulations. Semiclassical methods are based on classical mechanics including interference and phases computed with classical actions. The course, based on a textbook being written by Prof. Heller (*The Semiclassical Way to Quantum Mechanics*) begins with a review of some salient features of classical physics, followed by an introduction to stationary phase integration and the Feynman Path Integral in the semiclassical limit, including time and energy domains, and the famous Trace Formula. This is followed by a number of widely useful techniques, such as generalized tunneling, applications to classically chaotic systems, semiclassical wave packet dynamics, WKB methods and uniformization. A number of "special topics" will then be taken up, including decoherence, certain forms of spectroscopy, and scattering theory of nanoscale devices.

*Note:* Chemistry 218 is also offered as Physics 218. Only one of the two courses may be taken for credit.*Prerequisite:* Physics 151 and 143a, b or equivalent; Applied Math 201, 202 or equivalent.



### [\*Chemistry 240. Statistical Thermodynamics]

Catalog Number: 5215

*Eugene I. Shakhnovich*

*Half course (fall term). Hours to be arranged.*

An introduction to statistical mechanics, thermodynamics, and chemical kinetics with strong emphasis on applications to problems in chemistry and biology. Topics include: thermodynamics and statistical properties of gases, liquids and crystals, critical phenomena, elements of non-equilibrium statistical mechanics with applications to Chemistry and Biophysics such as theories for biopolymers and chemical reactions.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Chemistry 160 and Chemistry 161, or permission of instructor.

### \*Chemistry 242. Quantum Mechanics for Physical Chemistry

Catalog Number: 2971

*Kang-Kuen Ni*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course describes the quantum mechanics of molecules and their chemical reactions. We review fundamental principles: Hilbert spaces, operator algebra, Schrodinger, Heisenberg and interaction pictures. Quantum mechanics applied to the understanding of molecular structure, spectra, chemical bonds, and chemical reaction dynamics. Modern techniques for the manipulation of molecular internal and external quantum states.

*Prerequisite:* Chemistry 160 or Physics 143, Physics 11 or 12, and Applied Mathematics 105a and 105b, or Mathematics 21, or equivalent.

### [\*Chemistry 243. Applied Quantum Mechanics]

Catalog Number: 3622

*Hongkun Park*

*Half course (spring term). Hours to be arranged.*

The course will cover the application of quantum mechanical principles to contemporary problems in chemistry and physics. The topics covered in the course will include: chemical bonding and the Born-Oppenheimer Approximation, atom/molecule-photon interaction (including second quantization and the dressed-state approach), Quantum Optics, and solid-state and nano-science (band theory, Fermi liquid theory, and electron transport).

*Note:* Expected to be given in 2015–16. Intended for graduate and advanced undergraduate students in chemistry, physics, and applied physics.

*Prerequisite:* Two semesters of quantum mechanics (Chemistry 160 / Chemistry 242, or Physics 143a / 143b, or equivalent).

### [Chemistry 245. Classical, Quantum, and Semiclassical Dynamics and Scattering]

Catalog Number: 76413

*Eric J. Heller*

*Half course (spring term). Tu., Th., 2:30–4.*

Semiclassical approaches to quantum systems provide both intuitive understanding of quantum processes and methods for calculations that are vastly simpler than full quantummechanical simulations. Semiclassical methods are based on classical mechanics includinginterference and phases computed with classical actions. The course, based on a textbook being written by Prof.



Heller (The Semiclassical Way to Quantum Mechanics) begins with a review of some salient features of classical physics, followed by an introduction to stationary phase integration and the Feynman Path Integral in the semi classical limit, including time and energy domains, and the famous Trace Formula. This is followed by a number of widely useful techniques, such as generalized tunneling, applications to classically chaotic systems, semiclassical wavepacket dynamics, WKB methods and uniformization. A number of "special topics" will then be taken up, including decoherence, certain forms of spectroscopy, and scattering theory of nanoscale devices.

*Note:* Expected to be given in 2015–16. May not be taken concurrently with Physics 218. May not be taken for credit if Physics 218 has already been taken.

*Prerequisite:* Physics 151 and 143a, b or equivalent; Applied Math 201, 202 or equivalent

### **[Chemistry 253. Modeling Matter at Nanoscale: An Introduction to Theoretical and Computational Approaches]**

Catalog Number: 93647

*Luis Alberto Montero Cabrera*

*Half course (fall term). Tu., Th., 10–11:30.*

Essentials of modeling the structure of matter at the nanoscale. Material properties and connections to the mesoscale. Intended for advanced undergraduate students or beginning graduate students in Chemistry, Physics, Applied Physics and the Life Sciences.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Applied Mathematics 21a and 21b; Mathematics 21a and 21b, or equivalent preparation in calculus and differential equations; Physical Sciences 1 or equivalent preparation in chemical bonding and fundamental principles; Physical Sciences 2 or Physics 11a, and Physical Sciences 3 or Physics 11b.

### **Chemistry 255. Practical Crystallography in Chemistry and Materials Science**

Catalog Number: 79245 Enrollment: Limited to 10.

*Shao-Liang Zheng*

*Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 11*

Due to great technical advances, crystal structure analysis plays an increasingly important role in the structure determination of complex solids. This course involves the basic principles of crystallography and covers advanced aspects of practical crystal structure refinement. Topics include crystal symmetry, space groups, geometry of diffraction, structure factors, and structure refinement. Students will gain a working knowledge of x-ray crystallographic techniques, including how to: grow quality crystals, collect data, reduce data, determine a structure, visualize structure, utilize structural databases, publish crystallographic results. Watch [Learning Crystal Structure Analysis at Harvard](#).

*Prerequisite:* Chemistry 40 or equivalent.

### **Chemistry 267. Surface and Interfacial Phenomena**

Catalog Number: 0571

*Cynthia M. Friend*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

General principles governing surface and interfacial phenomena are developed using treatment of surface electronic and geometric structure as a foundation. The course will treat both theoretical and experimental tools for the investigation of surface structure. Selected



spectroscopic techniques will also be treated, with emphasis on surface phenomena. The latter part of the course will develop principles of absorption, reaction, and growth phenomena illustrated through current literature topics.

*Note:* Recommended for graduate and advanced undergraduate students in Chemistry, Applied Physics, and related areas with interest in Materials Chemistry and Engineering, Surface Chemistry, Applied Physics, and other areas dependent on properties and behavior of interfaces.

*Prerequisite:* Chemistry 160 and 161 or equivalent; Applied Mathematics 21a or Mathematics 21a; one full course in physics or equivalent.

### ***Cross-listed Courses***

[\*\*Applied Physics 235. Chemistry in Materials Science and Engineering\*\*](#)

[\*\*Applied Physics 291. Electron Microscopy Laboratory\*\*](#)

[\*\*Biophysics 242r. Special Topics in Biophysics\*\*](#)

[\*\*Earth and Planetary Sciences 200. Atmospheric Chemistry and Physics\*\*](#)

[\*\*Engineering Sciences 228. Biomaterials\*\*](#)

[\*\*Engineering Sciences 268. Chemical Kinetics\*\*](#)

[\*\*Systems Biology 204. Biomolecular Engineering and Synthetic Biology\*\*](#)

### ***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*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

Individual work under the supervision of members of the Department.

#### **\*Chemistry 301hf. Scientific Teaching and Communications: Practicum**

Catalog Number: 9903

*Gregory C. Tucci 5020, Matthew D. Shair 2280 (on leave 2014-15), Ryan M. Spoering 5625, and Marie Colleen Spong 7483*

*Half course (throughout the year). Tu., 4–6. EXAM GROUP: Fall: 2; Spring: 16*

This course will teach graduate students how to communicate scientific concepts in the classroom. Students will focus on becoming effective teachers in discussion sections and in the laboratory. The course will emphasize hands-on experience in teaching and explaining scientific concepts.

*Note:* Required of all first-year graduate students in the Department of Chemistry and Chemical Biology.

#### **\*Chemistry 302. Organometallic Chemistry**

Catalog Number: 1413

*Eric N. Jacobsen 1040*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*



**\*Chemistry 303. Organic Chemistry**

Catalog Number: 1043

*David A. Evans 7774*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Chemistry 304. Theoretical Atomic, Molecular, and Chemical Physics**

Catalog Number: 0532

*Eric J. Heller 1074*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Chemistry 305qc. Responsible Conduct of Research (RCR)**

Catalog Number: 63731 Enrollment: See note below.

*Logan S. McCarty 5929*

*Quarter course (fall term; repeated spring term). One week every January and August, M., W., F., 9 am - 12 pm, with complimentary continental breakfast at 8:30 am. EXAM GROUP: Fall: 16; Spring: 6*

Chemistry 305qc uses case studies to examine basic ethical and regulatory requirements for conducting research, and fulfills the National Science Foundation (NSF) and National Institutes of Health (NIH) requirements for formal Responsible Conduct of Research (RCR) instruction. Topics covered include: research and professional conduct; responsible authorship and publication; mentor-mentee relationships; conflicts of interest; peer review; grant writing and budgeting; intellectual property; data acquisition and management; ownership of data and biological samples; and research involving human and animal subjects. Students are required to attend all lectures, participate in class discussions, and complete a final course evaluation. A certificate will be issued upon successful completion of the course.

*Note:* Registration, dates, and additional course details are at the course website:

<http://bit.ly/harvardrcr>.

**\*Chemistry 311. Physical Chemistry**

Catalog Number: 2640

Charles M. Lieber 3102 (on leave 2014-15)

Half course (fall term; repeated spring term). . EXAM GROUP: 10

**\*Chemistry 315. Photochemistry and Kinetics**

Catalog Number: 5964

James G. Anderson 6057 (on leave fall term)

Half course (fall term; repeated spring term). . EXAM GROUP: 5

**\*Chemistry 318. Organic Chemistry**

Catalog Number: 4295

George M. Whitesides 7447

Half course (fall term; repeated spring term). . EXAM GROUP: 15

**\*Chemistry 320. Chemical Biology**Catalog Number: 64138Emily Patricia Balskus 6962Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13**\*Chemistry 323. Organic Chemistry**Catalog Number: 2477Stuart L. Schreiber 2166Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9**\*Chemistry 325. Physical Chemistry**Catalog Number: 8530Cynthia M. Friend 7446Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1**\*Chemistry 326. Physical Chemistry and Atomic Physics**Catalog Number: 42512Kang-Kuen Ni 7345Half course (fall term; repeated spring term). . EXAM GROUP: 12**\*Chemistry 330. Physical Chemistry**Catalog Number: 1454Adam E. Cohen 5761Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8**\*Chemistry 331. Approaches Toward Understanding and Treating Human Disease**Catalog Number: 1408Gregory L. Verdine 1980Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11**\*Chemistry 336. Physical and Inorganic Chemistry and Materials Science**Catalog Number: 5266Roy G. Gordon 1353Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16**\*Chemistry 340. Inorganic Chemistry**Catalog Number: 7987Theodore A. Betley 5760



Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18

**\*Chemistry 342. Inorganic Chemistry**

Catalog Number: 58419

Daniel Nocera 7071

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16

**\*Chemistry 350. Theoretical Physical Chemistry**

Catalog Number: 8285

Eugene I. Shakhnovich 3147

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6

**\*Chemistry 386. Theoretical Chemistry**

Catalog Number: 5300

Alán Aspuru-Guzik 5539

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18

**\*Chemistry 387. Organic Chemistry**

Catalog Number: 4674

Matthew D. Shair 2280 (on leave 2014-15)

Half course (fall term; repeated spring term). . EXAM GROUP: 3

**\*Chemistry 388. Organic Chemistry**

Catalog Number: 1979

Andrew G. Myers 8278

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7

**\*Chemistry 389. Physical Chemistry**

Catalog Number: 5111

Xiaoliang Sunney Xie 2290

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8

**\*Chemistry 390. Organic Chemistry and Chemical Biology**

Catalog Number: 7469

David R. Liu 2717

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18



**\*Chemistry 391. Physical Chemistry**

Catalog Number: 9897

Hongkun Park 2485

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17

**\*Chemistry 393. Physical Chemistry**

Catalog Number: 1273

Xiaowei Zhuang 3991

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2

**\*Chemistry 396. Organic Chemistry**

Catalog Number: 2293

Daniel E. Kahne 5065

Half course (fall term; repeated spring term). . EXAM GROUP: 5

**\*Chemistry 397. Organic Chemistry**

Catalog Number: 3972

Suzanne Walker (Medical School) 5087

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9

**\*Chemistry 398. Organic and Organometallic Chemistry**

Catalog Number: 1013

Tobias Ritter 5540

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6

**\*Chemistry 399. Biochemistry and Chemical Biology**

Catalog Number: 4050

Alan Saghatelian 5541

Half course (fall term; repeated spring term). . EXAM GROUP: 3

# The Classics

**AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**



### ***Faculty of the Department of the Classics***

Mark Schiefsky, Professor of the Classics (*Chair, fall term*) (*on leave spring term*)

Kathleen M. Coleman, James Loeb Professor of the Classics (*Director of Undergraduate Studies, fall term*)

Emma Dench, Professor of the Classics and of History, Harvard College Professor (*Director of Graduate Studies*)

David F. Elmer, Professor of the Classics (*Director of Undergraduate Studies, spring term*)

Albert Henrichs, Eliot Professor of Greek Literature

Albertus G.A. Horsting, College Fellow in the Department of the Classics

Jared M. Hudson, Assistant Professor of the Classics

Paul Joseph Kosmin, Assistant Professor of the Classics

Florin Leonte, College Fellow in the Department of the Classics

Brigitte A. B. Libby, Lecturer on the Classics

Ivy Livingston, Preceptor in the Classics

Gregory Nagy, Francis Jones Professor of Classical Greek Literature and Professor of Comparative Literature

Vassiliki Rapti, Preceptor in Modern Greek

Jeremy Rau, Professor of Linguistics and of the Classics

Panagiotis Roilos, George Seferis Professor of Modern Greek Studies and of Comparative Literature

Adrian Staehli, Professor of Classical Archaeology

R. J. Tarrant, Pope Professor of the Latin Language and Literature (*on leave spring term*)

Richard F. Thomas, George Martin Lane Professor of the Classics, Harvard College Professor (*on leave fall term*)

Yvona K. Trnka-Amrhein, College Fellow in the Department of the Classics

Naomi A. Weiss, Assistant Professor of the Classics

Jan Ziolkowski, Arthur Kingsley Porter Professor of Medieval Latin

### ***Other Faculty Offering Instruction in the Department of the Classics***

Ruth Bielfeldt, Associate Professor of History of Art and Architecture

Shaye J.D. Cohen, Nathan Littauer Professor of Hebrew Literature and Philosophy

John Duffy, Dumbarton Oaks Professor of Byzantine Philology and Literature, Emeritus

John T. Hamilton, William R. Kenan, Jr. Professor of Comparative Literature and of Germanic Languages and Literatures

James Hankins, Professor of History

Christopher P. Jones, George Martin Lane Professor of the Classics and of History, Emeritus

Peter Machinist, Hancock Professor of Hebrew and Other Oriental Languages

Michael McCormick, Francis Goelet Professor of Medieval History (*on leave 2014-15*)

### ***Affiliates of the Department of the Classics***

Leah Jane Whittington, Assistant Professor of English (*on leave spring term*)

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](http://www.fas.harvard.edu/~classics)) to determine if a course is offered on that basis.

### ***Classical Archaeology***

#### ***Primarily for Undergraduates***

#### ***Cross-listed Courses***

#### ***For Undergraduates and Graduates***

##### **Classical Archaeology 100. Greek Antiquity**

Catalog Number: 3132

*Adrian Staehli*

*Half course (fall term). W., F., at 11. EXAM GROUP: 18*

The course provides a broad overview of the development of Greek art, architecture, and material culture from the end of the "Dark Ages" through the Archaic and Classical periods to the Hellenistic age. It offers basic knowledge about core categories of archaeological artifacts and remains within their topographical setting and the context of Greek culture and society, and includes issues of archaeological method and problems of current research.

*Note:* This course is a basic introduction to Greek art and archaeology and is specifically designed for undergraduates; graduate students are welcome, but the course does not count toward the Classical Archaeology course requirements for graduate students in the Classics or the History of Art and Architecture.

##### **[Classical Archaeology 101. Roman Antiquity]**

Catalog Number: 50105

*Adrian Staehli*

*Half course (fall term). Hours to be arranged.*

The course provides a broad overview of the development of Roman art, architecture, and material culture from the time of the Republic through the Imperial period, to the age of Constantine. It offers basic knowledge about core categories of archaeological artifacts and remains within their topographical setting and within the context of Greek culture and society; it also includes issues of archaeological methods and problems of current research.

*Note:* Expected to be given in 2015–16.

##### **Classical Archaeology 133. Representing the Emperor - (New Course)**

Catalog Number: 49106

*Adrian Staehli*

*Half course (spring term). Th., 4–6. EXAM GROUP: 6*

The course offers an introduction to Roman public monuments from the reign of Augustus to the age of Constantine, with emphasis on "state reliefs" (triumphal arches, victory monuments,



monumental altars) and imperial portraiture, and will address questions of propaganda and self-display through visual media.

### ***Cross-listed Courses***

#### **History of Art and Architecture 137p. The Roman Dinner Party: Proseminar** **History of Art and Architecture 138s. Hellenistic Sculpture - (New Course)**

#### ***Primarily for Graduates***

#### **Classical Archaeology 220. Monarchic Sicily through Coins: A Cross-cultural Platform between East and West 317–212 BCE**

Catalog Number: 64392

*Carmen Arnold-Biucchi*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

This seminar will explore Hellenistic Sicily between Egypt, Carthage, and Rome in its last century of autonomy. It is intended as a hands-on introduction to numismatic methodology: using Harvard Art Museums' collections, we will look at what coins can tell us about Sicily's ethnic populations, the history, and the cultural exchanges of that period, as well as ruler representation.

#### **Classical Archaeology 221. Roman Greece - (New Course)**

Catalog Number: 99331

*Adrian Staehli*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

This seminar explores the transformation of Greece into a Roman province since its conquest in 146 BC, and examines how this process framed, shaped, and changed the Roman perception of Greece as an imaginary place of culture, art, and erudition.

*Note:* Upon consultation with the course instructor, undergraduates are welcome, but they are expected to cope with the modern language requirements (German and French or Italian).

### ***Cross-listed Courses***

#### **[History of Art and Architecture 139j. Greek Myths on Roman Sarcophagi]**

### ***Classical Studies (Courses in Translation)***

#### ***Primarily for Undergraduates***

#### **Classical Studies 97a. Greek Culture and Civilization**

Catalog Number: 3965

*Paul Joseph Kosmin and assistants*

*Half course (fall term). M., W., at 10; weekly section F., at 10. EXAM GROUP: 5*

This course will cover the history of ancient Greece from the Bronze Age Minoan and Mycenaean palace civilizations to the Roman conquest of the East Mediterranean. Attention will be paid to the major political, social, economic, and cultural transformations. Students will



explore the wide variety of textual sources (in translation) and archaeological evidence out of which historians seek to understand ancient Greece.

### **Classical Studies 97b. Roman Culture and Civilization**

Catalog Number: 4090

*Kathleen M. Coleman and assistants*

*Half course (spring term). M., W., F., at 10. EXAM GROUP: 5*

This course has three components: a chronological survey of Roman history from the beginnings to Constantine; exploration of key features of Roman culture (e.g., economy, education, housing, slavery); and an introduction to the tools and methods available for research on ancient Rome. Students are taught how to work with the Roman collections at Harvard (brick-stamps, coins, manuscripts, maps, papyri, pottery, sculpture, etc.). Each student receives guidance in the planning and execution of a research paper.

*Note:* Concentrators are required to take either one or two semesters of Classical Studies 97, depending on their concentration track.

### ***Cross-listed Courses***

#### **Aesthetic and Interpretive Understanding 21. Virgil's Poetry and its Reception**

[Aesthetic and Interpretive Understanding 33. Ancient Fictions: The Ancient Novel in Context]

#### **Culture and Belief 17. Institutional Violence and Public Spectacle: The Case of the Roman Games**

#### **Culture and Belief 22. The Ancient Greek Hero**

#### **Culture and Belief 35. Classical Mythology**

[Culture and Belief 59. Athens, Rome, and Us: Questions of Identity]

[\*History 80a. Roman Imperialism]

#### **\*History 80g. Travelers to Byzantium**

#### **History 1011. The World of the Roman Empire**

#### **Philosophy 7. Introduction to Ancient Philosophy**

[Societies of the World 53 (formerly History 1040). The Fall of the Roman Empire]

### ***For Undergraduates and Graduates***

#### **\*Classical Studies 112. Regional Study: Sicily - (New Course)**

Catalog Number: 12373 Enrollment: Limited to 12.

*Emma Dench and Paul Joseph Kosmin*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

An in-depth exploration of the cultural history of Sicily between the Bronze Age and the Norman conquest.

*Note:* This course is required for concentrators in the Classical Civilizations track (beginning with students in the Class of 2016).

#### **Classical Studies 130. History and Fiction in European Literature: from Late Antiquity to the Renaissance - (New Course)**

Catalog Number: 41359



*Florin Leonte*

*Half course (fall term). Tu., Th., at 1. EXAM GROUP: 8*

In this course we will explore examples of historical and fictional narrative beginning with late antique compositions and extending to late medieval texts. While we will focus primarily on individual works translated from Greek or Latin, we will also address their cross-cultural nature as well as their common ancient models. In particular, the course will address issues like the development of medieval narrative genres, the treatment of key historical events taking place in both East and West (e.g. transition from the ancient world, iconoclasm, crusades), or reader response.

### **Classical Studies 146. Euripides' *Bakkhai* and the Modern Reception of Dionysos**

Catalog Number: 18349

*Albert Henrichs*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

A study of the most Dionysiac of extant tragedies and its influence on the perception of Dionysos in literature, art and scholarship since Nietzsche's *Birth of Tragedy* (1872). Topics for discussion include divine and human identities; the wine and its beneficiaries; ritual ecstasy; the theater and the mask; gender roles and sexuality; suffering, sacrament and Christianizing interpretations of Dionysos; polarities and otherness; Nietzsche on Dionysos; the Victorian Dionysos; Dionysos in 1933 and 1969; and modern adaptations of the *Bakkhai*.

### **Classical Studies 147. Spiritual Exercises in the Ancient World - (New Course)**

Catalog Number: 79214

*Albertus G.A. Horsting*

*Half course (spring term). M., 3–5. EXAM GROUP: 17*

In this course we will explore a commonplace of the ancient world: that philosophy in its truest sense was a training for life, or perhaps for death. Philosophy thus conceived is a way of life by which the would-be sage can acquire wisdom. We will follow this theme from Plato through the Hellenistic philosophers to its variegated instantiations in authors such as Marcus Aurelius, Plotinus, and the desert fathers.

### **Classical Studies 149. The Idea of Egypt in Greek Literature**

Catalog Number: 52181

*Yvona K. Trnka-Amrhein*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

To the Greek imagination, Egypt was a land of wealth, antiquity, and arcane knowledge. It was also a foreign and exotic world where everything was reversed. The contradictions and complexities of the Greek view of Egypt provide rich material for exploring the Hellenic response to foreign culture. This class will consider this material with particular attention to questions of how different ideas of Egypt developed and functioned in the Greek imagination, why this was so, and what this reveals about Greek culture and literature. It will explore texts from different genres and periods of Greek literature which present different views of Egypt. When possible, the historical and social situation, Greek material culture, and Egyptian evidence will be drawn in as important context. In studying these texts, we will especially consider how much their treatments of Egypt were conditioned by literary needs and/or how much they reflect real knowledge of Egyptian culture and history. By engaging with the theoretical literature on



Greeks and the foreign, we will reevaluate the position of Egypt as an "other," a mirror, or an object of fascination.

**[Classical Studies 152. The Construction of Gender and Sexuality in Ancient Greece] - (New Course)**

Catalog Number: 78541

*Naomi A. Weiss*

*Half course (spring term). Hours to be arranged.*

This course will explore ancient Greek ideologies of gender difference and sexuality, including the mythical "origins" of gender, legal definitions of marriage and adultery, the gendering of space, the portrayal of women on the tragic stage, gender-bending and cross-dressing in comedy, medical models of sex and childbirth, and the links between pederasty and pedagogy. With the help of some important modern discussions about the construction of gender, sexuality, and identity, we will try to assess the ways in which sexual practices and male and female identities were imagined, formed, reinforced, and institutionalized during the archaic and classical periods (roughly 800-300 BCE).

*Note:* Expected to be given in 2015–16.

**Classical Studies 162. The Making of Medieval Europe: Power, Knowledge, and Beliefs in the Greek East and the Latin West - (New Course)**

Catalog Number: 49807

*Florin Leonte*

*Half course (spring term). M., W., at 12. EXAM GROUP: 7*

This course is a comparative investigation of political and cultural aspects of the Byzantine Empire and western medieval polities. Students will use different types of evidence (textual, visual, and material) and read across a variety of literary and historical disciplines. The course will cover key topics like the transformation of ancient societies in the Mediterranean, medieval representations of authority, or the emergence of ethnic and religious identities. Particular emphasis will be placed on the exploration of the institutional and cultural factors which contributed to the formation of medieval political or intellectual discourses and practices.

**[Classical Studies 165. Medicine in the Greco-Roman World]**

Catalog Number: 2851

*Mark Schiefsky and assistants*

*Half course (spring term). Tu., Th., at 12, and a weekly section, to be arranged.*

Theories and practices of health and healing in the ancient Greco-Roman world, with special emphasis on the relationship of learned medicine to philosophy and other healing traditions.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**\*History 1935. Byzantine Imperialism - (New Course)**

Catalog Number: 77784 Enrollment: Limited to 15.

*Dimiter Angelov*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

The Byzantine Empire is perhaps best known today as the medieval successor to imperial Rome



and as a model for later empires in the Eastern Mediterranean and Eastern Europe. The course investigates imperialism both as an idea and as a practice in Byzantium. We will focus on a variety of themes, such as the role of Constantinople, the methods of governance, the role of coercive and soft power, the integration of diverse communities, the views of empire among the inhabitants of the capital, provincials, and frontiersmen. Primary sources and important secondary works will enable us to examine the specificity of Byzantine imperialism and gain deeper insight into empire as a historical phenomenon.

### *Cross-listed Courses*

#### [\*\*History 1035. Byzantine Civilization\*\*](#)

[History 1300. Western Intellectual History: Greco-Roman Antiquity]

[History of Science 106. History of Ancient Science]

#### [\*\*Literature 162. Homer and Beyond: Theory and Comparative Methods in Studying Oral Traditions\*\*](#)

[\*Literature 187r. Selected Topics in Poetics and Rhetoric: Seminar]

### *Primarily for Graduates*

#### [\*\*Classical Studies 230. Alexander the Great and His Legacy: Hellenistic Kingship - \(New Course\)\*\*](#)

Catalog Number: 37773

Ruth Bielfeldt and Paul Joseph Kosmin

Half course (spring term). M., 3–5. EXAM GROUP: 17

### *Cross-listed Courses*

#### [\*\*\[Comparative Literature 266. Irony\]\*\*](#)

[\*\*\[Comparative Literature 288. The Ancients and the Moderns: Modern Critical Theory and the Classics\]\*\*](#)

[History of Art and Architecture 139j. Greek Myths on Roman Sarcophagi]

#### [\*\*\\*History of Science 206r. "It's Only a Hypothesis"\*\*](#)

#### [\*\*\\*Medieval Studies 280 \(formerly \\*Comparative Literature 280\). Literary Theory and Criticism in the Middle Ages: Seminar\*\*](#)

### *Classical Philology*

#### *For Undergraduates and Graduates*

### *Cross-listed Courses*

#### [\*\*Literature 162. Homer and Beyond: Theory and Comparative Methods in Studying Oral Traditions\*\*](#)

[\*Literature 187r. Selected Topics in Poetics and Rhetoric: Seminar]

### *Primarily for Graduates*



### [Classical Philology 207. Augustine - \(New Course\)](#)

Catalog Number: 72098

*Albertus G.A. Horsting*

*Half course (fall term). Th., 4–6. EXAM GROUP: 16*

This seminar will explore the life and thought of Augustine of Hippo. As a canonical figure across disciplines, he has fascinated and influenced thinkers as different as Pascal and Derrida. It is hard to overestimate his influence on Western theological, political, and philosophical thought. In addition to considering the major works, we will give ample space to his letters and sermons, which together constitute one of the richest biographical archives in the ancient world. By exploring this portrait in a landscape we will gain a deeper insight into the cultural, religious, and intellectual forces that were then transforming the face of the Mediterranean world.

### [Classical Philology 208. Roman Gardens - \(New Course\)](#)

Catalog Number: 51347

*Kathleen M. Coleman*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

This seminar will study the botany, landscaping, cultivation, terminology, and social function of gardens in the Roman world, employing literary, epigraphic, papyrological, iconographic, and archaeological sources. Among the literary texts to be studied, including both prose and poetry, special emphasis will be placed on Latin treatises on horticulture from the Republic to Late Antiquity.

### [Classical Philology 213. Music and the Musical Imaginary in Archaic and Classical Greece - \(New Course\)](#)

Catalog Number: 71575

*Naomi A. Weiss*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

For the Greeks, "music" (*mousike*) encompassed song, instrumental performance, and dance, all of which pervaded their social, religious, economic, and personal lives. This seminar will be an ethnomusicological exploration of the different types of *mousike* within archaic and classical Greek society—not only their styles of performance, but also their conceptualizations as cultural practices. Although we lack recordings of live music and dance from this period, we do have an abundance of textual commentary on *mousike* as well as visual images of performance and instruments on Greek vases. The focus of the course will be the Greek musical imaginary, as we investigate how representations of *mousike* in Greek literature, philosophy, and art are linked with ideas about social structure, gender, ethnicity, education, the cosmos, and the self.

### [Classical Philology 225. Pindar](#)

Catalog Number: 33456

*Gregory Nagy*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

The research projects of this seminar will center on the poetics (e.g. meter, diction, style) and historical contexts (e.g. local traditions, patronage, transmission) of surviving texts attributed to Pindar.



### **Classical Philology 271. Space and Movement in Latin Literature - (New Course)**

Catalog Number: 94491

*Jared M. Hudson*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

This seminar will examine the Roman literary representations of space and movement. Readings are organized around several central thematic nodes (including "territory," "roads," and "vehicles"). Is it possible to chart a transformation in how particular spaces are conceptualized in Latin literature through the transition from Republic to Empire? How do different literary genres contribute to—or offer competing visions of—the articulation of physical space? And how, in turn, do cultural practices involving space influence literary texts and genres? The emphasis will be on reading and interpreting individual Latin texts, with special attention given to scholarly approaches.

### **\*Classical Philology 286. Homeric Linguistics - (New Course)**

Catalog Number: 34834

*Jeremy Rau*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

An introduction to Homeric linguistics and philology. Topics include Homeric language (dialect, archaism, innovation), meter and formulaics, and the effects of oral composition on Homeric language.

*Prerequisite:* [Greek 134](#) or permission of the instructor.

## ***Courses of Reading and Research***

### ***Primarily for Undergraduates***

#### **\*Classics 93r. Advanced Tutorial for Credit**

Catalog Number: 0511

*Kathleen M. Coleman (fall term) and David F. Elmer (spring term)*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 18; Spring: 14*

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 98. Tutorial - Junior Year**

Catalog Number: 31083

*Kathleen M. Coleman (fall term), David F. Elmer (spring term) and assistants*

*Half course (fall term; repeated spring term). Fall: M., 2–4; Spring: T., 4–6 or W., 4–6. EXAM GROUP: Fall: 7; Spring: 6*

Close study of a topic in Greco-Roman civilization and/or literature, culminating in the preparation of a substantial research paper (ca. 20 pages).

*Note:* Required of all concentrators in the junior year.

#### **\*Classics 99. Tutorial — Senior Year**

Catalog Number: 2350



*Kathleen M. Coleman (fall term), David F. Elmer (spring term) and assistants  
Full course. Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*

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.

### ***Primarily for Graduates***

#### **\*Classics 300. Direction of Doctoral Dissertations**

Catalog Number: 4543

*Ruth Bielfeldt 5682, Kathleen M. Coleman 2289, Emma Dench 5243, John Duffy 1352, Susanne Ebbinghaus 5184, David F. Elmer 5574, Albert Henrichs 4085, Jared M. Hudson 7679, Christopher P. Jones 3204, Paul Joseph Kosmin 6927, Gregory Nagy 1423, Jeremy Rau 4657, Panagiotis Roilos 1982, Mark Schiefsky 2354 (on leave spring term), Adrian Staehli 6796, R. J. Tarrant 7503 (on leave spring term), Richard F. Thomas 1630 (on leave fall term), Naomi A. Weiss 7693, and Jan Ziolkowski 7275*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

#### **\*Classics 301. Reading or Topics Course**

Catalog Number: 3457

*Kathleen M. Coleman 2289, Emma Dench 5243, David F. Elmer 5574, Albert Henrichs 4085, Jared M. Hudson 7679, Paul Joseph Kosmin 6927, Gregory Nagy 1423, Jeremy Rau 4657, Panagiotis Roilos 1982, Mark Schiefsky 2354 (on leave spring term), Adrian Staehli 6796, R. J. Tarrant 7503 (on leave spring term), Richard F. Thomas 1630 (on leave fall term), Naomi A. Weiss 7693, Leah Jane Whittington 6977 (on leave spring term), and Jan Ziolkowski 7275*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

*Note:* For graduate students whose individual needs are not met by the formal courses offered.

#### **\*Classics 302. Special Examinations Direction**

Catalog Number: 2686

*Ruth Bielfeldt 5682, Shaye J.D. Cohen 4180, Kathleen M. Coleman 2289, Emma Dench 5243, Charles Donahue, Jr. (Law School) 2650, Susanne Ebbinghaus 5184, David F. Elmer 5574, John T. Hamilton 3977, James Hankins 1239, Albert Henrichs 4085, Jared M. Hudson 7679, Paul Joseph Kosmin 6927, Peter Machinist 2812, Michael McCormick 2849 (on leave 2014-15), Gregory Nagy 1423, Jeremy Rau 4657, Panagiotis Roilos 1982, Mark Schiefsky 2354 (on leave spring term), P. Oktor Skjaervo 2869 (on leave fall term), Adrian Staehli 6796, R. J. Tarrant 7503 (on leave spring term), Richard F. Thomas 1630 (on leave fall term), Naomi A. Weiss 7693, Leah Jane Whittington 6977 (on leave spring term), and Jan Ziolkowski 7275*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

#### **\*Classics 350. Classics Proseminar**

Catalog Number: 4026

*Emma Dench 5243*

*Half course (fall term). M., 2-4. EXAM GROUP: 9*



Designed to introduce graduate students in the Department of the Classics to the essential fields, tools, and methodologies of the discipline.

*Note:* For first-year students working toward the PhD in the Department of the Classics. Open to other students by permission of instructor.

### **\*Classics 360. Teaching Colloquium**

Catalog Number: 88102

*Ivy Livingston and assistant*

*Half course (fall term). F., 2–4. EXAM GROUP: 12*

A practicum course in the craft of teaching. Topics include designing syllabi and assessments, responding to student writing, and guiding classroom discussion. Strategies will be applicable to courses working entirely in English as well as to those in the languages.

*Note:* This course must be taken Sat/Unsat. Not repeatable for credit. No auditors.

## **Greek**

Students who have studied classical Greek previously should register at the FAS Exams Office (Office of the Registrar, 20 Garden Street) 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 Language Preceptor (Boylston Hall 225).

### ***Primarily for Undergraduates***

#### **Greek Aa. Beginning Greek**

Catalog Number: 0129

*Ivy Livingston and assistants*

*Half course (fall term). M., W. through F., at 9; M., W. through F., at 10. EXAM GROUP: 10*

For students with very little or no previous instruction in Greek. Introduction to Greek grammar and reading of sentences and short passages.

*Note:* No auditors. May be taken pass/fail. Students with more than one year of formal instruction should take the Harvard placement test in Greek during Freshman Week and consult with the Course Head before enrolling.

#### **[Greek Aab. Beginning Greek (Intensive)]**

Catalog Number: 0714

*Ivy Livingston and assistants*

*Full course (spring term). M. through F., at 9, M., at 1.*

For students with little or no previous instruction in Greek who are seriously interested in making very rapid progress. All basic grammar of the normal first-year sequence (Greek Aa and Ab) and practice in reading prose. Students are prepared for Greek Ba or Bb.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16. No auditors. May be taken pass/fail. Students with more than one year of formal instruction should take the Harvard placement test in Greek during Freshman Week and consult with the Course Head before enrolling.



### **Greek Ab. Beginning Greek**

Catalog Number: 0457

*Ivy Livingston and assistants*

*Half course (spring term). M., W. through F., at 9. EXAM GROUP: 10*

Continuation of Greek Aa. Completion of basic grammar and reading of longer passages.

*Note:* No auditors. May be taken pass/fail.

*Prerequisite:* Greek Aa or equivalent.

### **Greek Ac. Review and Reading**

Catalog Number: 8283

*Ivy Livingston and assistant*

*Half course (fall term). M., W., Th., F., at 9. EXAM GROUP: 10*

For students with more than one year of formal training in Greek who do not place into Greek Ba. The course will combine a review of morphology and syntax with readings from prose authors. Students are prepared for Greek Bb or Ba.

*Note:* No auditors. May be taken Pass/Fail.

### **Greek Ba. Introduction to Attic Prose**

Catalog Number: 4696

*Ivy Livingston and assistant*

*Half course (fall term). M., W., F., at 12. EXAM GROUP: 11*

A bridge between the study of Greek grammar and the reading of prose authors; intended to develop reading and translation skills and introduce prose styles.

*Prerequisite:* Greek Ab, Aab, Ac, or equivalent.

### **Greek Bb. Selections from Homer's *Iliad***

Catalog Number: 3361

*Ivy Livingston and assistant*

*Half course (spring term). M., W., F., at 9. EXAM GROUP: 10*

An introduction to Homeric poetry: language, meter, formulae, and type scenes.

*Prerequisite:* Greek Ab, Aab, Ac, or equivalent.

### ***For Undergraduates and Graduates***

### **Greek H. Introductory Greek Prose Composition**

Catalog Number: 6323

*Ivy Livingston and assistant*

*Half course (fall term). M., W., F., at 9. EXAM GROUP: 10*

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 Ba or equivalent.

### **Greek K. Advanced Greek Prose Composition**

Catalog Number: 4171

*Albert Henrichs and assistant*

*Half course (spring term). F., 2–4. EXAM GROUP: 18*



Composition in the prose style of various authors and genres, with selected readings representing the development of classical Greek prose and its analysis by scholars ancient and modern.

*Prerequisite:* Greek H or equivalent.

### **Greek 104. Herodotus**

Catalog Number: 6340

*Naomi A. Weiss and assistant*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

This course will be both an introduction to Herodotus' dialect and style, and an exploration of his narrative strategies, concept of "history," and representation of non-Greek cultures. We will read sections from Books 1, 3, 8, and 9 in the original Greek, and all of the "Histories" in English.

### **Greek 106. Greek Tragedy: The Electra Plays**

Catalog Number: 6274

*Naomi A. Weiss*

*Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12*

Close readings of two tragedies that deal with the same notorious family: Sophocles' *Electra* and Euripides' *Electra*. In addition to considering the plays' relationship with each other (and with Aeschylus' *Liberation Bearers*), we will pay close attention to tragic diction, the construction of gender, dramatic conventions, and different styles of musical performance.

*Prerequisite:* Greek Ba or equivalent.

### **[Greek 110r. Plato's Phaedrus]**

Catalog Number: 6229

*David F. Elmer*

*Half course (spring term). Hours to be arranged.*

Close reading of Plato's *Phaedrus* with discussion of key themes, including: erōs, beauty, and the Platonic conception of the soul; "logocentrism" and the critique of writing; the opposition between rhetoric and dialectic.

*Note:* Expected to be given in 2015–16. Greek Bb or equivalent.

*Prerequisite:* Greek Bb or equivalent.

### **[Greek 112a. History of Greek Literature I]**

Catalog Number: 3052

*Instructor to be determined and assistant*

*Half course (spring term). Hours to be arranged.*

A survey of early Greek poetry and prose, with readings from Homer, Hesiod, the Homeric Hymns, lyric poetry, and Herodotus. Discussions of genre in relation to performance, historical contexts, thematic (dis)continuities, oral tradition.

*Note:* Expected to be given in 2015–16.

### **Greek 112b. History of Greek Literature II**

Catalog Number: 6889

*David F. Elmer and assistant*

*Half course (spring term). M., W., F., at 12, and a weekly section, to be arranged. EXAM GROUP: 7*



A survey of Greek poetry and prose with a focus on the development of narrative technique from the archaic through the classical, Hellenistic, and imperial periods. Close reading of selections in Greek with discussion of key narratological concepts and approaches. Topics include: the representation of temporality, time in relation to space, narrative voice, focalization, fictionality.

### **Greek 118. Homeric Hymns - (New Course)**

Catalog Number: 19375

*Albert Henrichs*

*Half course (fall term). M., W., F., at 12. EXAM GROUP: 11*

Close readings of the Homeric Hymns to Aphrodite, Apollo, Demeter, Dionysos and Hermes, with particular attention to hymnic convention, mythical narratives, and Greek ways of talking about the gods.

### **[Greek 134. The Language of Homer]**

Catalog Number: 5139

*Jeremy Rau*

*Half course (fall term). M., W., (F.), at 11.*

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 2015–16.

### ***Cross-listed Courses***

### **Literature 162. Homer and Beyond: Theory and Comparative Methods in Studying Oral Traditions**

[\*Literature 187r. Selected Topics in Poetics and Rhetoric: Seminar]

### ***Primarily for Graduates***

### **\*Greek 201. Reading Greek**

Catalog Number: 1968

*Yvona K. Trnka-Amrhein*

*Half course (fall term). Tu., Th., 12:30–2. EXAM GROUP: 13*

Readings of Greek prose and poetry ranging from archaic to imperial, with emphasis on quick comprehension of syntactic, stylistic, and generic features.

*Note:* Intended for graduate students in Classical Philology as preparation for the general examinations.

### ***Cross-listed Courses***

### ***Latin***

Students who have studied Latin previously and have not taken the Advanced placement test or SAT II should contact the FAS Exams Office (Office of the Registrar, 20 Garden Street) to take the Harvard placement test during Freshman Week. No one who has studied one year or more of Latin will be admitted to Latin Aa without taking the placement test. Further information on



placement in Latin and the language requirement is available from the Language Preceptor (Boylston Hall 225), or the Freshman Dean's Office.

### ***Primarily for Undergraduates***

#### **Latin Aa. Beginning Latin**

Catalog Number: 4759

*Ivy Livingston and assistants*

*Half course (fall term). Section I: M., W. through F., at 9; Section II: M., W. through F., at 10.*

*EXAM GROUP: 4*

For students with very little or no previous instruction in Latin. Introduction to Latin grammar and reading of sentences and short passages.

*Note:* No auditors. May be taken pass/fail. Students with more than one year of formal instruction should take the Harvard placement test in Latin during Freshman Week and consult with the Course Head before enrolling.

#### **Latin Aab. Beginning Latin (Intensive)**

Catalog Number: 7111

*Ivy Livingston and assistants*

*Full course (fall term). M. through F., at 9, M., at 1. EXAM GROUP: 4*

For students with little or no previous instruction in Latin who are seriously interested in making very rapid progress. All basic grammar of the normal first-year sequence (Latin Aa and Ab) and practice in reading prose. Students are prepared for Latin Ba, Bb, Bam, or Bbm.

*Note:* No auditors. May be taken pass/fail. Students with more than one year of formal instruction should take the Harvard placement test in Latin.

#### **Latin Ab. Beginning Latin**

Catalog Number: 2101

*Ivy Livingston and assistants*

*Half course (spring term). Section I: M., W., Th., F., at 9; Section II: M., W., Th., F., at 10.*

*EXAM GROUP: 4*

Continuation of Latin Aa. Completion of basic grammar and reading of longer passages.

*Note:* No auditors. May be taken Pass/Fail.

*Prerequisite:* Latin Aa or equivalent.

#### **Latin Ac. Review and Reading**

Catalog Number: 7033

*Ivy Livingston and assistant*

*Half course (fall term). M., W., Th., F., at 9. EXAM GROUP: 10*

For students with more than one year of formal training in Latin who do not place into Latin Ba. The course will combine a review of morphology and syntax with readings from prose authors. Students are prepared for Latin Ba or Bb.

*Note:* No auditors. May be taken Pass/Fail.

#### **Latin Ba. Latin Prose Selections (Classical)**

Catalog Number: 2344



*Ivy Livingston and assistant*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 18*

A bridge between the study of Latin grammar and the reading of prose authors; intended to develop reading and translation skills and introduce prose styles. The readings are short selections from a variety of genres by authors such as Cicero, Pliny, Nepos, Sallust, and Petronius.

*Prerequisite:* Latin Ab, Aab, Ac, or equivalent.

### **Latin Bam. Latin Prose Selections (Late Antique and Medieval)**

Catalog Number: 7123

*Ivy Livingston and assistant*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 18*

Provides a bridge between study of grammar and reading of prose. After review of fundamentals, studies short selections of post-classical texts and authors such as Vulgate Bible, Augustine, Anselm of Canterbury, Abelard, and Dante.

*Prerequisite:* Latin Ab, Aab, Ac, or equivalent.

### **Latin Bb. Introduction to Latin Poetry (Classical)**

Catalog Number: 2488

*Ivy Livingston and assistant*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

Reading of selections of Latin poetry and introduction to meter.

*Prerequisite:* Latin Ab, Aab, Ac, or equivalent.

### **Latin Bbm. Introduction to Latin Poetry (Late Antique and Medieval)**

Catalog Number: 2096

*Ivy Livingston and assistant*

*Half course (spring term). M., W., F., at 1. EXAM GROUP: 8*

Reading of selections of Medieval Latin poetry and introduction to quantitative meter and rhythmical poetry. Aims to facilitate the reading through study of short selections of post-classical poetry from authors such as Ambrose, Alcuin, Hrotsvit of Gandersheim, and Aquinas.

*Prerequisite:* Latin Ab, Aab, Ac, or equivalent.

### ***For Undergraduates and Graduates***

#### **Latin H. Introductory Latin Prose Composition**

Catalog Number: 3814

*Ivy Livingston and assistant*

*Half course (spring term). M., W., F., at 9. EXAM GROUP: 10*

Practice in the translation of sentences and connected prose passages from English into Latin, with review of Latin syntax.

*Prerequisite:* Latin Ba or equivalent.

#### **[Latin K. Advanced Latin Prose Composition: Seminar]**

Catalog Number: 5018

*----- and assistant*



*Half course (spring term). Hours to be arranged.*

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.

*Note:* Expected to be given in 2015–16.

### [Latin 102. Catullus - \(New Course\)](#)

Catalog Number: 25968

*Richard F. Thomas*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

Explores Catullus in his literary, historical and social contexts, with a focus on the revolutionary role he played in the Roman literary tradition.

### [Latin 104. Ovid's Metamorphoses](#)

Catalog Number: 5189

*R. J. Tarrant and assistant*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 18*

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 105. The Letters of Cicero and Pliny - \(New Course\)](#)

Catalog Number: 84195

*Jared M. Hudson*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

This course will introduce and survey the genre of Latin letter writing through the reading of selected letters of Cicero and Pliny the Younger. The primary focus will be on reading epistolary Latin, but attention will also be given to issues of generic convention, self-presentation, and the physical realities of ancient letter production and circulation.

### **[Latin 106a. Virgil: Eclogues and Georgics]**

Catalog Number: 1456

*Richard F. Thomas and assistant*

*Half course (fall term). Hours to be arranged.*

This course focuses on Virgil's *Eclogues* and *Georgics*. We aim to read and interpret those texts, and to place them in literary and historical context.

*Note:* Expected to be given in 2015–16.

### **[Latin 106b. Virgil: Aeneid]**

Catalog Number: 7069

*Richard F. Thomas and assistant*

*Half course (spring term). Hours to be arranged.*

Reading and discussion of Virgil's *Aeneid*, with attention to its place in the epic tradition and its



status as a work of Augustan literature.

*Note:* Expected to be given in 2015–16.

### [Latin 112a. History of Latin Literature I](#)

Catalog Number: 7099

*R. J. Tarrant and assistant*

*Half course (fall term). Tu., Th., 1–2:30, and a weekly section, to be arranged. EXAM GROUP: 8*

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

*Half course (spring term). Hours to be arranged.*

The literature of the late Republic and Principate. We shall read extensive selections from major authors across a range of genres, considering their form and content against their historical contexts. Class will consist of a mixture of prepared translation from Latin and introductory lectures.

*Note:* Expected to be given in 2015–16.

### [Latin 121. Petronius and Apuleius - \(New Course\)](#)

Catalog Number: 99229

*Yvona K. Trnka-Amrhein*

*Half course (fall term). M., W., F., at 1. EXAM GROUP: 1*

Readings from Petronius' *Satyricon* and Apuleius' *Metamorphoses*, with attention to narrative technique, language and style, as well as consideration of the place of both texts in the history of the ancient novel.

### [Latin 134. Archaic Latin](#)

Catalog Number: 1327

*Jeremy Rau*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 15*

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 141. Prudentius - \(New Course\)](#)

Catalog Number: 95572

*Albertus G.A. Horsting*

*Half course (spring term). M., W., at 11. EXAM GROUP: 14*

Readings from the poetry of Prudentius, the most inventive and successful Latin poet of the post-classical world. In his powerful transposition of the Christian theological heritage into classical literary forms, Prudentius embodies the spirit of a world living through the Constantinian



revolution. The unflagging popularity of his contributions to the allegorical epic, hymnody, and other genres make him an essential part of any literary history of Europe.

### *Primarily for Graduates*

#### **\*Latin 201. Reading Latin**

Catalog Number: 7642

*Jared M. Hudson*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

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.

*Note:* Intended for graduate students in Classical Philology as preparation for the general examinations.

### *Cross-listed Courses*

[Medieval Studies 201. The Auxiliary Disciplines of Medieval History: Proseminar]

**\*Medieval Studies 202. Latin Palaeography and Manuscript Culture: Seminar**

**\*Philosophy 320. Philosophy in Translation: Latin**

### *Medieval Greek*

#### *For Undergraduates and Graduates*

#### **Medieval Greek 115ar. Introduction to Byzantine Greek**

Catalog Number: 7682

*Florin Leonte*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 15*

Introduces students to medieval Greek language and literature and, through selected readings, to important elements of Byzantine culture and society. Texts will be selected to provide a diachronic survey of a variety of literary genres, to reflect the diversity of Byzantine life and letters. Topics will include: biography/hagiography, historiography, sacred and secular poetry, letters, the novel, homilies and rhetorical texts. Choice of texts will correspond in part to the specific needs and interests of participants.

*Prerequisite:* Greek Ba or equivalent.

### *Primarily for Graduates*

### *Medieval Latin*

#### *Primarily for Undergraduates*

### *Cross-listed Courses*

**Latin Bam. Latin Prose Selections (Late Antique and Medieval)**

**Latin Bbm. Introduction to Latin Poetry (Late Antique and Medieval)**



***For Undergraduates and Graduates***

***Primarily for Graduates***

***Cross-listed Courses***

[History 2055. Early Medieval History, Archaeology and Archaeoscience: Seminar]

[Medieval Studies 201. The Auxiliary Disciplines of Medieval History: Proseminar]

**\*Medieval Studies 202. Latin Palaeography and Manuscript Culture: Seminar**

***Modern Greek***

***For Undergraduates and Graduates***

**Modern Greek A. Elementary Modern Greek**

Catalog Number: 8604

*Vassiliki Rapti and assistant*

*Full course. M., W., F., at 12, and a weekly hour for conversation to be arranged. EXAM*

*GROUP: Fall: 11; Spring: 7*

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, as well as by online instruction.

**Modern Greek B. Intermediate Modern Greek: Language and Civilization**

Catalog Number: 8187

*Vassiliki Rapti and assistant*

*Full course. M., W., F., at 11, and a weekly hour for conversation to be arranged. EXAM*

*GROUP: Fall: 18; Spring: 14*

Aims at further development of skills in speaking, comprehension, reading, and writing. Selected readings in prose (literary and journalistic), poetry, folksongs, modern music, and theater serve as an introduction to aspects of modern Greek literature and culture. The course 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. Instruction is supplemented by online instruction.

*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

*Vassiliki Rapti*

*Half course (fall term). W., 1–3, and a one-hour section, to be arranged. EXAM GROUP: 1*

Special Topic: Introduction to the Poetry of Nobel Laureate George Seferis. Literary, sociocultural, and linguistic analysis of selected readings in prose, poetry, and literary criticism by George Seferis. Emphasis will also be given to the reception of the Nobel laureate Greek poet. Students will achieve linguistic and cultural competency while grasping a complete portrait of the poet and diplomat George Seferis within a broader historic and sociopolitical context of 20th-



century Greece.

*Note:* Conducted in Greek.

*Prerequisite:* Modern Greek B or equivalent and permission of instructor.

### **Modern Greek 105. Greek Cinema - (New Course)**

Catalog Number: 53827

*Vassiliki Rapti*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

This survey course examines Greek cinema in a broader historical, cultural and sociopolitical context. From its beginnings (the silent era) to the present, and through a variety of perspectives and methods, students will not only become acquainted with the major trends, figures, and works of Greek cinema, but they will also develop an understanding of the major historical events of Greece. Particular emphasis will be placed on the work of Theo Angelopoulos and the documentary genre, with such representatives as Maria Iliou, Phillipos Koutsafis, and Vassilis Loules. Through the lenses of everyday personal stories, the documentaries will shed light on the turbulent history of Greece.

*Note:* Weekly screenings. Course taught in English.

*Prerequisite:* No prerequisites.

### **Modern Greek 126. The Nazis and the Greeks - (New Course)**

Catalog Number: 76263

*Panagiotis Roilos*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

Explores the reception of Greek culture in Nazi Germany and the cultural, historical, and political implications of the occupation of Greece by the Nazis.

### ***Primarily for Graduates***

### **Modern Greek 207. Topics in Modern Greek Studies - (New Course)**

Catalog Number: 60767

*Panagiotis Roilos*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

Focuses on current debates on theoretical and methodological issues in the field. Topics to be discussed include: diaspora, reception, postcolonialism, cultural politics, translation.

### ***Cross-listed Courses***

**[Comparative Literature 266. Irony]**

**[Comparative Literature 288. The Ancients and the Moderns: Modern Critical Theory and the Classics]**

### ***Cross-listed Courses in Other Languages***

#### **Comparative Literature 298. Allegory**

**Egyptian Aa. The Language of the Pharaohs: Introduction to Egyptian hieroglyphs I**

**Egyptian Ab. The Language of the Pharaohs: Introduction to Egyptian hieroglyphs II**



### [\*\*English 111. Epic: From Homer to Star Wars\*\*](#)

[\*History of Art and Architecture 240r. Topics in Byzantine Art : Illustrating the Word:  
 manuscripts and their images from the Byzantine religious and secular world]

[Irish 200. Introduction to Old Irish]

[Irish 201r. Continuing Old Irish]

[\*\*Linguistics 225a. Introduction to Hittite\*\*](#)

[Philosophy 102. Aristotle]

## Comparative Literature

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### *Faculty of the Department of Comparative Literature*

David Damrosch, Ernest Bernbaum Professor of Literature (*Chair*)

Daniel Albright, Ernest Bernbaum Professor of Literature

Homi K. Bhabha, Anne F. Rothenberg Professor of the Humanities (*on leave 2014-15*)

Svetlana Boym, Curt Hugo Reisinger Professor of Slavic Languages and Literatures and  
 Professor of Comparative Literature (*on leave spring term*)

Julie A. Buckler, Professor of Slavic Languages and Literatures and of Comparative Literature,  
 Harvard College Professor, and Director of the Humanities Program at the Radcliffe Institute for  
 Advanced Studies

Verena A. Conley, Visiting Professor of Comparative Literature and of Romance Languages and  
 Literatures

James Engell, Gurney Professor of English Literature and Professor of Comparative Literature  
*(on leave fall term)*

Luis M. Girón Negrón, Professor of Romance Languages and Literatures and of Comparative  
 Literature

John T. Hamilton, William R. Kenan, Jr. Professor of Comparative Literature and of Germanic  
 Languages and Literatures

Biodun Jeyifo, Professor of African and African American Studies and of Comparative  
 Literature

Christine S. Lee, Lecturer on Comparative Literature

Christie McDonald, Smith Professor of French Language and Literature and of Comparative  
 Literature (*on leave fall term*)

Sandra Naddaff, Senior Lecturer on Literature and Comparative Literature (*Director of  
 Undergraduate Studies*)

Gregory Nagy, Francis Jones Professor of Classical Greek Literature and Professor of  
 Comparative Literature

Stephen Owen, James Bryant Conant University Professor



Katharina Piechocki, Assistant Professor of Comparative Literature  
Martin Puchner, Byron and Anita Wien Professor of Drama and of English and Comparative Literature  
Panagiotis Roilos, George Seferis Professor of Modern Greek Studies and of Comparative Literature  
Judith Ryan, Robert K. and Dale J. Weary Professor of German and Comparative Literature  
Jeffrey Schnapp, Professor of Romance Languages and Literatures and of Comparative Literature  
Dara Horn Schulman, Visiting Lecturer on 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 (*on leave 2014-15*)  
Diana Sorensen, Dean of Arts and Humanities, and James F. Rothenberg Professor of Romance Languages and Literatures and of Comparative Literature  
Susan R. Suleiman, C. Douglas Dillon Professor of the Civilization of France and Professor of Comparative Literature (*on leave 2014-15*)  
Christina Lynne Svendsen, Lecturer on Literature  
Karen Thornber, Professor of Comparative Literature and of East Asian Languages and Civilizations (*Director of Graduate Studies*)  
William Mills Todd III, Harry Tuchman Levin Professor of Literature and Professor of Comparative Literature  
Delia Ungureanu, Lecturer on Literature  
David Der-Wei Wang, Edward C. Henderson Professor of Chinese Literature and of Comparative Literature (*on leave spring term*)  
Justin Weir, Professor of Slavic Languages and Literatures and of Comparative Literature

***Other Faculty Offering Instruction in the Department of Comparative Literature***

Joaquim-Francisco Coelho, Nancy Clark Smith Professor of the Language and Literature of Portugal and Professor of Comparative Literature, Emeritus  
William E. Granara, Professor of the Practice of Arabic on the Gordon Gray Endowment, and Director of the Center for Middle Eastern Studies  
Marcyliena Morgan, Professor of African and African American Studies  
Ruth R. Wisse, Martin Peretz Professor of Yiddish Literature and Professor of Comparative Literature, Emeritus

***Affiliates of the Department of Comparative Literature***

David F. Elmer, Professor of the Classics

***Primarily for Undergraduates***

**\*Literature 91r. Supervised Reading and Research**

Catalog Number: 1074

*Sandra Naddaff and members of the department and Tutorial Board*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 15*



A graded, supervised course of reading and research to be conducted by a person approved by the Director of Undergraduate Studies.

*Note:* Permission of Director of Undergraduate Studies required.

### **Literature 96. Grounds for Comparison**

Catalog Number: 57859 Enrollment: Limited to 20.

*David Damrosch*

*Half course (fall term). W., 12–2. EXAM GROUP: 11*

This seminar provides an introduction to literary studies in a global age. How do writers refract and transform the world around them, and the world beyond their borders? How do they celebrate or challenge their society's values and rethink their literary heritage? Writers in every culture have mobilized the resources of poetic language and literary form to delight and instruct their readers, while critics and theorists have sought to understand how writers achieve their effects. Through close reading of a range of compelling works, accompanied by major critical and theoretical statements, we will explore the relations of literature to society and theory to literature, focusing on a set of interconnected themes: travel and self-discovery, empires and their aftermath, and the politics of language and of cultural memory.

### **\*Literature 97. Tutorial — Sophomore Year**

Catalog Number: 4595

*Katharina Piechocki and Christine S. Lee*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

An introduction to various disciplinary methodologies and forms of literary and cultural analysis through the study of works from different languages, periods, genres, and media. Open to concentrators only.

### **\*Literature 98a. Tutorial — Junior Year**

Catalog Number: 3119

*Sandra Naddaff and members of the department and Tutorial Board*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 15*

An individualized course of study designed by junior concentrators in Comparative Literature to explore specific interests and fields, and ordinarily directed by a member of the Tutorial Board. Open to concentrators only.

### **\*Literature 98b. Tutorial — Junior Year**

Catalog Number: 1528

*Sandra Naddaff and members of the department and Tutorial Board*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 18*

A continuation of Literature 98a, focusing on the student's special field of study. Open to concentrators only.

### **\*Literature 99a. Tutorial — Senior Year**

Catalog Number: 4857

*Sandra Naddaff and members of the department and Tutorial Board*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 9*



An individualized course of study for senior concentrators in Comparative Literature that focuses on the senior thesis project. Open to concentrators only.

### **\*Literature 99b. Tutorial — Senior Year**

Catalog Number: 1290

*Sandra Naddaff and members of the department and Tutorial Board*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 17*

A continuation of Literature 99a, including preparation for the oral examinations. Open to concentrators only.

### ***Cross-listed Courses - Freshman Seminars***

#### **\*Freshman Seminar 36z. Monstrous Literature - (New Course)**

#### **\*Freshman Seminar 39v. Fear and Wonder: Natural and Unnatural Experience of the Sublime**

### ***Cross-listed Courses - Humanities Framework/General Education***

#### **Aesthetic and Interpretive Understanding 14. Putting Modernism Together**

#### **Aesthetic and Interpretive Understanding 50. Literature and Medicine**

#### **Culture and Belief 53. Sacred and Secular Poetry**

#### **Culture and Belief 55. The Enlightenment**

#### **Ethical Reasoning 31. The Philosopher and the Tyrant**

#### **Ethical Reasoning 32. Security: Carefree or Careless**

#### **Humanities 10a. The Humanities Colloquium: Essential Works 1 - (New Course)**

#### **Humanities 10b. The Humanities Colloquium: Essential Works 2 - (New Course)**

#### **Humanities 12 (formerly Humanities 114). Masterpieces of World Literature - (New Course)**

[Humanities: Essential Questions 51 (formerly Humanities: Essential Questions 21). Major Themes in the Humanities: Love and Freedom] - (New Course)

#### **Humanities: Frameworks 11b. Frameworks: The Art of Listening**

### ***For Undergraduates and Graduates***

The department offers 100-level courses that expose students to literatures, cultures, and media in comparative and interdisciplinary context. For the academic year 2014-2015, students may study literature in conjunction with other arts, including film (Literature 146, 170), oral traditions (Literature 162), theater (Literature 135), and two or more of these art forms (Literature 121). In addition, students may study world literature (Literature 114), literature and philosophy (Literature 113), or literary relationships (Literature 139, 149). Other department courses focus on particular peoples (Literature 147), periods (Literature 138, 193), and literary genres (Literature 148, 168).

The above summary is only a guide; many department courses fit into several of these categories. Students are also encouraged to take advantage of the many courses cross-listed in the department.



All 100-level courses are open to all students; knowledge of languages other than English is not required.

**[\*Literature 104. On Theory]**

Catalog Number: 8760 Enrollment: Limited to 20.

*Verena A. Conley*

*Half course (fall term). Hours to be arranged.*

What is theory? What is the difference between literary, critical and cultural theory? What is the relation between theory and reading? This course introduces students to various concepts of theory (Derrida, Deleuze, Foucault, Balibar, Adorno, Benjamin, Freud, Saussure, Cixous, Kristeva, Butler and others). Focuses on theoretical texts and will bring in literary texts where necessary.

**[\*Literature 109. On Translation]**

Catalog Number: 0594 Enrollment: Limited to 20.

*Sandra Naddaff*

*Half course (fall term). Hours to be arranged.*

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, translation post-9/11, 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 113. Existential Fictions: From Saint Augustine to Jean-Paul Sartre and Beyond**

Catalog Number: 3016

*Verena A. Conley*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

How does one give meaning to life? Examines how great writers grapple with this question from the early days of Christianity to the digital age. Texts by Saint Augustine, Montaigne, Kierkegaard, Dostoyevsky, Nietzsche, Gide, Sartre, Beauvoir, Camus, Scorsese, and others. Special attention will be paid to how writers read and rewrite each other across centuries and borders. Cross-Listed with French.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

**[Literature 117. Literature, Gender, and Revolution]**

Catalog Number: 3626

*Karen Thornber*

*Half course (spring term). Hours to be arranged.*

Explores relationships among literature, gender, and revolution in China, Cuba, Iran, Japan, Korea, and Russia from the late 19th century to the present. Readings by Butler, Chukovskaya, Danishvar, de Beauvoir, Foucault, Mikiso Hane, Kim Illyop, Loynaz, Marruz, Pleck, Qiu Jin, Scott, Tamura Toshiko among others.



### **\*Literature 121. From the 1001 Nights to the Arabian Nights : Adaptation, Transformation, Translation**

Catalog Number: 5879 Enrollment: Limited to 15.

*Sandra Naddaff*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

Examines how the *1001 Nights*, popularly known in the West as the *Arabian Nights*, is transformed and adapted for different media and genres. Focuses on a variety of films, (e.g., *The Thief of Bagdad*, *Chu Chin Chow*, *Aladdin*), illustrations/images (e.g., Doré, Chagall, Matisse), musical and balletic renditions (e.g., Rimsky-Korsakov, Fokine), translations (e.g., Galland, Lane, Burton, Haddawy), and re-tellings of stories (e.g., Poe, Barth, Mahfouz, Sebbar, Zimmerman). Also considers the role of the *1001 Nights* in contemporary popular culture.

### **[Literature 129. Reading the 18th Century Through 21st-Century Eyes]**

Catalog Number: 8742

*Christie McDonald*

*Half course (fall term). Hours to be arranged.*

Why study the French Enlightenment today and how? How do discussions of principle play out in real-world events? Analysis of works from the eighteenth century juxtaposed with novels, plays, media events, operas, photography and films of the 20th-21st centuries; debates in literature, philosophy and the arts about cultural differences, universality, and the search for belief and confidence in a society undergoing dramatic change. Topics include the reworking of issues urgent then as now: equality, justice, freedom, tolerance, torture, human rights, the relation of the personal to the political, the role of opinion and the media in ethical interpretation.

### **[\*Literature 131. The Arab-American Experience in Fiction, Film, and Popular Culture - (New Course)]**

Catalog Number: 42752 Enrollment: Limited to 15.

*Sandra Naddaff*

*Half course (fall term). Hours to be arranged.*

Since 9/11, there has been an explosion of work about the Arab-American experience. This course will explore that experience as expressed in various cultural forms-fiction, film, comedy acts, graphic novels, memoirs, art installations, and new media. We will pay particular attention to contemporary works, although we will also consider the work of early 20th-century Arab-American writers. Topics include mapping the exilic experience, translation and bilingualism, and the semiotics of food. No knowledge of Arabic is required.

### **[Literature 132. Disability Studies]**

Catalog Number: 34028

*Marc Shell*

*Half course (fall term). Hours to be arranged.*

From stumbling Oedipus to stammering Moses and stuttering Edward the Sixth, we consider how bodily and verbal paralysis informs literary and philosophical texts. Attention to cinema, sign language, visual arts, and the rise of disability studies in the arts.

### **[Literature 133. Shakespeare Shakes the Globe]**

Catalog Number: 37322



*Karen Thornber*

*Half course (fall term). Hours to be arranged.*

This course examines literary, theatrical, and cinematic adaptations of Shakespeare's plays in Africa, the Americas, Asia, Europe and the Middle East. Students learn how artists, including Shakespeare, have used creative production of the past to understand and address concrete issues and problems of the present, including political scandal and persecution, imperial domination, and racial and ethnic biases and oppression. We also explore the continued vitality worldwide of theater and the arts, as well as their constant transformations throughout time and space.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding or Culture and Belief, but not both.

### [Literature 134. World Cinema]

Catalog Number: 10086

*Katharina Piechocki*

*Half course (fall term). Hours to be arranged.*

This course explores the development of world cinema from the silent era to the present. What is "world cinema"? How is "the world" created in cinema? How does cinema respond to global topics and debates? What contact zones exist between world cinema and world literature? What are the theoretical limits and practical challenges of "world cinema"? Can we "translate" films from one culture to another? This course includes films by Dziga Vertov, Man Ray, Maya Deren, Fritz Lang, Satyajit Ray, Jean-Luc Godard, Samira Makhmalbaf, Woody Allen, Sofia Coppola, Pedro Almodovar, Nadia Labaki, Zacharias Kunuk, and Deepak Rauniyar.

### [Literature 135. History of Drama]

Catalog Number: 16926

*Katharina Piechocki*

*Half course (spring term). Hours to be arranged.*

This course examines the history of drama in Europe, the Middle East, China, and the New World with a focus on early modernity. How can we approach dramatic texts? How does drama relate to representation and performance? How is drama from past centuries translated and staged in a globalized world? We will explore genres such as comedy, tragedy, commedia dell'arte, opera, shadow and puppet theater. Authors include: Muhammad Ibn Daniyal, Gil Vicente, Fernando de Rojas, Machiavelli, Sperone Speroni, Valeria Miani, Monteverdi, Corneille, Racine, Cervantes, Calderón de la Barca, Sor Juana, Louise Geneviève Gillot de Sainctonge, Kong Shangren.

### [Literature 136. The historical novel after modernism]

Catalog Number: 83405

*David Damrosch*

*Half course (spring term). Hours to be arranged.*

Modernism emphasized ruptures with the past and the uncertainty of historical knowledge; one consequence of this emphasis was a general turning away from the historical novel, seen as the most deluded form of nineteenth-century realism. This situation began to change around the time of World War II, when a growing number of novelists schooled in modernism began to write serious historical fiction. This course will explore the motives for such writing and the strategies of research, structure, style, dialogue, and characterization that once again made historical fiction



a compelling enterprise, on the far side of the modernist critique of history. Readings in Borges, Yourcenar, Tolkien, Rhys, Endo, Mishima, Morrison, Calvino, Pamuk, and the Tibetan postmodernist Jamyang Norbu.

### **Literature 138. Subversive Renaissance: Books that Changed the World - (New Course)**

Catalog Number: 25169

*Katharina Piechocki*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

This course explores major books from the Renaissance/early modern period (14th-17th centuries). It focuses on texts that were revolutionary when first published or/and that (still) have an impact on us now. We will discover fourteenth-century Persian poets and sonnets from sixteenth-century Poland and seventeenth-century Mexico; proto-feminist texts in France, the rise of theater in Italy, subversive short stories in Spain, utopian visions in Francis Bacon, and the limits of the human in Erasmus and Montaigne. Authors include Jahan Malek Khatun, Calderón, Petrarch, Sor Juana, Kochanowski, Machiavelli, Veronica Franco, Beccadelli, Boccaccio, Madeleine de l'Aubespine, Cervantes, and Christine de Pizan.

### **Literature 139. Fictions of Kin and Kind - (New Course)**

Catalog Number: 89512

*Marc Shell*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

The literature and rhetoric of kinship. Special attention to the incest taboo, orphanhood, the human-animal distinction, and social fictions of nationhood. Readings include texts by modern theorists of language as well as by Sophocles, Marguerite of Navarre, Elizabeth Tudor, Cervantes, Shakespeare, Racine, Schiller, Goethe, Melville, and Nabokov.

### **[Literature 141. Modern Anglophone Drama - From Ireland to the Caribbean and Africa ]**

Catalog Number: 40789

*Biodun Jeyifo*

*Half course (spring term). Hours to be arranged.*

The course will explore modern Anglophone dramas of major playwrights in diverse areas of the English-speaking world. Through an attention to both similar historical experiences under colonialism as well as differences of race, gender, ethnicity and culture, we will explore the works of leading Irish, African, Caribbean and U.S. playwrights like Brian Friel, Wole Soyinka, Athol Fugard, Derek Walcott and Ntozake Shange. The seminar will be organized around two principal issues: the use of music, dance, ritual, carnival and other popular performance idioms to transform the received genre of Western literary drama; themes of empire, colony and postcoloniality in the making of the modern world. This course seeks to open a window to the most exciting and engaging developments in English-language theatre in the contemporary world.

*Note:* Expected to be given in 2015–16.

### **[Literature 142. Narrative Theories of Prose and Film]**

Catalog Number: 63943

*Justin Weir*

*Half course (fall term). Hours to be arranged.*

An introduction to foundational narrative theories of fiction and cinema focuses on how those



theories evolved from the 20th to the 21st century. Topics include the boundary between narrative and non-narrative, film adaptation, and the rise and fall of semiotics in narrative theory.  
*Note:* All texts will be available in English translation.

### **\*Literature 146. Space and Place: The Environment in Film**

Catalog Number: 8228 Enrollment: Limited to 20.

*Verena A. Conley*

*Half course (fall term). Tu., 11–12:30. EXAM GROUP: 15*

Focuses on the effect of the environment in film. Reads films grouped according to environmental themes (humans, nature and animals, water, consumption, pollution, climate change) side by side with critical articles. Pays special attention to the relation between space, place and the planet, ecology and technology, globalization and urbanization, postcolonialism, race, gender and class.

*Note:* Section and film screening to be arranged.

### **Literature 147. "Why the Jews?": The Modern Jewish Experience in Literature - (New Course)**

Catalog Number: 85633

*Dara Horn Schulman*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

By the numbers, the Jews should be no better known than the Quecha people of Peru. Yet their outsize role in the Western imagination has made the Jewish experience, and its literary expression, into a fascinating case study of the intersection of language, culture and identity. This course will provide background on literary genres rooted in the Jewish religious tradition, and examine 19th, 20th and 21st century works that refine, reject, and reinvent them, introducing students to the tumultuous history of modern Jewish culture. Authors include Sholem Aleichem, Franz Kafka, S.Y. Agnon, Isaac Bashevis Singer, Amos Oz, Saul Bellow, Etgar Keret and others.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

### **Literature 148. Crisis: Twentieth-Century European Novels - (New Course)**

Catalog Number: 58149

*Christina Lynne Svendsen*

*Half course (fall term). Th., 4–6. EXAM GROUP: 16*

Examines major twentieth-century novels through the lens of "crisis" understood traditionally as a decisive moment, but experienced catastrophically in the twentieth century as a state of being. Authors include Rilke, Conrad, Joyce, Musil, Breton, Barnes, Valle-Inclan, Schulz, Levi.

### **Literature 149. Writing the World: Literature and Its Theories - (New Course)**

Catalog Number: 53708

*Delia Ungureanu*

*Half course (fall term). Tu., 4–6. EXAM GROUP: 16*

The role and relations of author, reader, and text in creating fictional worlds are problems as old as literature itself. This course will look at how literature addresses these conceptual issues throughout time, from poetry to novels and plays. Each session will pair literary and theoretical texts that address one of the major conceptual issues involved in the creation and reading of



literature. Using perspectives provided by Plato, Eco, Foucault, Barthes, Hutcheon, and others, we will analyze the types of relations configured among Author - Reader - Text through works that range from Shakespeare's Hamlet to Flaubert's Madame Bovary and Dostoyevsky's Notes from Underground, T.S. Eliot's Waste Land and Virginia Woolf's Mrs. Dalloway, and from Vladimir Nabokov's Pale Fire to short fictions by Jorge Luis Borges.

**[Literature 150. Colonial and Post-Colonial Spaces: France-North Africa]**

Catalog Number: 89597

*Verena A. Conley*

*Half course (spring term). Hours to be arranged.*

This course focuses on transformations of colonial and post-colonial spaces in North Africa that include Morocco, Tunisia and Algeria by way of fiction, film, critical and cultural theory.

Explores shifting relations between North Africa and France but also Italy and Spain with special attention to concepts of nation, community, migration, transnationalism and translation.

Readings and viewings of works by Bowles, Camus, Choukri, Cixous, Djebbar, Genet, Lakous, Maalouf, Memmi, Taia and others.

**[Literature 151. The Poetics of Dreams]**

Catalog Number: 68486

*Delia Ungureanu*

*Half course (spring term). Hours to be arranged.*

This course will look into the oneiric literature, ranging from Apuleius and Shakespeare to Cao Xueqin, Marcel Proust, and Virginia Woolf, exploring these works through different dream theories, from the Romantics to Freud to the Surrealists and beyond. We will examine how dreams differ in time and space in different cultures to reveal shifting relations between dreams, memory, visions, reveries, magic, games, and theatre.

**[Literature 154. Music, Literature, and the Voice]**

Catalog Number: 65838

*John T. Hamilton*

*Half course (fall term). Hours to be arranged.*

A comparative examination of literary, philosophical and theoretical works that deal with music and the phenomenon of the voice. Topics include: the role of the voice in myth; verbal and musical form; musical meaning and expression; reading, hearing and listening; music and psychoanalysis; evanescence and silence; narrative voice and responsibility.

**[Literature 155. Furor Poeticus: Madness, Inspiration, Genius]**

Catalog Number: 7758

*John T. Hamilton*

*Half course (fall term). Hours to be arranged.*

Considers the classical conception of mania as a divine source of prophecy, ecstasy, poetic creation, and erotic desire; and traces how this madness unfolds in ancient tragedy and modern literature, philosophy and psychoanalysis.

**[Literature 157. From Type to Self in the Middle Ages]**

Catalog Number: 9245



*Luis M. Girón Negrón*

*Half course (spring term). Hours to be arranged.*

It has been argued that the poetic "I" in premodern literatures is not a vehicle for self-representation, but an archetype of the human. The course will examine this thesis against the rise of autobiographical writing in medieval and early modern Europe. Readings include spiritual autobiographies (Augustine, Kempe, Teresa of Ávila), letter collections, *maqama* literature, troubadour lyric, Hispano-Jewish poetry, pilgrimage narratives, medieval allegories, Dante and the picaresque novel. Theoretical perspectives by Spitzer, Lejeune, Zumthor and DeCerteau.

### **Literature 162. Homer and Beyond: Theory and Comparative Methods in Studying Oral Traditions**

Catalog Number: 7426

*Gregory Nagy*

*Half course (spring term). M., 12–2. EXAM GROUP: 7*

Genres, forms, and themes of oral traditions in poetry and prose. Theories of performance and composition. Comparative metrical and formulaic analysis. Students are free to select non-Greek traditions as their focus of research, such as medieval French lays, Indic fables, Gregorian Chant, early Italian opera, Apache female initiation songs, Latin prosimetrum narratives, etc.

*Note:* Undergraduate students are welcome - including freshmen. Knowledge of Greek not required. Only Classics Department graduate students who take the course for credit will work on original Greek texts.

### **[Literature 163. Jewish Languages and Literature]**

Catalog Number: 8627

*Marc Shell and members of the Department*

*Half course (fall term). Hours to be arranged.*

What is a Jewish language? What is Jewish literature? General topics are alphabetization, translation, oral tradition and diaspora. Languages worldwide include Hebrew as well as Judeo-Spanish, -Aramaic, -Arabic, -French, -Greek, -Italian, -Persian, -Spanish, -Malayalam, Yiddish, and other secular Jewish languages. Readings usually include love stories, medical and philosophic texts, and writings on science, travel, and music. Guest scholars visit most weeks. No language requirement.

*Note:* Language credit can be arranged.

### **Literature 168. The Quest for Epic: From Ariosto to Spenser and Milton - (New Course)**

Catalog Number: 21567

*Christine S. Lee*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

This course introduces the rich tradition of Renaissance epic. Just as Renaissance artists pursued the beauty of classical forms, so too did Renaissance poets strive to create the perfect epic poem, a modern revival of a lost ancient genre. We will explore the creative tension between epic poets and their predecessors, and investigate the larger ethical questions the poems raise. What forms of heroism does epic envisage for men-- and for women? How does epic imagine our cultural enemies? What sacrifices must be made for the sake of a civilization? Authors include Virgil, Ariosto, Tasso, Camões, Spenser, and Milton.



### **Literature 170. Images in Motion: Time and Space in Film and Literature - (New Course)**

Catalog Number: 95112

*Delia Ungureanu*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

This course will look at the universal language of images through masterpieces of film and literature, comparing films with works of literature that address similar topics, configuring them as temporal arts turned spatial through the use of a magical mechanism. How do verbal and visual images capture time on film and on the page? We will explore questions of memory and oblivion, war and peace, desire and loss, in films by Martin Scorsese, Andrei Tarkovsky, Wong Kar Wai, Volker Schlöndorff, Michael Gondry, and others, and in works by Shakespeare, Tolstoy, Woolf, Calvino, and Pamuk.

### **[Literature 173. Politics of Aesthetics: Worlds, Objects, Matter, Sensation]**

Catalog Number: 16366

*Verena A. Conley*

*Half course (fall term). Hours to be arranged.*

Examines and compares the relation between politics and aesthetics in major texts by: Rancière, Balibar, Nancy, Latour, Harman, Badiou, Meillassoux, Jane Bennett, Tim Morton and others. Focuses on politics of aesthetics in critical texts of the last two decades that link a politics of aesthetics to the reassessment of world(s), objects, sensation, matter while looking for a new type of realism. Deleuze, Rancière, Nancy, Cixous, Latour, Stengers, Bennett, Graham, Badiou, Meillassoux, Morton will be paired with film, fiction, painting.

### **[Literature 174. Realism, Fantasy, and the Grotesque: Hoffmann and Balzac]**

Catalog Number: 14316

*John T. Hamilton*

*Half course (spring term). Hours to be arranged.*

A close reading of select works by E.T.A. Hoffmann and his reception in the work of Balzac focuses on Realism's indebtedness to the imaginative realms of the fantastic and the grotesque. Topics: music and inspiration; societal decadence and caricature; magic and the uncanny; experience, observation and expression.

*Note:* Texts may be read in English translation.

### **[Literature 184. Imagining the City: Literature, Film, and the Arts]**

Catalog Number: 2332

*Svetlana Boym and Giuliana Bruno*

*Half course (fall 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. We will focus on the European city, as we travel through Paris, Berlin, St. Petersburg, Moscow, Naples, and Rome

*Note:* Students who have taken VES 184 previously may not take this course for credit. Cannot be taken concurrently with VES 184. Offered jointly with the Graduate School of Design as 4353.



**[\*Literature 187r. Selected Topics in Poetics and Rhetoric: Seminar]**

Catalog Number: 7999

*Gregory Nagy*

*Half course (spring term). Hours to be arranged.*

Comparative approaches to poetics and rhetoric. All readings for this course will be in English translations. Special arrangements for those who opt to read in the original languages. Selected texts include Aristotle's *Poetics* and *Rhetoric*.

*Note:* Expected to be given in 2015–16. Knowledge of Greek not required.

**Literature 193. "What's Love Got to Do With It"; Love Poetry of the Middle Ages and Early Modernity**

Catalog Number: 60925

*Luis M. Girón Negrón*

*Half course (spring term). M., W., at 10. EXAM GROUP: 5*

Does love have a history? The course explores the literary history of love poetry in Europe and the Middle East from the Middle Ages through the 17th century. Reading selections from Latin and Romance love lyric (Provençal, Galician-Portuguese, French, Catalan, Spanish, the ‘jarchas’), Arabic and Hebrew muwashshahat, the Italian dolce stil novo, Sufi and Christian mystical poetry, the Petrarchan sonnet and its heirs (Portugal, England, Spain), Dante’s *Vita Nuova* and erotic narrative verse (Juan Ruiz, Ibn Hazm, ‘Roman de la Rose’). Discussions framed by overview of premodern theories of love and recent scholarly debates on the origins of amour courtois.

*Note:* Offered jointly with the Divinity School as 3725.

***Cross-listed Courses***

**African and African American Studies 111. Spectral Fictions, Savage Phantasms: Race and Gender in Anti-Racist South African and African American Drama, Fiction and Film**

**African and African American Studies 137. Literature, Oratory, Popular Music and the Politics of Liberation**

**African and African American Studies 140x. Film, Fiction and Diaspora**

**English 190n. Writing Nature: Creativity, Poetry, Ethics, Science - (New Course)**

**English 199a. Rules of the Game: The History of Literary Theory**

**French 139b. The 18th Century: Ethical Dilemmas**

**German 170. Biopolitics and Vampire Aesthetics, 1750-2015 - (New Course)**

**Modern Greek 126. The Nazis and the Greeks - (New Course)**

**The Modern Middle East 158b. Modern Arabic Literature Seminar: Lebanese Civil War: Histories and Fictions**

***Primarily for Graduates***

**[Comparative Literature 211. Mysticism and Literature]**

Catalog Number: 3867

*Luis M. Girón Negrón*

*Half course (fall term). Hours to be arranged.*

Trends and debates in the comparative study of mystical literature. Primary works by Jewish,



Christian, and Muslim authors from the Middle Ages through the 16th century. Also modern authors (Borges, Eliot) and literary theorists (DeCerteau).

*Note:* Offered jointly with the Divinity School as 3802.

**[Comparative Literature 214. Islands and the World]**

Catalog Number: 49949

*Marc Shell*

*Half course (spring term). Hours to be arranged.*

Islands, both a part of and apart from the main, offer ready-made laboratories for linguistic, biological and political investigation; islandness as such encourages national literature, philosophy, and vacation. Our seminar focuses on fictional islands as well as Canadian ice floes, Hormuz (Persia), Maine islets, and urban Venice. Aristotle, Plato, Darwin, Melville, Hesiod, Homer, Rabelais, More, Shakespeare, and Flaherty (director).

**[Comparative Literature 221. Literature, Philosophy, Pedagogy: Love and Freedom] -**

*(New Course)*

Catalog Number: 87232

*Svetlana Boym and John T. Hamilton*

*Half course (spring term). W., 2–4.*

Notions of "love" and "freedom" have persistently informed works of literature, visual art, and music since antiquity, exhibiting a complex variety of meanings, functions and values. The aim of this course is to investigate exemplary works that highlight some of the major tensions and questions related to distinct formulations of these two key terms. In reviewing a broad range of material, attention is paid throughout to specific historical, social, and cultural differences.

*Note:* Expected to be given in 2015–16.

**[Comparative Literature 230. The Poetics of Empire: Colonization, Translation, and Literary Rewriting]**

Catalog Number: 0694

*Karen Thornber*

*Half course (fall term). Hours to be arranged.*

Explores how (post)colonial writers from Asia, Africa, Latin America and the Middle East and writers from (former) imperial powers have reconfigured one another's literatures. Rethinks concepts of world literature and cultural negotiation.

**[Comparative Literature 242. Text, Image, Public Sphere]**

Catalog Number: 34276

*Svetlana Boym*

*Half course (spring term). Hours to be arranged.*

The course examines relationship between verbal and visual communication in public realm through the analysis of literature, film, photography, architecture and public art. Focus on the new public media and on aesthetic and politics of the visual culture.

*Note:* Open to qualified undergraduates and GSD students

**Comparative Literature 243hf. Survive and Thrive - Graduate School and Beyond**

Catalog Number: 12775



*Karen Thornber*

*Half course (throughout the year). Tu., 6–8 p.m. EXAM GROUP: Fall: 16; Spring: 6*

This course provides graduate students with the necessary tools to survive and thrive in graduate school and beyond, in a variety of careers. Sessions on applying for fellowships, public speaking, using the Harvard libraries, and writing and publishing, as well as making the transition from coursework to teaching.

*Note:* Open to all Harvard graduate students interested in literature and required of all first-year students in the Comparative Literature PhD program.

### **Comparative Literature 245. Intertextuality**

Catalog Number: 19804

*Judith Ryan*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

Explores theories of intertextuality developed by Kristeva, Jauss, Bloom, Gilbert and Gubar, Genette, and others, and asks why the debates they have provoked have had such resonance in contemporary literary studies. Literary texts include Catullus, Shakespeare, Keats, Henry James, Christa Wolf, Dai Sijie, and others. Attention to such questions as influence, imitation, allusion, quotation, and pastiche.

### **Comparative Literature 249. Cartography and Early Modern Literature**

Catalog Number: 37587

*Katharina Piechocki*

*Half course (fall term). W., 10–12. EXAM GROUP: 5*

This course explores the emergence of new cartographies, maps, and itineraries in a period of increased interest in world travels, philology, and translation. We start from ancient and medieval “cartographic” texts and authors (both European and non-European) and move to Renaissance texts and maps. How does the “spatial turn” and the visualization of knowledge—key to digital humanities today—help us deepen our understanding of early modernity? We will discuss European, Arab, and New World maps, texts and authors, among which Petrarch, Margery Kempe, Columbus, Waldseemüller, Tomas More, Sebastian Münster, Vespucci, Ibn Fadlan, Tasso, Montaigne, Boccaccio, and Catalina de Erauso.

### **Comparative Literature 252. The Literatures of Medieval Iberia**

Catalog Number: 38202

*Luis M. Girón Negrón*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

The cultural interactions in premodern Spain between Muslims, Christians and Jews shaped the literary history of Arabic, Hebrew and the Ibero-Romance vernaculars. Our seminar examines selected scholarly debates on the comparative study of these literatures.

*Note:* Offered jointly with the Divinity School as 3726.

### **[Comparative Literature 253. Literature, Art and Exile]**

Catalog Number: 85798

*Svetlana Boym*

*Half course (fall term). Hours to be arranged.*

Does exile enable or stifle artistic creativity? How does the experience of exile shape the attitude



towards local and global culture? The course examines forms of diasporic conscience in literature and visual arts focusing on the issues of estrangement and nostalgia, comparative modernities and exilic devices, nationalism and cosmopolitanism, immigrant aesthetic and conceptions of freedom. Special topic include America through the eyes of exile, text and image in the writing of the diaspora, reconsideration of the critical theory from the perspective of exile. Works by Nabokov, Brodsky, Cortazar, Borges, Arendt, Pamuk, Rushdie, Kis, Kafka.

*Note:* All texts are available in English but reading in the original languages is encouraged.

**[Comparative Literature 255. Dysfunctional Family as National Allegory in the Middle Eastern Novel]**

Catalog Number: 83732

*William E. Granara*

*Half course (spring term). Hours to be arranged.*

The radical changes following the emergence of the modern nation state in the Middle East have been most graphically illustrated in the novel. This course examines the trope of the family in flux in narrating the destabilization of traditional social structures, shifting loyalties, and conflicting articulations of identity. The course interrogates the F. Jameson and A. Ahmad debates on ‘thirdworld’ and ‘national allegory’ in reading selected novels of the post WWII period to the present, from Turkey, Iran, Israel, and the Arab World. Authors include Naguib Mahfuz, Mohamed Shukri, Hanan Shaykh, Sahar Khalifa, Amos Oz, Elif Shafak, and Mahmoud Dowlatabadi.

*Note:* All readings in English translation, but students are encouraged to read in the original. Course will count for NELC concentration and citation in Modern Middle Eastern Studies. Open to Undergraduates.

**[Comparative Literature 256. Archeology of Modernity and Visual Culture]**

Catalog Number: 74617 Enrollment: Limited to 15. The course will include a creative experiments in photography, writing and digital media as well as analytic assignments. VES and GSD students welcome.

*Svetlana Boym*

*Half course (spring term). Hours to be arranged.*

Explores contradictions of the modern experience in literature, philosophy, arts and architecture. Topics for 2010: nostalgia and modernization, public freedom and cross-cultural memory, archeology and the creative mapping of the urban space, culture and politics. Special attention to the relationship between critical theory and creative practice. Reading from Benjamin, Simmel, Shklovsky, Nabokov, Kafka, Arendt, Certeau, Lyotard, Derrida.

**[Comparative Literature 263. Journey, Exile, and Displacement in Modern Arabic Literature]**

Catalog Number: 3125

*William E. Granara*

*Half course (fall term). Hours to be arranged.*

The course examines narratives of journey, exile, and displacement in modern Arabic literature that trespass geographical, political and linguistic boundaries, and create new literary spaces that define and reshape modern Arab identities. Theoretical readings will include Pratt, Said, Rushdie



and Kaplan.

*Note:* Arabic helpful but not required. Undergraduates welcome.

**[Comparative Literature 264. Thinking and Writing Transculturally]**

Catalog Number: 6133

*Karen Thornber*

*Half course (spring term). Hours to be arranged.*

Explores approaches to transculturation in the production and evaluation of literature in light of new understandings of human and textual border-crossings. Topics include the ethics of dividing cultural products along ethnic, linguistic, and national lines on the one hand and classifying phenomena as global on the other, and the ramifications of cross-cultural comparison. We also examine the relationship between creative production and such topics as empire, travel/diaspora, translingualism, and literary reconfiguration.

**[Comparative Literature 266. Irony]**

Catalog Number: 9984

*Panagiotis Roilos*

*Half course (fall term). Hours to be arranged.*

Explores major European philosophical and aesthetic discourses on irony as well as literary manipulations of the trope from Greek antiquity to postmodernism.

**Comparative Literature 270. Urban Imaginary and Visual Culture - (New Course)**

Catalog Number: 52376 Enrollment: Limited to 15.

*Svetlana Boym*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

Explores urban imagination and modernity through different art forms: literature, architecture, cinema, photography, and painting. Topics include: modernity and nostalgia, monuments and ruins, cultural archaeology and urban mapping, public and domestic spaces, memory, freedom and new technologies. Works by Baudelaire, Benjamin, Simmel, Kafka, Arendt, Nabokov, Brodsky, Pamuk, Debord. Focus for 2014: Paris, Berlin, St Petersburg, Moscow, Istanbul and Passaic, NJ.

*Note:* Open to qualified undergraduates, VES and GSD students.

**[Comparative Literature 273. Approaches to Modernity: The Metropolis]**

Catalog Number: 2521

*Svetlana Boym*

*Half course (fall term). Hours to be arranged.*

Examines the relationship between urban experience and debates on modernity/postmodernity in art, architecture and social theory. Topics: nostalgia and modernization, cultural archeology and architecture of transition, memorial, museum and public art, national identity and cosmopolitan imagination, metropolis and megapolis.

*Note:* Students in this class will be encouraged to attend lectures and screenings for VES 184 and develop individual research and/or creative projects.

**Comparative Literature 275. Theory of Narrative: Conference Course**

Catalog Number: 3105 Enrollment: Limited to 15.



*William Mills Todd III*

*Half course (fall term). M., 12–2. EXAM GROUP: 11*

Studies of selected narratives (fictional, psychoanalytic, historical, sacred) as semiotic structures, rhetorical gambits, cultural phenomena and processes of cognition. Readings by Jakobson, Barthes, Bakhtin, Iser, Lukács, Foucault and others.

*Note:* Open to advanced undergraduates and graduates. Recommended for potential teaching fellows.

**[Comparative Literature 277. Literature and Diaspora]**

Catalog Number: 6042

*Karen Thornber*

*Half course (fall term). Hours to be arranged.*

Examines creative and critical discourse from and about the African, Chinese, Indian, Japanese, Jewish, and Korean diasporas. Explores the relationship between diaspora and constructions of artistic and cultural identities, transculturation, translation, and multilingualism.

**[Comparative Literature 278. Failure and Change (Graduate Seminar in General Education)]**

Catalog Number: 41112

*Christie McDonald*

*Half course (fall term). Hours to be arranged.*

Analysis of the failure of models and testing of limits in reflection about change, as well as the dialogue among literary, theological, socio-political, artistic, and philosophical discourses. Topics include authority, freedom, equality, sentiment, reason, fanaticism, tolerance. Readings include works from St. Augustine, Rousseau, Diderot, Kant, Proust, Koselleck, Rorty, Beauvoir, Sartre, Kofman, Beckett. The seminar will design and develop a General Education course on these themes for undergraduates; it will also contain an arts component.

**[Comparative Literature 281. Rhetoric, Imitation, Translation: Comparative Literature from Antiquity to Early Modernity]**

Catalog Number: 79933

*Katharina Piechocki*

*Half course (spring term). Hours to be arranged.*

How can we think of comparative literature prior to the rise of aesthetics and “Weltliteratur” in the eighteenth century? From antiquity to early modernity, literary traditions were shaped by the rules of rhetoric, imitation, emulation, and translation. We will discuss works from Greek and Latin antiquity; the Latin, Hebrew, Arab, Persian, and Byzantine Middle Ages; and the revival of rhetoric, imitation, and translation in early modernity. Authors include Sappho, Aristotle, Cicero, Lucretius, Hermogenes, St. Jerome, Martianus Capella, Al-Farabi, Averroes, Leonardo Bruni, Isotta Nogarola, Hélisenne de Crenne, Joachim Du Bellay, Gaspara Stampa, Jan Kochanowski.

**Comparative Literature 283. Language Differences**

Catalog Number: 7468

*Marc Shell*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

Considers language difference both as a literary theme and as a potent cause of war in the



political arena. Historical foci include Europe, the Middle East, North America, and Africa. Literary issues include translation, heteroglossia, cinematography, and multilingualism. Works of literature include Sophocles, Shakespeare, Goethe, and Dove.

**[Comparative Literature 288. The Ancients and the Moderns: Modern Critical Theory and the Classics]**

Catalog Number: 7557

*Panagiotis Roilos*

*Half course (spring term). Hours to be arranged.*

Explores the impact of classical literature and culture on the formation of modern critical theory. Topics include: construction of power; trafficability of art; ritual theory; sexuality; gender studies; irony; orality and literacy.

**Comparative Literature 298. Allegory**

Catalog Number: 28338

*Panagiotis Roilos*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

Investigates major landmarks in the development of allegorization and allegorical literary composition in European tradition. Starting with pseudo-Herakleitos and his allegorical hermeneutics of the Homeric epics, this seminar will study different theoretical explorations and literary manifestations of allegorical discourse from antiquity to modernity from ancient Greek rhetoric to Prudentius to Byzantine literature to Dante to the Romantics to C. P. Cavafy to Benjamin and de Man. Topics to be addressed include: personification, ambiguity, hermeneutic double-tonguedness (amphoteroglosia), the interplay between allegory and other tropes and discursive modes (metaphor, metonymy, symbol, parody, satire).

**\*Comparative Literature 299ar. What is Comparative Literature?: Pasts, Presents, and Futures: Proseminar**

Catalog Number: 2431

*Karen Thornber*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

An investigation into the discipline of comparative literature - its histories, current trends, and future possibilities. Focus on literary and cultural theory in comparative context. Also introduces such related fields as comparative arts and philology, the civic, digital, environmental, and medical humanities, translation studies, and world literature. Special attention to how best to negotiate comparative literature study in today's academy.

*Note:* Required of first-year graduate students in the Comparative Literature PhD program; open to all graduate students interested in literary comparison, literature in transnational and interdisciplinary perspective, and creative production across time and space.

***Cross-listed Courses***

**Comparative Literature 252. The Literatures of Medieval Iberia**

**French 271. Legacies of Poststructuralism: Ecology French Style**

**Romance Studies 201. Questions of Theory**

**Yiddish 200r. Literature and Belief: The Case of Modern Yiddish Literature**



### ***Graduate Courses of Reading and Research***

#### **\*Comparative Literature 396. Preparation for General Examinations**

Catalog Number: 4570

*Svetlana Boym 1926 (on leave spring term), Joaquim-Francisco Coelho 7715, Verena A. Conley 2250, David Damrosch 5998, James Engell 8076 (on leave fall term), Luis M. Girón Negrón 3060, John T. Hamilton 3977, Biodun Jeyifo 1001, Christie McDonald 1160 (on leave fall term), Gregory Nagy 1423, Stephen Owen 7418, Katharina Piechocki 7353, Martin Puchner 5842, Panagiotis Roilos 1982, Judith Ryan 1135, Marc Shell 3176, Werner Sollors 7424 (on leave 2014-15), Diana Sorensen 4214, Susan R. Suleiman 7234 (on leave 2014-15), Karen Thornber 5764, William Mills Todd III 1634, and Ruth R. Wisse 3177*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

#### **\*Comparative Literature 397. Direction of Doctoral Dissertations**

Catalog Number: 0320

*Svetlana Boym 1926 (on leave spring term), Joaquim-Francisco Coelho 7715, Verena A. Conley 2250, David Damrosch 5998, James Engell 8076 (on leave fall term), Luis M. Girón Negrón 3060, William E. Granara 1054, John T. Hamilton 3977, Biodun Jeyifo 1001, Christie McDonald 1160 (on leave fall term), Sandra Naddaff 7779, Gregory Nagy 1423, Stephen Owen 7418, Katharina Piechocki 7353, Martin Puchner 5842, Panagiotis Roilos 1982, Judith Ryan 1135, Marc Shell 3176, Werner Sollors 7424 (on leave 2014-15), Diana Sorensen 4214, Susan R. Suleiman 7234 (on leave 2014-15), Karen Thornber 5764, William Mills Todd III 1634, and Ruth R. Wisse 3177*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

#### **\*Comparative Literature 399. Reading and Research**

Catalog Number: 2893

*Svetlana Boym 1926 (on leave spring term), Joaquim-Francisco Coelho 7715, Verena A. Conley 2250, David Damrosch 5998, James Engell 8076 (on leave fall term), Luis M. Girón Negrón 3060, John T. Hamilton 3977, Biodun Jeyifo 1001, Christie McDonald 1160 (on leave fall term), Sandra Naddaff 7779, Gregory Nagy 1423, Stephen Owen 7418, Katharina Piechocki 7353, Martin Puchner 5842, Panagiotis Roilos 1982, Judith Ryan 1135, Marc Shell 3176, Werner Sollors 7424 (on leave 2014-15), Diana Sorensen 4214, Susan R. Suleiman 7234 (on leave 2014-15), Karen Thornber 5764, William Mills Todd III 1634, and Ruth R. Wisse 3177*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

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***

#### **\*African and African American Studies 301. Graduate Proseminar**

Catalog Number: 3120

*Marcyliena Morgan 2212, and members of the Department*

*Half course (fall term). Tu., 12-2. EXAM GROUP: 15*

Students are introduced to major themes, classic texts, and representative current work in the



broad interdisciplinary field of African and African American Studies, with a focus on the Humanities (Literature, Art, Music, and Religion).

*Note:* Required for all graduates in African and African American Studies in their first year.

## Computer Science

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### *Faculty of the School of Engineering and Applied Sciences Offering Instruction in Computer Science*

Ryan Prescott Adams, Assistant Professor of Computer Science  
Daniel A. Armendariz, Preceptor in Computer Science  
David M. Brooks, Haley Family Professor of Computer Science  
Cristopher R. Cecka, Lecturer on Computational Science  
Yiling Chen, John L. Loeb Associate Professor of the Natural Sciences  
Stephen N. Chong, Associate Professor of Computer Science  
David Cox, Assistant Professor of Molecular and Cellular Biology and of Computer Science  
Finale Doshi-Velez, Assistant Professor of Computer Science  
Krzysztof Z. Gajos, Associate Professor of Computer Science  
Steven J. Gortler, Robert I. Goldman Professor of Computer Science  
Barbara J. Grosz, Higgins Professor of Natural Sciences  
Thouis Ray Jones, Lecturer on Computational Science  
Verena S. Kaynig-fittkau, Lecturer on Computational Science  
Edward W. Kohler, Associate Professor of Computer Science, Microsoft Professor of Computer Science  
H. T. Kung, William H. Gates Professor of Computer Science and Electrical Engineering  
Henry H. Leitner, Senior Lecturer on Computer Science  
Harry R. Lewis, Interim Dean of the School of Engineering and Applied Sciences, and Gordon McKay Professor of Computer Science  
Alexander Lex, Lecturer on Computer Science  
David J. Malan, Gordon McKay Professor of the Practice of Computer Science  
Michael D. Mitzenmacher, Thomas J. Watson, Sr. Professor of Computer Science  
John G. Morrisett, Allen B. Cutting Professor of Computer Science  
Cherry Murray, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, and Professor of Physics (*on leave spring term*)  
Radhika Nagpal, Fred Kavli Professor of Computer Science  
Jelani Nelson, Assistant Professor of Computer Science



Yaakov Nissim Koblinger, Visiting Associate Professor in Computer Science  
 David C. Parkes, George F. Colony Professor of Computer Science, Harvard College Professor, Area Dean for Computer Science  
 Hanspeter Pfister, An Wang Professor of Computer Science (*on leave 2014-15*)  
 Margo I. Seltzer, Herchel Smith Professor of Computer Science  
 Or Sheffet, Lecturer on Computer Science  
 Stuart M. Shieber, James O. Welch, Jr. and Virginia B. Welch Professor of Computer Science  
 Yaron Singer, Assistant Professor of Computer Science  
 Michael D. Smith, Edgerley Family Dean of the Faculty of Arts and Sciences, and John H. Finley, Jr. Professor of Engineering and Applied Sciences  
 Salil P. Vadhan, Vicky Joseph Professor of Computer Science and Applied Mathematics  
 Leslie G. Valiant, T. Jefferson Coolidge Professor of Computer Science and Applied Mathematics  
 James H. Waldo, Gordon McKay Professor of the Practice of Computer Science  
 Stratos Idreos, Assistant Professor of Computer Science  
 Todd Zickler, William and Ami Kuan Danoff Professor of Electrical Engineering and Computer Science  
 Jonathan L. Zittrain, Professor of Computer Science

The School of Engineering and Applied Sciences ([www.seas.harvard.edu](http://www.seas.harvard.edu)) offers undergraduate and graduate courses in Applied Computation, Applied Mathematics, Applied Physics, Computer Science, and Engineering Sciences. Engineering and Applied Sciences faculty also offer several courses in the section entitled Freshman Seminars, Extra-Departmental Courses, and House Seminars.

### ***Primarily for Undergraduates***

For information concerning concentration in Computer Science please consult the Director of Undergraduate Studies or the Office of Student Affairs, School 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.

#### **Computer Science 1. Great Ideas in Computer Science**

Catalog Number: 6903

*Henry H. Leitner*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

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. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.



### **[\*Computer Science 2. Digital Platforms]**

Catalog Number: 31335 Enrollment: Limited to 5.

*Instructor to be determined*

*Half course (spring term). Th., 5–7 p.m.*

The Internet operates in layers, and so does much of the technology that hooks up to it: PCs, mobile phones, tablets. Nearly two decades ago those platforms were conceptually simple: a "generative" base offered by one manufacturer, on which any third party could build. (Think: Windows and the programs that run on it.) Some efforts by platform makers to tip the scales in their favor in the layer above resulted in extended controversy and regulatory efforts, such as over Windows coming bundled with Internet Explorer. Today platforms are just as vital but far more complex. We have hybrids like the iOS and Android operating systems or the Facebook and Twitter platforms, where the platform makers offer their systems as services rather than products, influencing and sometimes outright limiting connection between users and independent developers for those platforms. How should we think about these new platforms? What counts as a "level playing field," and what responsibility, if any, is there for public authorities to enforce it? What lessons, if any, do the prior tangles offer for today?

*Note:* This course is jointly-offered with the Kennedy School as DPI-668 and with the Law School as 2601.

### **Computer Science 20. Discrete Mathematics for Computer Science**

Catalog Number: 22235

*Harry R. Lewis*

*Half course (spring term). M., W., F., at 10. EXAM GROUP: 5*

Widely applicable mathematical tools for computer science, including topics from logic, set theory, combinatorics, number theory, probability theory, and graph theory. Practice in reasoning formally and proving theorems.

*Note:* Covers material used in Computer Science 121 and Computer Science 124. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

### **Computer Science 50 (SAT/UNS). Introduction to Computer Science I**

Catalog Number: 43861

*David J. Malan*

*Half course (fall term). M., W., at 1-2:30, and a weekly section. EXAM GROUP: 1*

Introduction to the intellectual enterprises of computer science and the art of programming. This course teaches students how to think algorithmically and solve problems efficiently. Topics include abstraction, algorithms, data structures, encapsulation, resource management, security, software engineering, and web development. Languages include C, PHP, and JavaScript plus SQL, CSS, and HTML. Problem sets inspired by real-world domains of biology, cryptography, finance, forensics, and gaming. Designed for concentrators and non-concentrators alike, with or without prior programming experience.

*Note:* Undergraduates, GSAS students, and cross-registered students may take CS50 either Satisfactory/Unsatisfactory (SAT/UNS) or for a letter grade. To take CS50 SAT/UNS, register for catalog number 43861. To take CS50 for a letter grade, register for catalog number 4949. When taken for a letter grade, this course meets the General Education requirement for undergraduates for Empirical and Mathematical Reasoning. See course's website for FAQs. This



course will also meet on Fri 9/5 and Fri 10/17. Students with conflicts may watch those lectures online.

### [Computer Science 50 \(Letter Grade\). Introduction to Computer Science I](#)

Catalog Number: 4949

*David J. Malan*

*Half course (fall term). M., W., 1-2:30, and a weekly section. EXAM GROUP: 1*

Introduction to the intellectual enterprises of computer science and the art of programming. This course teaches students how to think algorithmically and solve problems efficiently. Topics include abstraction, algorithms, data structures, encapsulation, resource management, security, software engineering, and web development. Languages include C, PHP, and JavaScript plus SQL, CSS, and HTML. Problem sets inspired by real-world domains of biology, cryptography, finance, forensics, and gaming. Designed for concentrators and non-concentrators alike, with or without prior programming experience.

*Note:* Undergraduates, GSAS students, and cross-registered students may take CS50 either Satisfactory/Unsatisfactory (SAT/UNS) or for a letter grade. To take CS50 SAT/UNS, register for catalog number 43861. To take CS50 for a letter grade, register for catalog number 4949. When taken for a letter grade, this course meets the General Education requirement for undergraduates for Empirical and Mathematical Reasoning. See course's website for FAQs. This course will also meet on Fri 9/5 and Fri 10/17. Students with conflicts may watch those lectures online.

### [Computer Science 51. Introduction to Computer Science II](#)

Catalog Number: 3411

*John G. Morrisett*

*Half course (spring term). Tu., Th., 1-2:30, and an additional 90-minute section to be arranged.*

*EXAM GROUP: 1*

Abstraction and design in computation. Topics include functional and object-oriented styles of programming, software engineering in the small, and models of computation. Our main goal is to understand how to design large programs to make them readable, maintainable, elegant, and efficient. Exercises in OCaml.

*Prerequisite:* Computer Science 50 or equivalent.

### [Computer Science 61. Systems Programming and Machine Organization](#)

Catalog Number: 3461

*Edward W. Kohler*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

Fundamentals of computer systems programming, machine organization, and performance tuning. This course provides a solid background in systems programming and a deep understanding of low-level machine organization and design. Topics include C and assembly language programming, program optimization, memory hierarchy and caching, virtual memory and dynamic memory management, concurrency, threads, and synchronization.

*Prerequisite:* CS50 or some experience programming in C.

### [\\*Computer Science 90na \(formerly \\*Computer Science 42\). The Internet: Governance and Power](#)



Catalog Number: 37293 Enrollment: Limited

*Jack L. Goldsmith (Law School) and Bruce Schneier (Law School)*

*Half course (spring term). Tu., 5–7 p.m. EXAM GROUP: 6*

This seminar will examine the individuals and institutions that control the Internet, and how the Internet affects the distribution and operation of power, broadly conceived. We will examine technologies of control (such as surveillance, censorship, propaganda, and use control) and of evading control, the individuals and institutions that seek to regulate the Internet (such as governments, the IETF, and hackers), the relationship between cybersecurity, national security, and Internet governance, the economics of Internet communications, and more.

*Note:* Offered jointly with the Kennedy School and the Law School. This course does not count for concentration credit in Computer Science.

*Prerequisite:* Seminar is by permission of instructor. Please send a statement of interest and resume to qashat@law.harvard.edu. Please include your year and program information as well. The application deadline for HLS/FAS/SEAS students is October 31. The application deadline for HKS students is November 7.

### **\*Computer Science 91r. Supervised Reading and Research**

Catalog Number: 0361

*Steven J. Gortler (spring term) and Harry R. Lewis (fall term)*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

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 the Student Affairs Office, 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.

*Instructor to be determined*

*Half course (spring term). M., Th., 4–6.*

Cooperative design, development, and testing of a sizable and realistic computer system. Students work as a group with a client on a real-world open-ended problem, and gain experience in problem definition, software development, and system lifecycle issues, and in the area of application. Students work in groups; both student participation in the classroom and effective group cooperation outside the classroom are stressed.

*Prerequisite:* Computer Science 51 or 61.

### ***For Undergraduates and Graduates***

### **\*Computer Science 105. Privacy and Technology**

Catalog Number: 9751 Enrollment: Limited to 30.

*James H. Waldo*



*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

What is privacy, and how is it affected by recent developments in technology? This course critically examines popular concepts of privacy and uses a rigorous analysis of technologies to understand the policy and ethical issues at play. Case studies: database anonymity, research ethics, wiretapping, surveillance, and others. Course relies on some technical material, but is open and accessible to all students, especially those with interest in economics, engineering, political science, computer science, sociology, biology, law, government, philosophy.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief.

### **Computer Science 109. Data Science**

Catalog Number: 70866

*Rafael A. Irizarry (Public Health) and Verena S. Kaynig-Fittkau*

*Half course (fall term). Tu., Th., 2:30–4, and a weekly section. EXAM GROUP: 14*

Learning from data in order to gain useful predictions and insights. This course introduces methods for five key facets of an investigation: data wrangling, cleaning, and sampling to get a suitable data set; data management to be able to access big data quickly and reliably; exploratory data analysis to generate hypotheses and intuition; prediction based on statistical methods such as regression and classification; and communication of results through visualization, stories, and interpretable summaries. Built around three modules: prediction and elections, recommendation and business analytics, and sampling and social network analysis.

*Note:* Only one of CS 109, AC 209, or Stat 121 can be taken for credit. Only admitted graduate students can take AC 209, in which case we expect significant differences in readings, assignments, and projects.

*Prerequisite:* Programming knowledge at the level of CS 50 or above, and statistics knowledge at the level of Stat 100 or above (Stat 110 recommended).

### **Computer Science 121. Introduction to the Theory of Computation**

Catalog Number: 0669

*Harry R. Lewis*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

General introduction to the theory of computation, teaching how to reason precisely about computation and prove mathematical theorems about its capabilities and limitations. Finite automata, Turing machines, formal languages, computability, uncomputability, computational complexity, and the P vs. NP question.

*Note:* Students may not receive credit for both CS 121 and CS 125.

*Prerequisite:* experience in formal mathematics at the level of Computer Science 20.

### **Computer Science 124. Data Structures and Algorithms**

Catalog Number: 5207

*Jelani Nelson*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Design and analysis of efficient algorithms and data structures. Algorithm design methods, graph algorithms, approximation algorithms, and randomized algorithms are covered.

*Note:* Starting in the spring of 2013, Computer Science 124 will assume background from Computer Science 20. Students will not receive credit for both CS 124 and CS 125.



*Prerequisite:* Computer Science 50 or equivalent; Computer Science 51 is helpful. Some exposure to discrete applied mathematics, such as Applied Mathematics 106 or 107 or Computer Science 121 or Statistics 110, is also helpful.

### **Computer Science 125. Algorithms and Complexity - (New Course)**

Catalog Number: 35335

*Michael D. Mitzenmacher and Salil P. Vadhan*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

An accelerated introduction to theoretical computer science for students with strong mathematical preparation, to be taken in place of both Computer Science 121 and 124. Algorithm design methods, including graph algorithms, approximation algorithms, and randomized algorithms. Models of computation, computability theory, and computational complexity, including the P vs. NP question.

*Note:* Students may not receive credit for both CS 125 and either CS 121 or CS 124.

*Prerequisite:* Comfort with reading and writing mathematical proofs, at the level of Math 25 or 55 (which may be taken concurrently).

### **[Computer Science 127. Introduction to Cryptography]**

Catalog Number: 23635

*Instructor to be determined*

*Half course (fall term). Tu., Th., 10–11:30.*

Algorithms to guarantee privacy and authenticity of data during communication and computation. 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, zero-knowledge proofs, fully homomorphic encryption, and the role of cryptography in network and systems security.

*Prerequisite:* Computer Science 121 or Computer Science 124.

### **Computer Science 141. Computing Hardware**

Catalog Number: 4357

*David M. Brooks*

*Half course (fall term). M., W., 1-2:30, and a two-hour weekly laboratory. EXAM GROUP: 1*  
 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:* Programming experience required.

### **Computer Science 143. Computer Networks**

Catalog Number: 6401

*H. T. Kung*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

Networking has enabled the emergence of mobile and cloud computing, creating the most important technological paradigm shift in computing of the past decade. Further advancements in networking are expected to similarly transform the technological landscape over the next decade through the emergence of the Internet of Things and gigabit wireless networks. In order to play a role in this era of new network-powered advancements, students must have a thorough



understanding of emerging networking topics. Rather than teaching the basic networking protocols, which have become very mature and can be treated as a black box, in CS 143, we will teach the new issues and topics of interest which will power important emerging applications. This focus on upcoming applications is the motivation for CS 143 this semester. The class will be organized into the following nine modules: Basic Networking Concepts: Protocol Layering; Internet of Things: All-service Bluetooth Low Energy (BLE); Data Center Networking: Software Defined Networking; Web-scale Networking: Distributed Cloud Computing and Virtual Machine Migration; Content Networks: Video Streaming; Network Security: Defense Against Protocol Exploitation; Wireless Networking: Wireless Mesh, Geographic Routing; Machine Learning Assisted Networking: End-to-end Application Adaptive Protocols; Cyber-physical Networks: Vehicular Networking. Students will have the opportunity to implement the concepts learned in the course through programming assignments, read and discuss the latest networking literature, and design and implement a final project.

*Prerequisite:* Strong interest in the subject matter and programming experience (CS50 should be fine). Lab sessions will be provided to give extra support.

### [Computer Science 144r. Networks Design Projects]

Catalog Number: 5415

*Instructor to be determined*

*Half course (spring term). M., W., 2:30–4.*

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: 99684

*David M. Brooks*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

Review of the fundamental structures in modern processor design. Topics include computer organization, memory system design, pipelining, and other techniques to exploit parallelism. Emphasis on a quantitative evaluation of design alternatives and an understanding of timing issues.

*Prerequisite:* Computer Science 141.

### [\*Computer Science 148. Design of VLSI Circuits and Systems]

Catalog Number: 1772 Enrollment: Limited to 16.

*Instructor to be determined*

*Half course (spring term). Tu., Th., 11:30–1.*

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. Programming Languages**

Catalog Number: 6841

*Stephen N. Chong*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 11*

Comprehensive introduction to the principal features and overall design of both traditional and modern programming languages, including syntax, formal semantics, abstraction mechanisms, modularity, type systems, naming, polymorphism, closures, continuations, and concurrency. Provides the intellectual tools needed to design, evaluate, choose, and use programming languages.

*Prerequisite:* Computer Science 51; Computer Science 121 is recommended. Students must have good programming skills, be comfortable with recursion, basic mathematical ideas and notations.

### **[Computer Science 153. Compilers]**

Catalog Number: 2842

*Instructor to be determined*

*Half course (fall term). M., W., F., at 11.*

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 or 61.

### **Computer Science 161. Operating Systems**

Catalog Number: 4347

*Margo I. Seltzer*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

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 and 61.

### **[Computer Science 164. Software Engineering]**

Catalog Number: 7295

*Instructor to be determined*

*Half course (spring term). M., W., 2:30–4:30.*

Introduction to principles of software engineering and best practices, including code reviews, source control, and unit tests. Topics include Ajax, database schemas, event handling, HTTP, MVC, object-oriented design, and user experience. Projects include web apps with front-end UIs



(mobile and desktop) and back-end APIs. Languages include JavaScript and PHP.

*Note:* Students will work on projects in groups. Enrollment may be limited. In 2014, this course will focus on the design and implementation of web apps.

*Prerequisite:* Any four CS courses numbered 50 or higher (or, with instructor's permission, multiple years of programming experience).

### [Computer Science 165. Data Systems]

Catalog Number: 0560

*Instructor to be determined*

*Half course (spring term). M., W., 1–2:30.*

We are in the big data era and data systems sit in the critical path of everything we do, i.e., in businesses, in sciences, as well as in everyday life. This course will be a comprehensive introduction to modern data systems. The primary focus of the course will be on modern trends that are shaping the data management industry right now such as column-store and hybrid systems, shared nothing architectures, cache conscious algorithms, hardware/software codesign, main memory systems, adaptive indexing, stream processing, scientific data management, and key value stores. We will also study the history of data systems and traditional and seminal concepts and ideas such as the relational model, row-store database systems, optimization, indexing, concurrency control, recovery and SQL in order to understand both how data systems have evolved over the years and why, as well as how these concepts apply today and how data systems might evolve in the future.

*Prerequisite:* Computer Science 51 and Computer Science 61.

### Computer Science 171. Visualization

Catalog Number: 8877

*Alexander Lex*

*Half course (spring term). Tu., Th., 2:30–4, and a weekly section to be arranged. EXAM*

*GROUP: 11*

An introduction to key design principles and techniques for visualizing data. Covers design practices, data and image models, visual perception, interaction principles, visualization tools, and applications. Introduces programming of web-based interactive visualizations.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Students are expected to have basic programming experience (e.g., Computer Science 50).

### Computer Science 175. Computer Graphics

Catalog Number: 3771

*Steven J. Gortler*

*Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7*

This course covers the fundamentals of 3D computer graphics using a modern shader-based version of OpenGL. Main topics include: geometric coordinate systems and transformations, keyframe animation and interpolation, camera simulation, triangle rasterization, material simulation, texture mapping, image sampling and color theory. The course also touches on ray tracing, geometric modeling and simulation-based animation.

*Prerequisite:* Computer Science 51, Applied Mathematics 21b or Mathematics 21b.



### **\*Computer Science 179. Design of Usable Interactive Systems**

Catalog Number: 4052 Enrollment: Limited to 48.

*Krzysztof Z. Gajos*

*Half course (spring term). M., W., 11:30–1. EXAM GROUP: 14*

Usability and design as keys to successful technology. Covers user observation techniques, needs assessment, low and high fidelity prototyping, usability testing methods, as well as theory of human perception and performance, and design best practices. Focuses on understanding and applying the lessons of human interaction to the design of usable systems; will also look at lessons to be learned from less usable systems. The course includes several small and one large project.

### **Computer Science 181. Machine Learning**

Catalog Number: 6454

*Ryan Prescott Adams*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

Introduction to machine learning, providing a probabilistic view on artificial intelligence and reasoning under uncertainty. Topics include: supervised learning, ensemble methods and boosting, neural networks, support vector machines, kernel methods, clustering and unsupervised learning, maximum likelihood, graphical models, hidden Markov models, inference methods, and computational learning theory. Students should feel comfortable with multivariate calculus, linear algebra, probability theory, and complexity theory. Students will be required to produce non-trivial programs in Python.

*Prerequisite:* Computer Science 51, Computer Science 121, Statistics 110, Math 21a and 21b (or equivalent).

### **Computer Science 182. Intelligent Machines: Reasoning, Actions, and Plans**

Catalog Number: 0134

*Barbara J. Grosz*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

Introduction to AI focused on problems in reasoning about action and rational decision making, covering search, knowledge representation and planning. Search: heuristics, informed search and optimization; constraint satisfaction; game playing. Knowledge representation: logics, efficient logical inference, reasoning about categories. Planning: action representations and planning algorithms, hierarchical task networks, sequential decision making. Applications to multi-agent systems, robotics and natural-language processing. Discussion of relevant work in philosophy, economics, and decision theory.

*Prerequisite:* Computer Science 51; Computer Science 121 (may be taken concurrently).

### **Computer Science 186. Economics and Computation**

Catalog Number: 87282

*David C. Parkes*

*Half course (spring term). M., W., 11:30–1. EXAM GROUP: 14*

The interplay between economic thinking and computational thinking as it relates to electronic commerce, social networks, collective intelligence and networked systems. Topics covered include: game theory, peer production, reputation and recommender systems, prediction markets, crowd sourcing, network influence and dynamics, auctions and mechanisms, privacy and



security, matching and allocation problems, computational social choice and behavioral game theory. Emphasis will be given to core methodologies, with students engaged in theoretical, computational and empirical exercises.

*Prerequisite:* Applied Math 21b, Computer Science 51 or equivalent, Statistics 110, and one of Computer Science 181, Computer Science 182, Economics 1011a, Economics 1052, or Economics 1056.

### **Computer Science 187. Computational Linguistics**

Catalog Number: 0249

*Stuart M. Shieber*

*Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7*

Watson is the world Jeopardy champion. Siri responds accurately to "Should I bring an umbrella tomorrow?". How do they work? This course provides an introduction to the field of 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 such as those deployed in Watson and Siri, and covers pertinent ideas from linguistics, logic programming, and statistical modeling. The course will include an experimental practicum component covering skills in technical writing and editing that should be of general use as well.

*Prerequisite:* Computer Science 51 and Computer Science 121 or permission of the instructor.

### **\*Computer Science 189r. Autonomous Multi-Robot Systems**

Catalog Number: 36932 Enrollment: Limited to 15.

*Radhika Nagpal*

*Half course (fall term). F., 1–4. EXAM GROUP: 1*

Building autonomous robotic systems requires understanding how to make robots that observe, reason, and act. Each component uses many engineering principles: how to fuse, multiple, noisy sensors; how to balance short-term versus long-term goals; how to control one's actions and how to coordinate with others. This year, we will study these questions in the context of a project to develop autonomous robot soccer teams. The class format will mix seminar and lab formats.

*Note:* Preference will be given to students with experience in AI (e.g. CS181 or CS182 and/or robotics ES159).

*Primarily for Graduates*

### **Computer Science 205. Computing Foundations for Computational Science**

Catalog Number: 85368

*H. T. Kung*

*Half course (spring term). M., W., 2:30–4 pm, and a weekly section to be arranged. EXAM GROUP: 18*

An applications course highlighting the use of computers in solving scientific problems. Students will be exposed to fundamental computer science concepts such as computer architectures, data structures, algorithms, and parallel computing. Fundamentals of scientific computing including abstract thinking, algorithmic development, and assessment of computational approaches. Students will learn to use open source tools and libraries and apply them to data analysis, modeling, and visualization of real scientific problems. Emphasizes parallel programming and "parallel thinking."



*Prerequisite:* Students are expected to have basic programming experience (e.g., Computer Science 50).

### **Computer Science 207. Systems Development for Computational Science**

Catalog Number: 33846

*Christopher R. Cecka and Ray Jones*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 18*

This is a project-based course emphasizing designing, building, testing, maintaining and modifying software for scientific computing. Students will work in groups on a number of projects, ranging from small data-transformation utilities to large-scale systems. Students will learn to use a variety of tools and languages, as well as various techniques for organizing teams. Most important, students will learn to fit tools and approaches to the problem being solved.

*Prerequisite:* Students are expected to have basic programming experience (Computer Science 50).

### **[Computer Science 221. Computational Complexity]**

Catalog Number: 5812

*Instructor to be determined*

*Half course (spring term). Tu., Th., 10–11:30.*

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.

*Prerequisite:* Computer Science 121 or equivalent.

### **[Computer Science 222. Algorithms at the Ends of the Wire]**

Catalog Number: 2493

*Instructor to be determined*

*Half course (fall term). Tu., Th., 11:30–1.*

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.

*Prerequisite:* Computer Science 124.

### **Computer Science 223. Probabilistic Analysis and Algorithms**

Catalog Number: 4740

*Michael D. Mitzenmacher*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

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 224 (formerly Computer Science 226). Advanced Algorithms - (New Course)**

Catalog Number: 32918



*Jelani Nelson*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

Advanced algorithm design, including but not limited to amortization, randomization, online algorithms, graph algorithms, approximation algorithms, linear programming, and data structures.

*Prerequisite:* CS 124 and probability.

### **Computer Science 225. Pseudorandomness**

Catalog Number: 4869

*Salil P. Vadhan*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

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.

*Prerequisite:* Exposure to randomized algorithms (as in Computer Science 124 or 125), computational complexity (as in Computer Science 121 or 125), and algebra (as in Applied Mathematics 106 or Mathematics 123).

### **Computer Science 227r (formerly Computer Science 220r). Topics in Cryptography and Privacy**

Catalog Number: 1637

*Kobbi Nissim and Or Sheffet*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Topics in cryptography and data privacy drawn from the theoretical computer science research literature. Focus for 2014-15: Differential Privacy -- a mathematical framework for privacy-preserving analysis of datasets, which enables aggregate computations while preventing the leakage of individual-level information.

*Prerequisite:* Computer Science 124, 125, or 127.

### **[Computer Science 228. Computational Learning Theory]**

Catalog Number: 0364

*Instructor to be determined*

*Half course (spring term). Tu., Th., 2:30–4.*

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. Applications to Boolean functions, automata and geometric functions.

*Prerequisite:* Computer Science 121 or equivalent.

### **Computer Science 229r. Topics in the Theory of Computation: Biology and Complexity**

Catalog Number: 3730

*Leslie G. Valiant*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Biology abounds with step by step processes, whether in evolution, neural activity, development, or protein circuits. In many of these neither the actual steps taken nor the outcomes are well understood. Computer science is the study of step by step processes and offers an approach to



understanding them as they occur in biology. Students will read, present, and critically evaluate research papers in this area.

*Prerequisite:* Computer Science 121 or equivalent.

### [Computer Science 244r. Networks Design Projects]

Catalog Number: 3018

*Instructor to be determined*

*Half course (spring term). M., W., 2:30–4.*

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 246. Advanced Computer Architecture

Catalog Number: 0979

*David M. Brooks*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

The contents and course requirements are similar to those of Computer Science 146, with the exception that students enrolled in Computer Science 246 are expected to undertake a substantial course project.

*Prerequisite:* Computer Science 141.

### [Computer Science 247r. Advanced Topics in Computer Architecture ]

Catalog Number: 48162

*Instructor to be determined*

*Half course (fall term). M., W., F., 10–11:30.*

Seminar course exploring recent research in computer architecture. Topics vary from year to year and will include subjects such as multi-core architectures, energy-efficient computing, reliable computing, and the interactions of these issues with system software. Students read and present research papers, undertake a research project.

*Prerequisite:* Computer Science 146 or 246 or permission of the instructor.

### [\*Computer Science 248. Advanced Design of VLSI Circuits and Systems]

Catalog Number: 7191 Enrollment: Limited to 16.

*Instructor to be determined*

*Half course (spring term). Tu., Th., 11:30–1.*

The contents and course requirements are similar to those of Computer Science 148, with the exception that students enrolled in Computer Science 248 are expected to do a substantial design project and paper discussions on advanced topics.

*Prerequisite:* Computer Science 141 or permission of instructor.

### Computer Science 250. Software Foundations - (New Course)

Catalog Number: 82359

*John G. Morrisett*



*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course introduces concepts and techniques in the foundational study of programming languages, as well as their formal logical underpinnings. The central theme is the view of programs and languages as formal mathematical objects about which precise claims may be made and proved. Particular topics include operational techniques for formal definition of language features, type systems, and program logics. The models and proofs are formalized using mechanical theorem provers.

*Prerequisite:* Computer Science 51

### **Computer Science 252r. Advanced Topics in Programming Languages**

Catalog Number: 1986

*Stephen N. Chong*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

Seminar course exploring recent research in programming languages. Topics vary from year to year. Students read and present research papers, undertake a research project.

*Prerequisite:* Computer Science 152 or permission of the instructor.

### **\*Computer Science 260r. Projects and Close Readings in Software Systems**

Catalog Number: 49684

*Edward W. Kohler*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

Modern software systems construction and analysis. Distributed systems; operating systems; networks; data centers; big data; emerging systems deployments. Close, careful reading of research papers and code, coupled with programming projects. Readability and programmability. Topic focus will change each offering. May be repeated for credit with instructor permission.

*Prerequisite:* Programming experience and instructor permission.

### **Computer Science 261. Research Topics in Operating Systems**

Catalog Number: 6706

*Margo I. Seltzer*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

An introduction to operating systems research. Paper-based seminar course that introduces students to the state of the art in systems research through historical and quantitative lenses. Students will read and discuss research papers and complete a final research project.

*Prerequisite:* Computer Science 161, or equivalent.

### **[Computer Science 262. Introduction to Distributed Computing]**

Catalog Number: 7949

*Instructor to be determined*

*Half course (spring term). Tu., Th., 2:30–4.*

An examination of the special problems associated with distributed computing such as partial failure, lack of global knowledge, asynchrony and coordination of time, and protocols that function in the face of these problems. Emphasis on both the theory that grounds thinking about these systems and in the ways to design and build such systems.

*Prerequisite:* Computer Science 161 or permission of instructor.



### **Computer Science 265 (formerly Database Systems). Big Data Systems**

Catalog Number: 2083

*Stratos Idreos*

*Half course (fall term). W., F., 1–2:30. EXAM GROUP: 1*

Big data is everywhere. A fundamental goal across numerous modern businesses and sciences is to be able to exploit as many machines as possible, to consume as much information as possible and as fast as possible. The big challenge is "how to turn data into useful knowledge". This is far from a simple task and a moving target as both the underlying hardware and our ability to collect data evolve. In this class, we will discuss how to design data systems and algorithms that can "scale up" and "scale out". Scale up refers to the ability to use a single machine to all its potential, i.e., to exploit properly the memory hierarchy and the multiple CPU and GPU cores. Scale out refers to the ability to use more than 1 machines (typically 100s or 1000s) effectively. This is a research oriented class. Every week we will read two modern research papers; one from the scale up area and one from the scale out area. We will use examples from several areas, including relational systems and distributed databases, graph processing systems (i.e., for social networks), key value stores, noSQL and newSQL systems as well as mobile computing. Each student will work on a semester long data systems research project (in groups of 2-4 students) which can be in any of the above areas and will be based on an open research problem.

*Prerequisite:* CS 165 or permission of instructor.

### **Computer Science 277. Geometric Modeling in Computer Graphics**

Catalog Number: 3067

*Steven J. Gortler*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

Advanced seminar in computer graphics focusing on geometric representations and processing. Topics include: subdivision surfaces, surface parametrization, vector fields over surfaces, shape editing, shape matching and surface reconstruction.

*Prerequisite:* Computer Science 175.

### **[Computer Science 278. Rendering and Image Processing in Computer Graphics]**

Catalog Number: 4883

*Instructor to be determined*

*Half course (spring term). Tu., Th., 1–2:30.*

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 279. Research Topics in Human-Computer Interaction**

Catalog Number: 1435

*Krzysztof Z. Gajos*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

The course covers major areas of inquiry and core research methods in Human-Computer Interaction including experimental design, statistical data analysis, and qualitative methods. Activities will include discussion of primary literature, a small number of lectures, assignments (design, execution and analysis of both lab-based and on-line experiments), and a research



project. Special focus this year is on social computing and crowd-powered systems. Specifically, we will look at the design and analysis of systems, in which crowds of intrinsically motivated volunteers contribute to meaningful and non-trivial human computation tasks as a byproduct of doing something that they are motivated to do anyway.

*Note:* Designed for first year grads from all areas. Advanced undergraduates welcome, particularly those who wish to do research (or write a thesis) in an area related to Human-Computer Interaction.

*Prerequisite:* None for graduate students; for undergrads CS 179 or CS 171 is strongly recommended and permission of the instructor is required. Basic web hacking is required to implement and deploy web-based experiments.

### **Computer Science 280r. Advanced Topics in Artificial Intelligence**

Catalog Number: 11199

*Barbara J. Grosz*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

Seminar course exploring research directions in artificial intelligence (AI), typically combining two or more of such areas as multi-agent systems, natural-language processing, machine learning, reasoning under uncertainty, representation systems. Topic for Spring 2015: Multi-agent systems teamwork and plan management.

*Prerequisite:* Computer Science 181 or 182, or equivalent; or permission of instructor.

### **[Computer Science 281. Advanced Machine Learning]**

Catalog Number: 97848 Enrollment: Limited to 60.

*Instructor to be determined*

*Half course (fall term). M., W., 1–2:30.*

Advanced statistical machine learning and probabilistic data analysis. Topics include: Markov chain Monte Carlo, variational inference, Bayesian nonparametrics, text topic modeling, unsupervised learning, dimensionality reduction and visualization. Requires a major final project.

*Prerequisite:* Students should feel comfortable with basic linear algebra and probability theory. Students will be expected to implement algorithms in a programming language such as Matlab, Python or R.

### **Computer Science 282r. Decision-Making Under Uncertainty - (New Course)**

Catalog Number: 90117

*Finale Doshi-Velez*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

The focus of the Spring 2015 course will be reinforcement learning, a framework for solving problems involving a sequence of decisions with uncertain outcomes. This course will cover the fundamental theory through readings of classic papers and build practical intuition through coding assignments. Topics will include Markov decision process and partially observable Markov decision processes, planning under uncertainty, model-free and model-based reinforcement learning, function approximation in reinforcement learning, and batch reinforcement learning.

*Prerequisite:* Students should be familiar with basic linear algebra, probability, and algorithms;



courses such as Stat 110, AM 21b, and CS 124 may be helpful. Students will be expected to implement algorithms in programming languages such as Matlab, Python, and Java (e.g. CS 51).

### Computer Science 283. Computer Vision

Catalog Number: 4475

*Todd Zickler*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Vision as an ill-posed inverse problem: image formation, two-dimensional signal processing; feature analysis; image segmentation; color, texture, and shading; multiple-view geometry; object and scene recognition; and applications.

*Note:* Offered jointly with the Design School as SCI-06275.

### Computer Science 284r. Topics on Computation in Networks and Crowds

Catalog Number: 74473

*Yaron Singer*

*Half course (fall term). M., W., 10–11:30. EXAM GROUP: 5*

Topics on the design and analysis of algorithms, processes, and systems related to crowds and social networks. Readings in AI, theoretical CS, machine learning, social science theory, economic theory, and operations research.

*Prerequisite:* Mathematics 21b, Applied Mathematics 21b, or equivalent; Computer Science 124, and 181 or 182, or equivalents; or permission of instructor.

### [Computer Science 285. Multi-Agent Systems]

Catalog Number: 1060

*Instructor to be determined*

*Half course (fall term). M., W., 11:30–1.*

Algorithmic, game-theoretic and logical foundations of multi-agent systems, including distributed optimization and problem solving, non-cooperative game theory, learning and teaching, communication, social choice, mechanism design, auctions, negotiation, coalitional game theory, logics of knowledge and belief, collaborative plans and social systems.

*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.

*Instructor to be determined*

*Half course (spring term). F., 9–12.*

Interplay between computation and economics. Topics in electronic commerce, computational social choice, computational mechanism design, peer production, prediction markets and reputation systems. Readings in AI, theoretical CS, multi-agent systems, economic theory, and operations research.

*Prerequisite:* Mathematics 21b, Applied Mathematics 21b, or equivalent; Economics 1011a, or equivalent; or permission of instructor.

### Computer Science 287r. Topics in Computational Linguistics and Natural Language Processing



Catalog Number: 3306

*Stuart M. Shieber*

*Half course (spring term). M., F., 3–5. EXAM GROUP: 17*

In-depth investigation of topics in computational linguistics and natural-language processing. Students discuss research papers and undertake a significant research project. This term, the course will focus on synchronous grammars and their use for formal modeling of the semantics of natural language, including background on Montague grammar, pertinent logic, lambda calculus, applications to machine translation and other language-processing problems.

*Note:* The course is being offered jointly with the linguistics program as Linguistics 287, with computationally-oriented final projects. Students may not take both Computer Science 287r and Linguistics 287 for credit.

*Prerequisite:* Computer Science 187 or Linguistics 116 or permission of instructor.

### **[Computer Science 288r. Advanced Topics in Computer Vision]**

Catalog Number: 62802

*Instructor to be determined*

*Half course (spring term). Tu., Th., 11:30–1.*

Seminar course exploring recent research in computer vision. Topics vary from year to year, typically including object recognition; activity recognition; and visual surveillance. Students read and present research papers and undertake a research project.

*Prerequisite:* Applied Math 21b or equivalent; Statistics 110 or equivalent; or permission of the instructor.

### **\*Computer Science 289 (formerly \*Computer Science 266). Biologically-inspired Multi-agent Systems**

Catalog Number: 0766 Enrollment: Limited to 20.

*Radhika Nagpal*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

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:* Experience with algorithms (e.g. Computer Science 124) and programming (e.g. Computer Science 51).

### **Computer Science 299r. Special Topics in Computer Science**

Catalog Number: 4592

*David C. Parkes*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 10*

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 School of Engineering and Applied Sciences. 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 303,304. Statistical Machine Learning**

Catalog Number: 46531,61638

*Ryan Prescott Adams 3022*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

#### **\*Computer Science 305,306. Readable, Extensible, High-Performance Software Systems**

Catalog Number: 15739,17423

*Edward W. Kohler 1996*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

#### **\*Computer Science 307,308. Biologically-Inspired Multi-Agent Systems, Distributed Systems, and Computational Biology**

Catalog Number: 8289,8308

*Radhika Nagpal 5068*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

#### **\*Computer Science 309,310. Computational Mechanism Design, Electronic Marketplaces, and Multi-Agent Systems**

Catalog Number: 8764,0931

*David C. Parkes 4202*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

#### **\*Computer Science 311,312. Collaborative Systems, AI Planning, and Natural Language Processing**

Catalog Number: 4677,6223

*Barbara J. Grosz 1599*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

#### **\*Computer Science 313,314. Visual Computing**

Catalog Number: 4273,1628

*Hanspeter Pfister 5882 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

#### **\*Computer Science 315,316. Social Computing: Computation and Economics**

Catalog Number: 2892,2433

*Yiling Chen 6187*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Computer Science 319,320. Data Systems Design - (New Course)**

Catalog Number: 13059,92828

*Stratos Idreos 7489**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Computer Science 321,322. Databases, Operating System, and Software Design**

Catalog Number: 4085,4086

*Margo I. Seltzer 3371**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Computer Science 323,324. Human-Computer Communication through Natural, Graphical, and Artificial Languages**

Catalog Number: 2450,2453

*Stuart M. Shieber 2456**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Computer Science 325,326. Intelligent Interactive Systems and Human-Computer**

Catalog Number: 15849,82478

*Krzysztof Z. Gajos 6339**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Computer Science 327,328. Mathematical Logic, Theory of Computation**

Catalog Number: 1160,3576

*Harry R. Lewis 4455**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Computer Science 343,344. Computer Architecture: Modeling and Design**

Catalog Number: 3932,9266

*David M. Brooks 4222**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Computer Science 345,346. High-Performance Computer Systems**

Catalog Number: 6154,6156

*Michael D. Smith 3372**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Computer Science 347,348. Computer Vision**

Catalog Number: 1882,8831

*Todd Zickler 5143**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Computer Science 351,352. Cryptography: Unbreakable Codes and Financial Cryptography**

Catalog Number: 0218,0255

*Michael O. Rabin 7003**Half course (fall term; repeated spring term). . EXAM GROUP: 10*



**\*Computer Science 355,356. Computational Complexity, Parallel Computation, Computational Learning, Neural Computation**

Catalog Number: 0345,0346

*Leslie G. Valiant* 7396

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Computer Science 357,358. Computational Complexity, Cryptography, and Pseudorandomness**

Catalog Number: 3485,8641

*Salil P. Vadhan* 3833

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Computer Science 359,360. On-line Algorithms and Randomized Algorithms**

Catalog Number: 2104,1477

*Michael D. Mitzenmacher* 7748

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Computer Science 361,362. Programming Languages and Semantics**

Catalog Number: 8672,8366

*John G. Morrisett* 4853

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Computer Science 363,364. Programming Languages and Security**

Catalog Number: 52264,67371

*Stephen N. Chong* 6340

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Computer Science 365. SEAS Teaching Practicum**

Catalog Number: 8195

*John A. Girash* 6894

*Half course (spring term). Tu., 2:30–4:30. EXAM GROUP: 16*

Gain effective skills for teaching applied sciences. Topics: presentation and communication, grading and giving feedback on assignments, cognition and learning, classroom practice and student interactions. Seminar style with an emphasis on observation, practice, feedback, discussion, and reflection.

**\*Computer Science 375,376. Computer Graphics**

Catalog Number: 6832,7313

*Steven J. Gortler* 2824

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Computer Science 377,378. Sketching Algorithms for Massive Data**

Catalog Number: 11014,73819

*Jelani Nelson* 7260

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*



**\*Computer Science 379,380. Algorithms for Social Data**

Catalog Number: 37287,20798

*Yaron Singer 7269*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

***Cross-listed Courses***

**Linguistics 287. Topics in Computational Linguistics and Natural Language Processing - (New Course)**

**MCB 131. Computational Neuroscience**

**Statistics 221. Statistical Computing and Learning**

**\*Statistics 385 (formerly \*Statistics 285r). Statistical Machine Learning**

## Dramatic Arts

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

***Faculty of the Committee on Dramatics***

Martin Puchner, Byron and Anita Wien Professor of Drama and of English and Comparative Literature (*Chair*)

Daniel Albright, Ernest Bernbaum Professor of Literature

Robin M. Bernstein, Professor of African and African American Studies and of Women, Gender and Sexuality (*on leave 2014-15*)

Sara L. Brown, Lecturer on Dramatic Arts

Julie A. Buckler, Professor of Slavic Languages and Literatures and of Comparative Literature, Harvard College Professor, and Director of the Humanities Program at the Radcliffe Institute for Advanced Studies

Glenda R. Carpio, Professor of English and of African and African American Studies

Deborah D. Foster, Senior Lecturer on Folklore and Mythology

Marjorie Garber, William R. Kenan, Jr. Professor of English and of Visual and Environmental Studies

Sylvaine Guyot, Roy G. Clouse Associate Professor of Romance Languages and Literatures (*on leave 2014-15*)

Jill Johnson, Senior Lecturer on Music and Director of Dance

Daria Khitrova, Assistant Professor of Slavic Languages and Literatures

Ju Yon Kim, Assistant Professor of English

David Marcel Levine, Visiting Professor of Dramatic Arts

Ryan Scott McKittrick, Lecturer on Dramatics Arts and Director of Artistic Programs/Dramaturg



of the American Repertory Theater

John C. Megan, Director of the Office for the Arts (*ex officio*)

Derek K. Miller, Assistant Professor of English

Carol J. Oja, William Powell Mason Professor of Music

Diane Paulus, Artistic Director of the American Repertory Theater (*ex officio*)

Elaine Scarry, Walter M. Cabot Professor of Aesthetics and the General Theory of Value,  
Harvard College Professor

Sydney Skybetter, Lecturer on Dramatic Arts

Marcus Stern, Associate Director of the American Repertory Theater (*ex officio*)

Scott Zigler, Lecturer on Dramatic Arts and Director of the American Repertory Theater Institute  
for Advanced Theater Training

### ***Other Faculty Offering Instruction in Dramatics***

Remo Francisco Airaldi, Lecturer on Dramatic Arts

César Alvarez, Visiting Lecturer on Dramatic Arts

Erika Bailey, Lecturer on Dramatic Arts (*American Repertory Theatre*)

Claire A. Conceison, Visiting Professor of Dramatic Arts

Thomas Derrah, Lecturer on Dramatic Arts

Karen L. MacDonald, Lecturer on Dramatic Arts

Shira Milikowsky, Lecturer on Dramatic Arts

Martin Puchner, Byron and Anita Wien Professor of Drama and of English and Comparative  
Literature

Sydney Skybetter, Lecturer on Dramatic Arts

Julia Smeliansky, Lecturer on Dramatic Arts, Administrative Director, Institute for Advanced  
Theatre Training, and Director, International Programs in the American Repertory Theatre

### ***For Undergraduates and Graduates***

#### **[Dramatic Arts 101. Introduction to Theatre]**

Catalog Number: 0845

*Scott Zigler*

*Half course (fall term). F., 10–12; Tu., at 3.*

An introduction and overview of the major creative elements in professional theater including:  
acting, directing, playwriting, and designing. Special attention given to productions by the  
American Repertory Theater (A.R.T.), the A.R.T. Institute and other productions in the Boston  
area. Students have the opportunity to attend and analyze at least five different productions and  
to engage in creative work throughout the term. Additionally, theater professionals from the  
A.R.T. give guest lectures in their areas of expertise.

*Note:* Expected to be given in 2015–16.

#### **\*Dramatic Arts 105. Production Dramaturgy: A.R.T. 2014-15 Season and Civil War Project**

Catalog Number: 7592 Enrollment: Limited to 12.

*Ryan Scott McKittrick*

*Half course (spring term). W., 1:10–3. EXAM GROUP: 8*



In this course, students will learn about the roles and responsibilities of a dramaturg in the rehearsal room and in a theater company. Focusing on productions in the American Repertory Theater's 2014-15 season and specifically on the A.R.T.'s Civil War Project, students will study and evaluate scripts and performances on the A.R.T. stages, and participate in developmental workshops and readings. By exploring performance histories, translations, and dramatic structures of plays and musicals, students will learn about the steps a dramaturg takes to prepare for a production. In addition, students will read and evaluate new scripts submitted to the A.R.T. and the A.R.T. Institute. Students will also use the Harvard Theater Collection to research a play, opera, or musical of his or her choice and write an essay analyzing the production history.

### **\*Dramatic Arts 110. Beginning Acting**

Catalog Number: 3321 Enrollment: Limited to 20.

*Thomas Derrah*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

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 with an ongoing emphasis in improvisation. 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 determined by audition. Students will audition for the course with a short improvisation described by the professor at the first class meeting.

### **[\*Dramatic Arts 110a. Acting Lab: The Fusion of Intellect and Imagination for the Stage]**

Catalog Number: 35526 Enrollment: Limited to 20.

*Thomas Derrah*

*Half course (fall term). Hours to be arranged.*

Following guidelines without a prescribed text, students will work on physical and vocal invention, exploring the many ways and styles in which dynamic and compelling stories can be told. In this course, we will aim to heighten imagination and observation, build confidence, and enhance extemporaneous speech and thought through exercises, exploring impulses, and imaginative courage. Techniques used will include both individual and group activities, Grotowski exercises, mask work, and classical commedia dell'arte.

*Note:* Expected to be given in 2015–16. Enrollment determined by audition. Students will audition for the course with a short improvisation described by the professor at the first class meeting.

### **Dramatic Arts 111. Acting: 20th Century Texts**

Catalog Number: 9738

*Remo Francisco Airaldi*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

An expansion of basic acting techniques, with an emphasis on the actor's work done during rehearsal: creating a character, building a role and finding one's own way of preparing for and making the most of rehearsal time. Actors will use exercises and improvs to help explore character and sharpen instincts, and do monologue and scene work using contemporary texts, both comic and dramatic.

*Note:* Enrollment determined by audition.



### **[\*Dramatic Arts 112r. Advanced Acting: 20th-Century Texts]**

Catalog Number: 8011

*Marcus Stern*

*Half course (fall term). Hours to be arranged.*

For actors interested in working in television, film and theater, this is a course of advanced acting techniques using 20th-century dramatic texts for scene work. The emphasis is on action based acting and the creation of an acting process that is specifically tailored to the individual actor. Includes character work -- making physical and vocal changes. Emphasis also on learning how to audition better, includes helping actors assemble a group of working monologues to use in auditions.

*Note:* Expected to be given in 2015–16. Enrollment determined by audition on the first day of class.

### **\*Dramatic Arts 114. Practical Aesthetics**

Catalog Number: 8994 Enrollment: Limited to 16.

*Scott Zigler*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Practical Aesthetics Acting Technique was developed by playwright David Mamet and actor William H. Macy, based on the work of the American acting teacher Sanford Meisner and the Russian acting teacher Konstantin Stanislavski. In this course, students will focus on rigorous text analysis combined with emphasis on enhancing the actor's spontaneity through training in Meisner's "Repetition Exercise." Students will do scene work drawn from a wide selection of plays.

*Note:* Enrollment will be determined by lottery at the first class meeting.

*Prerequisite:* Dramatic Arts course in Acting, previous study in Practical Aesthetics, or extensive undergraduate performance experience.

### **\*Dramatic Arts 115. Acting Shakespeare**

Catalog Number: 6659 Enrollment: Limited to 14. Enrollment will be determined by an audition during the first class meeting.

*Remo Francisco Airaldi*

*Half course (fall term). M., 1–3. EXAM GROUP: 1*

This course is an intensive study of Shakespeare's dramatic works from the point of view of the actor. It is important to remember that Shakespeare's verse dramas were written to be performed and that only when they are approached this way—as playable, theatrical texts—that they have their maximum impact. Through text analysis, scene study, vocal work, and acting exercises we attempt to find, not only the meaning, but the music and theatrical power of Shakespeare's words.

### **\*Dramatic Arts 116. Acting Workshop: Comedy**

Catalog Number: 9926 Enrollment: Limited to 16.

*Scott Zigler*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

A course developing the actor's approach to and playing of comedy and humor. The class will focus on marrying comedy's need for technical precision with a truthful and spontaneous approach to acting based on the methodology of Konstantin Stanislavski. Specific comic skills



studied will include timing, focus, choreography, and the mechanics of how a joke builds from set up to punchline. Acting skills will focus on moment to moment pursuit of objective and creation of character. Styles of comedy will include farce, drawing room/comedy of manners and contemporary comic playwriting such as David Lindsay-Abaire, Nicky Silver, Christopher Durang and Sarah Ruhl.

*Note:* Enrollment determined by audition on the first day of class. Students are asked to prepare a 30 second comic monologue, classical or contemporary, for the audition.

### **\*Dramatic Arts 117. Acting Chekhov**

Catalog Number: 1465 Enrollment: Limited to 14.

*Remo Francisco Airaldi*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

An exploration of Chekhov's plays from an actor's point of view in order to develop a practical approach to any dramatic text. We will balance the use of analytical skills - playable actions, active verbs, subtext and beats - with the need to free the actor's creative imagination, through exercises and improvisations. A variety of acting techniques will be used in scene work from the plays, including the techniques of Stanislavski, Michael Chekhov, Strasberg, Adler and Meisner as well as non-text-based approaches.

*Note:* Enrollment determined by audition. Each student will be asked to read a selection from one of Chekhov's plays. No memorization required.

### **[\*Dramatic Arts 118. Acting Alone: The Monologue]**

Catalog Number: 18309 Enrollment: Limited to 14. Enrollment determined by audition on the first day of class.

*Remo Francisco Airaldi*

*Half course (spring term). M., 1–3.*

The analysis, rehearsal and performance of theatrical monologues. The ability to work on a monologue, whether in the context of a play or as an audition piece, is a foundational skill for all actors. Students will begin with work on classical monologues and then move on to contemporary material. We will study specific techniques to help students "act alone" creatively, honestly and spontaneously. In the later part of the course, students will have an opportunity to work on on-camera monologues and develop specific skills for acting and auditioning in that medium. Students will also learn how to choose, prepare and perform a monologue under the particular pressures of an audition.

*Note:* Expected to be given in 2015–16.

### **\*Dramatic Arts 119. Vocal Production for the Stage**

Catalog Number: 8900 Enrollment: Limited to 18. Enrollment determined by interview.

*Erika Bailey (American Repertory Theatre)*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

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 techniques of speaking training, students learn not only how to use the voice, but how these various approaches to voice training correspond to specific performance challenges.



### [Dramatic Arts 120. Introduction to Choreography]

Catalog Number: 2983

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

This introductory choreography course utilizes movement exploration to tap into the participant's aesthetic and interpretive skills as they are challenged to make dances. Explorations into the use of time, weight and space inform their creative process. Through a combination of readings, writings, discussions, videos and dance improvisation, the course focuses on how movement choices develop dances that are kinesthetic, dramatic, and artistic for both the performer and the audience. No previous dance experience necessary.

*Note:* Expected to be given in 2015–16. Enrollment determined by interview during the first week of class.

### **\*Dramatic Arts 130r. Directing**

Catalog Number: 8160 Enrollment: Limited to 9.

*Marcus Stern*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

A directing class for directors interested in theater, television and film, as well as for actors, dramaturgs, and designers investigating all aspects of theater. The class accommodates beginning to advanced levels of work. Students may bring in video or film scenes as part of the class work. Through constant scene work the course examines the directorial tools of text analysis, staging, design, and working with actors. The focus is on how to tell a story clearly and effectively.

*Note:* Enrollment determined by short interviews to be conducted on the first day of class.

### **\*Dramatic Arts 131. Directing Lab**

Catalog Number: 50633 Enrollment: Limited to 12. Enrollment determined by short interview to be conducted on the first day of class.

*Shira Milikowsky*

*Half course (spring term). M., 3–6. EXAM GROUP: 17*

This class is designed for students interested in expanding their understanding of directing for theater. The course will focus on the work of American experimental theater artists from the 1960's to the present, examining the various ways avant-garde directors and ensembles have experimented with form to seek out radical new modes of storytelling. Students will create work inspired by the artists and productions studied, applying theory to practice in rehearsals and presentations.

### [Dramatic Arts 132. Directing Contemporary Drama]

Catalog Number: 84938

*Diane Paulus and Marcus Stern*

*Half course (fall term). Tu., 4–6.*

A great opportunity for undergraduate directors to explore the musical Pippin with A.R.T.'s Artistic Director Diane Paulus as she develops the professional A.R.T. production for the Loeb Drama Center mainstage, as well as the chance to learn vivid directorial story-telling techniques from resident A.R.T. director Marcus Stern. The class will consist of a unit of core directing tools in the context of contemporary drama, and will culminate with student presentations of



excerpts from Pippin.

*Note:* Expected to be given in 2015–16.

**[\*Dramatic Arts 133. Directing Film: Telling the Story and Working with Actors]**

Catalog Number: 83976 Enrollment: Limited to 10.

*Alfred F. Guzzetti and Marcus Stern*

*Half course (spring term). M., W., 10–1.*

Students will build scenes based on observed incidents, act and direct them, then, using high-definition video, record and edit them. The course will include study of scenes in film and instruction in the techniques of directing, working with actors, and video production. Emphasis will be placed on clarity of storytelling, eliciting performances from actors, and visceral impact of the filmed events.

*Note:* Expected to be given in 2015–16.

**[\*Dramatic Arts 135. Design for the Theatre: History and Practice]**

Catalog Number: 9503 Enrollment: Limited to 12.

*Instructor to be determined*

*Half course (fall term). Tu., Th., 1–2:30.*

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. No previous experience in design or art necessary.

*Note:* Expected to be given in 2015–16.

**\*Dramatic Arts 136. Scenography Studio**

Catalog Number: 1116 Enrollment: Limited to 12.

*Sara Brown (Massachusetts Institute of Technology)*

*Half course (spring term). Tu., 12–2. EXAM GROUP: 9*

Theater designers use figures, space, objects, time and light to create environments that are integral to performance events. The potential for action and the integration with the performance as a whole is key to the design process. Like any artist, the designer needs to create visual studies to explore possibilities and communicate ideas. In Scenography Studio students will respond to architecture, photography, fiction, painting, sculpture, etc., to develop a series of performance design projects. In the course of developing these projects, students will gain skills in a variety of digital and manual media as well as study significant 20th and 21st century artists and theorists. Artists studied include but are not limited to - Robert Rauschenberg - John Cage - Sol LeWitt - Adolph Appia - Richard Serra - Alan Kaprow - Cindy Sherman - Italo Calvino - Bertolt Brecht.

**\*Dramatic Arts 137. The Art of Scenography: 20th and 21st Century Directorial Concepts and Set Design**

Catalog Number: 34704 Enrollment: Limited to 20.

*Julia Smeliansky*

*Half course (fall term). Tu., 3–5. EXAM GROUP: 2*

In this course, students will study the work of the great 20th and 21st century auteur directors and set designers. Students will explore a range of artistic movements including Constructivism, Futurism and Dada, and discuss how the theater became a place to experiment with the concepts



and discoveries of these movements. Examining primary source materials in the Harvard Theatre Collection, students will research the work of artists including Gordon Craig, Richard Wagner, Leon Bakst, Pablo Picasso, Konstantin Stanislavsky and Vsevolod Meyerhold. The course will also focus on the work of such contemporary directors and designers as Robert Wilson, George Tsypin, and Robert Lepage.

#### **\*Dramatic Arts 171x. Participatory Theater - (New Course)**

Catalog Number: 10477 Enrollment: Limited to 16. Audition required.

*César Alvarez*

*Half course (fall term). W., 1–4. EXAM GROUP: 1*

Young audiences have been weaned on choice-based, interactive, participatory and socially networked artwork and entertainment. At this moment in history, theater has an incredible opportunity to redefine how stories can be told and how audiences might be invited into the telling. This course is open to actors, writers, musicians, game designers, programmers, directors, designers and artists of all kinds. Through scholarship, discussion, creative work, and play testing, this course will explore the emerging fields of participatory theater, interactive performance, social gaming, and system-based story telling. We will study the basics of game design, the fundamentals of physical and social gaming, and the history of interactivity as a theatrical device. Students will design physical and tabletop games, ambulatory experiences, social experiments, and interactive environments. Emphasis is on creative output and integrating participatory systems and audience agency with emergent narrative. The class will establish a generous inter-disciplinary working environment which values creative risks, collaboration and inventiveness. There will be one trip to New York City as part of the class.

*Note:* Due to space limitations entrance into this class will require a brief interview. If you'd like to join the class come to the first class prepared to discuss your interest in participatory theater and a 1 minute creative offering of your choosing. Preference is given to undergraduates, though graduate students may also be admitted pending availability.

#### **\*Dramatic Arts 172x. China on Stage - (New Course)**

Catalog Number: 74502 Enrollment: Limited to 12.

*Claire A. Conceison*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

Survey of plays from 20th and 21st century China that examines text and performance through the lens of spoken drama's adoption in China and its reflection of socio-political upheavals and cultural shifts. Reading and research-based, but can culminate in public stage reading of selections from Chinese plays (no acting experience necessary.)

#### **\*Dramatic Arts 173x. Performance Elective: Acting and Authenticity - (New Course)**

Catalog Number: 45856 Enrollment: Limited to 12.

*David Levine*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

This is a text- and studio-based seminar that explores the realist idea of 'acting' alongside philosophical, psychological, and scientific notions of authenticity and falsehood, presence, mimesis, and empathy. What does it mean to turn into someone else? How total is the transformation? And what are the implications for our understanding of the individual? Various



texts, from the acting primers of Stanislavski and Strasberg, to works of literary criticism, natural science, cognitive psychology, and philosophy of mind will be considered.

**[\*Dramatic Arts 174x. The Creative Producer: Arts Management and Creative Production in the Theater] - (New Course)**

Catalog Number: 96472 Enrollment: Limited to 12.

*Thomas A. Schmidt*

*Half course (spring term). Tu., 3–5.*

An introduction to theater production and arts management in theater. We will compare different models of producers and their instruments, while putting special emphasis on the role of the creative producer - a new type of producer, where the creative producer is working at the interface between classical production, development of screenplays, and artistic direction. The students will get an overview of the major phases in the history of theater, they will learn to analyze and compare existing theater systems, and they will assess the vital role of the creative producer in fostering innovation and experimentation across drama, opera, dance, concert, and (multimedia) performance as well as the role and function of the other "players" in theater (actors, directors, dramaturgs, designers, etc.). In order to gain practical experience in arts management, theater production and playing, the students will form production teams and experience in their functions and roles (producer, director, dramaturg, playwright, actor) in the production of a play, which will be rehearsed and performed during the semester.

*Note:* Expected to be given in 2015–16. No background in theater history, theory or practice necessary. Recommended for all students concentrating in Dramatic Arts, Languages, Economics, Psychology, Education, and with general interest in Arts and Theater.

**\*Dramatic Arts 175x. Sport as Performance - (New Course)**

Catalog Number: 18143 Enrollment: Limited to 15.

*Claire A. Conceison*

*Half course (spring term). W., 6–8 p.m. EXAM GROUP: 13*

This course introduces the aesthetics of sport as theatrical performance and explores the performance of race, gender, class, nation, and sexuality in sport. Readings drawn from theatre/performance studies, anthropology, sociology, ethnic studies, gender studies, history, kinesiology. Topics covered include barnstorming, Olympics, Title IX, Native American mascots, and sports ranging from football to figure skating. Course work includes reading, writing, and research. No final exam.

***Cross-listed Courses***

**Aesthetic and Interpretive Understanding 24. First Nights: Five Performance Premieres**

[Aesthetic and Interpretive Understanding 26. Race, Gender, and Performance]

[Aesthetic and Interpretive Understanding 31. American Musicals and American Culture]

**Aesthetic and Interpretive Understanding 55. Shakespeare, The Early Plays**

[Aesthetic and Interpretive Understanding 56. Shakespeare, The Later Plays]

**African and African American Studies 111. Spectral Fictions, Savage Phantasms: Race and Gender in Anti-Racist South African and African American Drama, Fiction and Film**

[African and African American Studies 112. Black Humor: Performance, Art, and Literature]



**[African and African American Studies 120x. African American Theatre, Drama, and Performance]**

**[African and African American Studies 142. Hiphop and Don't Stop: The Word]**

**[African and African American Studies 143. Representing Blackness: Media, Technology and Power in Hiphop Culture]**

**Classical Studies 146. Euripides' *Bakkhai* and the Modern Reception of Dionysos**

**[Culture and Belief 56 (formerly English 193a). The Culture of Capitalism]**

**\*English Camr. Advanced Playwriting: Workshop**

**\*English Cffr. Adapting Short Fiction to Film: Workshop - (New Course)**

**\*English Ckr. Introduction to Playwriting: Workshop**

**\*English Clr. Dramatic Screenwriting I: Workshop**

**\*English 90cp. Contemporary American Playwrights: Seminar - (New Course)**

**\*English 90hb. Four Shakespeare Plays: Seminar**

**\*English 90sb. Samuel Beckett's Plays and Prose: Seminar**

**English 144a. American Plays and Musicals, 1940-1960**

**English 158a. A History of Western Drama**

**English 192. Political Theatre and the Structure of Drama**

**\*Folklore and Mythology 114. Embodied Expression/Expressive Body: Dance in Cultural Context**

**[\*French 71a. Classicism and Modernity: An Introduction to Performance]**

**French 134. Comedic Timing: Laughter on the Pre-Revolutionary Stage - (New Course)**

**[French 148c. Performing in French: A Production of a Modern Tragedy]**

**[French 225. How to Read Drama. Theater History/Theories of Representation]**

**[French 226. Tragic Bodies. French Classicism Revisited]**

**\*Freshman Seminar 33x. Complexity in Works of Art: Ulysses and Hamlet**

**\*Freshman Seminar 34v. Broadway Musicals: History and Performance - (New Course)**

**\*Freshman Seminar 35n. The Art and Craft of Acting**

**\*Freshman Seminar 35w. Sex, Gender, Shakespeare - (New Course)**

**\*Freshman Seminar 39x. Watch Her Step: Ballet Past and Present - (New Course)**

**German 50. German Drama and Theater**

**[German 67. German in *Revue: Kabarett* through the 20th Century]**

**[German 115. German Comedy]**

**Greek 106. Greek Tragedy: The *Electra* Plays**

**[Literature 133. Shakespeare Shakes the Globe]**

**[Literature 141. Modern Anglophone Drama - From Ireland to the Caribbean and Africa ]**

**\*Music 12hfr. The Harvard Dance Project**

**\*Music 103r. Masterwork: The Choreographic Process of William Forsythe**

**\*Music 105r. Fundaments of Improvisation & Composition, Dance**

**Music 193r. Topics in Music from 1800 to the Present: Proseminar**

**[Music 193rco. American Musical Theater]**

**Music 194r. Special Topics**

**Music 217r. 19th-Century Music: Seminar**

**Slavic 140. 20th Century Russian Culture on Page, Stage, and Screen - (New Course)**

**[Slavic 141. Russian Drama and Performance]**

**Slavic 144. Chekhov**

**Spanish 126. Performing Latinidad**



# Earth and Planetary Sciences

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Department of Earth and Planetary Sciences*

John H. Shaw, Harry C. Dudley Professor of Structural and Economic Geology and Professor of Environmental Science and Engineering (*Chair*)  
James G. Anderson, Philip S. Weld Professor of Atmospheric Chemistry (*on leave fall term*)  
Jeremy Bloxham, Dean of Science, and Mallinckrodt Professor of Geophysics  
Brian F. Farrell, Robert P. Burden Professor of Meteorology (*on leave fall term*)  
Peter John Huybers, Professor of Earth and Planetary Sciences and of Environmental Science and Engineering  
Miaki Ishii, Professor of Earth and Planetary Sciences  
Daniel J. Jacob, Vasco McCoy Family Professor of Atmospheric Chemistry and Environmental Engineering (*on leave spring term*)  
Stein B. Jacobsen, Professor of Geochemistry  
David T. Johnston, John L. Loeb Associate Professor of the Natural Sciences (*Co-Director of Graduate Studies*)  
Andrew H. Knoll, Fisher Professor of Natural History and Professor of Earth and Planetary Sciences  
Zhiming Kuang, Gordon McKay Professor of Atmospheric and Environmental Science  
Charles H. Langmuir, Higgins Professor of Geochemistry  
Francis Alexander Macdonald, John L. Loeb Associate Professor of the Natural Sciences (*Co-Head Tutor of Undergraduate Studies*)  
Scot T. Martin, Gordon McKay Professor of Environmental Chemistry  
James J. McCarthy, Professor of Biological Oceanography and Alexander Agassiz Professor of Biological Oceanography  
Michael B. McElroy, Gilbert Butler Professor of Environmental Studies (*on leave 2014-15*)  
Brendan J. Meade, Professor of Earth and Planetary Sciences  
Jerry X. Mitrovica, Professor of Geophysics (*Co-Head Tutor of Undergraduate Studies*) (*on leave spring term*)  
Sujoy Mukhopadhyay, Visiting Professor of Earth and Planetary Sciences  
Richard J. O'Connell, Professor of Geophysics  
Ann Pearson, Murray and Martha Ross Professor of Environmental Sciences  
James R. Rice, Mallinckrodt Professor of Engineering Sciences and Geophysics (*on leave spring term*)



Daniel P. Schrag, Sturgis Hooper Professor of Geology and Professor of Environmental Science and Engineering (*Co-Area Dean for Environmental Sciences and Engineering*)  
 Eli Tziperman, Pamela and Vasco McCoy, Jr. Professor of Oceanography and Applied Physics (*Co-Director of Graduate Studies*)  
 Steven C. Wofsy, Abbott Lawrence Rotch Professor of Atmospheric and Environmental Science (*Co-Area Dean for Environmental Sciences and Engineering*)  
 Carl Wunsch, Visiting Professor of Physical Oceanography and Climate

***Other Faculty Offering Instruction in the Department of Earth and Planetary Sciences***

Sarah Stewart-Mukhopadhyay, Visiting Professor of Earth and Planetary Sciences

***Affiliates of the Department of Earth and Planetary Sciences***

Robin Wordsworth, Assistant Professor of Environmental Science and Engineering

For more information about Earth and Planetary Sciences, please visit the department's website at [www.eps.harvard.edu](http://www.eps.harvard.edu).

***Primarily for Undergraduates***

**Earth and Planetary Sciences 21. The Dynamic Earth: Geology and Tectonics Through Time**

Catalog Number: 26854

*Richard J. O'Connell*

*Half course (fall term). M., W., F., at 10, and a weekly three-hour lab to be arranged and two field trips. EXAM GROUP: 5*

Students will learn how the Earth works and how critical events in Earth history shaped their surroundings. We will explore what the Earth is made of, why there are continents and oceans, and how plate tectonics provides a unifying model to explain geological observations. Topics covered include the discovery of deep time, the relationship between geology and topography, the geology of our surroundings, plate tectonics, magnetism, chemical differentiation at subduction zones and mid-ocean ridges, mountain building, basin formation, isostasy, heat flow, convection, and feedbacks with the fluid Earth. Ultimately we will use physical processes to explain the patterns of nature. Our treatment will be quantitative with applications to other phenomena, and based on sound physics. Field trips provide opportunities to learn how to read rocks, to see data in the field, and to interpret observations in terms of their possible history and forces acting in and on the Earth.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.

**Earth and Planetary Sciences 22. The Fluid Earth: Oceans, Atmosphere, Climate, and Environment**

Catalog Number: 79499

*Peter John Huybers and Ann Pearson*

*Half course (spring term). Tu., Th., 10-11:30, and a weekly three-hour lab to be arranged.*

***EXAM GROUP: 11***

This course introduces students to the fluid Earth, emphasizing Earth's weather and climate, the carbon cycle, and global environmental change. The physical concepts necessary for understanding the structure, motion and energy balance of the atmosphere, ocean, and cryosphere are covered first, and then these concepts are applied in exploring major earth processes. Examples from Earth's past history, on-going changes in the climate, and implications for the future are highlighted.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.

**Earth and Planetary Sciences 51. Introduction to Planetary Materials and Earth Resources**

Catalog Number: 87498

*Stein B. Jacobsen*

*Half course (spring term). M., W., at 11; and a weekly lab, F., 1-3. EXAM GROUP: 14*

A comprehensive introduction to how the principles of mineralogy, phase equilibria, and the compositions of terrestrial and extraterrestrial materials are used to understand the evolution of the Earth and its resources. The course will discuss how we know that the Earth's crust has more than sufficient resources for its human population.

*Prerequisite:* EPS 21 or 22 and a course in college-level chemistry or equivalent, or permission of instructor.

**Earth and Planetary Sciences 52. Introduction to Global Geophysics**

Catalog Number: 48349

*Jerry X. Mitrovica*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

A comprehensive introduction to global geophysics. This course serves as a bridge between introductory Earth science courses (EPS 21, EPS 22) and higher level courses in EPS. Topics include: plate tectonics, the Earth's composition, thermal state and rheology, mantle convection, the geodynamo, the Earth's gravity field and geodesy, comparative planetology, and (modern and paleo) climate change.

*Prerequisite:* Applied Mathematics 21a,b (or Mathematics 1a,1b; or Mathematics 21a,b); Physics 11a,b (no longer offered) or Physics 15a,b (prior or concurrent) or Physical Sciences 12a,b; or permission of the instructor.

**Earth and Planetary Sciences 56. Geobiology and the History of Life**

Catalog Number: 29461

*David T. Johnston and Andrew H. Knoll*

*Half course (spring term). M., W., F., at 10, a weekly three-hour lab to be arranged and one field trip. EXAM GROUP: 5*

Within our solar system, Earth is distinguished as the planet with life. Life was born of planetary processes, has been sustained for some four billion years by planetary processes, and through time has emerged as a set of planetary processes that is important in its own right. In this course we will investigate the ways that Earth and life interact, focusing in particular on the biogeochemical cycles of major elements. This will provide a framework for interpreting the history of life reconstructed from fossils and phylogeny.

*Note:* EPS 56 is also offered as OEB 56. Students may not take both EPS 56 and OEB 56 for



credit.

*Prerequisite:* EPS 21, 22, or Life Sciences 1b; or permission of instructor.

### **\*Earth and Planetary Sciences 74r. Field Experiences in Earth and Planetary Sciences**

Catalog Number: 7239 Enrollment: Students must notify the instructor and Academic Administrator of intention to enroll by Study Card Day of the preceding term.

*Francis Alexander Macdonald*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 5*

Attend a domestic or overseas geological field program of 3-6 weeks duration to learn methods of obtaining, synthesizing, and interpreting field observations.

*Note:* Field programs are selected individually by students with the advice and approval of the instructor.

*Prerequisite:* EPS 21 or permission of instructor.

### **Earth and Planetary Sciences 91r. Supervised Reading and Research**

Catalog Number: 1462 Enrollment: To enroll, students must submit a registration form, which includes permission of their faculty sponsor, to the Academic Administrator.

*Francis Macdonald and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

Supervised reading and research on topics not covered by regular courses of instruction.

*Note:* Usually intended for junior or senior concentrators in Earth and Planetary Sciences; open to sophomore concentrators under some circumstances.

### **Earth and Planetary Sciences 99r. Tutorial — Senior Year**

Catalog Number: 7120 Enrollment: To enroll, students must submit a registration form, which includes permission of their faculty sponsor, to the Academic Administrator.

*Zhiming Kuang and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 13; Spring: 9*

Research and writing of the senior thesis under faculty direction.

*Note:* Senior honors candidates must take at least one term of this course (fall or spring) if writing a thesis; an oral presentation is required. Enrollment includes an informal tutorial series on how to get the most from your thesis experience.

### **Cross-listed Courses**

#### **Astronomy 16. Stellar and Planetary Astronomy**

#### **Science of the Physical Universe 12. Natural Disasters**

#### **Science of the Physical Universe 14. How to Build a Habitable Planet**

[**Science of the Physical Universe 25. Energy: Perspectives, Problems and Prospects ]**

#### **Science of the Physical Universe 29. The Climate-Energy Challenge**

#### **Science of the Physical Universe 31. Energy Resources and the Environment - (New Course)**

### ***For Undergraduates and Graduates***



**[Earth and Planetary Sciences 100. The Missing Matlab Course: An Introduction to Programming and Data Analysis]**

Catalog Number: 0235

*Miaki Ishii*

*Half course (spring term). W., F., 2-5. Course time includes lecture and lab.*

An overview of modern computational tools with applications to the Earth Sciences. Introduction to the MATLAB programming and visualization environment. Topics include: statistical and time series analysis, visualization of two- and three-dimensional data sets, tools for solving linear/differential equations, parameter estimation methods. Labs emphasize applications of the methods and tools to a wide range of data in Earth Sciences.

*Note:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* Mathematics 1a, b; or equivalent.

**[Earth and Planetary Sciences 107. Evolution of Plant Life in Geologic Time]**

Catalog Number: 61716

*Andrew H. Knoll*

*Half course (fall term). M., W., F., at 10, and a weekly two-hour lab to be arranged.*

Origin, evolution, dispersal, paleoecology, and geologic history of the major groups of the plant kingdom. Laboratory study of representative groups, living and fossil.

*Note:* Expected to be given in 2015–16. EPS 107 is also offered as OEB 107. Students may not take both for credit.

*Prerequisite:* OEB 10 or permission of instructor

**Earth and Planetary Sciences 109. Earth Resources and the Environment**

Catalog Number: 2218

*John H. Shaw*

*Half course (fall term). Tu., Th., 1-2:30, three hours of laboratory work each week and three field trips. EXAM GROUP: 8*

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. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.

*Prerequisite:* EPS 21, ES 6, or equivalent courses and permission of the instructor.

**[Earth and Planetary Sciences 121. Terrestrial Planets]**

Catalog Number: 8577

*Instructor to be determined*

*Half course (spring term). M., W., 1-2:30.*

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 2015–16. Given in alternate years.

*Prerequisite:* One semester of physics or permission of instructor.

### **[Earth and Planetary Sciences 131. Introduction to Physical Oceanography and Climate]**

Catalog Number: 2249

*Eli Tziperman*

*Half course (spring term). M., Th., 2:30–4, and a lab to be arranged. EPS 131 is also offered as ES 131. Students may not take both for credit.*

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 Niño, the oceans and global warming.

*Note:* Expected to be given in 2015–16. Given in alternate years. When offered, a field trip to Cape Cod and Woods Hole Oceanographic Institution will be included.

*Prerequisite:* Applied Mathematics 21a,b; Physics 12a,b, Physics 15a,b,c or Applied Physics 50a,b; or permission of instructor.

### **Earth and Planetary Sciences 132. Introduction to Meteorology and Climate**

Catalog Number: 8495

*Brian F. Farrell*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

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.

*Note:* EPS 132 is also offered as ES 132. Students may not take both for credit.

*Prerequisite:* Mathematics 21 or Applied Mathematics 21a and 21b; Physics 11 (no longer offered) or 15 or Physical Sciences 12; or permission of instructor.

### **Earth and Planetary Sciences 133. Atmospheric Chemistry**

Catalog Number: 7731

*Steven C. Wofsy*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Physical and chemical processes determining the composition of the atmosphere and its implications for climate, ecosystems, and human welfare. Construction of atmospheric composition models. Atmospheric transport. Nitrogen, oxygen, and carbon cycles. Climate forcing by greenhouse gases and aerosols. Stratospheric ozone. Oxidizing power of the atmosphere. Surface air pollution: aerosols and ozone. Deposition to ecosystems: acid rain, nitrogen, mercury.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe. EPS 133 is also offered as ES 133. Students may not take both for credit.

*Prerequisite:* Physical Sciences 1, 2, Mathematics 1b; or equivalents.



**[Earth and Planetary Sciences 134. Global Warming Debates: The Reading Course]**

Catalog Number: 45399

*Peter John Huybers and Eli Tziperman*

*Half course (spring term). W., 3-6, and weekly lab to be arranged.*

The atmospheric carbon dioxide concentration is now the highest it has been in at least 800,000 years, raising concerns regarding possible future climate changes. This seminar will survey the science of global change from the perspective of scientific debates within climate community. Specifically, the course will involve guided reading and discussion of papers that present contentious view points on the science of global change, with the goal of students learning how to scientifically evaluate these claims. Laboratories will provide students with hands on experience with some climate models and data.

*Note:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* Applied Mathematics 21a or equivalent, or permission of instructor.

**[Earth and Planetary Sciences 135. Physics and Chemistry: In the Context of Energy and Climate at the Global and Molecular Level]**

Catalog Number: 79597

*James G. Anderson*

*Half course (fall term). Tu., Th., 1–2:30.*

A solution to the problems set by the intersection of global energy demand and climate feedbacks requires the teaching of physics and chemistry in that context. Core topics include thermodynamics, free energy, entropy, acid-base and oxidation-reduction reactions, electrochemistry, electromagnetic induction, circuit theory, AC and DC circuits, the nature of photons and of electromagnetic radiation, photochemistry, materials, catalysis, kinetics, molecular bonding, and biological processes for energy conversion and storage.

*Note:* Expected to be given in 2015–16. EPS 135 is also offered as ES 135. Students may not take both for credit.

*Prerequisite:* Physical Sciences 1, or Physical Sciences 11, or permission of instructor.

**[Earth and Planetary Sciences 136. Introduction to Ocean Circulation Physics]**

Catalog Number: 33894

*Carl Wunsch*

*Half course (fall term). Tu., Th., 10–11:30.*

Introduction to the physical processes governing the large-scale circulation of the ocean. Emphasis on time-changing components, observational methods used, and a survey of basic methods of analysis and theory. Topics include sea level rise, oceanic heat transport changes, and smaller-scale physics.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Math or Applied Math 21a; Physics 11b (no longer offered) or Physical Sciences 12b; or permission of instructor. Basic knowledge of a high-level programming language such as Matlab or Mathematica.

**[Earth and Planetary Sciences 141. Isotope and Trace Element Geochemistry and Geochronology]**

Catalog Number: 7724

*Stein B. Jacobsen*



*Half course (fall term). Hours to be arranged.*

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:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* A course in college-level chemistry or equivalent; EPS 21 or EPS 51, or permission of instructor.

**[Earth and Planetary Sciences 145. Introduction to Igneous Petrology and Petrogenesis]**

Catalog Number: 5940

*Charles H. Langmuir*

*Half course (spring term). M., W., 2:30-4:00, plus a weekly three-hour lab.*

How igneous rocks form and reveal the processes and fluxes involved in the circulation of the solid Earth. The course begins with the essential elements of igneous petrology—rock description and nomenclature, mineralogy, phase diagrams, processes of melting and crystallization, trace elements. We then consider the formation of igneous rocks at modern igneous settings—spreading centers, convergent margins and ocean islands. We conclude with investigations of igneous phenomenon of the past, such as large igneous flood basalt provinces, anorthosites, komatites and the igneous history of the Moon.

*Note:* Expected to be given in 2015–16. Given in alternate years.

**[Earth and Planetary Sciences 146. Ocean Ridges and the Earth System]**

Catalog Number: 22518

*Charles H. Langmuir*

*Half course (spring term). M., W., 12–1:30.*

Course will present our current knowledge of the ocean ridge system where two thirds of Earth's crust is continually being created. We will examine the progressive understanding of ocean ridges from a historical perspective, emphasizing the process of scientific discovery. Topics include melt generation in the mantle, magmatic processes in the crust, formation of ocean ridge topography, faulting and tectonics, hydrothermal systems, manifestations in the overlying water column, and the unique ecosystems associated with vents. Approaches must be inherently interdisciplinary, including geochemistry, geophysics, geology, hydrothermal systems, and biology. The place of the ocean ridge system within the overall Earth system will be emphasized.

*Note:* Expected to be given in 2015–16. Students may have the opportunity to participate in a sea-going expedition as part of the course.

*Prerequisite:* One of: EPS 21, EPS 22, or SPU 14; or permission of instructor.

**[Earth and Planetary Sciences 161. Planetary Physics and Global Tectonics]**

Catalog Number: 1854

*Richard J. O'Connell*

*Half course (spring term). Tu., Th., 2:30–4.*

Study of the physics and tectonic processes that govern the properties and evolution of the Earth and other planets. Covers: properties of planets and their interiors; plate tectonics on the Earth;



magnetic fields of the Earth and planets; deformation and heat flow and planetary thermal evolution; melting and volcanism in planets; gravity and tidal interaction.

*Note:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* Introductory physical science and math or permission of instructor.

### [Earth and Planetary Sciences 162. Hydrology and Environmental Geomechanics]

Catalog Number: 76823

*James R. Rice*

*Half course (spring term). M., W., F., at 11-12, and one and a half hour lab session or section for discussion of assigned problems.*

Study of water as a critical resource and as a factor in Earth surface and near-surface processes. Focus on development of relevant mechanics and physics. Hydrologic cycle, surface and groundwater, evapotranspiration, soil physics. Flow in porous media, Darcy law, contaminant transport, remediation strategies. Poroelasticity, subsidence, well hydraulics. Seepage forces, landslides, dam failures, sediment liquefaction. Glacial processes. Stream flows, turbulence concepts. Gravity waves, flood control; tsunamis; erosion and sediment transport.

*Note:* Expected to be given in 2015–16. EPS 162 is also offered as ES 162. Students may not take both for credit.

*Prerequisite:* Applied Mathematics 21a,b or Mathematics 21a,b and Applied Physics 50a,b, Physics 11a,b (no longer offered), 15a,b, or Physical Sciences 12a,b.

### [Earth and Planetary Sciences 166. Consequences of Earthquakes]

Catalog Number: 1540

*Miaki Ishii*

*Half course (fall term). M., W., 2:30–4, and a weekly three-hour lab to be arranged.*

Introduction to seismology with a focus on conceptual understanding of seismic phenomena. Emphasis will be on earthquakes, e.g., detection, mechanism, characteristics, statistics, hazard, and relationship to dynamics. Broader topics such as the types of seismological data and inferences of the Earth's internal structure also will be covered.

*Note:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* Mathematics 21a, b or Applied Mathematics 21a, b (may be taken concurrently); or equivalent.

### [Earth and Planetary Sciences 171. Structural Geology and Tectonics]

Catalog Number: 0319

*John H. Shaw*

*Half course (fall term). M., W., 1–2:30, and three hours of laboratory work each week.*

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 2015–16. Given in alternate years.

*Prerequisite:* EPS 7, 8, or 21; or permission of instructor.



### **Earth and Planetary Sciences 181. Historical Geobiology**

Catalog Number: 5162

*Andrew H. Knoll*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

A focused inquiry on the interactions of life and environment through geologic history. This term we will focus on mass extinctions, their causes and evolutionary consequences.

*Note:* Given in alternate years.

*Prerequisite:* EPS 8, OEB 10; or permission of instructor.

### **Earth and Planetary Sciences 182. Stratigraphy and Sedimentology**

Catalog Number: 37284

*Francis Alexander Macdonald*

*Half course (spring term). Tu., Th., 8:30–10, a two-hour weekly lab to be arranged and one field trip. EXAM GROUP: 2*

Techniques in interpreting paleo-environmental information from sedimentary rocks, covering grain-flow, carbonates, glacial deposits, terrestrial, marginal marine, and deep-sea environments, and culminating with cyclo-stratigraphy and basin dynamics.

### **Earth and Planetary Sciences 186. Low Temperature Geochemistry I: Introduction to biogeochemical cycles**

Catalog Number: 89929

*David T. Johnston*

*Half course (fall term). Tu., Th., 10–11:30, and a weekly two-hour lab to be arranged. EXAM GROUP: 12*

An introduction to low temperature biogeochemistry. We will focus on key biogeochemical elements and look to understand the linkages between the biosphere, atmosphere and hydrosphere. The course begins with a description of marine geochemistry (alkalinity and chemical fluxes) and works toward understanding isotopic fractionation and what it can tell us about the environment. We will explore biogeochemistry over a range of physical and temporal scales.

*Note:* Given in alternate years. This course serves to prepare students for EPS 187 (offered in Spring).

*Prerequisite:* A course in college chemistry is recommended.

### **Earth and Planetary Sciences 187. Low Temperature Geochemistry II: Modern and ancient biogeochemical processes**

Catalog Number: 1923

*Ann Pearson*

*Half course (spring term). Tu., Th., 2:30–4, and a weekly two-hour lab to be arranged. EXAM GROUP: 11*

Introduction to biological and organic chemistry of the Earth's environment. Primary focus on formation, processing, and preservation of organic carbon, with emphasis on paleoenvironmental applications and on processes occurring at the molecular level. This class is intended to be taken in series with EPS 186.

*Note:* Given in alternate years.



*Prerequisite:* A course in college-level chemistry or equivalent. Chemistry 17 or 27 strongly recommended. EPS 186 strongly recommended.

**[\*Earth and Planetary Sciences 189. Analytical and Field Methods in Geobiology]**

Catalog Number: 26288 Enrollment: Limited to 10.

*David T. Johnston and Ann Pearson*

*Half course (fall term). Tu., at 2:30, and a weekly three-hour lab to be arranged.*

Introduction to geobiological research methods: We will learn low temperature geochemical techniques, light stable isotope mass-spectrometry, and other microbiology methods commonly used in geobiological research. The focus will be on the cycling of biogeochemical elements (O, C, S, and Fe) in marine sediments throughout Earth history. This is a lab-based course that will be complemented with lectures.

*Note:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* EPS 186 and EPS 187 (or equivalent) recommended.

***Cross-listed Courses***

[\*\*Engineering Sciences 120. Introduction to the Mechanics of Solids\*\*](#)

[\*\*Engineering Sciences 123. Introduction to Fluid Mechanics and Transport Processes\*\*](#)

[\*\*\[Engineering Sciences 162. Hydrology and Environmental Geomechanics\]\*\*](#)

[\*\*Engineering Sciences 164. Environmental Chemistry \(formerly Soil and Environmental Chemistry\)\*\*](#)

[\*\*\[OEB 107. Evolution of Plant Life in Geologic Time\]\*\*](#)

***Primarily for Graduates***

[\*\*Earth and Planetary Sciences 200. Atmospheric Chemistry and Physics\*\*](#)

Catalog Number: 2675

*Daniel J. Jacob and Steven C. Wofsy*

*Half course (fall term). W., F., 10–11:30. EXAM GROUP: 5*

Atmospheric physics and chemistry: stratospheric and tropospheric transport, photochemistry, and aerosols; stratospheric ozone loss, tropospheric pollution; biogeochemical cycles.

*Note:* Students specializing in this area are expected to take EPS 200 and 236. EPS 200 is also intended to serve as a breadth course for students specializing in other areas of Earth & Planetary Sciences or Environmental Science & Engineering.

*Prerequisite:* Applied Mathematics 21 or equivalent, a course in college-level mechanics, electromagnetism, and chemistry.

**[Earth and Planetary Sciences 201. Physics of the Earth's Interior]**

Catalog Number: 4004

*Richard J. O'Connell*

*Half course (spring term). W., F., 2:30–4.*

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.

*Note:* Expected to be given in 2015–16. Given in alternate years.



*Prerequisite:* Applied Mathematics 104, 105; Physics 15 or equivalent. Preparation should be discussed with the instructor.

**[Earth and Planetary Sciences 202. Mechanics in Earth and Environmental Science]**

Catalog Number: 9798

*James R. Rice*

*Half course (spring term). Tu., Th., 10–11:30.*

Introduction to the mechanics of fluids and solids, organized around earth and environmental phenomena. Conservation laws, stress, deformation and flow. Inviscid fluids and ocean gravity waves; Coriolis dominated large scale flows. Viscosity and groundwater seepage; convective cells; boundary layers. Turbulent stream flows; flood surges; sediment transport. Elasticity and seismic waves. Pore fluid interactions with deformation and failure of earth materials, as in poro-mechanics of consolidation, cracking, faulting, and landslides. Ice sheets and glacial flow mechanics.

*Note:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* Calculus-based introductory physics at the level of Physics 11 (no longer offered), or 15, or Physical Sciences 12 a,b, and Mathematics at the level of Applied Mathematics 21 and 105.

**[Earth and Planetary Sciences 203. Earthquakes and Faulting]**

Catalog Number: 4472

*Brendan J. Meade, James R. Rice, and John H. Shaw*

*Half course (spring term). M., F., 2:30–4.*

Earthquake phenomenology in the context of plate tectonics. Continuum mechanics and elastic deformation; seismic wave radiation. Earthquake cycle models and constraints from tectonic geodesy. Earthquake geology and paleoseismology. Source physics, fault friction, rupture dynamics. Deformation rates and fault system structure. Quantitative seismic hazard analysis.

*Note:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* Applied Mathematics 21a, b.

**[Earth and Planetary Sciences 204. Global Seismology]**

Catalog Number: 4091

*Miaki Ishii*

*Half course (fall term). Tu., Th., 2:30–4.*

Fundamental concepts used in seismology as a tool in studying the Earth's deep interior. Topics include stress/strain/elasticity theory, the seismic wave equation, ray theory, surface waves and normal modes, source theory, and inverse methods.

*Note:* Expected to be given in 2016–17. Given in alternate years.

*Prerequisite:* Applied Math 105 (may be taken concurrently), EPS 161 or equivalent, or permission of instructor.

**[Earth and Planetary Sciences 205. Geophysics: A Primer]**

Catalog Number: 62097

*Jerry X. Mitrovica*

*Half course (spring term). Tu., Th., 1–2:30.*

An introductory treatment of solid Earth geophysics for graduate students in all EPS and SEAS



disciplines. The course will cover a sampling of topics that all Earth scientists should have knowledge of, whether to facilitate applications to their own research or to simply follow departmental seminars in geophysics. Topics include: the Earth's composition and internal boundaries; qualitative and quantitative plate tectonics; the Earth's energy budget, isostasy; Earth rheology, with examples from seismology, tides, glacial isostatic adjustment and mantle convection; the Earth's gravity field and geodesy; planetary rotation. Physical concepts will be emphasized over mathematical derivations. While there are no formal pre-requisites for the course, some training in calculus, ordinary and partial differential equations would be helpful. Extra class time and material will be available for students without this background.

*Note:* Expected to be given in 2015–16. Given in alternate years.

**Earth and Planetary Sciences 206. Solid Earth Geochemistry and Cosmochemistry: A Primer - (New Course)**

Catalog Number: 18575

*Stein B. Jacobsen*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

The course emphasizes the principles of geochemistry and cosmochemistry and their application to important problems in Earth and Planetary Sciences. Problems to be addressed include planet formation and differentiation and the evolution of planetary mantles and crusts. Topics include: the Earth's composition; laboratory studies of rocks and minerals including laboratory exercises in high precision mass spectrometry; isotope and trace element geochemistry; application of chemical thermodynamics to problems in earth and planetary sciences.

**[\*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 2015–16.

**Earth and Planetary Sciences 208. Physics of Climate**

Catalog Number: 6561

*Zhiming Kuang*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

Overview of the basic features of the climate system (global energy balance, atmospheric general circulation, ocean circulation, and climate variability) and the underlying physical processes.

*Prerequisite:* Applied Mathematics 105 (may be taken concurrently); Physics 11a, b (no longer offered), 15 or Physical Sciences 12a,b; or permission of the instructor.

**[\*Earth and Planetary Sciences 210. Introduction to Isotope and Trace Element Geochemistry]**

Catalog Number: 9146

*Instructor to be determined*

*Half course (fall term). M., W., 1–2:30.*



The course emphasizes the principles of isotope and trace element geochemistry and their application to relevant problems in Earth and Planetary Sciences. Problems to be addressed include planet formation and differentiation, ocean chemistry, and climate reconstruction.

*Note:* Expected to be given in 2015–16.

### **\*Earth and Planetary Sciences 231. Climate Dynamics**

Catalog Number: 6492

*Eli Tziperman*

*Half course (spring term). M., Th., 2:30–4. EXAM GROUP: 18*

Climate and climate variability phenomena and dynamical mechanisms over multiple time scales, using dynamical system tools and a hierarchical modeling approach. Energy balance and greenhouse, El Niño, thermohaline circulation, abrupt climate change, millennial variability (DO and Heinrich events), glacial-interglacial cycles, warm past climates including the Pliocene (2–5 Myrs) and Eocene (50 Myrs). Needed background in stochastic and nonlinear dynamics will be covered.

*Note:* Given in alternate years.

*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 (fall term). Tu., Th., 10–11:30.*

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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Applied Mathematics 105; or permission of instructor.

### **[Earth and Planetary Sciences 234. Topics in Generalized Stability Theory]**

Catalog Number: 80719

*Brian F. Farrell*

*Half course (fall term). Tu., Th., 1–2:30.*

An introduction to the ideas and approaches to dynamics of generalized stability theory. Topics include autonomous and non-autonomous operator stability, stochastic turbulence models and linear inverse models. Students will learn the concepts behind non-normal thinking and how to apply these ideas in geophysical fluid dynamics and climate problems.

*Note:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* Applied Math 105

### **Earth and Planetary Sciences 236. Environmental Modeling**

Catalog Number: 7250

*Steven C. Wofsy and Daniel J. Jacob*

*Half course (fall term). W., Th., 2:30–4 plus one to three hours of computer-based laboratory work per week. EXAM GROUP: 7*

Chemical transport models: principles, numerical methods. Inverse models: Bayes' theorem, optimal estimation, Kalman filter, adjoint methods. Analysis of environmental data:



visualization, time series analysis, Monte Carlo methods, statistical assessment. Students prepare projects and presentations.

*Note:* Students specializing in this area are expected to take EPS 200 and 236. EPS 236 may also serve as an introduction to modeling and applied statistics for other students.

*Prerequisite:* Applied Mathematics 105; a course in atmospheric chemistry (EPS 133 or 200 or equivalent); or permission of the instructors.

### **[Earth and Planetary Sciences 238. Spectroscopy and Radiative Transfer of Planetary Atmospheres]**

Catalog Number: 1891

*Kelly V. Chance*

*Half course (spring term). Tu., Th., 1–2:30.*

Absorption, emission, and scattering of planetary atmospheres, emphasizing Earth. 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 2015–16. 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 239. The Consequences of Energy Systems**

Catalog Number: 98708

*Daniel P. Schrag*

*Half course (fall term). F., 10–12. EXAM GROUP: 5*

This course provides an introduction to the physical and chemical impacts of energy choices on human society and natural ecosystems. Topics will include the carbon cycle, climate, air and water pollution, impacts of energy systems on health, land use consequences of energy technologies, and nuclear waste and proliferation.

*Note:* This course is a requirement for the Graduate Consortium on Energy and Environment.

*Prerequisite:* College level chemistry and physics and permission of instructor.

### **[Earth and Planetary Sciences 240r. Geochemical Modeling of Planetary Surfaces, Interiors and Formation]**

Catalog Number: 0187

*Stein B. Jacobsen*

*Half course (spring term). Hours to be arranged.*

A review of various computer programs available for computation of geochemical equilibria at low and high temperatures and low and high pressures. The thermodynamic basis for the programs and a critical discussion of the available thermodynamic data bases for such computations. Applications to modeling of planetary surfaces, interiors and formation, in particular including modeling of elements with multiple oxidation states.

*Note:* Expected to be given in 2015–16. Given in alternate years.

### **Earth and Planetary Sciences 241r. Isotope Geochemistry and Processes of Planetary Evolution**

Catalog Number: 1680



*Stein B. Jacobsen*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 3*

The composition and the evolution of the Solar Nebula. Application of radiogenic and stable isotopes to study the processes of formation and evolution of planetary crusts, mantles, and cores.

*Note:* Given in alternate years.

**[Earth and Planetary Sciences 243r. Geochemical and Cosmochemical Thermodynamics ]**

Catalog Number: 2002

*Stein B. Jacobsen*

*Half course (fall term). M., W., 11:30–1.*

The laws of thermodynamics. Equilibrium and spontaneous transformations in systems of variable chemical composition. Components, phase rule and petrogenetic grids. Calculation of phase diagrams. Applications to cosmochemistry, igneous and metamorphic petrology, and environmental geochemistry.

*Note:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* A course in college-level chemistry or equivalent; Mathematics 21a or Applied Mathematics 21a (may be taken concurrently).

**[\*Earth and Planetary Sciences 245. Petrological Approaches to Understanding the Earth's System]**

Catalog Number: 7202

*Charles H. Langmuir*

*Half course (spring term). Hours to be arranged.*

The course studies the igneous processes at spreading centers, convergent margins and hot spots, and explores their influences on mantle, crust, ocean and atmosphere and the constraints they provide for the plate tectonic geochemical cycle.

*Note:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* EPS 145 or permission of instructor.

**[Earth and Planetary Sciences 250r. Topics in Planetary Sciences]**

Catalog Number: 1225

*Instructor to be determined*

*Half course (spring term). Tu., Th., 10–11:30.*

Research seminar on current problems in planetary sciences.

*Note:* Expected to be given in 2015–16. Given in alternate years or upon announcement.

**[Earth and Planetary Sciences 255r. Topics in Tropical Dynamics]**

Catalog Number: 8807

*Zhiming Kuang*

*Half course (spring term). Hours to be arranged.*

Research seminar on current problems in tropical dynamics. Students will read and present journal articles on relevant topics, and will rotate responsibility for leading discussions.

*Note:* Expected to be given in 2015–16.



### [Earth and Planetary Sciences 261. Sea Level Change]

Catalog Number: 91589

*Jerry X. Mitrovica*

*Half course (spring term). Tu., Th., 1–2:30.*

The physical processes responsible for sea level changes over time scales extending from hours to hundreds of millions of years. Long-term sea-level trends: geological observations, physical mechanisms and eustasy, dynamic topography. Sea-level change on an ice age Earth (glacial isostatic adjustment, GIA): observations, viscoelastic loading, mantle viscosity, the Last Glacial Maximum (LGM), interglacial sea-level change, ongoing GIA. Ocean tides: equilibrium and non-equilibrium effects, tidal dissipation. Modern global sea level change: tide gauge and geodetic observations, ice melting and thermal expansion, closing the sea-level budget, sea-level fingerprinting.

*Note:* Expected to be given in 2016–17. Given in alternate years.

*Prerequisite:* Applied Mathematics 21a, b; Physics 11 (no longer offered), 15, or Physical Sciences 12; or permission of instructor.

### [\*Earth and Planetary Sciences 262. Theoretical Seismology]

Catalog Number: 35838

*Miaki Ishii*

*Half course (fall term). Hours to be arranged.*

Theoretical aspects of seismology with strong emphasis on global free-oscillation seismology. Topics include continuum mechanics, equations of motion, linearization, perturbation theory, elasticity & anelasticity, rotation & ellipticity, spheroidal & toroidal modes of the Earth, mode splitting, and multiplet coupling.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Applied Mathematics 202 or equivalent, or permission of instructor; EPS 204.

### [Earth and Planetary Sciences 265r. Topics in Geodynamics]

Catalog Number: 0816

*Richard J. O'Connell*

*Half course (fall term). W., F., 2:30–4.*

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 2015–16. Given in alternate years.

### Earth and Planetary Sciences 266r. Computational Tools in Seismology

Catalog Number: 25351

*Miaki Ishii*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 15*

Seminar course that investigates computational tools that are readily available. Students will select one to two techniques (e.g., receiver functions and focal mechanism determination), present the basis, current research using the technique(s), and lead the class through installation and application of the method.

*Note:* Given in alternate years.



*Prerequisite:* EPS 204 or equivalent and computer programming experience; or permission of instructor.

**[\*Earth and Planetary Sciences 269r. Topics in Crustal Dynamics]**

Catalog Number: 8157

*Brendan J. Meade and John H. Shaw*

*Half course (spring term). Hours to be arranged.*

Research seminar on current problems of tectonics, faulting, and earthquake occurrence at the Pacific-North America plate boundary in California. Emphasis on the identification of extant problems that may be resolved with contemporary geologic, geophysical, and geodetic data analysis and process based modeling.

*Note:* Expected to be given in 2015–16. Given in alternate years.

**Earth and Planetary Sciences 270r. Advanced Structural Interpretation Methods**

Catalog Number: 8230

*John H. Shaw*

*Half course (spring term). W., F., 9–11:30; W., F., 9–11:30. EXAM GROUP: 3*

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 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 2015–16. 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 274r. Field Geology**

Catalog Number: 74831 Enrollment: Students must notify the instructor and Academic Administrator of intention to enroll by Study Card Day of the preceding term.

*Francis Alexander Macdonald*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 9; Spring: 2*

Attend an advanced domestic or overseas geological field program of 3-6 weeks duration to learn methods of obtaining, synthesizing, and interpreting field observations.

*Note:* Field programs are selected individually by students with the advice and approval of the instructor. An upper level field course at another university can be substituted with approval of the instructor.

*Prerequisite:* EPS 21 or permission of instructor.



### **\*Earth and Planetary Sciences 281r. Great Papers in Earth Sciences**

Catalog Number: 2474 Enrollment: Limited to 20.

*Peter John Huybers and Eli Tziperman*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

A survey and discussion of groundbreaking papers from across the Earth sciences.

*Note:* Open to undergraduate students with permission of instructor. Given in alternate years.

### **Earth and Planetary Sciences 282r. New Views on the Tectonic Evolution of the Appalachians**

Catalog Number: 60506

*Francis Alexander Macdonald*

*Half course (fall term). Tu., 1–3:30 and two field trips. EXAM GROUP: 8*

Readings and discussions on current problems in stratigraphy and Earth history. Students will read and present journal articles on relevant topics, and will rotate responsibility for leading discussions.

*Prerequisite:* EPS 21 or permission of instructor.

### **[\*Earth and Planetary Sciences 286r. Current Topics in Biogeochemistry I: Biological and Inorganic Stable Isotope Systematics]**

Catalog Number: 38407

*David T. Johnston and Ann Pearson*

*Half course (fall term). Th., 8–11.*

This is a reading class aimed at touring the literature on light stable isotope systematics. Topics covered will range from classic applications in geology (diagenetic and high temperature exchange), through to more novel isotope systems (clumping,  $^{17}\text{O}$ , etc.) and applications in biological systems (for instance, those effects associated with RuBiSCo). Topics covered will also flex with the interest of the enrolled students.

*Note:* Expected to be given in 2015–16. Given in alternate years.

*Prerequisite:* EPS 186 and 187 or equivalent; or permission of instructor.

### **[Earth and Planetary Sciences 290. Scientific Communication]**

Catalog Number: 6610

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

Teaches students how to effectively communicate scientific concepts focusing on short oral presentations based on current journal articles drawn from Earth and Planetary Sciences.

Technical presentation skills (planning, delivery, managing nervousness, etc.) developed through weekly practice and detailed feedback.

*Note:* Expected to be given in 2015–16. Recommended for EPS graduate students in their 1st or 2nd year. Topics include: differences between written and oral communication; structure and organization of short vs. long and general vs. technical talks; and effective use of visualizations including poster presentations.

### ***Cross-listed courses***



**[Engineering Sciences 220. Fluid Dynamics](#)**

**[Engineering Sciences 237. Planetary Radiation and Climate - \(New Course\)](#)**

**[Engineering Sciences 240. Solid Mechanics](#)**

[Engineering Sciences 241. Advanced Elasticity]

[Engineering Sciences 267. Aerosol Science and Technology]

***Graduate Courses of Reading and Research***

**\*Earth and Planetary Sciences 330. Climate Atmospheric Chemistry and Free Radical Kinetics**

Catalog Number: 3810

*James G. Anderson 6057 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Earth and Planetary Sciences 331. Atmospheric Chemistry**

Catalog Number: 4038

*Daniel J. Jacob 1781 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Earth and Planetary Sciences 332. Dynamic Meteorology**

Catalog Number: 2802

*Brian F. Farrell 7628 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Earth and Planetary Sciences 333. Environmental Chemistry**

Catalog Number: 4927

*Scot T. Martin 3365*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Earth and Planetary Sciences 334. Atmospheric Physics and Chemistry**

Catalog Number: 4886

*Michael B. McElroy 2462 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Earth and Planetary Sciences 335. Climate Dynamics and Physical Oceanography**

Catalog Number: 3095

*Eli Tziperman 4748*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Earth and Planetary Sciences 336. Geophysical Fluid Dynamics**

Catalog Number: 8851

*Eli Tziperman 4748*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Earth and Planetary Sciences 337. Biological Oceanography**

Catalog Number: 5704



*James J. McCarthy 4343*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Earth and Planetary Sciences 338. Atmospheric Chemistry**

Catalog Number: 7596

*Steven C. Wofsy 4396*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Earth and Planetary Sciences 339. Biogeochemistry**

Catalog Number: 9843

*Ann Pearson 4224*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Earth and Planetary Sciences 340. Topics in Isotope Geochemistry: Research Seminar**

Catalog Number: 2881

*Stein B. Jacobsen 7212*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Earth and Planetary Sciences 341. Isotope Geochemistry**

Catalog Number: 7103

*Stein B. Jacobsen 7212*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Earth and Planetary Sciences 342. Topics in Atmospheric and Climate Dynamics**

Catalog Number: 1732

*Zhiming Kuang 5285*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Earth and Planetary Sciences 343. Topics in Quantitative Analysis of the Climate Record**

Catalog Number: 2979

*Peter John Huybers 5746*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Earth and Planetary Sciences 344. Topics in Stable Isotope Geochemistry and Geochemical Oceanography**

Catalog Number: 6291

*Daniel P. Schrag 3054*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Earth and Planetary Sciences 345. Solid Earth Geochemistry**

Catalog Number: 7979

*Charles H. Langmuir 4293*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Earth and Planetary Sciences 362. Dynamo Theory: Research Seminar**

Catalog Number: 1840



*Jeremy Bloxham 2047*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Earth and Planetary Sciences 363. Mechanics of Earth and Environmental Processes**

Catalog Number: 8664

*James R. Rice 7270 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Earth and Planetary Sciences 364. Geophysics**

Catalog Number: 1438

*Jeremy Bloxham 2047*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Earth and Planetary Sciences 365. Geophysics**

Catalog Number: 5632

*Richard J. O'Connell 3642*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Earth and Planetary Sciences 367. Global Geodynamics**

Catalog Number: 4447

*Jerry X. Mitrovica 6696 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Earth and Planetary Sciences 368. Seismology**

Catalog Number: 4932

*Miaki Ishii 5493*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Earth and Planetary Sciences 369. Topics in Active Tectonics**

Catalog Number: 5904

*Brendan J. Meade 5340*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Earth and Planetary Sciences 370. Structural Analysis**

Catalog Number: 9046

*John H. Shaw 3699*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Earth and Planetary Sciences 380. Topics in Geology and Earth History**

Catalog Number: 1161

*Francis Alexander Macdonald 6283*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Earth and Planetary Sciences 381. Topics in Stable Isotope Geobiology and Earth History**

Catalog Number: 22177



*David T. Johnston 6278*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Earth and Planetary Sciences 387. Paleobotany**

Catalog Number: 6983

*Andrew H. Knoll 7425*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

# East Asian Languages and Civilizations

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Department of East Asian Languages and Civilizations*

David Howell, Professor of Japanese History (*Interim Chair*)

Ryūichi Abé, Reischauer Institute Professor of Japanese Religions (*on leave spring term*)

Peter K. Bol, Charles H. Carswell Professor of East Asian Languages and Civilizations

Song Chen, Visiting Assistant Professor of East Asian Languages and Civilizations

Edwin A. Cranston, Professor of Japanese Literature

Nara Dillon, Lecturer on East Asian Languages and Civilizations

Carter J. Eckert, Yoon Se Young Professor of Korean History

Mark C. Elliott, Mark Schwartz Professor of Chinese and Inner Asian History

Joshua Andrew Frydman, Lecturer on East Asian Languages and Civilizations

Panpan Gao, Preceptor in Chinese

Noemie Godefroy, Lecturer on East Asian Languages and Civilizations

Andrew Gordon, Lee and Juliet Folger Fund Professor of History (*on leave 2014-15*)

Helen Hardacre, Reischauer Institute Professor of Japanese Religions and Society (*on leave 2014-15*)

Haibo Hu, Preceptor in East Asian Languages and Civilizations

Hui-Yen Huang, Senior Preceptor in Chinese

Wesley M. Jacobsen, Professor of the Practice of the Japanese Language and Director of the Japanese Language Program

Hee-Jeong Jeong, Preceptor in Korean

Heeyeong Jung, Preceptor in Korean

Yuko Kageyama-Hunt, Senior Preceptor in Japanese

Seong uk Kim, Lecturer on East Asian Languages and Civilizations

Sun Joo Kim, Harvard-Yenching Professor of Korean History (*on leave 2014-15*)

Shigehisa Kuriyama, Reischauer Institute Professor of Cultural History (*on leave 2014-15*)

Hyangjin Lee, Kim Koo Visiting Professor of Korean Studies



Jie Li, Assistant Professor of East Asian Languages and Civilizations  
 Wai-yee Li, Professor of Chinese Literature (*on leave 2014-15*)  
 Jennifer Li-Chia Liu, Senior Lecturer on Chinese Language and Director of the Chinese Language Program  
 Wei Liu, Preceptor in Chinese  
 Yasuko Matsumoto, Preceptor in Japanese  
 Melissa M. McCormick, Professor of Japanese Art and Culture, Harvard College Professor (*Director of Graduate Studies*)  
 Binh Ngo, Senior Preceptor in Vietnamese and Director of the Vietnamese Language Program  
 Sang-suk Oh, Senior Preceptor in Korean and Director of the Korean Language Program  
 Stephen Owen, James Bryant Conant University Professor  
 Si Nae Park, Assistant Professor of East Asian Languages and Civilizations  
 Andrew H. Plaks, Visiting Professor of East Asian Languages and Civilizations  
 Michael J. Puett, Walter C. Klein Professor of Chinese History  
 James Robson, Professor of East Asian Languages and Civilizations (*Director of Undergraduate Studies*)  
 Ikue Shingu, Preceptor in Japanese  
 Joanna Meredith Sturiano, Lecturer on East Asian Languages and Civilizations  
 Hongyun Sun, Preceptor in Chinese  
 Michael A. Szonyi, Professor of Chinese History  
 Karen Thornber, Professor of Comparative Literature and of East Asian Languages and Civilizations  
 Xiaofei Tian, Professor of Chinese Literature (*on leave spring term*)  
 Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies (*on leave spring term*)  
 David Der-Wei Wang, Edward C. Henderson Professor of Chinese Literature and of Comparative Literature (*on leave spring term*)  
 Miki Yagi, Preceptor in Japanese  
 Jie Ying, Preceptor in Chinese  
 Tomiko Yoda, Takashima Professor of Japanese Humanities  
 Alexander Nikolas Zahlten, Assistant Professor of East Asian Languages and Civilizations (*on leave 2014-15*) (*on leave spring term*)  
 Chen Zhang, Preceptor in East Asian Languages and Civilizations  
 Xin-Yi Zhang, Preceptor in Chinese  
 Kang Zhou, Preceptor in Chinese

#### ***Other Faculty Offering Instruction in East Asian Languages and Civilizations***

Janet Gyatso, Hershey Professor of Buddhist Studies (*Divinity School*)  
 Wilt L. Idema, Professor of Chinese Literature, Emeritus  
 Hyangjin Lee, Kim Koo Visiting Professor of Korean Studies  
 David McCann, Korea Foundation Professor of Korean Literature, Emeritus  
 Susan J. Pharr, Edwin O. Reischauer Professor of Japanese Politics (*on leave spring term*)

#### ***Committee for the Social Science Program in East Asian Studies of the Department of East Asian Languages and Civilizations***



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.

Courses in the Language Programs are designed to be taken in sequence and cannot be taken out of order. There are no auditors permitted in the Language Programs and language courses must be taken for a grade. Independent study in languages will only be offered after completion of all courses in the sequence, and with permission of the Director of that language. Placement and admission to a course is at the discretion of the Director of the Program.

### ***East Asian Studies***

#### ***Primarily for Undergraduates***

##### **East Asian Studies 90r. East Asian Language Tutorials**

Catalog Number: 74997

*James Robson and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 4; Spring: 18*

Independent reading and research in an East Asian language.

##### **\*East Asian Studies 91r. Supervised Reading and Research**

Catalog Number: 0961

*James Robson and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*

Independent reading and research in East Asian Studies.

*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 Director of Undergraduate Studies required.

##### **East Asian Studies 97ab. Introduction to the Study of East Asia: Issues and Methods**

Catalog Number: 2337

*James Robson and members of the Department*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

This interdisciplinary and team-taught course provides an introduction to several of the approaches and methods through which the societies and cultures of East Asia can be studied at



Harvard, including history, philosophy, literary studies, political science, film studies, anthropology and gender studies. We consider both commonalities and differences across the region, and explore how larger processes of imperialism, modernization, and globalization have shaped contemporary East Asian societies and their future trajectories.

*Note:* Required of sophomore concentrators and secondary field candidates. Open to freshmen. EAS 97ab may not be taken Pass/Fail.

### **East Asian Studies 98b. Junior Tutorial--Japan and the World**

Catalog Number: 8288

*Susan J. Pharr*

*Half course (fall term). Tu., 3–5. EXAM GROUP: 2*

Junior Tutorial option for EAS. Open to Government and other concentrators. For students with an interest in the society, economy, politics, and popular culture of contemporary Japan and its place in the world.

*Note:* EAS 98a, 98b, 98d, 98g or a substitution approved by the Director of Undergraduate Studies is required for all EAS concentrators.

### **East Asian Studies 98d. Junior Tutorial--The Political Economy of Modern China**

Catalog Number: 4800

*Nara Dillon*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

Junior Tutorial for students with an interest in China Social Sciences. After an introduction to the historical context of China's development, this course will focus on the political economy of reform in the post-Mao period. Some of the topics covered include democracy, the 1989 Tiananmen protests, the rise of entrepreneurs, the role of labor, rural-urban migration, and the Internet.

*Note:* EAS 98a, 98b, 98d, 98g or a substitution approved by the Director of Undergraduate Studies is required for all EAS concentrators. Preference to EAS students but open to Government concentrators.

### **East Asian Studies 98f. Junior Tutorial —The Study of East Asian Religions**

Catalog Number: 94577

*James Robson*

*Half course (spring term). Tu., at 2. EXAM GROUP: 11*

This tutorial is designed to deepen and extend the student's knowledge of the study of East Asian religions. It will build on the student's foundational understanding of the development and history of Buddhism, Daoism, Confucianism, Shinto, and various forms of popular religion, by situating that material in the context of larger issues in the study of East Asian religions. The overarching concern within this tutorial will be on reading and discussing methodologically oriented scholarship that will introduce the student to new and intellectually engaging approaches to the various traditions covered.

*Note:* EAS 98a, 98b, 98d, 98g or a substitution approved by the Director of Undergraduate Studies is required for all EAS concentrators

*Prerequisite:* Culture and Belief 33: Introduction to the Study of East Asian Religions. If students have not previously taken this course, they are required to attend those lectures concurrently with this tutorial.



**[East Asian Studies 98h. Junior Tutorial--Modern Korea History Reading and Research]**

Catalog Number: 29637

*Carter J. Eckert*

*Half course (spring term). Th., 2–4.*

Readings of various materials related to the history of modern Korea, in conjunction with the research and writing of a term paper using primary and secondary sources. Readings for fall 2012 will center on contemporary history after 1945.

*Note:* Expected to be given in 2015–16. Note: EAS 98a, 98b, 98d, 98g, 98h or a substitution approved by the Director of Undergraduate Studies is required for all EAS concentrators.

*Prerequisite:* Societies of the World 27: The Two Koreas, or equivalent.

**\*East Asian Studies 99. Tutorial — Senior Year**

Catalog Number: 0384

*James Robson and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: 4*

Thesis guidance under faculty direction.

*Note:* All students writing an EAS or joint EAS thesis will attend a research and writing workshop that meets twice each term.

***Cross-listed Courses***

**[Culture and Belief 11. Medicine and the Body in East Asia and in Europe]**

**Culture and Belief 25. Studying Buddhism, Across Place and Time**

**Culture and Belief 33. Introduction to the Study of East Asian Religions**

**[Ethical Reasoning 29. Social Theory, the Humanities, and Philosophy Now]**

**[Societies of the World 22. Asia in the Making of the Modern World]**

***For Undergraduates and Graduates***

**East Asian Studies 108. Sages, Saints, and Shamans: An Introduction to Korean Religions - (New Course)**

Catalog Number: 11441

*Seong-Uk Kim*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

In this course, we will explore the histories, doctrines, rituals, and practices of the major religious traditions of Korea, including Buddhism, Confucianism, and Christianity, as well as Shamanism and new religions. We will look at how these religions have interacted with each other, as well as the ways in which they have been both influenced and been shaped by Korean culture and politics. We will also pay close attention to the ways in which Korea has developed its own distinctive religious traditions on the basis of active interactions with those of other countries: Korea was exposed to Buddhism, Confucianism, and Catholicism through China, as well as Protestantism which was brought directly from the West. We will explore how Koreans not only transformed these imported traditions and incorporated elements of their own indigenous traditions to meet their own religious needs, but also served as active agents or participants in the development, for example, of pan-East Asian religious traditions such as Hwaõm/Huayan/ Kegon Buddhism.



### **East Asian Studies 121. Global Cities in East Asia**

Catalog Number: 43797

*Nara Dillon*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

This course examines urbanization and globalization in East Asia, focusing first on the development of Tokyo as a global city, then turning to the socialist cities of contemporary China, before concluding with an examination of uneven development in Southeast Asian cities. In each section of the course, we will examine how urbanization and globalization affect major social groups (in particular, entrepreneurs and women) who have both propelled and been marginalized by these processes.

### **[East Asian Studies 129. The World of the Three Kingdoms: Seminar]**

Catalog Number: 20018

*Xiaofei Tian*

*Half course (spring term). Tu., 1–3.*

This course explores the appeal of the “Three Kingdoms,” a dangerous and violent time, and examines the nostalgic construction of the world of the Three Kingdoms from medieval times through contemporary period, in the forms of fiction, poetry, plays, movies, TV series, video games, MVs and fan fiction. Using the concept of “nostalgia” as a point of entry, this class offers an account of the nuances in the phenomenon and sentiments of nostalgia about the Three Kingdoms in different periods throughout Chinese history, with emphasis on nostalgia as a historical emotion and a modern global condition.

*Note:* Expected to be given in 2015–16. Intended for undergraduate and graduate students. All readings in English (students may opt to read in Chinese). No specific background in Chinese or East Asian Studies required.

### **[East Asian Studies 130. The Tang]**

Catalog Number: 88747

*Stephen Owen*

*Half course (spring term). Tu., Th., 11–12:30.*

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:* Expected to be given in 2017–18. Discussions and readings in English.

*Prerequisite:* All readings in English; no knowledge of Literary or Modern Chinese required.

### **East Asian Studies 140. Major Religious Texts of East Asia**

Catalog Number: 0856

*Ryūichi Abé*

*Half course (fall term). W., 2–4:30. EXAM GROUP: 7*

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.

### **\*East Asian Studies 160. Writing Asian Poetry**

Catalog Number: 0327 Enrollment: Limited to 18.

*David Mccann*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

The Japanese haiku is well known, widely published, written about, a part of most school curricula in the United States. The Korean sijo is less known, but stands as a compelling contrast on its own terms and as a verse form in English. The workshop will be reading examples of haiku and sijo, translations as well as poems written and published in English, then writing and comparing the forms. Participants will assemble portfolios of their own original work, with commentary and notes. We will also identify potential magazine, online or other literary journals, prepare and submit selections.

*Note:* No Asian language knowledge is required; all writing will be in English.

### **[East Asian Studies 191. Zen: History, Culture, and Critique]**

Catalog Number: 39452

*James Robson*

*Half course (spring term). Tu., Th., 10–11:30.*

This course is an introduction to the religious history, philosophy and practices of Zen Buddhism. Zen is the Japanese pronunciation of the Chinese word *Chan*, which is itself a transcription of the Sanskrit word *dhyāna*, meaning meditation. While meditation is the backbone of the Zen tradition, we will see that Zen has a number of different faces and will examine the rich diversity of the Zen tradition as it developed in China, Korea, and Japan.  
*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3012.

### **[\*East Asian Studies 195. Fighting Poverty in China: Welfare and Disaster Relief in Comparative Perspective]**

Catalog Number: 78777 Enrollment: Limited to 15. Instructor's signature on study card required.

*Nara Dillon*

*Half course (spring term). M., 1–3.*

This course is a research seminar on the political economy of poverty and inequality in China. Because China has tried such a wide variety of methods to combat poverty, it provides a useful "laboratory" for analyzing different anti-poverty policies. After an introduction to theories of the welfare state and international humanitarian relief, students will examine disaster relief and the welfare state in China, with comparisons to Europe, North America, and other developing countries.

*Note:* Expected to be given in 2015–16.

### ***Cross-listed Courses***

#### **Folklore and Mythology 171. Chinese New Year Pictures: Folk Art and Visual Culture**

#### **History of Science 180. Science, Technology, and Society in Modern East Asia**



*Primarily for Graduates*

**[East Asian Studies 205. Approaches to the Comparative History of Medicine and the Body]**

Catalog Number: 2222

*Shigehisa Kuriyama*

*Half course (fall term). M., at 12.*

Research seminar devoted to the theory and methods, possibilities and challenges of cross-cultural studies in the history of medicine and the body.

*Note:* Expected to be given in 2015–16.

**East Asian Studies 220r. Medieval Japanese Picture Scrolls**

Catalog Number: 1685

*Melissa M. McCormick*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

Examines the rich tradition of medieval Japanese picture scrolls (*emaki*). Provides training in the reading of scroll texts (*kotobagaki*), the analysis of paintings, and the examination of the production contexts of important scrolls from the 12th to the 16th century. Aims to make picture scrolls available as a primary source for graduate research in many different disciplines within Japanese studies.

*East Asian Buddhist Studies*

*Primarily for Graduates*

**East Asian Buddhist Studies 240r. Japanese Buddhist Doctrine and Monastic Culture: Seminar**

Catalog Number: 3768

*Ryūichi Abé*

*Half course (fall term). F., 10–12. EXAM GROUP: 5*

A graduate seminar aimed at improving students' ability to read and analyze scriptural sources in the context of textual, artistic, and other cultural productions centered around large monasteries in premodern Japan. Major theme for this semester: Buddhist cultural exchange between medieval Japan and China.

*Prerequisite:* Classical Japanese and *Kambun* are required.

**[East Asian Buddhist Studies 241. Major Issues in the Study of East Asian Buddhism]**

Catalog Number: 57596

*Ryūichi Abé and James Robson*

*Half course (fall term). Hours to be arranged.*

A graduate seminar that critically examines major academic works in English on East Asian Buddhism. It is aimed at preparing EALC graduate students for their general examinations in the fields relevant to Buddhism.

*Note:* Expected to be given in 2015–16.



**[East Asian Buddhist Studies 245r. Ritual and Text in Japanese Buddhist Literature]**

Catalog Number: 7113

*Ryūichi Abé*

*Half course (spring term). Hours to be arranged.*

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.

*Note:* Expected to be given in 2016–17.

*Prerequisite:* Classical Japanese and *Kambun*.

**East Asian Buddhist Studies 255. Readings on Chinese Religions: Recent Scholarship on Chinese Buddhism and Daoism: Seminar**

Catalog Number: 24345

*James Robson*

*Half course (fall term). W., 1–3. EXAM GROUP: I*

This seminar aims to discuss significant new works in the field of Chinese Religions by focusing on the historical, doctrinal, and philosophical development of the Buddhist tradition in China.

*Note:* Offered jointly with the Divinity School as 3232.

**East Asian Buddhist Studies 256r (formerly East Asian Buddhist Studies 256). Chinese Buddhist Texts--Readings in Medieval Buddho-Daoist Documents: Seminar**

Catalog Number: 69666

*James Robson*

*Half course (spring term). Th., 3–6. EXAM GROUP: 16*

This seminar focuses on the careful textual study and translation of a variety of Chinese Buddho-Daoist texts through the medieval period.

*Note:* Offered jointly with the Divinity School as 3233.

*Prerequisite:* Reading knowledge of classical Chinese required.

***Graduate Courses of Reading and Research***

**\*East Asian Buddhist Studies 300. Reading and Research**

Catalog Number: 9811

*Ryūichi Abé 4974 (on leave spring term), Janet Gyatso (Divinity School) 4243, and James Robson 6695*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

***Cross-listed courses***

**[Aesthetic and Interpretive Understanding 36. Buddhism and Japanese Culture]**

***East Asian Film and Media Studies***

***For Undergraduates and Graduates***



## [East Asian Film and Media Studies 110. Film and Popular Culture Flows Across East Asia]

Catalog Number: 64089

*Alexander Nikolas Zahlten*

*Half course (spring term). M., W., at 11.*

How does popular culture flow across East Asia? What are the consequences of this intense form of exchange in terms of politics, nation, and global media culture? This course maps the interaction of film, moving images and other forms of popular culture between Japan, Hong Kong and Korea. Topics include colonialism and its after effects, co-productions, fan cultures, recent attempts at national branding and the increasing significance of visual media such as animation, comic books, and video games.

*Note:* Expected to be given in 2015–16. Students who have taken Freshman Seminar 34w are excluded from taking this course for credit.

## [East Asian Film and Media Studies 121. Korean Cinema and Transnationality: Conference Course - \(New Course\)](#)

Catalog Number: 65547

*Hyangjin Lee*

*Half course (fall term). W, 1-3 with evening film screenings, Tuesday 6-8. EXAM GROUP: 1*  
 This course aims to deepen our understanding of how film reflects and influences power dynamics and inequalities among gender, sexuality, class, race and ethnicity. The course will look at film's role as a medium both within and across societies, in both national and transnational contexts. This seminar will explore key issues and themes in the study of Korean cinema, through surveys and discussions of exemplary works that deal with the concepts of the national and the transnational. The course constitutes three parts: First, we will examine historical transformation in national cinema and transnational historicity, focusing on selected films' views and criticisms on topics such as ethnic nationalism, colonial memories, the legacy of the Cold War, national division, and democratization. In the second part of the course, we will discuss the issues of North Korean defectors, diaspora, migration and globalization, and the representation of otherness in South Korean films. The third part will investigate the rise of transnational/post-national Korean cinema in Japan and China.

## [East Asian Film and Media Studies 140 \(formerly Aesthetic and Interpretive Understanding 53\). Anime as Global Popular Culture](#)

Catalog Number: 49149 Enrollment: Limited to 38. Study card must be signed by the instructor.

*Tomiko Yoda*

*Half course (fall term). Tu., Th. 1:30-3:00. Weekly film screening Monday, 7-9. EXAM GROUP: 8*

This course examines Japanese animation (or *anime*) through its generic conventions, formal aesthetic, and narrative motifs. At the same time, the course approaches anime as a lens through which we study contemporary media culture and its local and global production, distribution, and reception. In this sense, anime will be treated as a node in an extensive transnational network involving commercial as well as non-commercial mediums such as graphic novels, live-action films, video games, character merchandises, and fanzines/fan-events.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.



**[East Asian Film and Media Studies 150. Chinese Cinema]**

Catalog Number: 14983

*Jie Li*

*Half course (spring term). M., 1–2:30, and an additional section to be arranged. Film screenings Wednesday, 7–9 pm.*

Introduction to major works, genres, and waves of Chinese cinema from the silent era to the present (with a focus on Mainland China). We will discuss formal aesthetics, historical representation, and audience reception. Students are encouraged to collaborate on their own short films in response to works we watch in class.

*Note:* Expected to be given in 2015–16.

***Cross-listed Courses***

**Aesthetic and Interpretive Understanding 63 (formerly East Asian Film and Media Studies 151). East Asian Cinema**

**\*Dramatic Arts 172x. China on Stage - (New Course)**

***Primarily for Graduates***

**[East Asian Film and Media Studies 200 (formerly East Asian Studies 200). The Uses and Meaning of the New Arts of Presentation]**

Catalog Number: 6509 Enrollment: Limited to 16.

*Shigehisa Kuriyama*

*Half course (fall term). M., 4–6.*

Exploration of the new horizons of communication created by current media technology and their implications for the future of teaching and scholarship. The seminar will combine theoretical readings and reflection with practical, hands-on experiments using podcasts, media-intensive lectures, and iMovies for conveying academic research.

*Note:* Expected to be given in 2015–16.

**[East Asian Film and Media Studies 201 (formerly East Asian Studies 215). Media Mix. Representations and Meaning Between Media in Japan: Seminar]**

Catalog Number: 91266

*Alexander Nikolas Zahlten*

*Half course (fall term). Th., 2–5 with film screenings on Monday evenings.*

This course will explore different histories of the interconnection of media in Japan, from the early ties between theater, literature and cinema to the popularization of the media mix by the company Kadokawa and the current routes between manga, anime, light novels, films and games.

*Note:* Expected to be given in 2015–16.

**[East Asian Film and Media Studies 202 (formerly East Asian Studies 216). Rip and Tear--The Body as Moving and Moved Image in Japanese Film: Seminar]**

Catalog Number: 39744

*Alexander Nikolas Zahlten*

*Half course (spring term). M., 2–5; and a weekly film screening W., 7–9.*



This course traces the role of the body as a discursive anchor in moving image culture in Japan. The focus will lie on the period after WW II, although the mapping of historical contexts will entail investigations into earlier histories as well.

*Note:* Expected to be given in 2015–16.

**[East Asian Film and Media Studies 204. Three Times + 1. Transitional Moments in Film and Media Culture in Japan: Seminar]**

Catalog Number: 80341

*Alexander Nikolas Zahlten*

*Half course (fall term). Tu., 1–4.*

This seminar will focus on transitional moments in the history of film and media culture in Japan, all of them embedded in decisive socio-political shifts. It will explore the deep transformations manifesting around the years 1927, 1963, and 1995, with an additional focus on 1973.

*Note:* Expected to be given in 2016–17.

**[East Asian Film and Media Studies 220. Topics in Chinese Film and Media Studies: Seminar]**

Catalog Number: 93879

*Jie Li*

*Half course (fall term). Th., 2–4.*

This course addresses the question "What was/is cinema in China?" from shadow puppets to DV documentaries. Topics include cinema's arrival in China, silent film stars, sound film sing-alongs, wartime collaborations, mobile projection teams, revolutionary model operas, and Chinese cinema's transnational connections.

*Note:* Expected to be given in 2015–16.

**[East Asian Film and Media Studies 221 (formerly East Asian Studies 250). From Propaganda to Testimony: East Asian History on Film: Seminar]**

Catalog Number: 69568

*Jie Li*

*Half course (fall term). Hours to be arranged.*

How have films documented, represented, or even made history in modern China, Japan, Korea, and Taiwan? Examines diverse ways by which films can or cannot tell the "truth" about history. Topics: film propaganda under colonial and authoritarian regimes, during wars and revolutions; contemporary political and ethical implications of cinematic testimonies.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Students should have some basic background in modern East Asian history.

**East Asian Film and Media Studies 222. Media Cultures in the People's Republic - (New Course)**

Catalog Number: 83222

*Jie Li*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

This seminar examines the changing Chinese mediascape from the 1950s to the present. Every week, we will focus a different form of representational media, from propaganda posters,



photography, radio broadcasting, and cinema, to television, video piracy, and the Internet. We will ask question such as: How have media technologies changed contemporary Chinese culture and society? Were they instruments of totalitarian control, commodities of market capitalism, or tools of resistance and independent expression? How did the mass media affect perception, experiences, and memories of socialism and postsocialism, as well as the periods' cultural forms and aesthetics? What is specific or special about each medium, and how do different types of media interact in the Chinese context? While analyzing media texts, we will also consider their sociopolitical, institutional, and technological as well as engage with media theories and explore untapped historical sources.

### ***China: Language Courses***

#### ***For Undergraduates and Graduates***

##### **Chinese Ba. Elementary Modern Chinese**

Catalog Number: 4375

*Kang Zhou*

*Half course (fall term). Sections Tu., Th., 10, 11, 1, or 2, and three additional hours to be arranged. EXAM GROUP: 4*

Non-intensive 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

*Kang Zhou*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 4*

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 12; and two additional hours to be arranged. EXAM GROUP: 4*

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 120a. Intermediate Modern Chinese**

Catalog Number: 4283

*Jie Ying*

*Half course (fall term). Sections Tu., Th., at 10, 11 or 1, and Drill M., W., F., at 9, 10, 11, 12, 1,*



*or 2. EXAM GROUP: 4*

Modern texts, conversation, reading, and composition.

*Note:* No auditors. May not be taken Pass/Fail.

*Prerequisite:* Chinese Bb or equivalent.

### **Chinese 120b. Intermediate Modern Chinese**

Catalog Number: 1702

*Jie Ying*

*Half course (spring term). Sections Tu., Th., at 10, 11, or 1, and three additional hours to be arranged. EXAM GROUP: 4*

Continuation of Chinese 120a.

*Note:* No auditors. May not be taken Pass/Fail.

*Prerequisite:* Chinese 120a, or equivalent.

### **Chinese 123xb. Intermediate Modern Chinese for Advanced Beginners**

Catalog Number: 7034

*Hui-Yen Huang*

*Half course (spring term). Sections M., W., F. at 10 or 12, and two additional hours to be arranged. EXAM GROUP: 4*

Continuation of Chinese Bx. Covers in one term the equivalent of Chinese 120a and 120b.

*Note:* No auditors. May not be taken Pass/Fail.

*Prerequisite:* Chinese Bx, or instructor's permission.

### **Chinese 130a. Pre-Advanced Modern Chinese**

Catalog Number: 6724

*Haibo Hu*

*Half course (fall term). Sections Tu., Th., at 10, 11, or 1, and three additional hours to be arranged. EXAM GROUP: 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. No auditors. May not be taken Pass/Fail.

*Prerequisite:* Two years of modern Chinese.

### **Chinese 130b. Pre-Advanced Modern Chinese**

Catalog Number: 2917

*Haibo Hu*

*Half course (spring term). Sections T., Th., at 10, or 12 or 1, and three additional hours to be arranged. EXAM GROUP: 4*

Continuation of Chinese 130a.

*Note:* Conducted in Chinese. No auditors. May not be taken Pass/Fail.

*Prerequisite:* Chinese 130a.

### **Chinese 130xa. Pre-Advanced Modern Chinese for Heritage Students**

Catalog Number: 9097

*Wei Liu*



*Half course (fall term). Section I: M., through F., at 9; Section II: M., through F., at 12. EXAM GROUP: 10*

Designed for heritage learners and covers the equivalent of Chinese 130a and other materials for reading and writing.

*Note:* No auditors. May not be taken Pass/Fail.

*Prerequisite:* Chinese 120b, Chinese 123xb, Chinese 125ab, or with permission of instructor.

### **Chinese 130xb. Pre-Advanced Modern Chinese for Heritage Students**

Catalog Number: 2437

*Wei Liu*

*Half course (spring term). Section I: M., W., F., at 10; Section II: M., W., F., at 12 and two additional hours to be arranged. EXAM GROUP: 10*

Designed for heritage learners and covers the equivalent of Chinese 130b and other materials for reading and writing.

*Note:* No auditors. May not be taken Pass/Fail.

*Prerequisite:* Chinese 130xa.

### **Chinese 132a. Advanced Conversational Cantonese - (New Course)**

Catalog Number: 74112

*Jennifer Li-Chia Liu*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Spoken Cantonese for Advanced Cantonese speakers. Topics of this course include authentic texts from contemporary media sources, including news, films, and TV shows.

*Note:* Primarily intended for heritage speakers of Cantonese who have achieved basic proficiency and wish to progress to more complex language.

*Prerequisite:* Chinese 120b or equivalent.

### **[Chinese 132b. Advanced Conversational Cantonese] - (New Course)**

Catalog Number: 53262

*Jennifer Li-Chia Liu*

*Half course (spring term). Tu., Th., 11:30–1.*

Continuation of Cantonese 132a.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Chinese 130a or equivalent.

### **Chinese 140a. Advanced Modern Chinese**

Catalog Number: 1945

*Panpan Gao*

*Half course (fall term). Sections M., W., F., at 10, or 2, and two additional hours to be arranged.*

*EXAM GROUP: 4*

Rapid reading of selections from books and articles.

*Note:* Conducted in Chinese. No auditors. May not be taken Pass/Fail.

*Prerequisite:* Chinese 130b, Chinese 130xb

### **Chinese 140b. Advanced Modern Chinese**

Catalog Number: 6844



*Panpan Gao*

*Half course (spring term). Sections: M., W., F., at 10, or 2, and two additional hours to be arranged. EXAM GROUP: 4*

Continuation of Chinese 140a.

*Note:* No auditors. May not be taken Pass/Fail.

*Prerequisite:* Chinese 140a.

### **\*Chinese 142a. Advanced Conversational Chinese**

Catalog Number: 3900 Enrollment: Limited to 12.

*Hongyun Sun*

*Half course (fall term). Tu., Th., 10–11:30; Th., at 2, Tu., 2–4. EXAM GROUP: 12*

Spoken Chinese for advanced students.

*Note:* No auditors. May not be taken Pass/Fail. No native speakers allowed. May not be used for citation.

*Prerequisite:* Chinese 130b, Chinese 130xb, or equivalent.

### **\*Chinese 142b. Advanced Conversational Chinese**

Catalog Number: 1418 Enrollment: Limited to 12. per lecture section.

*Xin-Yi Zhang*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Spoken Chinese for advanced students.

*Note:* No auditors. May not be taken Pass/Fail. No native speakers allowed. May not be used for citation.

*Prerequisite:* Chinese 140a, Chinese 142a, or equivalent.

### **\*Chinese 150a. Readings in 20th Century China**

Catalog Number: 5621 Enrollment: Limited to 20.

*Xin-Yi Zhang*

*Half course (fall term). M., W., F., at 9, and two additional hours to be arranged. EXAM GROUP: 10*

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.

*Note:* No auditors. May not be taken Pass/Fail.

*Prerequisite:* Chinese 140b or equivalent.

### **\*Chinese 150b. Readings in Cultural Studies**

Catalog Number: 8111 Enrollment: Limited to 20.

*Xin-Yi Zhang*

*Half course (spring term). M. through F., at 10. EXAM GROUP: 5*

Continuation of Chinese 150a.

*Note:* No auditors. May not be taken Pass/Fail.

*Prerequisite:* Chinese 150a.

**\*Chinese 163. Business Chinese**

Catalog Number: 6558 Enrollment: Limited to 25.

*Hongyun Sun*

*Half course (fall term; repeated spring term). Fall: M., W., F., at 10 or 12 and two additional hours to be arranged; Spring: M., W., F., at 9 or 12 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 permission of instructor).

**Chinese 166r. Chinese in Humanities**

Catalog Number: 16522

*Jennifer Li-Chia Liu and with David Der-Wei Wang (fall term only)*

*Half course (fall term; repeated spring term). Fall: M., W., at 11; Tu., Th., at 10, and Individual Sessions arranged on Friday. Spring: Tu., Th., at 10, and film screenings M., 6-9 pm . EXAM GROUP: Fall: 18; Spring: 12*

Advanced language practice associated with authentic academic texts in humanities disciplines (e.g., art, literature, religious studies). May be offered independently in Chinese, or linked with an English-language content course. In fall 2014, the topic of this course is "Masterpieces of Modern Chinese Literature," co-taught with Professor David Der-Wei Wang. In spring 2015, the topic of this course is "Masterworks of Chinese Cinema." Students are required to attend the lectures and film screenings of Aesthetic and Interpretive Understanding 63 when the films are Chinese.

*Note:* All readings and discussions in Chinese. Counts toward Language Citation in Modern Chinese. For the spring term, Aesthetic and Interpretive Understanding 63 meets Wed., 1-3 with weekly film screenings, Monday, 6-9 pm.

*Prerequisite:* Grade of B or better in Chinese 140b or equivalent proficiency.

**[Chinese 168r. Chinese in Social Sciences]**

Catalog Number: 59138

*Jennifer Li-Chia Liu*

*Half course (spring term). M., W., at 10.*

Advanced language practice associated with authentic academic texts in social science disciplines (e.g., history, politics, sociology, economics).

*Note:* Expected to be given in 2015–16. Students are required to attend the lectures of Chinese History 113. Most readings in Chinese. Discussions in Chinese. Counts toward Language Citation in Modern Chinese.

*Prerequisite:* Grade of B or better in Chinese 140b or equivalent proficiency.



### **Chinese 187. Art and Violence in the Cultural Revolution**

Catalog Number: 1253

*Xiaofei Tian*

*Half course (fall term). F., 10–12. EXAM GROUP: 5*

Examines the cultural implications of the Cultural Revolution (1966-1976). We will examine how art was violent towards people and how violence was turned into an art. We will also consider the link between violence, trauma, memory and writing. Materials include memoir, fiction, essay, "revolutionary Peking Opera," and film.

*Note:* Lectures and most readings in Chinese. Discussions in Chinese. Count toward Language Citation in Modern Chinese.

*Prerequisite:* Four years of Mandarin or equivalent (with permission of instructor).

### ***Literary Chinese Courses***

#### **Chinese 106a. Introduction to Literary Chinese**

Catalog Number: 1185

*Chen Zhang*

*Half course (fall term). Tu., Th., 11:30-1. EXAM GROUP: 15*

Basic grammar and the reading of simple historical narrative.

*Note:* An additional lecture slot may be added if enough students enroll, with times to be arranged.

*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

*Chen Zhang*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Introduction to pre-Qin philosophical texts.

*Note:* An additional lecture slot may be added if enough students enroll, with times to be arranged.

*Prerequisite:* Chinese 106a or permission of instructor.

#### **Chinese 107a. Intermediate Literary Chinese**

Catalog Number: 3343

*Chen Zhang*

*Half course (fall term). Tu., Th., 10-11:30, and an additional hour to be arranged. EXAM GROUP: 12*

A second-year course designed to prepare students for reading and research using materials written in Literary Chinese. The focus in the fall semester will be prose from the Tang and Song dynasties.

*Prerequisite:* One year of literary Chinese (Chinese 106 or equivalent).

#### **Chinese 107b. Intermediate Literary Chinese**

Catalog Number: 6931

*Chen Zhang*



*Half course (spring term). Tu., Th., 10-11:30, and an additional hour to be arranged. EXAM*

*GROUP: 12*

A continuation of Chinese 107a, introducing more prose styles as well as poetry and lyric.

*Prerequisite:* Chinese 107a or equivalent.

### **Chinese 107c. Introduction to Poetry - (New Course)**

Catalog Number: 46148

*Stephen Owen*

*Half course (fall term). Tu., Th., 11–12:30. EXAM GROUP: 15*

An introduction to reading poetry of the ancient period, the middle period, and in early modern vernacular, considering the forms and the particular features of "poetic Chinese."

*Prerequisite:* Chinese 107a or the equivalent. This course may be taken concurrently with Chinese 107a but may not be taken in place of Chinese 107a.

### ***Primarily for Graduates***

#### ***Chinese Pedagogy***

##### **[Chinese 280. Teaching Chinese as a Foreign/Second Languages]**

Catalog Number: 42612

*Jennifer Li-Chia Liu*

*Half course (spring term). Hours to be arranged.*

This course is designed to introduce students to the theory and practice of teaching Chinese as a foreign/second language. It seeks to help students gain an understanding of the current issues and research about Chinese language instruction in the US.

*Note:* Expected to be given in 2015–16.

### ***China: History Courses***

#### ***For Undergraduates and Graduates***

##### **Chinese History 113. Society and Culture of Late Imperial China**

Catalog Number: 8264

*Michael A. Szonyi*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course is a survey of the social and cultural history of China from the Song to the mid-Qing (roughly from 1000 to 1800). The main topics discussed include urbanization and commerce; gender; family and kinship; education and the examination system, and religion and ritual. The main goal of the course will be to explore the relationship between social and cultural changes and political and intellectual developments.

##### **[Chinese History 117. History, Politics, and Culture in Manchurian Space: Proseminar] - (New Course)**

Catalog Number: 89348

*Mark C. Elliott*

*Half course (spring term). M., 1–4.*



Recent scholarship on modern East Asia has seen a marked increase in attention to history, society, and culture in Manchukuo and Manchuria from interdisciplinary and transnational perspectives. The course will explore these trends with the aim of arriving at an improved understanding of the Northeast Asian frontier zone in and around the period of 20th-c. Japanese imperialist expansion.

*Note:* Expected to be given in 2015–16. Open to graduates and (with instructor approval) to advanced undergraduates.

*Prerequisite:* Good familiarity with modern East Asian history. All required readings are in English.

**[Chinese History 130. History, Politics and Culture in Manchurian Space: Proseminar] -**

*(New Course)*

Catalog Number: 36158

*Mark C. Elliott*

*Half course (spring term). Th., 1–4.*

Recent scholarship on modern East Asia has seen a marked increase in attention to history, society, and culture in Manchukuo and Manchuria from interdisciplinary and transnational perspectives. The goal of this proseminar is to explore and analyze these scholarly trends and to come to an improved understanding of the Northeast Asian frontier zone in and around the period of 20th-century Japanese imperialist expansion. By extending our view beyond the fourteen-year colonial period to encompass the larger historical processes of Manchukuo's making and unmaking, and by incorporating a comparative perspective, the course aims to transcend the conventional frameworks of collaboration, colonialism, and rupture to unveil the embeddedness of Manchukuo as a multi-layered site of experiments in the longue durée. Two fundamental questions we will seek to answer are, Does "Manchurian studies" constitute a field of research, and if so, how should it be defined?

*Prerequisite:* Open to graduate students and (with instructor approval) to advanced undergraduates. There are no specific prerequisites for this course, but students should have a good familiarity with modern East Asian history. All required readings are in English.

**Chinese History 170. Chinese History in the Digital Age - (New Course)**

Catalog Number: 11731

*Song Chen*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

The increasing availability of large quantities of spatial and biographical data presents both an opportunity and a challenge for historians. This course prepares students for this challenge by introducing a variety of computational methods for extracting, organizing and analyzing large datasets, including XML markups, relational database design, Microsoft Excel-based data management, and data visualization on GIS and network analysis platforms. Though we focus on a few selected topics in later imperial Chinese history (ca. 8th -18th century), the objective of the course is to teach a set of skills that can be applied in any scholarly or professional context and help students develop a critical understanding of the possibilities and risks of these digital tools. Class time is divided evenly between hands-on tutorials and discussion. Topics of discussion include practices of digital scholarship in and outside the field of Chinese history as well as theoretical reflections on these practices. All readings and lab materials will be in English. No prior knowledge of Chinese history, Chinese language, or programming is required.



**[Chinese History 185. The Historiography of the Middle Period]**

Catalog Number: 41785

Peter K. Bol

*Half course (fall term). Hours to be arranged.*

The course this year will be devoted to creating modules for ChinaX, the new HarvardX course devoted to China's history and culture from antiquity to the present. In addition to acquiring a general knowledge of China's history, participants in the course will be actively involved in creating materials for the online course; including producing videos, creating structures for content development, choosing texts and images for online discussion and mark-up, and participating in debates and discussions that will be shown to a world-wide online audience. We hope to do these modules in both English and Chinese versions, but knowledge of Chinese language is not necessary to participate. As presently conceived the course will aim to produce fifteen modules covering topics from the 8th to the 18th century. Topics will include political and institutional history, poetry, novels and short stories, art, social and economic change, and international relations among others. It is possible that the scope will be extended forward and backward in time. This is not a lecture course. There is no final examination. Grades will be based on both a self-assessment and a review of contributions to the modules by peers and faculty.

*Note:* Expected to be given in 2016–17.

***Cross-listed Courses***

**[Empirical and Mathematical Reasoning 21. Maps and Mapping]**

**Ethical Reasoning 18. Classical Chinese Ethical and Political Theory**

**[Ethical Reasoning 20. Self, Serenity, and Vulnerability: West and East]**

**\*History 76c. Major Themes in World History: Colonialism, Imperialism, and Post-Colonialism**

**\*History 76g. Building the Modern Chinese Nation**

**History 1092. Japan and the Atomic Bomb in Historical Perspective - (New Course)**

**[\*History 1918 (formerly History 1618). Telling Lives in Asia]**

**\*History 1992. Disease and Public Health in Modern East Asian History - (New Course)**

**Societies of the World 12. China**

**[Societies of the World 37. The Chinese Overseas]**

**Societies of the World 45. Beyond the Great Wall: China and the Nomadic Frontier**

***Primarily for Graduates***

**[Chinese History 200r. Computational Methods for Historical Analysis]**

Catalog Number: 5606

Peter K. Bol

*Half course (fall term). Hours to be arranged.*

History takes place through the actions of people who live in time and space. Modern computational methods provide means of analyzing changes in patterns of behavior and thought among large numbers of people spread across many regions. This course introduces the use of GIS, relational databases, social network analysis, text-mining, and topic modeling for the analysis of geographic information, biographical data, and the content of texts. Separate labs will



provide introductory instruction in various computational techniques.

*Note:* Expected to be given in 2015–16.

**[Chinese History 224. Introduction to T'ang and Sung Historical Sources]**

Catalog Number: 0673

*Peter K. Bol*

*Half course (fall term). M., 1–4.*

Introduction to the reading and interpretation of sources useful in the study of T'ang and Sung history. Recent scholarship and methodological issues are also discussed.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* One year of literary Chinese or equivalent.

**Chinese History 225r. Topics in Song History: Seminar**

Catalog Number: 90241

*Peter K. Bol*

*Half course (fall term). M., 1–4. EXAM GROUP: I*

Examines various topics in the political, institutional and intellectual history of Song China. Brief introductions on the Song bureaucratic institutions. Close reading of the texts selected from *Xu Weili* documents. The students will be evaluated by an open-book test and a final essay.

*Prerequisite:* Communicating ability in modern Chinese and knowledge of literary Chinese.

**[Chinese History 228. Introduction to Neo-Confucianism]**

Catalog Number: 2130

*Peter K. Bol*

*Half course (fall term). Hours to be arranged.*

Introduces major Neo-Confucian texts for close reading and analysis. Selections from the writings and records of spoken instruction by Zhou Dunyi, Zhang Zai, Cheng Yi, Cheng Hao, Zhu Xi, Liu Jiuyuan, and others.

*Note:* Expected to be given in 2015–16.

**Chinese History 229r. Topics in Ming History: Seminar**

Catalog Number: 23612

*Michael A. Szonyi*

*Half course (spring term). Tu., 1–4. EXAM GROUP: I*

Examines various topics in the intellectual, social, and cultural history of Ming China. Topic for 2015: reading Ming legal documents.

*Prerequisite:* Knowledge of literary Chinese

**[Chinese History 232r. Topics in Han History: Seminar]**

Catalog Number: 7542

*Michael J. Puett*

*Half course (fall term). Hours to be arranged.*

Examines various topics in the history of the Han Dynasty.

*Note:* Expected to be given in 2016–17.



### [Chinese History 233. Sources of Early Chinese History]

Catalog Number: 85192

*Michael J. 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 2017–18.

### Chinese History 234r. The Historiography of Early Chinese History

Catalog Number: 48777

*Michael J. Puett*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

A study of major trends in the history of scholarship on early China. The main focus will be on 20th-century scholarship, but earlier developments will be introduced where relevant.

### [Chinese History 235r. Topics in Warring States History: Seminar]

Catalog Number: 1499

*Michael J. Puett*

*Half course (fall term). Hours to be arranged.*

Close reading of texts from the Warring States period.

*Note:* Expected to be given in 2016–17.

### Chinese History 253. Topics in Late Imperial History

Catalog Number: 41366

*Mark C. Elliott and Michael A. Szonyi*

*Half course (fall term). Tu., 1–4. EXAM GROUP: 8*

Review of historical scholarship on China from roughly 1500 to the early 20th century. This course is designed to aid in preparations for the general examinations and in developing a dissertation topic.

### Chinese History 262. Local Society and Culture in Middle-Period China: Seminar - (New Course)

Catalog Number: 87573

*Song Chen*

*Half course (spring term). Th., 2–5. EXAM GROUP: 11*

This course explores various dimensions of local society and culture in the Tang and Song dynasties: local government, elite life, literati culture, and religion. It approaches these topics through close reading and analysis of a wide range of texts, including state documents, epitaphs, other forms of literati writing, as well as modern archeological reports. In reading these texts, the course also helps students develop a deeper understanding of Tang-Song institutions in connection to the realities of local governance and careers of civil officials. Secondary literature on local history, prosopography, and other pertinent topics will also be discussed. Knowledge of classical Chinese is required.



**[Chinese History 270a. Research Methods in Late Imperial Chinese History I: Seminar]**

Catalog Number: 1863

*Mark C. Elliott and Michael A. Szonyi*

*Half course (fall term). Th., 1–4.*

Training in the use of a wide array of sources, methods, and reference tools for research in the history of late imperial China, focusing upon the reading and analysis of different types of Qing-era documents, official and unofficial. Students will write a research paper using documents provided in class. Reading knowledge of modern and literary Chinese required.

*Note:* Expected to be given in 2015–16. Open to qualified undergraduates with permission of instructor.

*Prerequisite:* Chinese 106b or equivalent in foundation literary Chinese.

**[Chinese History 270b (formerly Chinese History 264b). Research Methods in Late Imperial Chinese History II: Seminar]**

Catalog Number: 84929

*Mark C. Elliott*

*Half course (fall term). Th., 1–4.*

Continued training in sources and methods for research in the history of late imperial China. Students will use original sources to write a research paper on a topic of their choosing.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Chinese History 270a or consent of instructor.

***Cross-listed Courses***

**History 1602. China's Long 20th Century**

**\*History 1976 (formerly History 2620). Visible and Invisible Hands in China: State and Economy since 1800**

**[\*History 2300. Methods in Intellectual History: Proseminar]**

**[History of Art and Architecture 281p. Visual Programs in Early Chinese Art]**

**[History of Art and Architecture 284. Visual Programs in Medieval Chinese Art]**

***China: Literature Courses***

***For Undergraduates and Graduates***

**Chinese Literature 113. Before the Emergence of Desire: Conference Course - (New Course)**

Catalog Number: 79492

*Andrew H. Plaks*

*Half course (spring term). Tu., 2–5. EXAM GROUP: 11*

In this course we will consider the range of meanings encompassed by the term *qing* in early Chinese texts, from newly-discovered manuscripts and the "Classics" of Confucian and Daoist thought, through a variety of major works of the "received" philosophical tradition. We will consider the semantic and rhetorical paths by which earlier uses of this key concept are turned in the direction of the issue of human feeling and the cult of desire that it commonly expresses in late-Imperial and modern intellectual discourse. The selected texts will be made available for



reading in both the original Chinese and in English translations to be provided for the course.

*Note:* The first meeting will be on Wednesday, January 29, 2015 from 9:00 to Noon.

**[Chinese Literature 114. Introduction to Premodern Chinese Literature]**

Catalog Number: 9028

*Xiaofei Tian*

*Half course (fall term). Hours to be arranged.*

This course will introduce students to the best-known writers and canonical works of Chinese literature from the premodern period.

*Note:* Expected to be given in 2015–16.

**[Chinese Literature 140. The Greatest Chinese Novel]**

Catalog Number: 71999

*Wai-yee Li*

*Half course (fall term). Tu., Th., 10–11:30.*

The Story of the Stone (also known as The Dream of the Red Chamber) by Cao Xueqin (1715?–1763) is widely recognized as the masterpiece of Chinese fiction. It is also a portal to Chinese civilization. Encyclopedic in scope, this book both sums up Chinese culture and asks of it difficult questions. Its cult status also accounts for modern popular screen and television adaptations. Through a close examination of this text in conjunction with supplementary readings and visual materials, the seminar will explore a series of topics on Chinese culture, including foundational myths, philosophical and religious systems, the status of fiction, conceptions of art and the artist, ideas about love, desire and sexuality, gender roles, garden aesthetics, family and clan structure, and definitions of socio-political order.

*Note:* Expected to be given in 2015–16.

***Cross-listed Courses***

For related courses, see also *China: Language Courses* section.

**[Aesthetic and Interpretive Understanding 39. Reinventing Literary China: Old Tales Retold in Modern Times]**

**[Aesthetic and Interpretive Understanding 47. Forbidden Romance in Modern China]**

**[Culture and Belief 40. Popular Culture and Modern China]**

**\*Dramatic Arts 172x. China on Stage - (New Course)**

***Primarily for Graduates***

**Chinese Literature 200. Research Methods in Pre-modern Chinese Literature--Proseminar**

Catalog Number: 2533

*Stephen Owen*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

An introduction to the use of Western and East Asian sources in literary research, including both print and digital media. In addition, one hour each week will be devoted to a basic text in literary theory.

*Note:* Primarily for first- and second-year graduate students (MA or PhD).



**[Chinese Literature 201a. History of Chinese Literature: Beginnings through Song]**

Catalog Number: 0165

*Xiaofei Tian*

*Half course (fall term). Tu., 1–4.*

In-depth, scholarly introduction to history of Chinese literature and literary culture from antiquity through 1400. Also examines state of the field and considers issues for future research. Includes bibliography. Essential for generals preparation.

*Note:* Expected to be given in 2015–16.

**Chinese Literature 206. Jin Ping Mei in a New Light: Seminar - (New Course)**

Catalog Number: 77997

*Andrew H. Plaks*

*Half course (spring term). W., 1–4. EXAM GROUP: 8*

This course is designed to trace the transformation of the dark vision of gratification and cultivation in this masterpiece of Ming fiction, through the devastating deconstruction of human values in the early-Qing novel *Xingshi yinyuanzhuan*, to the lyricization of desire and its ultimate failure in the mid-Qing masterpiece *Hongloumeng*. Readings and discussion will concentrate on crucial sections of the original works in Chinese, supplemented by scholarly and critical readings on the classic Chinese novel.

**[Chinese Literature 223r. Keywords]**

Catalog Number: 22565

*Wai-yee Li*

*Half course (spring term). Tu., 1–3:30.*

This course will examine the semantic range of keywords in early Chinese texts (up to Han) by considering their narrative and rhetorical possibilities. What kinds of arguments do they generate? What are the stories told to illustrate their meanings?

*Note:* Expected to be given in 2015–16.

**[Chinese Literature 229r. Topics in Early Medieval Literature]**

Catalog Number: 6099

*Xiaofei Tian*

*Half course (fall term; repeated spring term). Th., 1–4.*

Topic for fall term is poetry and poetics from the late Eastern Han through Sui. Spring term topic: The fall of the South in mid-sixth century and the subsequent displacement of many southerners to north China was a traumatic event for Southern Dynasties elite. We will discuss the writing of trauma, diaspora and nostalgia in this period with focus on the use of poetry as a medium of writing the history of self and state.

*Note:* Expected to be given in 2015–16.

**[Chinese Literature 231. Late-Ming Literature and Culture]**

Catalog Number: 2770

*Wai-yee Li*

*Half course (fall term). W., 1–4.*

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.)

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Reading knowledge of classical and pre-modern vernacular Chinese required.

### **Chinese Literature 240. The Three Kingdoms: Seminar - (New Course)**

Catalog Number: 77551

*Xiaofei Tian*

*Half course (fall term). Th., 1–4. EXAM GROUP: 8*

This course focuses on the literature of the Three Kingdoms period and on the Three Kingdoms imaginary constructed from the fourth century until today. All primary readings in Literary Chinese.

*Note:* There is an enormous amount of TK material, textual and visual, from premodern to modern period. The content of the course therefore can be modified each time it is taught, using different kinds of material depending on its focus in a given term.

*Prerequisite:* Prerequisite: At least one year of Literary Chinese or equivalent; some familiarity with early vernacular Chinese is welcome but not essential.

### **Chinese Literature 242. From Fiction into History**

Catalog Number: 2949

*David Der-Wei Wang*

*Half course (fall term). M., 2–4. EXAM GROUP: 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 245r. Topics in Sinophone Studies - Modern Chinese Fiction on the Periphery]**

Catalog Number: 0321

*David Der-Wei Wang*

*Half course (fall term). M., 2–4.*

Survey of modern Chinese fiction and narratology from Taiwan, Hong Kong, and the Chinese Diaspora: polemics of the canon, dialogues between national and regional imaginaries, and literary cultures in the Sinophone world.

*Note:* Expected to be given in 2015–16.

### **[Chinese Literature 247. Chinese Lyricism and Modernity: Seminar]**

Catalog Number: 8098

*David Der-Wei Wang*

*Half course (fall term). M., 2–4.*

Explores lyricism as an overlooked discourse in modern Chinese literature and culture. Looks into lyrical representations in poetic, narrative, and performative terms and re-defines the polemics of "the lyrical" in the making of Chinese modernities.

*Note:* Expected to be given in 2015–16.

### **[Chinese Literature 248. Modern Chinese Literature: Theory and Practice: Seminar]**

Catalog Number: 9486



*David Der-Wei Wang*

*Half course (fall term). M., 2–4.*

Survey of the concepts, institutions, canons, debates, experiments, and actions that gave rise to, and continually redefined, modern Chinese literature. Equal attention given to theories drawn from Chinese and Western traditions.

*Note:* Expected to be given in 2015–16.

**[Chinese Literature 258. Encounters between Tradition and Modernity in Chinese Literature: Seminar]**

Catalog Number: 14688

*Xiaofei Tian and David Der-Wei Wang*

*Half course (spring term). M., 1–4.*

In this course we will read a series of important Chinese texts from past to present and explore the complicated and nuanced ways in which modern literary culture responds to and negotiates with the classical tradition. Whether inheriting or disinheriting traditional resources, the present is intimately intertwined with the past, in its ingenious appropriations or impassioned negation.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Reading proficiency in Literary Chinese is helpful but not required.

**Chinese Literature 267r. Topics in Tang Literature: Seminar**

Catalog Number: 8521

*Stephen Owen*

*Half course (fall term; repeated spring term). F., 1–4. EXAM GROUP: Fall: I; Spring: 8*

The focus for the fall term is the poetry of Du Fu and in the spring term, the poetry of the "High Tang" from early representations to its later canonization in the thirteenth century.

*Prerequisite:* Two years of literary Chinese or equivalent.

**[Chinese Literature 268r. Topics in Song and Yuan Literature: Seminar]**

Catalog Number: 7143

*Stephen Owen*

*Half course (fall term). W., 1–3.*

This term we will study the construction and aesthetics of Song lyric (*ci*).

*Note:* Expected to be given in 2016–17.

*Prerequisite:* Two years of literary Chinese or equivalent.

**[Chinese Literature 280. Shanghai and Beijing: A Tale of Two Cities: Seminar]**

Catalog Number: 78971

*Jie Li*

*Half course (spring term). W., 2–4.*

This course aims to excavate the cultural and historical memories of China's two most important cities. We will discuss literary and cinematic representations, visual and material transformations of the cityscape, cities as sites of cultural production, and the lives of their inhabitants in modern times.

*Note:* Expected to be given in 2015–16.

***Cross-listed Courses***



**[Comparative Literature 277. Literature and Diaspora]  
 [History of Art and Architecture 280p. Voices in Chinese Painting]**

***Graduate Courses of Reading and Research***

**\*Chinese 300. Reading and Research**

Catalog Number: 4849

*Peter K. Bol 8014, Mark C. Elliott 3329, Wilt L. Idema 2511, Wai-yee Li 3357 (on leave 2014-15), Stephen Owen 7418, Michael J. Puett 1227, Michael A. Szonyi 4842, Xiaofei Tian 3746 (on leave spring term), and David Der-Wei Wang 5190 (on leave spring term)*

*Half course (fall term; repeated spring term). EXAM GROUP: 4*

***Japan: Language Courses***

***For Undergraduates and Graduates***

**Japanese Ba. Elementary Japanese**

Catalog Number: 2014

*Yuko Kageyama-Hunt*

*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: 4*

This course aims to develop a basic foundation in modern Japanese leading to proficiency in the four language skills of speaking, listening, reading and writing. Emphasis is placed on the use of these skills to communicate effectively in authentic contexts of daily life. Mastery of hiragana, katakana, and approximately 45 Kanji (Chinese characters).

**Japanese Bb. Elementary Japanese**

Catalog Number: 8728

*Yuko Kageyama-Hunt*

*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: 4*

Continuation of Japanese Ba, with an approximately 135 additional 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: 18*

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 11.*

Introduction to Kambun.



*Note:* Expected to be given in 2015–16.

*Prerequisite:* Japanese 106a or equivalent.

### **Japanese 106c. Later Classical Japanese**

Catalog Number: 7307

*Edwin A. Cranston*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

Post-Heian writings in Classical Japanese.

*Prerequisite:* Japanese 106a or equivalent.

### **Japanese 120a. Intermediate Japanese I**

Catalog Number: 8152

*Ikue Shingu*

*Half course (fall term). M. through F., at 9, 10, or 1. EXAM GROUP: 4*

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 130 Chinese characters beyond those introduced in Bb.

*Prerequisite:* Japanese Bb or equivalent.

### **Japanese 120b. Intermediate Japanese I**

Catalog Number: 6433

*Ikue Shingu*

*Half course (spring term). M. through F., at 9, 10, 1. EXAM GROUP: 4*

Continuation of Japanese 120a. Approximately 240 additional Chinese characters.

### **Japanese 130a. Intermediate Japanese II**

Catalog Number: 4855

*Miki Yagi*

*Half course (fall term). Sections M., T., W., Th., F., at 10, 1, or 2. EXAM GROUP: 4*

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 200 additional Chinese characters beyond those introduced in 120b.

*Prerequisite:* Japanese 120b or equivalent.

### **Japanese 130b. Intermediate Japanese II**

Catalog Number: 6904

*Miki Yagi*

*Half course (spring term). M., through F., at 10, or 2. EXAM GROUP: 4*

Continuation of Japanese 130a. Approximately 200 additional Chinese characters.

### **Japanese 140a. Advanced Modern Japanese**

Catalog Number: 3688

*Yasuko Matsumoto*



*Half course (fall term). Sections: M. through F., at 10 or 1. EXAM GROUP: 4*

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. Advanced Modern Japanese**

Catalog Number: 8551

*Yasuko Matsumoto*

*Half course (spring term). Sections: M. through F., at 10 or 1. EXAM GROUP: 5*

Continuation of Japanese 140a.

### **Japanese 150a. Readings and Discussion in Japanese Social Sciences**

Catalog Number: 4693

*Yasuko Matsumoto*

*Half course (fall term). M., W., F. at 9. EXAM GROUP: 10*

Selected readings and discussion in Japanese primarily on contemporary topics in economics, sociology, political science, psychology, and cultural studies, with occasional readings from literature. Readings are supplemented by selections from audiovisual media on current social issues.

*Note:* Conducted in Japanese.

*Prerequisite:* Japanese 140b.

### **Japanese 150b. Readings and Discussion in Japanese Social Sciences**

Catalog Number: 0984

*Yasuko Matsumoto*

*Half course (spring term). M., W., F., at 9. EXAM GROUP: 10*

Continuation of Japanese 150a.

*Prerequisite:* Japanese 150a.

### ***Cross-listed Courses***

[Linguistics 173. Linguistic Issues in Japanese]

**Linguistics 174. Tense and Aspect in Japanese**

[Linguistics 176. History and Prehistory of the Japanese Language]

### ***Primarily for Graduates***

### **Japanese 210a. Reading Scholarly Japanese for Students of Chinese and Korean**

Catalog Number: 9182

*Wesley M. Jacobsen*

*Half course (fall term). M., W., F., at 9. EXAM GROUP: 10*

Development of skills in reading and translating academic genres of Japanese, with special attention to Japanese scholarship on 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. Reading Scholarly Japanese for Students of Chinese and Korean**

Catalog Number: 8918

*Wesley M. Jacobsen*

*Half course (spring term). M., W., F., at 9. EXAM GROUP: 10*

Continuation of Japanese 210a.

*Note:* Expected to be omitted in 2010–11.

*Prerequisite:* Japanese 210a.

### ***Japan: History Courses***

#### ***For Undergraduates and Graduates***

##### **[Japanese History 115. Religion and Society in Edo and Meiji Japan]**

Catalog Number: 5756

*Helen Hardacre*

*Half course (fall term). W., 1–3.*

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.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3957.

*Prerequisite:* General knowledge of Japanese history and religion is helpful.

##### **[Japanese History 117. Japanese Folk Religion: Conference Course]**

Catalog Number: 65798

*Helen Hardacre*

*Half course (fall term). Hours to be arranged.*

This conference course is an introduction to the study of Japanese folk religion, popular religious life carried on largely outside the frameworks of Buddhism, Shinto, and other religious institutions. The course aims to interrogate the idea of folk religion and its viability as a field of study within Japanese religions and within contemporary society. In its first half, the course examines the traditional rubrics and topics in the literature on Japanese folk religion. In the second half, the course turns to changes in folk religious life brought about through tourism and the appropriation of folk religious motifs by such contemporary media forms as animé and manga.

*Note:* Expected to be given in 2016–17.

##### **[Japanese History 120. Religion and Society in Twentieth-Century Japan]**

Catalog Number: 4903

*Helen Hardacre*

*Half course (spring term). W., 1–3.*

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.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3958.

*Prerequisite:* General knowledge of Japanese history and religion is helpful. Enrollment in Japanese History 115 recommended but not required.

### [Japanese History 126. Shinto: Conference Course]

Catalog Number: 3097

*Helen Hardacre*

*Half course (spring term). W., 1–3.*

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:* Expected to be given in 2015–16. 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. Offered jointly with the Divinity School as 3960.

### [Japanese History 130. The History of Curiosity and the Curiosities of Edo Japan]

Catalog Number: 4445 Enrollment: Limited to 30.

*Shigehisa Kuriyama*

*Half course (spring term). Hours to be arranged.*

This course probes the nature and history of curiosity by exploring the strangely, extravagantly, intensely curious culture that was Japan in the Edo period (1600–1868), and spotlighting its entwinement with outsiders who were intensely curious about it. The design of the course is unique: crafted as an intellectual adventure game, it presupposes no prior knowledge, but will require keen curiosity and a willingness to experiment with new technologies of learning. In addition to students of Japanese culture, it should particularly interest those fascinated by global connections, early modern science, and the mystery of curiosity.

*Note:* Expected to be given in 2015–16.

### Japanese History 133. Discourses of Ainu Identity (1868-2008) - (New Course)

Catalog Number: 18621

*Noemie Godefroy*

*Half course (spring term). W., 2–5. EXAM GROUP: 18*

From their integration into the Japanese population in 1871 to their recognition by the Japanese government as an indigenous people of Japan in 2008, the history of the Ainu people has been in part a struggle over their discursive representation. Designated by Japanese dominant discourse as "former aborigines", coined "a vanishing people" before all but disappearing from it all together, the Ainu have had to reclaim their discursive representation, affirm their identity, ultimately achieving international, and national recognition less than a decade ago. These two movements -governmental discursive deconstruction of Ainu identity on the one hand, and Ainu discursive reclamation of their own identity, on the other- are intricately linked; Ainu affirmative discourse developed not a separate reaction to the hegemonic governmental discourse, but with and as a part of it. This course conjunctly aims at defining a theoretical framework for discourse analysis, interethnic relations, and the study of ethnic identity, and analyzing various sources defining and discussing Ainu identity (written or translated into English) produced by the Ainu themselves (epic songs, autobiographies, articles, speeches, etc.), the Japanese (legislative and



institutional texts, registers, acts, surveys, speeches, etc.) and Western authors (travelogues, accounts, international exhibition catalogues, etc).

### ***Cross-listed Courses***

**[Culture and Belief 57. Animated Spirituality: Japanese Religion in *Anime, Manga, and Film*]**

**[History of Art and Architecture 18j. Introduction to Japanese Architecture]**

**History of Art and Architecture 18k. Introduction to Japanese Art**

**[Societies of the World 13. Japan in Asia and the World]**

**[Societies of the World 33. Tokyo]**

**Societies of the World 43. Japan's Samurai Revolution**

### ***Primarily for Graduates***

**[Japanese History 240. Museum Research in Japanese Art: Seminar]**

Catalog Number: 74246

*Melissa M. McCormick and Ryūichi Abé*

*Half course (spring term). Hours to be arranged.*

Examines works in the Harvard Art Museums in art historical, literary, and religious context. The Spring 2014 seminar will focus on medieval Buddhist art and illustrated scrolls about the Shingon sect and its founder Kūkai.

*Note:* Expected to be given in 2015–16.

**[Japanese History 256. The Ise Shrines: Seminar]**

Catalog Number: 27559

*Helen Hardacre and Yukio Lippit*

*Half course (fall term). W., 4–6.*

This seminar examines Shikinen Sengū, the practice of rebuilding the Ise Grand Shrines every twenty years, addressing these shrines' history, architecture, religious practices, and related topics. Course readings will be in English and Japanese.

*Note:* Expected to be given in 2016–17. Offered jointly with the Divinity School as 3227.

**[Japanese History 260r. Topics in Japanese Cultural History]**

Catalog Number: 4539

*Shigehisa Kuriyama*

*Half course (fall term). Tu., 2–4.*

In 2013–14, the course will focus on the interplay of pictures and texts in Edo Japan in a wide variety of genres, including natural history, shunga, popular literature, how-to manuals, and advertisements. In addition to training students in the cultural analysis of printed illustrations, the course will also help students develop facility in reading *hentaigana* materials.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Advanced reading knowledge of Japanese with some acquaintance with (or at least concurrent study of) *bungo* and *kambun*.



### **Japanese History 270. Early Modern Japanese History: Proseminar**

Catalog Number: 85593

*David Howell*

*Half course (fall term). Th., 1–4. EXAM GROUP: 8*

This seminar surveys the recent English-language literature on the history of early modern Japan, roughly from the late sixteenth century to around 1875.

### **Japanese History 271r (formerly Japanese History 271). Research in Early Modern Japanese History: Seminar**

Catalog Number: 49178

*David Howell*

*Half course (spring term). Th., 2–5. EXAM GROUP: 11*

This seminar deals with the politics, society, and culture of Japan from the late sixteenth to the mid-nineteenth centuries. Readings will include primary and secondary sources in Japanese and English. Students will write a major research paper.

#### ***Cross-listed Courses***

[\*History 2651. Japanese History: Seminar]

[History 2653. Historiography of Modern Japan: Proseminar]

[History of Art and Architecture 288y. Tohaku on Painting]

#### ***Japan: Literature Courses***

##### ***For Undergraduates and Graduates***

##### **[Japanese Literature 124. *The Tale of Genji* in Word and Image ]**

Catalog Number: 2181

*Melissa M. McCormick*

*Half course (spring term). W., 1–3.*

Introduces students to *The Tale of Genji*, often called the world's first novel, authored by the court lady Murasaki Shikibu around the year 1000 CE. In addition to a close reading of the tale, topics for examination include Japanese court culture, women's writing, and the tale's afterlife in painting, prints, drama, manga, and film.

*Note:* Expected to be given in 2015–16.

##### **[Japanese Literature 133. Gender and Japanese Art]**

Catalog Number: 2144

*Melissa M. McCormick*

*Half course (fall term). Th., 1–3.*

Examines the role of gender in the production, reception, and interpretation of visual images in Japan from the twelfth through the twenty-first centuries. Topics include Buddhist conceptions of the feminine and Buddhist painting; sexual identity and illustrated narratives of gender reversals; the dynamics of voyeurism in Ukiyo-e woodblock prints; modernization of images of "modern girls" in the 1920s; and the gender dynamics of girl culture in manga and anime.

*Note:* Expected to be given in 2016–17.



### **Japanese Literature 140. The Literature of Protest in Modern Japan - (New Course)**

Catalog Number: 38161

*Joanna Meredith Sturiano*

*Half course (fall term). M., 2–5. EXAM GROUP: 7*

This course traces voices of protest in modern Japanese literature from the Freedom & People's Rights movement and the political novel of the Meiji period to literary responses to the triple disaster of March 11, 2011. Lectures on historical context will supplement and situate discussions of literary texts. We will examine works from the proletarian literature movement of the late 1920s; atomic bomb literature; literary representations of the anti-Security Treaty protests; feminist literature; works by underrepresented minorities, and more. We will consider how literature has served as a means of protest and a site for recording protest throughout modern Japan.

### **Japanese Literature 141. Word and Object in Premodern Japan - (New Course)**

Catalog Number: 92402

*Joshua Andrew Frydman*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Written texts are never separate from the material culture in which they are embedded. In premodern societies as in modern ones, the written word is an inseparable part of objects, both those in and on which it is written, and those in which it is stored, on which it is read, which it describes and alongside which it is placed. In the case of premodern Japan, the aesthetic and technological developments that produce new forms of material culture are often mirrored in literature, and vice versa. Therefore this course is designed as a survey of both premodern Japanese literature (in English translation) from the 8th through 19th centuries, and of the material and visual culture of those same eras. This course aims to explore the correspondences and differences among various texts and objects in premodern Japan, and in doing so introduce students to the possibilities of a multidisciplinary approach to scholarship in the humanities.

### **Japanese Literature 162. Girl Culture, Media, and Japan**

Catalog Number: 27841

*Tomiko Yoda*

*Half course (spring term). Tu., Th., 1:30–3. EXAM GROUP: 1*

The course examines the ways in which girlhood and girl culture have figured in the construction of gender, nation, and popular medias in modern to contemporary Japan. We will study visual and textual mediums, including novels, magazines, films, manga, and animation, paying attention to principal transformations that have marked the history of modern girl culture in Japan. No prior knowledge of Japanese language or history is expected.

### ***Cross-listed Courses***

#### **East Asian Film and Media Studies 140 (formerly Aesthetic and Interpretive Understanding 53). Anime as Global Popular Culture**

***Primarily for Graduates***



### **Japanese Literature 233r. Nara and Heian Court Literature: Seminar**

Catalog Number: 8614

*Edwin A. Cranston*

*Half course (spring term). W., 2–5. EXAM GROUP: 18*

*Topic: Sagoromo Monogatari.*

*Prerequisite:* Japanese 106a or equivalent.

### **Japanese Literature 270. Topics in Modern and Contemporary Japanese Fiction: Seminar**

Catalog Number: 10263

*Tomiko Yoda*

*Half course (spring term). W., 2–4:30. EXAM GROUP: 18*

A seminar course on the history, theory, and practice of modern to contemporary Japanese fiction. The course will be organized around a specific theme, time period, a cluster of writers, critics, or genres.

### **Japanese Literature 271. Topics in Gender and Culture in Japan: Seminar**

Catalog Number: 76892

*Tomiko Yoda*

*Half course (fall term). W., 2–4:30. EXAM GROUP: 7*

A seminar course that studies the constructions of gender and gender relations in Japan through the examination of various forms of expressive culture (visual, textual, sonic) in their historical contexts.

### ***Cross-listed Courses***

#### **[Comparative Literature 277. Literature and Diaspora]**

#### ***Graduate Courses of Reading and Research***

#### **\*Japanese 300. Reading and Research**

Catalog Number: 4627

*Ryuichi Abé 4974 (on leave spring term), Edwin A. Cranston 1186, Andrew Gordon 1891 (on leave 2014-15), Helen Hardacre 3191 (on leave 2014-15), Wesley M. Jacobsen 3443, Shigehisa Kuriyama 5269 (on leave 2014-15), Satomi Matsumura 2665, Melissa M. McCormick 5331, and Tomiko Yoda 6301*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

### ***Korea: Language Courses***

#### ***Primarily for Undergraduates***

#### **\*Korean 91r. Supervised Reading and Research**

Catalog Number: 79216

*Sang-suk Oh*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 16*



Independent reading and research in Korean Language.

*Note:* Open to students who have completed Korean 150b and 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.

*Prerequisite:* Korean 150b and permission of course head.

### ***For Undergraduates and Graduates***

#### **Korean Ba. Elementary Korean**

Catalog Number: 8739

*Sang-suk Oh*

*Half course (fall term). M., W., F., at 11, and two additional hours to be arranged. EXAM*

*GROUP: 18*

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

*Sang-suk Oh*

*Half course (spring term). M., W., F., at 11, and a section Tu., Th., at 10, 11, or 2. EXAM*

*GROUP: 14*

Continuation of Korean Ba.

*Prerequisite:* Korean Ba or equivalent.

#### **Korean Bxa. Elementary Korean for Advanced Beginners**

Catalog Number: 0120

*Heeyeong Jung*

*Half course (fall term). M., W., F., at 10, and two additional hours to be arranged. EXAM*

*GROUP: 5*

Designed for students with some listening and speaking background, either from prior formal learning or previous exposure to a Korean speaking community. Introductory Korean course, with emphasis on reading and writing. After successful completion of this course, students are expected be able to understand main ideas and/or some facts from the simple connected texts dealing with basic personal and social needs and to be able to meet a number of practical writing needs.

#### **Korean Bxb. Elementary Korean for Advanced Beginners**

Catalog Number: 3031

*Heeyeong Jung*

*Half course (spring term). T., Th., at 9, and two additional hours to be arranged. EXAM*

*GROUP: 10*

Continuation of Korean Bxa.



### **Korean 120a. Intermediate Korean**

Catalog Number: 5884

*Hee-Jeong Jeong*

*Half course (fall term). M. through F., at 9 or 10. EXAM GROUP: 5*

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. Intermediate Korean**

Catalog Number: 8590

*Hee-Jeong Jeong*

*Half course (spring term). M. through F., at 9. EXAM GROUP: 10*

Continuation of Korean 120a.

*Prerequisite:* Korean 120a or equivalent.

### **Korean 130a. Pre-advanced Korean**

Catalog Number: 2071

*Heeyeong Jung*

*Half course (fall term). M., W., F., at 1 and Drill T., Th., 9, and a weekly section to be arranged.*

*EXAM GROUP: 1*

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. Pre-advanced Korean**

Catalog Number: 2662

*Heeyeong Jung*

*Half course (spring term). M., W., at 1; Tu., Th., at 4; Tu., Th., at 1. EXAM GROUP: 8*

Continuation of Korean 130a.

*Prerequisite:* Korean 130a or equivalent.

### **Korean 140a. Advanced Korean**

Catalog Number: 5723

*Hee-Jeong Jeong*

*Half course (fall term). Tu., Th., 2–4. EXAM GROUP: 4*

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. Advanced Korean**

Catalog Number: 3011

*Hee-Jeong Jeong*

*Half course (spring term). Tu., Th., 2:30–4:30. EXAM GROUP: 11*

Continuation of Korean 140a.

*Prerequisite:* Korean 140a or equivalent.

### **Korean 150a. Readings in Cultural Studies**

Catalog Number: 1936

*Sang-suk Oh*

*Half course (fall term). W., 3-6 with two additional hours to be arranged. EXAM GROUP: 6*

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. Readings in Cultural Studies**

Catalog Number: 1282

*Sang-suk Oh*

*Half course (spring term). W., 3–6, with one additional hour to be arranged. EXAM GROUP: 17*

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.*

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.

*Note:* Expected to be given in 2015–16.

##### **[Korean History 115. Korean History Through Film]**

Catalog Number: 20477



*Sun Joo Kim*

*Half course (spring term). M., 3–6.*

This course is to examine history of premodern Korea through select Korea's contemporary feature films. Films and dramas with historical themes and personages have been very popular in Korea. We will examine the content of the films, and investigate how "true" or "false" they represent Korea's past, how they imagine and invent Korea's past, in what ways films are useful in better understanding Korean history, people's lives and practices.

*Note:* Expected to be given in 2015–16. A discussion section in the Korean language will be offered if enrollment is sufficient.

### **Cross-listed Courses**

#### **[Societies of the World 27. The Two Koreas]**

##### **Primarily for Graduates**

##### **[Korean History 230r. Readings in Premodern Korean History]**

Catalog Number: 4497

*Sun Joo Kim*

*Half course (fall term). Tu., 2–4.*

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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Korean History 111 or equivalent.

##### **[Korean History 231ar. Documents and Research Methods for the Study of Premodern Korea I: Seminar]**

Catalog Number: 56199

*Sun Joo Kim*

*Half course (fall term). W., 1–3.*

Introduction of the different types of primary sources and research methodologies useful for study of Chōson Korea. Students are required to write a research paper.

*Note:* Expected to be given in 2016–17.

*Prerequisite:* Korean History 111 or equivalent and reading proficiency in Korean. Reading ability in literary Chinese and Japanese helpful.

##### **[Korean History 231b. Documents and Research Methods for the Study of Premodern Korea II: Seminar]**

Catalog Number: 91032

*Sun Joo Kim*

*Half course (spring term). W., 1–3.*

Continued training in reading and interpreting primary sources and exploring innovative research methodologies. Students are required to write a research paper based on original sources on a topic of their choosing.



*Note:* Expected to be given in 2016–17.

*Prerequisite:* Korean History 231a or instructor's permission.

**[Korean History 235r. Historical Research in Korea ]**

Catalog Number: 7886

*Sun Joo Kim*

*Half course (spring term). W., 3–5.*

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 2017–18.

*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 (spring term). W., 3–5.*

Reading and research of selected primary sources and secondary works on premodern Korean history.

*Note:* Expected to be given in 2017–18.

*Prerequisite:* Korean History 111 or equivalent and reading proficiency in Korean. Reading ability in classical Chinese and Japanese helpful.

**Korean History 253. Modern Korean History: Proseminar**

Catalog Number: 0365

*Carter J. Eckert*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

An introduction to some of the current issues in modern Korean history through selected readings. Designed for entering graduate students and undergraduates with a basic knowledge of modern Korean History (Societies of the World 27, "Two Koreas" or its equivalent).

**[\*Korean History 255r. Modern Korean History: Seminar]**

Catalog Number: 0713

*Carter J. Eckert*

*Full course (indivisible). Th., 2–4.*

Readings and research in modern Korean history. Students are required to write a seminar paper based largely on primary materials

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Korean History 253 or equivalent, and reading proficiency in Korean.

**Korean History 257. Modern Korean History: Special Seminar - (New Course)**

Catalog Number: 50046

*Carter J. Eckert*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

Readings and research in modern Korean history. Students are required to write a seminar paper based largely on primary materials. Focus in Spring 2015 will be on contemporary (post-1945) Korean history, especially the Park Chung Hee period (1961-1979).



*Note:* This course is designed as a one-semester substitute for Korean History 255, which will not be offered in 2014-2015.

*Prerequisite:* Korean History 253 or equivalent, and reading proficiency in Korean.

### [Korean History 260. Readings in Modern Korean History I]

Catalog Number: 5372

*Carter J. Eckert*

*Half course (fall term). Hours to be arranged.*

Explores the history of the field through an examination of major scholarship. Designed primarily for graduate students preparing for the general examination.

*Note:* Expected to be given in 2015–16.

### [Korean History 261. Readings in Modern Korean History II]

Catalog Number: 79753

*Carter J. Eckert*

*Half course (spring term). Hours to be arranged.*

Continuation of Korean History 260. Designed primarily for graduate students preparing for the general examination.

*Note:* Expected to be given in 2015–16.

## **Korea: Literature Courses**

### **For Undergraduates and Graduates**

#### **Korean Literature 110. Korean Literature: Texts and Contexts, 9th Century through the Early 20th Century - (New Course)**

Catalog Number: 14818

*Si Nae Park*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This lecture course introduces students to select representations of Korean literature through literary works and their contexts from the 9th through the early 20th centuries. Lectures will be on the socio-cultural, historical, political, and philosophical contexts within which the texts, their writers' lives, their customs, their worldviews were embedded. Readings include original texts in translation and parallel scholarly commentaries. Students will read diverse genres of writing including biographies, memorials, poetry, songs, letters, fictional prose, travelogues, memoirs, folklore, and p'ansori. Some of our literary texts may perfectly fit our understanding of what a literary text is supposed to be, while others will challenge us to expand the boundaries of what we define as literature. The course aims to uncover sensibilities that constituted what Koreans during this period perceived as literary and literature-like. Combining lectures and deep reading of the course materials for class discussions, the course also uses visual representations such as paintings, maps, and old books, and portrayals of traditional Korean literary practices in film and television. Those interested in East Asian literature, history, and society will find this course useful.

### ***Primarily for Graduates***



## **Korean Literature 211. Korea through Ideologies of Languages and Writing: Seminar - (New Course)**

Catalog Number: 10716

*Si Nae Park*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

Koreans before the 20th century used literary Chinese and Chinese characters as the primary means of written expression. Present-day Koreans find this a vexing fact. What ideas of language and writing underpin such collective discomfort? This course examines how discourses on language and writing in Korea have shaped the ways in which Koreans imagined literary practices, cultural identity, power, gender, and literature. Our focus is Korea's long-time participation in and modern abandonment of the Sinographic Cosmopolis, but some of the readings will illustrate parallel cases of language ideologies in Japan, Vietnam, and China.

### ***Cross-listed Courses***

#### **[Comparative Literature 277. Literature and Diaspora]**

#### ***Graduate Courses of Reading and Research***

##### **\*Korean 300. Reading and Research**

Catalog Number: 8122

*Carter J. Eckert 1178, Sun Joo Kim 3821 (on leave 2014-15), David Mccann 3635, and Sang-suk Oh 3856*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

### ***Manchu: Language Courses***

#### ***For Undergraduates and Graduates***

##### **Manchu A. Elementary Manchu**

Catalog Number: 8961

*Mark C. Elliott*

*Half course (fall term). M., W., F., at 1. EXAM GROUP: 1*

Introduction to Manchu grammar with elementary readings in Manchu script.

##### **Manchu B. Elementary Manchu**

Catalog Number: 1625

*Mark C. Elliott*

*Half course (spring term). M., W., 11:30–1. EXAM GROUP: 14*

Readings in a variety of historical and literary texts with emphasis on Manchu documentary sources.

##### **[Manchu 120a. 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 2016–17.

### [Manchu 120b. 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 2015–16.

### *Primarily for Graduates*

### [Manchu 210b. Introduction to Sources for Manchu Studies]

Catalog Number: 4146

*Mark C. Elliott*

*Half course (fall term). W., 2–5.*

Research papers prepared on the basis of primary sources.

*Note:* Expected to be given in 2016–17.

*Prerequisite:* Manchu 210a.

### *Graduate Courses of Reading and Research*

### \*Manchu 300. Reading and Research

Catalog Number: 8735

*Mark C. Elliott 3329*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 11; Spring: 7*

### *Mongolian: Language Courses*

#### *Primarily for Undergraduates*

### [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 2015–16.

### [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 2015–16.



### ***For Undergraduates and Graduates***

#### **[Mongolian 120a. 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 2015–16.

#### **[Mongolian 120b. 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 2015–16.

### ***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). EXAM GROUP: 10*

### ***Tibetan and Himalayan Studies***

#### ***Tibetan History***

#### ***Cross-listed Courses***

#### **[History of Art and Architecture 18s. Arts of South and Southeast Asia]**

#### **[History of Art and Architecture 183k. Himalayan Art]**

#### **[History of Art and Architecture 285m. South Asian Temple : Theory and Practice]**

#### **[Religion 1705. Tibetan Religions]**

#### **Tibetan 91r. Supervised Reading and Research**

#### **Tibetan 101a. Elementary Classical Tibetan**

#### **Tibetan 101b. Elementary Classical Tibetan**

#### **Tibetan 102a. Intermediate Classical Tibetan**

#### **Tibetan 102b. Intermediate Classical Tibetan**

#### **Tibetan 104ar. Elementary Colloquial Tibetan**

#### **Tibetan 104br. Elementary Colloquial Tibetan**

#### **Tibetan 105ar. Intermediate Colloquial Tibetan**

#### **[Tibetan 106ar. Advanced Colloquial Tibetan]**

#### **[Tibetan 106br. Advanced Colloquial Tibetan]**

#### **Tibetan 190. Understanding Histories of Tibet - (New Course)**

#### **[Tibetan 219r. Tibetan Religious Literature: Seminar]**



- \***Tibetan 300. Reading and Research**
- \***Tibetan 302. Direction of AM Theses**

### ***Uyghur: Language Courses***

#### ***For Undergraduates and Graduates***

##### **[Uyghur A. Elementary Uyghur]**

Catalog Number: 8767

*Mark C. Elliott*

*Half course (fall term). M., W., F., at 9.*

Introduction to Uyghur, the Turkic language spoken in China's Xinjiang Uyghur Autonomous Region and throughout Central Asia. Course covers grammar, reading and writing (in the modified Arabic alphabet adopted in the PRC), and conversation practice.

*Note:* Expected to be given in 2015–16.

##### **[Uyghur B. Elementary Uyghur]**

Catalog Number: 5271

*Mark C. Elliott*

*Half course (spring term). M., W., F., at 9.*

Continuation of Uyghur A. Completion of basic Uyghur grammar, listening and speaking practice with the aid of audio-visual materials, selected readings from Uyghur literature and academic prose.

*Note:* Expected to be given in 2015–16.

#### **Uyghur 120A. Intermediate/Advanced Uyghur**

Catalog Number: 9312

*Mark C. Elliott*

*Half course (fall term). Tu., Th., 5–6:30. EXAM GROUP: 16*

Additional training in modern Uyghur, with attention to improvement of spoken fluency and comprehension. Extensive readings in a range of genres, including historical writing and academic prose as well as religious texts.

*Prerequisite:* Uyghur B or permission of instructor.

#### **Uyghur 120B. Intermediate/Advanced Uyghur**

Catalog Number: 4234

*Mark C. Elliott*

*Half course (spring term). Tu., Th., 5–6:30. EXAM GROUP: 6*

Continuation of Uyghur 120A.

*Prerequisite:* Uyghur 120A or permission of instructor.

### ***Graduate Courses of Reading and Research***

##### **\*Uyghur 300. Readings in Uyghur Language and Literature**

Catalog Number: 5357

*Mark C. Elliott 3329*



*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 16*

Guided readings in advanced Uyghur-language texts. May be repeated for credit.

*Prerequisite:* Uyghur 120B or permission of instructor.

### **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: 10*

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). M., W., 4–6, Th., at 5:30. EXAM GROUP: 13*

Continuation of Vietnamese Ba, with introduction of additional Vietnamese texts and excerpts from Vietnamese newspapers to enhance reading skills.

*Prerequisite:* Vietnamese Ba or permission of the instructor.

##### **Vietnamese 120a. Intermediate Vietnamese**

Catalog Number: 3276

*Binh Ngo*

*Half course (fall term). Lecture M., 4-6, Drill W., 4-6. EXAM GROUP: 17*

Further development of speaking, reading, writing, and aural comprehension. Texts and dialogues 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 instructor.

##### **Vietnamese 120b. Intermediate Vietnamese**

Catalog Number: 6178

*Binh Ngo*

*Half course (spring term). M., W., 4–6. EXAM GROUP: 13*

Continuation of Vietnamese 120a.

*Note:* Conducted entirely in Vietnamese.

*Prerequisite:* Vietnamese 120a or permission of instructor.

##### **Vietnamese 130a. Advanced Vietnamese**

Catalog Number: 6287

*Binh Ngo*



*Half course (fall term). Lecture T., 3-5, Drill Th., 3-5. EXAM GROUP: 2*

Development of high proficiency in Vietnamese. Introduction of complex grammar and vocabulary, using authentic Vietnamese texts, 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 instructor.

### **Vietnamese 130b. Advanced Vietnamese**

Catalog Number: 3968

*Binh Ngo*

*Half course (spring term). Tu., Th., 3-5, and one additional hour to be arranged. EXAM GROUP: 16*

Continuation of Vietnamese 130a.

*Note:* Conducted entirely in Vietnamese.

*Prerequisite:* Vietnamese 130a or permission of instructor.

### **Vietnamese 140a. Advanced-High Vietnamese**

Catalog Number: 97175

*Binh Ngo*

*Half course (fall term). M., W., 2:30-4. EXAM GROUP: 7*

Development of near-native fluency in oral and written expression. Modern Vietnamese literature, including short stories, excerpts from novels, and poems in the original, that were published in Vietnam from the 1930s to the present day is used to introduce the complex grammar, idioms, proverbs and some slang expressions commonly used in contemporary Vietnamese. Discussion focuses on Vietnamese culture and issues related to Vietnamese society during that period.

*Prerequisite:* Vietnamese 130b

### **Vietnamese 140b. Advanced-High Vietnamese**

Catalog Number: 45653

*Binh Ngo*

*Half course (spring term). M., W., 2:30-4. EXAM GROUP: 18*

Continuation of Vietnamese 140a.

*Prerequisite:* Vietnamese 140a

## ***Vietnam: History Courses***

### ***Cross-listed Courses***

**[History 1063. America and Vietnam: 1945-1975]**

**History 1619. Premodern Vietnam**

**History 1620. Modern Vietnam**

**[\*History 1918 (formerly History 1618). Telling Lives in Asia]**

### ***Graduate Courses of Reading and Research***



**\*Vietnamese 300. Reading and Research**

Catalog Number: 7211

Binh Ngo 1383

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18

## Economics

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

#### *Faculty of the Department of Economics*

N. Gregory Mankiw, Robert M. Beren Professor of Economics (*Chair*)

Philippe Aghion, Robert C. Waggoner Professor of Economics

Alberto F. Alesina, Nathaniel Ropes Professor of Political Economy (*Director of Graduate Studies*)

Pol Antràs, Robert G. Ory Professor of Economics (*on leave 2014-15*)

Sandeep Baliga, Visiting Professor of Economics

Robert J. Barro, Paul M. Warburg Professor of Economics

John Y. Campbell, Morton L. and Carole S. Olshan Professor of Economics

Gary Chamberlain, Louis Berkman Professor of Economics (*on leave fall term*)

Eric Chaney, Associate Professor of Economics

Raj Chetty, William Henry Bloomberg Professor of Economics

Richard N. Cooper, Maurits C. Boas Professor of International Economics

David M. Cutler, Otto Eckstein Professor of Applied Economics, Harvard College Professor, Professor in the Department of Global Health and Population (*Public Health*)

Melissa Lynne Dell, Assistant Professor of Economics

Pierre Christian Dubois, Visiting Professor of Economics

Christian Dustmann, Visiting Professor of Economics

Henry Farber, Visiting Professor of Economics

Emmanuel Farhi, Professor of Economics

Martin Feldstein, George F. Baker Professor of Economics

Christopher L. Foote, Professor of the Practice of Economics

Richard B. Freeman, Herbert S. Ascherman Professor of Economics (*on leave spring term*)

Benjamin M. Friedman, William Joseph Maier Professor of Political Economy

Roland G. Fryer, Henry Lee Professor of Economics (*on leave 2014-15*)

Drew Fudenberg, Frederic E. Abbe Professor of Economics

Alan M. Garber, Provost, and Professor of Economics (FAS), Professor of Public Policy (*Kennedy School*), Mallinckrodt Professor of Health Care Policy (*Medical School*)



Edward L. Glaeser, Fred and Eleanor Glimp Professor of Economics (*on leave spring term*)  
Claudia Goldin, Henry Lee Professor of Economics  
Gita Gopinath, Professor of Economics  
Jerry R. Green, David A. Wells Professor of Political Economy, John Leverett Professor  
Oliver S. Hart, Andrew E. Furer Professor of Economics (*on leave fall term*)  
Jason Hartline, Visiting Associate Professor of Economics  
Elhanan Helpman, Galen L. Stone Professor of International Trade  
Nathaniel Hendren, Assistant Professor of Economics  
Keisuke Hirano, Visiting Associate Professor of Economics  
Richard A. Hornbeck, Dunwalke Associate Professor of American History (*on leave 2014-15*)  
Johannes Horner, Visiting Professor of Economics  
David William Johnson, Senior Preceptor  
Dale W. Jorgenson, Samuel W. Morris University Professor  
Maximilian Kasy, Assistant Professor of Economics (*on leave spring term*)  
Lawrence F. Katz, Elisabeth Allison Professor of Economics  
Brian Knight, Visiting Professor of Economics  
Johann-helmut Kotz, Visiting Lecturer on Economics  
Michael R. Kremer, Gates Professor of Developing Societies  
David I. Laibson, Robert I. Goldman Professor of Economics  
Owen A. Lamont, Visiting Lecturer on Economics  
Robin S. Lee, Assistant Professor of Economics  
Stephen A. Marglin, Walter S. Barker Professor of Economics  
Eric S. Maskin, Adams University Professor (*on leave 2014-15*)  
Marc J. Melitz, David A. Wells Professor of Political Economy  
Jeffrey A. Miron, Senior Lecturer on Economics (*Director of Undergraduate Studies*)  
Sendhil Mullainathan, Professor of Economics  
Nathan J. Nunn, Professor of Economics  
Ariel Pakes, Thomas Professor of Economics (*on leave 2014-15*)  
Amanda D. Pallais, Assistant Professor of Economics and of Social Studies  
Giacomo Antonio mari Ponzetto, Visiting Assistant Professor of Economics  
Matthew Rabin, Pershing Square Professor of Behavioral Economics  
Kenneth Rogoff, Thomas D. Cabot Professor of Public Policy (*on leave 2014-15*)  
Marc Rysman, Visiting Professor of Economics  
Thomas Andrew Sampson, Visiting Assistant Professor of Economics  
Florian Scheuer, Visiting Assistant Professor of Economics  
Amartya Sen, Lamont University Professor (*on leave spring term*)  
Neil Shephard, Professor of Economics and of Statistics  
Andrei Shleifer, Professor of Economics  
Jeremy C. Stein, Moise Y. Safra Professor of Economics  
James H. Stock, Harold Hitchings Burbank Professor of Political Economy  
Tomasz Strzalecki, John L. Loeb Associate Professor of the Social Sciences  
Lawrence H. Summers, Charles W. Eliot University Professor  
Elie Tamer, Professor of Economics  
Martin L. Weitzman, Professor of Economics  
Luigi Zingales, Visiting Professor of Economics



### ***Other Faculty Offering Instruction in the Department of Economics***

Gabriel Chodorow-reich, Assistant Professor of Economics

James Engell, Gurney Professor of English Literature and Professor of Comparative Literature  
*(on leave fall term)*

Dwight H. Perkins, Harold Hitchings Burbank Professor of Political Economy, Emeritus

James Robinson, Wilbur A. Cowett Professor of Government

Robert N. Stavins, Albert Pratt Professor of Business and Government (*Kennedy School*)

Jeffrey G. Williamson, Laird Bell Professor of Economics, Emeritus

### ***Tutorials, Junior Seminars, and Senior Thesis Seminars in Economics***

#### ***Primarily for Undergraduates***

##### **\*Economics 910r. Supervised Reading and Research**

Catalog Number: 1020

*Rebecca Toseland*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 13;  
 Spring: 9*

Supervised reading--by an economics faculty member--leading to a long term paper on a topic or topics not covered by regular courses.

*Note:* Does not count for concentration credit and may not be taken Pass/Fail. Requires signatures of the faculty adviser and an Economics Department Lecturer/Advisor. Application available at the Economics Undergraduate Office at Littauer Center, North Yard.

##### **\*Economics 970. Tutorial — Sophomore Year**

Catalog Number: 7923

*Anne Nathalie LeBrun*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 7*  
 A series of seminars taught in small sections focusing on applications of economic theory to real problems.

*Note:* One term required of all Economics concentrators. Enrollment limited to concentrators.  
 Has an introductory meeting. Meets in assigned section thereafter.

*Prerequisite:* Economics 10a and 10b (or equivalent); Statistics 100, 104, or 110; and Economics 1010a1, 1010a2, or 1011a.

##### **\*Economics 975a (formerly \*Economics 975). Tutorial — Theory Review**

Catalog Number: 3281

*Jane Leber Herr*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16;  
 Spring: 6*

A thorough review of intermediate microeconomics.

*Note:* Required of and limited to concentrators who received below a B- in Economics 1010a or 1011a.



### **\*Economics 975b. Tutorial - Macroeconomics Theory Review - (New Course)**

Catalog Number: 17938

*Jane Leber Herr*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 15*

A thorough review of intermediate macroeconomics.

*Note:* Required of and limited to concentrators who received below a B- in Economics 1010b or 1011b.

### ***Economics 980 Junior Seminars***

Junior seminars are lotteried the week before classes start; priority is given to economics concentrators in their junior year. Each course will be limited to 18 students. Please see the Undergraduate Program section of the Economics Department website for instructions on how and when to lottery. Other interested students may apply in person during the first week of classes to the Undergraduate Program Administrator located in Room 112 Littauer Center - North Yard.

### **\*Economics 980aa. The Rise of Asia and the World Economy**

Catalog Number: 70805

*Dale W. Jorgenson*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

*Prerequisite:* Ec 1010a and 1010b (or 1011a and 1011b), one of stats 100, 104 or 110, and Ec 1123 or 1126 (or concurrent enrollment in 1123 or 1126).

### **\*Economics 980b. Education in the Economy**

Catalog Number: 1581 Enrollment: Course may be lotteried.

*Lawrence F. Katz and Claudia Goldin*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

An exploration of the role of education in the economy using historical, comparative, and current policy perspectives. Topics include the theory of human capital, role of education in economic growth and distribution, the educational production function, vouchers, charter schools, class size, standards, school equalization, for-profit educational institutions, and the gender gap in college completion. A serious research paper is required, as are several short critical essays of the literature.

*Prerequisite:* Ec 1010a and 1010b (or 1011a and 1011b), one of stats 100, 104 or 110, and Ec 1123 or 1126 (or concurrent enrollment in 1123 or 1126).

### **\*Economics 980bb. Behavioral Economics - (New Course)**

Catalog Number: 24433 Enrollment: Limited to 18.

*Tomasz Strzalecki*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

The seminar will focus on theoretical and experimental issues in behavioral economics. We will study the relationships between the mathematical models of individual behavior (both utility maximization and psychologically motivated models) and the kinds of behavior we can observe in the lab. We will design experiments to test various theories and also study the types of behavior for which we don't have good models yet and try to understand what a good model would look like.



*Prerequisite:* Prior knowledge of behavioral economics will be useful. The course will focus on analytical methods and therefore requires knowledge of calculus.

**\*Economics 980cc. Readings on Market Imperfections and Implications for Government Intervention - (New Course)**

Catalog Number: 77121 Enrollment: Limited to 18.

*Nathaniel Hendren*

*Half course (spring term). M., 2–5. EXAM GROUP: 18*

This course focuses on rationales for and methods of government interventions in private markets. We cover various rationales, such as environmental externalities, fiscal externalities, and asymmetric information. And, we focus on various methods of intervention, such as taxes, regulation, direct government provision, mandates. We motivate our discussions using a combination of classic economics papers and more recent work focused on topical issues such as health insurance regulation and climate change.

**\*Economics 980p. International Trade Policy**

Catalog Number: 17382

*Elhanan Helpman*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

Provides a discussion of the economic impacts of international trade policies and the political economy of trade policy formation. The course will focus on analytical methods and therefore requires knowledge of calculus.

*Prerequisite:* Ec 1010a and 1010b (or 1011a and 1011b), one of stats 100, 104 or 110, and Ec 1123 or 1126 (or concurrent enrollment in 1123 or 1126).

**[\*Economics 980q. Economics Design Lab]**

Catalog Number: 7220

*Sendhil Mullainathan*

*Half course (fall term). W., 5–7 p.m.*

This class offers a chance for students to see how social science insights (economics, finance and psychology) can be used to design policies and products that solve important problems. This class offers a chance for students use insights from behavioral economics to design solutions to important and/or interesting problems. Each student will be asked to pick one concrete problem and craft a solution. Some students may focus on designing behaviorally informed policy solutions to problems such as unemployment insurance. Others may focus on designing new products for everything from personal finance to healthy eating; products might be apps, financial vehicles or something more exotic. Others may focus on problems closer to home such as devising a way to keep students (themselves) from cramming. The emphasis in all these cases will be on (i) use of behavioral insights and (ii) practical implementability of the solution. Students will take the problem as far as the implementation cycle as the class and their design will allow.

*Note:* Expected to be given in 2015–16. Students with non-economic backgrounds (such as psychology or engineering) are particularly encouraged to take the course. Some familiarity with behavioral economics (1030, 1035) is valuable but knowledge of psychology from other classes is a substitute.



*Prerequisite:* Ec 1010a and 1010b (or 1011a and 1011b), one of stats 100, 104 or 110, and Ec 1123 or 1126 (or concurrent enrollment in 1123 or 1126).

**[\*Economics 980s. The Historical Origins of Middle Eastern Development]**

Catalog Number: 53797

*Eric Chaney*

*Half course (fall term). Tu., Th., 2:30–4.*

Middle Eastern countries enjoyed world economic leadership during the Middle Ages, and continue to play an important role in the world economy. This course will explore the historical development of Middle Eastern economies. Topics include the effects of colonialism, natural resource endowments and religion on economic growth. The course will emphasize how these and other historical factors continue to influence development prospects in the region today.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Ec 1010a and 1010b (or 1011a and 1011b), one of stats 100, 104 or 110, and Ec 1123 or 1126 (or concurrent enrollment in 1123 or 1126).

**\*Economics 980u. Immigration Economics**

Catalog Number: 87839

*George J. Borjas (Kennedy School)*

*Half course (fall term). M., 10–12. EXAM GROUP: 5*

There has been a resurgence of large-scale international migration in the past few decades. This course explores the economic determinants and consequences of these population flows. Specific topics include the study of how immigrants are non-randomly selected from the population of the countries of origin, the measurement and implications of economic assimilation in the receiving country, the impact of the flows on the labor markets of both receiving and sending countries, and the calculation of the economic benefits from immigration.

*Note:* A research paper will be required.

*Prerequisite:* Ec 1010a and 1010b (or 1011a and 1011b), one of stats 100, 104 or 110, and Ec 1123 or 1126 (or concurrent enrollment in 1123 or 1126).

**[\*Economics 980w. Policy Options in Health and Environmental Economics]**

Catalog Number: 31219 Enrollment: Lottery

*Ariel Pakes*

*Half course (spring term). (W.), 1–3.*

The seminar will focus on policy issues in two areas; health economics, and environmental economics. We will read papers on an assortment of policy options and formulate frameworks for analyzing their likely impacts on outcomes of interest. Examples from health care include the analysis of mergers in hospital markets and the choice of capitation vs fee for service contracts. Examples from environmental economics include the choice between tradeable pollution permits and pollution taxes. Where possible we will use data and do the analysis quantitatively. Some knowledge of microeconomic and statistical tools, particularly those related to industrial organization, will be assumed.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Ec 1010a and 1010b (or 1011a and 1011b), one of stats 100, 104 or 110, and Ec 1123 or 1126 (or concurrent enrollment in 1123 or 1126).



### **\*Economics 980x. Economics of Work and Family**

Catalog Number: 13231 Enrollment: Course may be lotteried.

*Claudia Goldin*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

How are the most personal choices and life transitions decided? When and whom do you marry, how many children do you have, how much education should you obtain, and which careers or jobs will you pursue? Much will be explored in terms of change over time, particularly concerning the economic emergence of women and the growing role of government. Readings draw on economic theory, empirical analyses, history, and literature from the 19th century to the present.

*Prerequisite:* Ec 1010a and 1010b (or 1011a and 1011b), one of stats 100, 104 or 110, and Ec 1123 or 1126 (or concurrent enrollment in 1123 or 1126).

### **[\*Economics 980y. The Economy of China]**

Catalog Number: 23151 Enrollment: Limited to 18.

*Richard N. Cooper*

*Half course (spring term). W., 2–4.*

This course critically examines China's remarkable economic performance since 1980 and places this performance in comparative context. Topics covered include China's economic structure, institutions, inequality, trade, population, and public policy.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Ec 1010a and 1010b (or 1011a and 1011b), one of stats 100, 104 or 110, and Ec 1123 or 1126 (or concurrent enrollment in 1123 or 1126).

### **[\*Economics 980z. Tax and Budget Policy]**

Catalog Number: 95127

*Martin Feldstein*

*Half course (spring term). Tu., 4–6.*

This seminar will expose students to a wide range of questions in tax and budget policy. Each student will be expected to develop a research-based position on one such issue. Examples from which students can choose might include: How can future budget deficits be reduced?, How should the student loan program be reformed?, Should the post office be privatized?, Should the government mortgage programs (Fannie Mae and Freddie Mac) be phased out?, Should the tax deduction for state tax payments be eliminated?

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Ec 1010a and 1010b (or 1011a and 1011b), one of stats 100, 104 or 110, and Ec 1123 or 1126 (or concurrent enrollment in 1123 or 1126).

### **Economics 985 Senior Thesis Seminars**

These seminars are limited to seniors writing senior honor theses. Emphasis is placed on research design, methodological problems, literature review, and sources of data. Regular student presentations of work in progress are required. 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 16 students.



### **\*Economics 985k. Research in Macroeconomics, Finance, and Modeling**

Catalog Number: 0871

*Kiran Gajwani*

*Full course. Hours to be arranged. EXAM GROUP: 3*

Workshop for seniors writing theses. Especially for topics in macroeconomics, finance, or theses involving theoretical models, but open to all fields. Emphasis on choice of research topics, methodology, and data sources. Course requires written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis.

### **\*Economics 985l. Research in Development and Health Economics**

Catalog Number: 94962

*Kiran Gajwani*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

Workshop for seniors writing theses. Especially for topics in development or health economics, but open to all fields. Emphasis on choice of research topics, methodology, and data sources. Course requires written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis.

### **\*Economics 985m. Research in International Trade, Education, and Public Economics**

Catalog Number: 23048

*Anne Nathalie LeBrun*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 7; Spring: 18*

Workshop for seniors writing theses. Especially for topics in international trade, education, or public economics, but open to all fields. Emphasis on choice of research topics, methodology, and data sources. Course requires written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis.

### **\*Economics 985n. Research in Applied Microeconomics, Labor and Gender**

Catalog Number: 43294

*Jane Leber Herr*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 18; Spring: 17*

Workshop for seniors writing theses. Especially for applied work in microeconomics, labor, or gender issues, but open to all fields. Emphasis on choice of research topics, methodology, and data sources. Course requires written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis.

### **[\*Economics 985o. Research in Macro and International Economics]**

Catalog Number: 98646

*Kiran Gajwani*

*Full course. Fall: F., 10–12, and a weekly section to be arranged.*

Workshop for seniors writing theses. Especially for topics in macroeconomics or international economics, but open to all fields. 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.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.



### **\*Economics 985p. Research in Finance, Behavioral, and Experimental Economics**

Catalog Number: 26105

*Kiran Gajwani*

*Full course. Hours to be arranged. EXAM GROUP: 15*

Workshop for seniors writing theses. Especially for topics in finance, behavioral economics, or experimental economics, but open to all fields. Emphasis on choice of research topics, methodology, and data sources. Course requires written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis.

### **\*Economics 985q. Research in Applied Microeconomics, Environmental, and Natural Resource Economics - (New Course)**

Catalog Number: 17303

*Rebecca Toseland*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 9; Spring: 2*

Workshop for seniors writing theses. Especially for applied work in microeconomics, environmental, or natural resource economics, but open to all fields. Emphasis on choice of research topics, methodology, and data sources. Course requires written and oral presentations of work in progress leading toward completion of a major research paper or senior honors thesis.

### **\*Economics 990. Tutorial — Senior Year**

Catalog Number: 7342

*Jeffrey A. Miron (fall term), Rebecca Toseland (spring term) and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: 10*

For students writing a senior thesis out of sequence.

*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 10a (formerly Economics 10). Principles of Economics**

Catalog Number: 3660

*N. Gregory Mankiw and members of the Department*

*Half course (fall term). M., W., F., at 12. Sections also meet at 9, 10, 11, 12, 1, or 2. EXAM GROUP: 11*

Introduction to economic issues and basic principles and methods of microeconomics: how markets work, market efficiency and market failure, firm and consumer behavior, policy issues such as taxation, international trade, the environment, and the distribution of income.

*Note:* Microeconomics (taught in the fall term) is a prerequisite for macroeconomics (taught in the spring term). Students may elect to take only the fall microeconomics course and receive a half-course credit. 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 the full-year course in their freshman year. This is a required course for all economics concentrators and a prerequisite for higher level courses in economics. This course, when taken for a letter grade together with Economic 10b, meets the General Education requirement for either Empirical and Mathematical Reasoning or United States in the World, but not both.

### **Economics 10b. Principles of Economics**

Catalog Number: 48492

*N. Gregory Mankiw and members of the Department*

*Half course (spring term). M., W., F., at 12. EXAM GROUP: 7*

Economic growth, inflation, unemployment, the business cycle, the financial system, international capital flows and trade imbalances, and the impact of monetary and fiscal policy. The Department of Economics strongly encourages students considering a concentration in economics to take both Ec10a and Ec10b in their freshman year. These courses are required for all economics concentrators and are prerequisites for higher level courses in economics. These courses, when both are taken for a letter grade, meet the General Education requirement for either Empirical and Mathematical Reasoning or United States in the World, but not both.

*Note:* This course, when taken for a letter grade together with Economic 10a, meets the General Education requirement for either Empirical and Mathematical Reasoning or United States in the World, but not both.

*Prerequisite:* Ec10a or permission of the instructor.

### **[Economics 1000. Growth, Technology, Inequality, and Evolution]**

Catalog Number: 44292 Enrollment: Limited to 75.

*Instructor to be determined*

*Half course (spring term). Tu., Th., 1–2:30.*

An economist and a humanist, together with professors from the natural sciences, analyze familiar conceptual and policy-relevant issues from viewpoints of their respective disciplines. For example, how do we measure inequality, and at what point does it become problematic (and how do we know)? How then should it be addressed (e.g., tax code, minimum wage)? What are the best policies to confront job losses from technology? What does sustainable growth mean? The goal is not merely to examine four intertwined issues "growth, technology, inequality, and evolution" but also to understand the distinct concerns and methods of the humanities, social sciences, and natural sciences.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* For Economics concentrators: Economics 10a. For others: Ec 10a or completion of General Education EMR requirement or equivalent.

### **[Economics 1000b. Growth, Technology, Inequality, and Evolution]**

Catalog Number: 13465 Enrollment: Limited to 75.

*Benjamin M. Friedman and James Engell*

*Half course (spring term). Tu., Th., 1–2:30.*

An economist and a humanist, together with professors from the natural sciences, analyze familiar conceptual and policy-relevant issues from viewpoints of their respective disciplines. For example, how do we measure inequality, and at what point does it become problematic (and how do we know)? How then should it be addressed (e.g., tax code, minimum wage)? What are



the best policies to confront job losses from technology? What does sustainable growth mean? The goal is not merely to examine four intertwined issues "growth, technology, inequality, and evolution" but also to understand the distinct concerns and methods of the humanities, social sciences, and natural sciences.

*Note:* Expected to be given in 2015–16. Students who wish to receive economics concentration credit must enroll in Econ 1000a. Econ 1000a has an Ec 10a prerequisite.

*Prerequisite:* Ec 10a or completion of General Education EMR requirement or equivalent.

### **Economics 1010a (formerly Economics 1010a1). Microeconomic Theory**

Catalog Number: 58552

*Jeffrey A. Miron (fall term) and Marc J. Melitz (spring term)*

*Half course (fall term; repeated spring term). Tu., Th., 10–11:30; and a one-hour weekly section to be arranged. EXAM GROUP: 12*

Focuses on the optimizing behavior of individual consumers and firms and coordination of individual decisions through markets, including the evaluation of market outcomes.

*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 General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Economics 10 and Mathematics 1a or their equivalents.

### **Economics 1010b. Macroeconomic Theory**

Catalog Number: 2924

*Christopher L. Foote*

*Half course (spring term). M., W., F., at 9, and a one-hour weekly section to be arranged. EXAM GROUP: 9*

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.

*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 General Education requirement for Empirical and Mathematical Reasoning.

*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

*Giacomo Ponzetto*

*Half course (fall term). Tu., Th., 11:30-1. EXAM GROUP: 15*

Economics 1011a is similar to Economics 1010a, but more mathematical and covers more material. The course teaches the basic tools of economics and to apply them to a wide range of human behavior.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning. Economics 1011a fulfills the intermediate microeconomic theory requirement for Economics concentrators. Students may take either Econ



1010a or Econ 1011a for credit. However, starting in Fall 2014, concentrators who receive less than a B- in this course must enroll in Economics 975a (Microeconomic Theory Tutorial). Exception: Concentrators who already took their macroeconomic theory requirement (Econ 1010b/1011b) prior to Fall 2014 are held to the old rule: concentrators who earn below an average grade of B-/C+ in their two economic theory requirements must enroll in Econ 975. *Prerequisite:* Mathematics 21a or permission of the instructor.

### **Economics 1011b. Macroeconomic Theory**

Catalog Number: 6993

*Philippe Aghion and Gabriel Chodorow-Reich*

*Half course (spring term). Tu., Th., 10-11:30, and a one-hour weekly section to be arranged.*

*EXAM GROUP: 12*

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 General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Economics 1011a or 1010a and Mathematics 21a, or permission of the instructor.

### **[Economics 1017. A Libertarian Perspective on Economic and Social Policy]**

Catalog Number: 1197 Enrollment: Limited to 200.

*Jeffrey A. Miron*

*Half course (spring term). Tu., Th., 10-11:30.*

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. Policies addressed include drug prohibition, gun control, and public education.

*Note:* Expected to be given in 2015–16. 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. Policies addressed include drug prohibition, gun control, public education, abortion rights, gay marriage, income redistribution, and campaign finance regulation.

*Prerequisite:* Ec 10a and Ec 10b.

### **Economics 1018. Cultural Economics**

Catalog Number: 1775

*Alberto F. Alesina*

*Half course (fall term). M., W., F., at 11, and a weekly section to be arranged. EXAM GROUP: 18*

Explores the importance of culture on economic outcomes, focusing on how heterogeneity of preferences affects economic choices and where those differences come from. Theoretical topics include group identity, social interactions and networks, evolutionary selection

*Note:* Explores the importance of culture on economic outcomes, focusing on how heterogeneity of preferences affects economic choices and where those differences come from. Theoretical topics include group identity, social interactions and networks, evolutionary selection, the importance of the family. Empirical applications include international investment, savings,



occupational choices, ethical norms, economic development, fertility decisions.  
*Prerequisite:* Economics 1010a1, 1010a2, or 1011a, and Economics 1123.

### **Economics 1030. Psychology and Economics**

Catalog Number: 4709 Enrollment: Limited to 100.

*David I. Laibson and Tomasz Strzalecki*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

Psychological concepts include social preferences, impulsivity, bounded rationality, loss-aversion, over-confidence, self-serving biases, hedonics, and neuroscience. Economic concepts include arbitrage, equilibrium, rational choice, utility maximization, Bayesian beliefs, game theory. Integrates these psychological and economic concepts to understand behavioral phenomena such as portfolio choice, saving, procrastination, addiction, asset pricing, auction bidding, labor supply, cooperation, persuasion.

*Prerequisite:* Ec 10a and Ec 10b and knowledge of univariate calculus.

### **[Economics 1032. The Packing Problem: The Behavioral Economics of Scarcity]**

Catalog Number: 48309

*Sendhil Mullainathan*

*Half course (fall term). Hours to be arranged.*

Why do highly successful people have a rush of energy and get things done at the last minute? Why didn't they have that rush earlier? Why does poverty persist around the world? Why is obesity rampant? This course argues that all these questions can be understood by understanding the behavioral economics of scarcity. The lectures will span concepts from mathematics of computation, psychology, evolutionary biology to numerous economic applications.

*Note:* Expected to be given in 2015–16. A research paper is required. This course meets the concentration writing requirement.

*Prerequisite:* Ec 10a and Ec 10b, an introductory course in Psychology, and Statistics 100, 101 or 104.

### **Economics 1035. Market Failure and Government Failure: The Economics of Regulation - (New Course)**

Catalog Number: 71705

*Eric B. Rasmusen*

*Half course (fall term). M., W., 2–3:30. EXAM GROUP: 7*

This lecture/discussion course builds on basic price theory to look at how and when free market fails to maximize surplus and government regulation can help. It pays particular attention to "government failure": situations where appropriate regulation could increase surplus but actual regulation would reduce it because of the incentives of voters, politicians, and civil servants. The course aims to teach how to see the diagrams, game trees, and background motivations behind the lines of news clipping. Its major theme is "cui bono?"

### **[Economics 1051. Introduction to Game Theory]**

Catalog Number: 3692

*Drew Fudenberg*

*Half course (spring term). Tu., Th., 10–11:30.*

Presents an introduction to the modern game theory, focusing on its use in economics. Main



ideas of game theory are introduced and illustrated using examples from industrial organization, labor economics, and macroeconomics.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16. Students may not take both Economics 1051 and Economics 1052 for credit.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a.

### **Economics 1052. Game Theory and Economic Applications**

Catalog Number: 2634

*Drew Fudenberg*

*Half course (fall term). Tu., Th., 10–11:30, and a weekly section to be arranged. EXAM*

*GROUP: 12*

Introduction to game theory and its economic applications with more rigor than in Economics 1051. Topics include extensive-form and strategic-form games, Nash equilibrium, subgame-perfect equilibrium, Bayesian equilibrium, and applications to long-term cooperation, auctions, bargaining, and mechanism design.

*Note:* Students may not take both Economics 1051 and Economics 1052 for credit.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a, and Mathematics 21a. Some exposure to basic probability theory and simple proofs will be useful as well.

### **[Economics 1056. Market Design]**

Catalog Number: 69207 Enrollment: Limited to 40.

*Instructor to be determined*

*Half course (fall term). Tu., Th., 2:30–4.*

This course studies the design of organized markets, focusing on efficient organization and the incentives created by market rules. Applications include online auction markets, government auctions of natural resources, procurement auctions, matching markets (students to classes or schools, medical residents to hospitals, kidneys to recipients). The analysis relies on a mix of documenting the rules of real-world markets, game theoretic analysis, empirical analysis, and experimental work. A research paper is optional with advance permission of instructor.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Economics 1011a and either 1051, 1052, 1060, 1070, 1640, or 1641, or permission of instructor.

### **[Economics 1059. Decision Theory]**

Catalog Number: 1322

*Tomasz Strzalecki*

*Half course (spring term). M., W., 1–2:30, and a weekly section to be arranged.*

An introduction to formal models of decision making in economics, including both classical and psychologically-motivated approaches. Topics include risk, uncertainty, ambiguity, and temptation.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a and Mathematics 21a.

### **[Economics 1060. Firms, Contracts, Financial Structure]**

Catalog Number: 3267

*Oliver S. Hart*



*Half course (spring term). M., W., 2:30–4.*

Explores theoretical and empirical work on incentive problems within and between firms (with more emphasis on the theory). Topics include agency problems arising from moral hazard and asymmetric information, executive compensation; boundaries of the firm; the financial structure of public companies; venture capital contracts; financial distress and bankruptcy; non-standard forms of organization.

*Note:* Expected to be given in 2015–16. This course offers an optional writing requirement which if completed will satisfy the concentration writing requirement.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a, Mathematics 20.

### **[Economics 1070. Normative Economics]**

Catalog Number: 5972

*Jerry R. Green*

*Half course (fall term). M., W., F., at 10.*

Voting theory, social choice, mechanism design, bargaining theory, cooperative game theory, equitable cost allocation, fair division, welfare analysis of taxation, public expenditures and risk bearing. This course offers a rigorous approach to normative economics. Students should have an interest and ability to work with abstract mathematics and axiomatic reasoning.

*Note:* Expected to be given in 2015–16. Optional writing Requirement: This course offers an optional writing requirement which if completed will satisfy the concentration writing requirement.

*Prerequisite:* Mathematical sophistication and interests in abstract reasoning is required, but there are no specific prerequisites.

### **Economics 1776. Religion and the Rise of Capitalism**

Catalog Number: 30419

*Benjamin M. Friedman*

*Half course (fall term). M., W., F., at 10 and a review section to be arranged. EXAM GROUP: 5*  
 Examines the influence of religious thinking on the intellectual revolution, associated with Adam Smith and others, that created economics as we know it as an independent discipline; also examines how the lasting resonances from these early religious influences continue to shape discussion of economic issues and debates about economic policy down to our own day.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

*Prerequisite:* Ec 10a and Ec 10b.

### **Economics 1936. Keynes**

Catalog Number: 14325

*Stephen A. Marglin*

*Half course (fall term). Tu., Th., 4–6. EXAM GROUP: 9*

This course explores the birth, death, and resurrection of The General Theory of Employment, Interest and Money from the Great Depression (1929-1939) to the Great Recession (2008-?). A major goal is to lay out a coherent argument that, for all its theoretical innovation, The General Theory did not deliver: the argument why a market system, even an idealized system with all of the warts removed, may fail to provide jobs for willing workers. In the process we will examine



the orthodoxy that Keynes attacked and that resurfaced in the 1960s and 70s; the key concepts underlying the models implicit in The General Theory; and the attempts of the Keynesian mainstream to make peace with both Keynes and orthodoxy. We will also explore the applicability of The General Theory to the long run. A final section will view the present economic difficulties through a Keynesian lens.

*Prerequisite:* Economics 1010b or 1011b, or permission of instructor; a year of college calculus allowing students to understand mathematical notation and concepts (derivatives, maximization, etc.) even though mathematics will be used very sparingly.

### **Cross-Listed Courses**

#### **Computer Science 186. Economics and Computation**

##### ***Primarily for Graduates***

#### **Economics 2001. Research in Behavior in Games and Markets**

Catalog Number: 8732

*David I. Laibson, Drew Fudenberg, Jerry R. Green, and Tomasz Strzalecki*

*Full course (indivisible). W., 11:30–1. EXAM GROUP: Fall: 18; Spring: 14*

Presents current research in Theory, Behavioral Economics, and Experimental Economics

#### **Economics 2005hf. Research in Contracts and Organizations**

Catalog Number: 11493

*Oliver S. Hart*

*Half course (throughout the year). Tu., at 12. EXAM GROUP: Fall: 13; Spring: 9*

Participants discuss recent research in contracts and organizations and present their own work in progress. Open to doctoral students in economics.

#### **\*Economics 2010a. Economic Theory**

Catalog Number: 8656

*Edward L. Glaeser and Jerry R. Green*

*Half course (fall term). Tu., Th., 10-11:30, and a 90-minute weekly section to be arranged.*

*EXAM GROUP: 12*

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

*Oliver S. Hart and Jerry R. Green*

*Half course (spring term). Tu., Th., 10-11:30, and a 90-minute weekly section to be arranged.*

*EXAM GROUP: 12*

Topics include social choice theory, signaling, mechanism design, general equilibrium, the core,



externalities, and public goods.

*Prerequisite:* Economics 2010a.

### **Economics 2010c. Economic Theory**

Catalog Number: 4431

*David I. Laibson and Robert J. Barro*

*Half course (fall term). Tu., Th., 1-2:30, and a 90-minute weekly section to be arranged. EXAM GROUP: 8*

Topics include discrete-time and continuous-time dynamic programming, consumption, investment, economic growth, and business cycles.

*Note:* Enrollment is strictly limited to PhD students in the Economics Department, Business Economics program, and PEG program. Qualified Harvard undergraduates may also enroll. No other students may take the course for credit or as auditors.

### **Economics 2010d. Economic Theory**

Catalog Number: 2041

*Emmanuel Farhi and Pierre-Olivier Gourinchas*

*Half course (spring term). M., W., 8:30-10, and a 90-minute section to be arranged. EXAM GROUP: 10*

A basic course in graduate macroeconomics, including models of business fluctuations, analyses of monetary and fiscal policy, and introduction to open economy macroeconomic issues.

*Note:* Enrollment is strictly limited to PhD students in the Economics Department, Business Economics program, and PEG program. Qualified Harvard undergraduates may also enroll. No other students may take the course for credit or as auditors.

*Prerequisite:* Mathematics 116 or the equivalent; can be taken concurrently.

### **\*Economics 2020a. Microeconomic Theory I**

Catalog Number: 0339 Enrollment: Limited to 102.

*Maciej Kotowski*

*Half course (fall term). M., W., 8:30-10 and a weekly section to be arranged. EXAM GROUP: 10*

A comprehensive course in economic theory designed for doctoral students in all parts of the university. Topics include consumption, production, behavior toward risk, markets, and general equilibrium theory. Also looks at applications to policy analysis, business decisions, industrial organization, finance, and the legal system. Undergraduates with appropriate background are welcome, subject to the instructor's approval.

*Note:* Students may receive credit for both API-111 and API-101/API-105 only if API-101/105 is taken first. API-111 and API-109 cannot both be taken for credit. Also offered by Harvard Kennedy School as API-111 and by the Business School as HBS 4010. Please note that the first day of class for this course will be on Friday, September 5, in L-230 at the regular meeting time, 8:30 a.m. - 10 a.m. Thereafter the course will be on Mondays and Wednesdays.

*Prerequisite:* Multivariate calculus and one course in probability theory. Thorough background in microeconomic theory at the intermediate level.

### **\*Economics 2020b. Microeconomic Theory II**

Catalog Number: 4058

*Elon Kohlberg (Business School) and Sandeep Baliga (Northwestern University)*



*Half course (spring term). M., W., 8:40–10; and an optional review on F., 8:40–10. EXAM*

*GROUP: 10*

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 with the Business School as 4011.

*Prerequisite:* Economics 2010a or 2020a.

### **Economics 2030. Psychology and Economics**

Catalog Number: 3828

*David I. Laibson and Andrei Shleifer*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

Explores economic and psychological models of human behavior. 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.

*Note:* Primarily for graduate students but open to undergraduates.

*Prerequisite:* Knowledge of multivariable calculus and econometrics.

### **Economics 2035. Psychology and Economic Theory - (New Course)**

Catalog Number: 42326

*Matthew Rabin*

*Half course (fall term). M., 1–4. EXAM GROUP: 1*

This course explores ways that psychological research indicating systematic departures from classical economic assumptions can be translated into formal models that can be incorporated into economics. Topics include ways utility theory can be improved--such as incorporating reference dependence, news utility, social preferences, self image, and other belief-based tastes--and ways we can relax assumptions of perfect rationality--such as incorporating focusing effects, limited attention, biased prediction of future tastes, present-biased preferences, biases in probabilistic judgment, and errors in social inference. The course will emphasize (a) careful interpretation and production of new evidence on relevant departures,(b) formalizing this evidence into models that can, with discipline and rigor, generate sharp predictions using traditional economic approaches, and (c) exploring economic implications of those models presented. Although we will primarily emphasize (b), the course is meant to be useful to students whose interests lie anywhere in this spectrum, under the premise that all such research will be improved by a greater appreciation of the full spectrum. The course is intended for PhD students in the Business Economics and Economics programs and others who have a solid background in microeconomic theory at the level of introductory PhD courses in these programs. While obviously appropriate to those wishing to specialize in "behavioral economics", the course is also designed for those interested in doing research in particular fields of economics. And while the course centers on theoretical models (learning and evaluation will center around solving formal problem sets), the theory is focused towards its empirical implementability and economic relevance, so that the course is also designed for those interested in theory-influenced empirical research.



### **[Economics 2040. Experimental Economics]**

Catalog Number: 8485 Enrollment: Limited to 48.

*Armin Falk*

*Half course (fall term). F., 9–12.*

This course discusses techniques of experimental economics and illustrates design and methodological issues in discussing recent topics in behavioral economics. At the end of the course students should be able to design their own experiments. For students who are familiar with experiments and who are already running experiments I will offer an opportunity to discuss their design ideas and to receive detailed feedback. The suggested topics include (1) an introduction to lab experiments, potential objections against lab evidence, generalizability and experimental methods, (2) classic experimental designs (markets, bargaining, public goods), (3) morality, (4) sorting, (5) formation of preferences and personality, (6) psychology of incentives (7) preferences for consistency, (8) reference dependent preferences and labor supply, and (9) non-binding default rules. Students' task for the course is to prepare a proposal for an experiment.

*Note:* Expected to be given in 2015–16. Open to undergraduates with permission of the instructor. Offered jointly with the Business School as 4160.

### **[Economics 2041. Field Experiments]**

Catalog Number: 2427

*To be determined*

*Half course (spring term). Hours to be arranged.*

Students will design and run field experiments as a research methodology. Students will refine their own experimental designs and be able to run them by the end of the course, leading to an academic paper.

*Note:* Expected to be given in 2015–16. Offered jointly with the Business School as 4430. Enrollment is limited to Doctoral students intending to run a field experiment in the near future.

### **\*Economics 2050. Behavioral Economics, Law and Public Policy**

Catalog Number: 15203 Enrollment: Please send a statement of interest and your resume to Kevin Doyle at ([kdoyle@law.harvard.edu](mailto:kdoyle@law.harvard.edu)).

*Cass Robert Sunstein (Law School)*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

This seminar will explore a series of issues at the intersection of behavioral economics and public policy. Potential questions will involve climate change; energy efficiency; health care; and basic rights. There will be some discussion of paternalism and the implications of neuroscience as well.

*Note:* Offered jointly with the Kennedy School as API-305 and with the Law School at 2589.

*Prerequisite:* Instructor permission is required.

### **Economics 2052. Game Theory I: Equilibrium Theory**

Catalog Number: 3690

*Drew Fudenberg*

*Half course (spring term). M., 4–7 p.m. EXAM GROUP: 13*

Equilibrium analysis and its applications. Topics vary, but typically include equilibrium refinements (sequential equilibrium), the equilibria of various classes of games (repeated games,



auctions, signaling games) and the definition and application of common knowledge.

*Prerequisite:* Economics 2010a or permission of the instructor.

### [Economics 2056a. Market Design and Electronic Marketplaces]

Catalog Number: 3634

*Peter Coles (Business School) and Benjamin Edelman (Business School)*

*Half course (fall term). F., 9–12.*

Explores the theory and practice of market design, with prominent examples drawn from auctions, labor markets, prediction markets and kidney exchange. In this year's version of the course, we'll emphasize online markets, including online advertising, Internet infrastructure, and collecting and analyzing data from the web. The prerequisite is Game Theory.

*Note:* Expected to be given in 2015–16. Open to undergraduates with permission of the instructors. Offered jointly with the Business School as 4150.

*Prerequisite:* Game Theory.

### [Economics 2056b. Topics in Market Design]

Catalog Number: 0402

*Stephen Morris*

*Half course (fall term). Tu., Th., 11:30–1.*

Studies topics in market design, focusing on auctions, auction-based marketplaces and platform markets. Covers methods and results from theory, empirical work, econometrics and experiments, highlighting practical issues in real-world design.

*Note:* Expected to be given in 2015–16.

### [Economics 2057. Rationality and Choice]

Catalog Number: 3755 Enrollment: Limited to 25.

*Amartya Sen*

*Half course (spring term). Hours to be arranged.*

The course involves critical examination of alternative approaches to rationality, which is a central concept in economics, politics and the other social sciences, moral and political philosophy, and legal theory, including law and economics.

### [Economics 2058. Networks and Social Capital]

Catalog Number: 2872

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

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.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

### Economics 2059. Decision Theory

Catalog Number: 3825

*Tomasz Strzalecki*

*Half course (fall term). F., 9–12. EXAM GROUP: 10*

The course focuses on classical models of choice in abstract settings, as well as uncertain and



intertemporal environments. We will also study recent models that incorporate insights from psychology, such as temptation and self-control.

### **Economics 2060. Contract Theory**

Catalog Number: 1404

*Philippe Aghion*

*Half course (fall term). M., W., 10–11:30. EXAM GROUP: 5*

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 2065. Designing Allocation Rules]**

Catalog Number: 20876

*William L. Thomson*

*Half course (spring term). Tu., Th., 10–11:30.*

The goal is to identify, for each decision problem in a class of interest, the "most desirable" rules. Included are standard exchange economies, classical problems of fair division, public good production, cost allocation ("airport" problems, minimal cost spanning tree problems), rationing, bankruptcy, object allocation, priority-augmented object allocation ("school choice"), matching, one-to-one and several-to-one, time division, and cake division. The principles are punctual fairness principles, intra- and inter-personal (including lower and upper bounds on welfare, as well as requirements of robustness under permutations, or other operations, performed on assignments), and relational fairness principles, having to do with possible changes in the resources available, population, and preferences. The strategic branch of the literature will also be covered, criteria of robustness under misrepresentation of preferences or manipulation of resources being included.

### **[\*Economics 2070. Normative Economics]**

Catalog Number: 5647

*Jerry R. Green*

*Half course (fall term). Hours to be arranged.*

This course offers a rigorous approach to normative economics. Voting, bargaining, cooperative game theory, social choice, mechanism design, equitable cost allocation, fair division, welfare analysis of taxation, and more. Students should have an interest and ability to work with abstract mathematics and axiomatic reasoning.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

### **[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). W., 2–4.*

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 2015–16.

*Prerequisite:* A basic knowledge of economics is assumed.



### [Economics 2082. Social Choice Theory]

Catalog Number: 50769 Enrollment: Limited to 20.

*Amartya Sen and Eric S. Maskin*

*Half course (fall term). M., 1–3.*

A basic course in social choice theory and its analytical foundations. The subject matter will include possibility theorems in voting and in welfare economics. Attention will be paid to implementation theory, the theory of justice, and the analysis of liberties and rights.

*Note:* Expected to be given in 2015–16.

### [Economics 2085. Economics of Inequality and Poverty]

Catalog Number: 16767 Enrollment: Limited to 25.

*Amartya Sen*

*Half course (fall term). Hours to be arranged.*

A general course on the evaluation and axiomatic measurement of inequality and poverty, and on the analysis of contemporary economic problems in that light.

*Note:* Expected to be given in 2015–16.

### \*Economics 2087hfr. Advanced Topics in Theory

Catalog Number: 32489

*Drew Fudenberg*

*Half course (throughout the year). F., 3–5. EXAM GROUP: Fall: 6; Spring: 17*

The class will read and discuss current research in economics with a focus on game theory and decision theory. Students will be expected to make a verbal presentation.

*Note:* Course will start in late October.

*Prerequisite:* Economics 2010a or permission of the instructor.

### [\*Economics 2091. History of Economic Thought I]

Catalog Number: 89713 Enrollment: Open to all graduate students in economics and to graduate students in related fields with the permission of the instructor.

*Jerry R. Green*

*Half course (fall term). W., 5:30–8:30 p.m.*

Covers the history and philosophy of economic thought from the classics to the present. Some readings explore the relationship to other social sciences, to mathematics, biology, and physics. Others examine the way in which historical events have affected the evolution of economics.

*Note:* Expected to be given in 2015–16. Jointly offered with the Business School as 4811.

### [Economics 2092. History of Economic Thought II]

Catalog Number: 63648

*Jerry R. Green*

*Half course (spring term). Hours to be arranged.*

A continuation of Economics 2091.

*Note:* Expected to be given in 2015–16. Offered jointly with the Business School as 4812.

### Economics 2098. Topics in Economic Theory - (New Course)

Catalog Number: 95517



*Johannes Horner*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

### **Economics 2099. Mechanism Design and Approximation**

Catalog Number: 9529

*Jason Hartline*

*Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7*

This course studies the design of mechanisms to mediate the interaction of strategic individuals so that desirable outcomes are attained. A central theme will be the tradeoff between optimality of an objective such as revenue or welfare and other desirable properties such as simplicity, robustness, computational tractability, and practicality. This tradeoff will be quantified by a theory of approximation which measures the loss of performance of a simple, robust, and practical approximation mechanism in comparison to the complicated and delicate optimal mechanism. The class focuses on techniques for performing this analysis, economic conclusions, and consequences for practice. The class will follow the textbook manuscript at:

<http://jasonhartline.com/MDnA/>

**Prerequisite:** Students are recommended to have prior graduate or advanced undergraduate course work in at least one of algorithms, game theory, or microeconomics.

### ***Cross-listed Courses***

#### **Computer Science 284r. Topics on Computation in Networks and Crowds**

[Computer Science 285. Multi-Agent Systems]

[Computer Science 286r. Topics at the Interface between Computer Science and Economics]

### ***Econometrics and Quantitative Methods***

#### ***For Undergraduates and Graduates***

### **Economics 1123 (formerly Economics 1123a1). Introduction to Econometrics**

Catalog Number: 0813

*James H. Stock (fall term) and Eric Chaney (spring term)*

*Half course (fall term; repeated spring term). Fall: Tu., Th., 11:30–1, and a weekly section to be arranged; Spring: M., W., 10–11:30, and a weekly section to be arranged. EXAM GROUP: Fall: 15; Spring: 5*

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. Also develops the 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. This course, when taken for a letter grade, meets the General Education requirement for



Empirical and Mathematical Reasoning.

*Prerequisite:* Statistics 100 and 104.

### **Economics 1126. Quantitative Methods in Economics**

Catalog Number: 4076

*Elie Tamer*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

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

*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. Students who fulfill the econometrics requirement with Economics 1126 and who intend to pursue Honors should note that the Honors exam assumes knowledge of the material covered in Economics 1123.

*Prerequisite:* Math 18/21a/Applied Math 21a.

### **Economics 1150. Data Analysis: A Project Class - (New Course)**

Catalog Number: 19012

*Sendhil Mullainathan*

*Half course (fall term). Th., 2:30–5:30. EXAM GROUP: 14*

Many classes teach students valuable statistical tools. But students often do not develop the analytical skills and know-how needed to use these skills in business, government or other professional settings. This hands-on data analytics class fills this gap. Students will work semester-long in teams of two or three on a single project. The projects will largely come from real problems sourced from private companies, non-profits, governments, technology firms and so on. This class will not teach new statistical tools. Students are expected to have technical mastery of these tools coming in as well as the capacity and desire to learn new statistics as needed. At the minimum students should have (i) a working knowledge of basic econometric concepts such as linear regression, omitted variable bias, and the problems missing data can create (ii) working facility with some statistical package. The semester-long work will culminate in a presentation and report to the client that posed the problem.

*Note:* This course meets the concentration writing requirement. Also offered by Harvard Kennedy School as API-219.

### ***Cross-listed Courses***

#### **Statistics 100. Introduction to Quantitative Methods for the Social Sciences and Humanities**

#### **Statistics 104. Introduction to Quantitative Methods for Economics**

#### **Statistics 110. Introduction to Probability**

#### **Statistics 186. Statistical Methods for Evaluating Causal Effects**

### ***Primarily for Graduates***

### **Economics 2110. Econometrics I**

Catalog Number: 7213

*Maximilian Kasy*



*Half course (fall term). M., W., 10–11:30. EXAM GROUP: 5*

(1) Review of probability theory, (2) causality and identification, (3) statistical decision theory, and (4) asymptotic frequentist inference. Empirical applications from labor economics, economics of education, and public finance. Some assignments using Matlab.

*Note:* Enrollment limited to PhD candidates in economics, business economics, health policy, public policy, and political economy and government (PEG).

*Prerequisite:* Probability (Stat 110), Linear Algebra and Calculus (Math 21a and 21b), and Real Analysis (Math 112).

### **Economics 2120. Introduction to Applied Econometrics**

Catalog Number: 2352

*Gary Chamberlain*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Introduction to methods employed in applied econometrics, including linear regression, instrumental variables, panel data techniques, generalized method of moments, and maximum likelihood.

*Note:* Enrollment limited to PhD candidates in economics, business economics, health policy, public policy, and political economy and government (PEG).

*Prerequisite:* Economics 2110.

### **Economics 2140. Econometric Methods**

Catalog Number: 7210

*Keisuke Hirano*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

Econometric methods for cross-section and panel data. Topics include generalized method of moments, empirical likelihood, instrumental variables, bootstrapping, clustering, treatment effects, selection bias, difference-in-differences, qualitative choice, quantile regression, nonparametric methods, and semiparametric methods.

*Prerequisite:* Economics 2120 or equivalent.

### **Economics 2142. Time Series Analysis**

Catalog Number: 4414

*James H. Stock*

*Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 9*

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). M., W., 11:30–1.*

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.

*Note:* Expected to be given in 2015–16.

### **Economics 2146. Financial Econometrics**

Catalog Number: 8715

*Neil Shephard*

*Half course (spring term). F., 2–5. EXAM GROUP: 18*

A lecture course in financial econometrics. The topics covered will be: continuous time methods, Bayesian computation, sequential learning, stochastic volatility, understanding specialist regression type methods (e.g. Fama-MacBeth, event studies), Market microstructure econometrics, options.

*Prerequisite:* Economics 2120 or Stat 211a or alike.

### **[Economics 2148. Topics in Econometrics]**

Catalog Number: 67608

*Maximilian Kasy*

*Half course (spring term). W., 9:30–11:30.*

This course will cover several topics in micro-econometrics; the selection depends on student interest. Topics that might be covered include: Debates about “structural” and “reduced form” methods. “What can we get” - nonparametric identification using instrumental variables, panel data, and regression discontinuity designs. “What do we want” - optimal policy and parameters of interest. Estimation of policy effects on outcome distributions and economic inequality. Bayesian decision theory and nonparametric Bayesian methods. Experiments and experimental design.

*Note:* Expected to be given in 2015–16.

### **[Economics 2149. Computational Economics]**

Catalog Number: 7236

*Che-lin Su*

*Half course (fall term). W., 2:30–5:30.*

Graduate introduction to computational approaches for solving economic models. Formulate economic problems in computationally tractable form and use techniques from numerical analysis to solve them. Computational techniques in the current economics literature will be examined. Topics include solving dynamic optimization problems, computing equilibria of games and estimating structural models.

*Note:* Expected to be given in 2015–16.

### **Economics 2150. Big Data - (New Course)**

Catalog Number: 23513

*Sendhil Mullainathan*

*Half course (fall term). F., 1–4. EXAM GROUP: 1*

Innovations in machine learning ('big data') have created many engineering breakthroughs from real time voice recognition to automatic categorization (and in some cases production) of news stories. Since these techniques are at their essence novel ways to work with data, they should also have implications for social science. This course explores the intersection of machine learning and social science and aims to answer a few questions about these new techniques: (i)



How do they work and what kinds of statistical guarantees can be made about their performance? (ii) How can they be used to answer questions that interest social science researchers, such as testing theories or improving social policy; and (iii) How might they open up new research questions? We will cover standard machine learning techniques such as supervised and unsupervised learning, statistical learning theory and nonparametric and Bayesian approaches. The goal is to create a working understanding of when and how they can be profitably applied. Students will be required to apply some of these techniques themselves, but we will not cover the computational aspects of the underlying methods. The course is aimed at PhD students with a solid background in statistical techniques, such as comes from the equivalent of a first year economics PhD econometrics sequence.

### **Economics 2162. Research in Econometrics**

Catalog Number: 2372

*Maximilian Kasy, Gary Chamberlain, Dale W. Jorgenson, and James H. Stock*

*Full course (indivisible). M., at 12:30. EXAM GROUP: Fall: 11; Spring: 7*

Participants discuss recent research in econometrics and present their own work in progress.

Open to doctoral students in economics.

*Note:* This course must be taken Sat/Unsat.

### ***Cross-listed Courses***

### ***Economic History; Development Economics***

#### ***For Undergraduates and Graduates***

### **Economics 1310. The Economy of China**

Catalog Number: 66384

*Richard N. Cooper*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

This course critically examines China's remarkable economic performance in the post-Mao era and places this performance in historical and comparative context. Topics covered include China's economic structure, institutions, inequality, trade, population, and public policy.

*Note:* Writing requirement: A research paper is required. This course meets the concentration writing requirement.

*Prerequisite:* Ec 10a and Ec 10b.

### **Economics 1340. World Economic History**

Catalog Number: 4025 Enrollment: Limited to 80.

*James Robinson*

*Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7*

This course provides an overview of world economic history since the Neolithic revolution. It analyzes the main theories which have been proposed to explain these facts. Questions discussed are: why did the Neolithic revolution

*Prerequisite:* Social Analysis 10 or Ec 10a and Ec 10b.



### [Economics 1341. The Historical Origins of Middle Eastern Development]

Catalog Number: 9328

*Eric Chaney*

*Half course (fall term). Hours to be arranged.*

Middle Eastern countries enjoyed world economic leadership during the Middle Ages, and continue to play an important role in the world economy. This course will explore the historical development of Middle Eastern economies. Topics include the effects of colonialism, natural resource endowments and religion on economic growth. The course will emphasize how these and other historical factors continue to influence development prospects in the region today.

*Note:* Expected to be given in 2015–16. A research paper is required. This course meets the concentration writing requirement.

*Prerequisite:* Ec 10a and Ec 10b.

### [Economics 1356. Economics of Work and Family]

Catalog Number: 17685

*Claudia Goldin*

*Half course (fall term). M., W., 11:30–1.*

How are the most personal choices and life transitions decided? When and whom do you marry, how many children do you have, how much education should you obtain, and which careers or jobs will you pursue? Much will be explored in terms of change over time, particularly concerning the economic emergence of women and the growing role of government. Readings draw on economic theory, empirical analyses, history, and literature from the 19th century to the present.

*Note:* Expected to be given in 2015–16. Writing requirement: A research paper is required. This course meets the concentration writing requirement. This course cannot be taken Pass/Fail. This course, when taken for a letter grade, meets the General Education requirement for United States in the World.

*Prerequisite:* Economics 1010a1, 1010a2, or Economics 1011a or equivalent, and Economics 1123 or Economics 1126 or equivalent or permission of instructor.

### [Economics 1357. Historical Perspectives on Economic Ascendancy]

Catalog Number: 7554

*Richard A. Hornbeck*

*Half course (fall term). M., W., 10–11:30.*

An exploration of research in economic history, focusing on economic growth and development. Topics include: institutions and property rights; technological change and industrialization; migration and labor markets; local economic stimulus; and adaptation to the environment. The course emphasizes students learning to generate and implement ideas for new research.

*Note:* Expected to be given in 2015–16. Concentrators may not take pass/fail. This course satisfies the concentration writing requirement.

*Prerequisite:* Ec 10a and Ec 10b or permission of the instructor.

### [Economics 1370. Media, Democracy and Economics]

Catalog Number: 45985 Enrollment: Limited to 30.

*Philippe Aghion and Benedicte Berner*

*Half course (fall term). Tu., Th., 10–11:30.*



This course will analyze the role of media in political and economic development. Topics covered are the history of the relationship between media and the state, media and democracy today, laws governing the media and its practice, legal and political pressures on the media, media as an economic object, ownership of media and its effects, media coverage on elections and in developing countries, competition and truth in the market for news, the current mainstream media, and journalistic ethics.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Ec 10a and Ec 10b.

### **\*Economics 1389. Economics of Global Health**

Catalog Number: 1900

*Guenther Fink and Margaret McConnell (Public Health)*

*Half course (spring term). M., W., 8:30–10. EXAM GROUP: 10*

This course examines health issues in developing countries from the standpoint of applied microeconomic research. Specific topics include: identifying the effect of health on growth and development and identifying the causal relationships between income, poverty, and health. We will also discuss health care delivery and human resource issues, the challenges of healthcare financing and health insurance, and the tension between equity and efficiency in the allocation of health resources.

*Note:* Offered jointly with the Kennedy School as SUP-518.

*Prerequisite:* Economics 1010a1, 1010a2, (or 1011a) and 1123 (or 1126).

### **\*Economics 1393. Poverty and Development**

Catalog Number: 6516

*Nathan J. Nunn*

*Half course (spring term). M., W., 10–11:30. EXAM GROUP: 5*

We will consider a number of important questions in the field of development economics: Why are some countries so rich and others so poor? What factors have determined which countries prosper? Which are the root causes and which are the proximate causes of economic underdevelopment? Can these factors be changed with specific economic policies? If so, what are they and how are they best implemented? Are there country-specific characteristics that determine economic fate? Or, is prosperity just the result of luck? Does the enjoyment of the rich somehow depend on the continuing suffering of the poor? We will consider these questions and more. The course is intended to not only provide a general overview of the dominant views about economic development and policy, but to also provide students a sense of the most recent research in the field. For this reason, the course will go beyond the usual textbook summary of the field. Students will also examine recent journal articles that have made important contributions to the field of development economics. In the course, a particular effort is made to link the theories and empirical evidence to the real world.

*Note:* Writing requirement: A research paper is required. This course meets the concentration writing requirement. Instructor's permission is required.

*Prerequisite:* Economics 1010a1, 1010a2, (or 1011a) and 1010b (or 1011b). It is recommended that students have taken Economics 1123 or equivalent.

### ***Cross-listed Courses***



## Government 1197. The Political Economy of Africa

*Primarily for Graduates*

### Economics 2325. Comparative Historical Economic Development

Catalog Number: 8510

*Nathan J. Nunn and James Robinson*

*Half course (fall term). M., W., 10–11:30. EXAM GROUP: 5*

The course examines the historical origins of differences in the economic and social development of societies. Participants discuss recent research in the field and present their own work in progress.

*Note:* This course is targeted to second-year Ph.D. students in economics. It is not open to undergraduate or Masters students. The course fulfills the distribution requirement.

### \*Economics 2326. Economic Development: Theory and Evidence

Catalog Number: 3864

*Asim I. Khwaja (Kennedy School), Rohini Pande (Kennedy School), and Lant Pritchett (Kennedy School)*

*Half course (fall term). Tu., Th., 10:10–11:30 and a Friday review session, 1:10 pm - 2:30 pm.*

*EXAM GROUP: 12*

This course aims to study theories of economic (under)development and scrutinize empirical evidence in order to glean insights to design development policy. The course will identify key features of the development process across countries, and develop an analytical framework, grounded in economic theory, to better understand these patterns. We will then apply our frameworks combined with rigorous empirical evidence to identify when and how public policies can enable economic growth and development. Macro topics include economic growth and its proximate determinants; resource misallocation, learning and coordination and their impacts on productivity; the impact of historical forces on the evolution of (political) institutions and the development process; and the effect of external influences on development. Micro topics include the determinants of and returns to investments in (health and education) human capital; credit markets, savings behavior, and the returns to financial capital; gender; behavioral economics in development; and governance and corruption.

*Note:* Jointly offered with the Kennedy School is PED-101.

*Prerequisite:* This course requires multivariate calculus and a basic understanding of statistical methods, micro and macroeconomics. Students taking these courses concurrently should seek the instructors' permission.

### **[Economics 2328. The Emergence of Modern Economic Growth: A Comparative and Historical Analysis]**

Catalog Number: 9475

*James Robinson*

*Half course (fall term). Hours to be arranged.*

Overview and analysis of comparative economic development during the last half millennia. Examines the emergence of modern economic growth in Europe after 1500, and the forces that led to the great divergence in prosperity in the 19th century. Also considered: colonialism,



communism, fascism, and revolution.

*Note:* Expected to be given in 2015–16.

### **Economics 2330. History and Human Capital**

Catalog Number: 2588

*Claudia Goldin and Lawrence F. Katz*

*Half course (spring term). M., W., 10–11:30. EXAM GROUP: 5*

Explores a range of subjects concerning human capital, historically and comparatively. Topics include fertility, mortality, health, immigration, women's work, child labor, retirement, education, inequality, slavery, unionization, and governmental regulation of labor, all within the broader context of economic history.

*Note:* Satisfies the graduate distribution requirement. Open to undergraduates on a limited basis with permission of instructor.

### **Economics 2332hfc. Early-Stage Research and Discussions on Economic Development**

Catalog Number: 66405

*Nathan J. Nunn, Richard A. Hornbeck, and Michael R. Kremer (fall term)*

*Half course (throughout the year). M., at 3. EXAM GROUP: Fall: 6; Spring: 17*

Participants discuss recent research in economic development and present their own work in progress. Popularly known as the Development Tea.

*Note:* Primarily, but not exclusively, for doctoral students in economics who have passed their oral examinations.

### **[Economics 2333. Historical Perspectives on Current Economic Issues]**

Catalog Number: 6800

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

Comparative economic history emphasizing sources of economic growth and development.

Topics include technological change and industrialization, institutions, the Great Depression and financial regulation, migration and adjustment to economic shocks, public infrastructure, labor markets and wage inequality, and health. Each topic is motivated by a current concern and develops methods for historical analysis to inform modern economic questions.

*Note:* Expected to be given in 2015–16. Satisfies the graduate distribution requirement. Open to undergraduates on a limited basis with permission of instructor.

### **Economics 2335. Economic Divergence in Historical Perspective: The Middle East and Europe - (New Course)**

Catalog Number: 22963

*Eric Chaney*

*Half course (spring term). Th., 1–4. EXAM GROUP: 1*

This course examines the economic rise of the Western World through comparisons with the Islamic Middle East. In particular, we will examine the mechanisms through which feudalism and subsequent events led to the emergence of growth-friendly institutions and examine the extent to which variation in exposure to these historical developments can help explain development outcomes today. In addition, we will investigate the interaction between these institutional developments and Europe's differential rate of human capital formation from the



late medieval period through the Enlightenment and their role in determining both the timing and the subsequent diffusion of the Industrial Revolution.

### **\*Economics 2339r. Economic History Lunch**

Catalog Number: 8183

*Claudia Goldin, Eric Chaney, Melissa Lynne Dell, Nathan J. Nunn and James Robinson*

*Full course (indivisible). F., at 1. EXAM GROUP: Fall: 1; Spring: 8*

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. Popularly known as The History Tea.

### **Economics 2342. China Economy Seminar**

Catalog Number: 98259

*Richard B. Freeman*

*Half course (spring term). W., 1–2:30. EXAM GROUP: 8*

This seminar provides a forum for faculty, graduate students, and research fellows in economics and other fields to present and discuss research and scholarship on the economic and social transformation of China. The seminar will give special attention to the environmental, technological, and social changes that are accompanying China's extraordinary economic development and to the links between Chinese and US economies.

### **[Economics 2350. Workshop in Religion, Political Economy, and Society]**

Catalog Number: 0815

*Rachel M. McCleary, Robert J. Barro, and Edward L. Glaeser*

*Half course (spring term). Th., 1–2:30.*

Topics on the interplay between religion and the social sciences.

*Note:* Expected to be given in 2015–16.

### **Economics 2390. Development Economics - (New Course)**

Catalog Number: 66881

*Nathan J. Nunn and Michael R. Kremer*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

This course will cover macro-economic topics including aggregate and non-aggregate growth models, models of technology diffusion and choice; topics in finance including financial development and economic growth, consumer finance; small and medium enterprise finance; debt and equity markets; the role of management and corporate governance; the political economy of finance, and corruption; and a range of topics on the role of population, culture, ethnicity, leaders, corruption in economic development, and the efficacy of industrial policy and foreign aid.

### **[Economics 2390b. Development Economics I: Microeconomic Issues]**

Catalog Number: 2990

*Michael R. Kremer and Nathan J. Nunn*

*Half course (fall term). W., 3–5; M., 3–5.*

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.

*Note:* Expected to be given in 2015–16.

### **[Economics 2390c. Development Economics II: Macroeconomic Issues]**

Catalog Number: 0388

*Nathan J. Nunn and Michael R. Kremer*

*Half course (spring term). M., W., 1–2:30.*

The first part will cover macro-economic topics including aggregative and non-aggregative growth models, growth and development accounting and models of technology diffusion and choice. The second part will evaluate the role of governance/institutional design in affecting development.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16. Offered jointly with the Kennedy School of Government as PED-319.

### **\*Economics 2390dhf. Research in Economic Development**

Catalog Number: 1926

*Sendhil Mullainathan, Philippe Aghion, Richard A. Hornbeck, Asim I. Khwaja (Kennedy School), and Michael R. Kremer*

*Half course (throughout the year). Th., 12–1:30. EXAM GROUP: Fall: 13; Spring: 9*

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.

*Note:* Popularly known as the Development Lunch.

### **Economics 2392. The Political Economy of Economic Development - (New Course)**

Catalog Number: 95618

*Melissa Lynne Dell*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

### **Economics 2395. Health and Social Justice: Reshaping the Delivery of Health - (New Course)**

Catalog Number: 52787 Enrollment: Limited to 20. Auditors welcome

*Amartya Sen and Paul Farmer (Medical School)*

*Half course (fall term). M., 1–3. EXAM GROUP: 1*

Across the world, remarkable improvements in life expectancy have occurred over the past few decades. But global and regional disparities of health outcomes have also surged, and this widening "outcome gap" does not always move in parallel with economic progress, or even with the commonly identified social determinants. The causal influences on the differences are subject to critical examination, including the role that recent innovations in prevention and therapeutics, health-care systems and social safety nets, play or might play in promoting or retarding health and wellbeing. The seminar will explore case studies from India, China, Rwanda, Haiti, Thailand and elsewhere, including comparative perspectives on health systems across North America and Europe.

*Note:* Offered jointly with the Medical School.

### ***Cross-listed Courses***



## ***Monetary and Fiscal Theory and Policy; Public Sector Economics***

### ***For Undergraduates and Graduates***

#### **[Economics 1400 (formerly Societies of the World 48). The Future of Globalization: Issues, Actors, and Decisions]**

Catalog Number: 5906

*Lawrence H. Summers (University Professor; Economics) and Robert Z. Lawrence (Harvard Kennedy School)*

*Half course (fall term). Tu., Th., 11:30–1 and a weekly section to be arranged.*

What is the right balance between national sovereignty and international integration? Is the US equipped to sustain its role as a global leader? Should we regulate multi-national companies who move their factories to countries with lower labor standards? How should the IMF respond to financial crises in Europe and the developing world? How will the rise of China affect global inequality? These are all questions posed by globalization. This course uses basic economic logic to illuminate the choices faced by businesses, governments, international institutions and citizens as the global economy evolves. Policy issues are debated in class by the professors and students play the role of public and private actors in simulation exercises in order to experience the importance of the decisions made by individual actors for the evolution of the global system.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16. Jointly offered with the Kennedy School as ITF-225. This course, when taken for a letter grade, meets the General Education requirement for Societies of the World.

*Prerequisite:* Ec 10a, or equivalent economics background, or permission of instructor.

#### **Economics 1410. Public Economics: Designing Government Policy**

Catalog Number: 6136

*Martin Feldstein and Raj Chetty*

*Half course (spring term). M., W., (F.), 2:00–3:30, and a weekly section to be arranged. EXAM GROUP: 17*

This course analyzes what role the government should play in a market economy. It covers topics such as tax and welfare policy, unemployment insurance, environmental protection, education policy, social security

*Note:* Students should have some knowledge of basic calculus and statistics, but there is no formal mathematics prerequisite. Offered jointly with the Kennedy School as SUP-125. This course offers an optional writing requirement which if completed will satisfy the concentration writing requirement.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a or permission of instructor.

#### **Economics 1415. Analytic Frameworks for Policy**

Catalog Number: 93229

*Richard J. Zeckhauser (Kennedy School)*

*Half course (fall term). M., W., 10:10–11:30; Review Sessions F., 1:10–2:30. EXAM GROUP: 5*

This course develops abilities in using analytic frameworks in the formulation and assessment of public policies. It considers a variety of analytic techniques, particularly those directed toward uncertainty and interactive decision problems. It emphasizes the application of techniques to policy analysis, not formal derivations. Students encounter case studies, methodological



readings, modeling of current events, the computer, a final exam, and challenging problem sets.

*Note:* Jointly offered with the Kennedy School as API-302.

*Prerequisite:* Economics 1011a or permission of instructor.

### **Economics 1420. American Economic Policy**

Catalog Number: 8110

*Martin Feldstein, Jeffrey B. Liebman (Kennedy School), and Lawrence H. Summers*

*Half course (spring term). M., W., F., at 10, and a weekly section to be arranged. EXAM*

*GROUP: 5*

Analyzes major issues in American economic policy including taxation, Social Security, health care reform, budget policy, monetary and fiscal policy, and exchange rate management. Current economic issues and policy options discussed

*Note:* Offered jointly with the Kennedy School as API-126. This course offers an optional writing requirement which if completed will satisfy the concentration writing requirement.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a, or permission of instructor.

### **Economics 1425. Political Economics**

Catalog Number: 68084 Enrollment: Limited to 20.

*Andrei Shleifer*

*Half course (spring term). Th., 2:30–4:30. EXAM GROUP: 11*

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, and regulation.

*Note:* A research paper is required. This course meets the concentration writing requirement.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a.

### **Economics 1430. Macroeconomics and Politics**

Catalog Number: 5549

*Robert J. Barro and Emmanuel Farhi*

*Half course (fall term). M., W., F., 11. EXAM GROUP: 18*

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.

*Prerequisite:* Economics 1010b or 1011b, or permission of the instructor.

### **Economics 1432. Economics of European Integrations**

Catalog Number: 29276 Enrollment: Limited to 40.

*Johann-helmut Kotz*

*Half course (fall term). Tu., Th., 10–11:30, and a weekly section to be arranged. EXAM*

*GROUP: 12*

The aim of the course is to give students familiarity with a broad range of European policy issues: integration of markets (for goods, services, and labor), monetary union (ECB) and its consequences for fiscal policy, financial sector regulation as well as supervision. It is offered for students who would like to employ the tools they have learned in principles of economics and introductory micro and macro courses on real world cases. This implies to write and present a paper (mandatory writing requirement).



*Note:* Writing requirement: A research paper is required. This course meets the concentration writing requirement.

*Prerequisite:* Ec 10a and Ec 10b.

### **[Economics 1435. Macroeconomic Policy in the Global Economy]**

Catalog Number: 73396

*Emmanuel Farhi*

*Half course (spring term). Tu., Th., 1–2:30.*

Examines fiscal policy, monetary policy, exchange rate policy, and financial regulation.

Emphasizes both short-term stabilization goals and longer-term policy objectives. Considerable attention to recent policy.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Students taking this course should have taken an intermediate macroeconomics class (1010b or 1011b). Knowledge of univariate calculus and basic statistics will be assumed.

### **Economics 1450r. Religion and Political Economy**

Catalog Number: 43748

*Robert J. Barro and Rachel M. McCleary*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Recent research on religion has stressed social-science approaches. Parts of the work assess effects of economic and other forces on religious participation and beliefs. This topic includes models of secularization and of competition among alternative forms of religion, including analyses of the Reformation. Religious conversion and the club model of religious participation will be considered. Other aspects of the research analyze effects of religiosity on microeconomic variables, including work effort, thrift, education, health, and violence. Parts consider the impact of religion on macroeconomic outcomes, including economic growth. Additional work considers the interplay between religion and political institutions, including the role of state religion and interactions with Communism and democracy.

*Note:* Satisfies writing requirement.

*Prerequisite:* Intermediate Macroeconomics and Microeconomics: Economics 1010a1, 1010a2, or 1011a and Economics 1010b or 1011b, or permission of the instructors.

### **Economics 1460. Economics of Health Care Policy**

Catalog Number: 4540

*Joseph P. Newhouse (Kennedy School and Public Health, Medical School)*

*Half course (spring term). M., W., 8:40–10; and an optional review on F., 10:10–11:30. EXAM GROUP: 10*

Policy issues related to the following: the demand for medical care services, especially as a function of insurance; the demand for insurance and issues of selection; reimbursement policies of Medicare and other payers toward health plans, hospitals, and physicians; effects of health maintenance organizations and managed care; and malpractice and tort reform. Focus on federal policy, although state and local perspectives will receive some attention.

*Note:* Students may not take both Economics 1460 and Quantitative Reasoning 24: Health Economics and Policy for credit. Offered jointly with the Kennedy School as SUP-572. This course offers an optional writing requirement which if completed will satisfy the concentration



writing requirement.

*Prerequisite:* Economics 1010a or 1011a. A statistics course is highly desirable.

### **Economics 1490. Growth and Crisis in the World Economy**

Catalog Number: 35497 Enrollment: Limited to 30.

*Dale W. Jorgenson*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This course assesses the future of the tri-polar world economy - Asia, Europe, and North America. The course analyzes the resurgence of the US economic growth, the emergence of asset pricing bubbles, and the ensuing financial and economic crisis. We will discuss the sources of Asian growth miracles and the convergence and subsequent divergence of Europe and North America. What growth rate is sustainable and who will lead? What are the forces that threaten long-term prosperity?

*Note:* This course satisfies the Economics concentration writing requirement. Students who would like to enroll should submit the application form available on the course website.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a and Economics 1010b or 1011b.

### ***Cross-listed Courses***

### **Empirical and Mathematical Reasoning 20. The Business and Politics of Health**

*Primarily for Graduates*

### **Economics 2410. Advanced Topics in Macroeconomics**

Catalog Number: 1746

*Gabriel Chodorow-reich*

*Half course (fall term). M., 9–12. EXAM GROUP: 10*

The course will explore topics in applied macroeconomics, with emphasis on the intersection of empirical analysis and theory. Topics may include monetary policy, fiscal policy, financial frictions, and labor markets. The course will present a variety of empirical methods, such as the narrative approach, VAR analysis, and the use of cross-sectional data in macroeconomics.

### **Economics 2410a. Topics in Macroeconomics**

Catalog Number: 7072

*Emmanuel Farhi and Robert J. Barro*

*Half course (spring term). W., 1–3:30. EXAM GROUP: 8*

Investigates the effect of financial market imperfections on aggregate investment and asset prices. Topics include financial persistence and amplification mechanisms, fire sales and limits to arbitrage, leverage cycles, asset price bubbles, financial fragility and financial contagion.

### **Economics 2412a. Political Economics**

Catalog Number: 47596

*Alberto F. Alesina*

*Half course (fall term). M., W., 2–3:30. EXAM GROUP: 7*

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 2412c. Introduction to Formal Political Economy ]**

Catalog Number: 59539

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

This class tries to familiarize students with the basics in formal political economy, and give a sense of the research frontier. Topics include models of collective choice, information aggregation in elections, legislative decision-making, and lobbying.

*Note:* Expected to be given in 2015–16.

**Economics 2415. Seminar on Macroeconomic Policy - (New Course)**

Catalog Number: 82759

*Benjamin M. Friedman and Martin Feldstein*

*Half course (spring term). Tu., 2:30–4. EXAM GROUP: 11*

This new seminar will feature presentations on current macroeconomic policy issues by Economics Department faculty and invited outsider speakers. Specific topics will include (among others) Federal Reserve policy, increasing employment, raising the U.S. growth rate, Europe's economic problems, housing and the mortgage market. Graduate students taking the course for credit will be expected to write a research paper related to any one of the issues covered during the semester. Students not taking the course for credit are welcome to participate in each week's discussion.

**\*Economics 2420hf. Research in Macroeconomics**

Catalog Number: 5946

*Philippe Aghion, Alberto F. Alesina, Robert J. Barro, Emmanuel Farhi, Benjamin M. Friedman, David I. Laibson, and N. Gregory Mankiw*

*Half course (throughout the year). Tu., 11:30–1. EXAM GROUP: 15*

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.

*Note:* Popularly known as the Macro Lunch.

**[Economics 2421. Reading Course in Monetary and Fiscal Policy]**

Catalog Number: 97507

*Benjamin M. Friedman*

*Half course (spring term). W., 2:30–4.*

A reading course that allows students to discuss and evaluate recent research in the analysis of monetary and fiscal policies. Students will be expected to participate in formally presenting, and critiquing, unpublished or newly published papers.

*Note:* Expected to be given in 2015–16. Students taking the course for credit will also be expected to undertake research papers of their own.

**Economics 2450a. Public Economics and Fiscal Policy I**

Catalog Number: 1339

*Raj Chetty*



*Half course (fall term). M., W., (F.), 11:30–1. EXAM GROUP: 18*

This course covers basic issues in the optimal design of tax and social insurance policies, with emphasis on combining theoretical models with empirical evidence. Topics include efficiency costs and incidence of taxation, income taxation, transfer and welfare programs, public goods and externalities, optimal social insurance, and welfare analysis in behavioral models.

*Prerequisite:* Economics 2010a and 2010b or Economics 2020a and 2020b.

### **Economics 2450b. Public Economics and Fiscal Policy II**

Catalog Number: 6478

*Nathaniel Hendren*

*Half course (spring term). M., W., 11:30–1; F., 11:30–1. EXAM GROUP: 14*

This course covers theoretical and empirical applications of public economics to policy debates. Topics include education, local public finance, fiscal federalism, housing policy, corporate and international taxation, social security, and macroeconomic stabilization using fiscal policy.

*Prerequisite:* Economics 2010a and 2010b or Economics 2020a and 2020b. Students are strongly encouraged to take Economics 2450a before taking 2450b.

### **Economics 2460. Health Economics Workshop**

Catalog Number: 7617

*Amitabh Chandra (Kennedy School), David M. Cutler (Public Health), and Joseph P. Newhouse (Kennedy School and Public Health, Medical School)*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

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 SUP-951.

### **Economics 2465. Health Economics**

Catalog Number: 83396

*David M. Cutler (Public Health)*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course surveys topics in health economics. It touches on public sector issues, the industrial organization of health care markets, interactions between health and labor markets, and health in developing countries. Theory and empirical work are presented.

### **Economics 2480. Research in Public Economics and Fiscal Policy: Research Seminar**

Catalog Number: 6834

*Raj Chetty, David M. Cutler (Public Health), and Martin Feldstein*

*Full course. Tu., 1–2:30. EXAM GROUP: Fall: 8; Spring: 1*

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 2490. The Economics of National Security Seminar**

Catalog Number: 9061

*Martin Feldstein*



*Half course (spring term). Tu., 6–9 p.m. EXAM GROUP: 6*

Considers a range of issues relating to national security including terrorism, oil markets, intelligence, defense strategy, sanctions, cyber risks, China, Middle East, etc..

*Note:* Speakers will be national experts with experience in this field. Seminar participants will be graduate students and faculty in economics.

#### **\*Economics 2510. Inside Government: Making Public Policy**

Catalog Number: 46583 Enrollment: Please send a statement of interest and your resume to Kevin Doyle at (kdoyle@law.harvard.edu).

*Cass Robert Sunstein (Law School) and Lawrence H. Summers*

*Half course (spring term). Tu., 5–7 p.m. EXAM GROUP: 6*

This seminar will explore an assortment of issues, ranging from environmental regulation (including climate change) to financial regulation to public health, at the intersection of theory and practice. Among other things, the seminar will discuss the role of cost-benefit analysis, legal limits on regulation, and both standard and behavioral economics.

*Note:* Jointly offered with the Kennedy School as BGP-300 and the Law School as 2623.

*Prerequisite:* Instructor permission is required.

### ***International Economics***

#### ***For Undergraduates and Graduates***

##### **[Economics 1530. International Monetary Economics]**

Catalog Number: 2269

*Richard N. Cooper*

*Half course (fall term). M., W., F., at 11.*

This is an intermediate level international finance and macroeconomics course that uses a mix of theoretical, empirical and policy frameworks to analyze topical problems in international finance. The topics include exchange rate determination, currency interventions, monetary policy coordination, capital flows and currency crises.

*Note:* Expected to be given in 2015–16. Writing requirement: A research paper is required. This course meets the concentration writing requirement. May not be taken for credit with Economics 1531.

*Prerequisite:* Economics 1010b or 1011b.

##### **[Economics 1531. Economics of International Financial Policy]**

Catalog Number: 7018

*Gita Gopinath*

*Half course (spring term). Hours to be arranged.*

This course examines the macroeconomics of open economies. It covers models appropriate to major industrialized countries. Topics include the foreign exchange market, devaluation, and import and export elasticities; simultaneous determination of the trade balance, national income, balance of payments, money flows, and price levels; capital flows and our increasingly integrated financial markets; monetary and fiscal policy in open economies; international macroeconomic interdependence; supply relationships and monetary policy targets; exchange rate determination; and international portfolio diversification.



*Note:* Offered jointly with the Kennedy School as ITF-220. May not be taken for credit with Economics 1530.

*Prerequisite:* Economics 1010/1011. Knowledge of international trade theory and econometric techniques is also desirable, but not essential. Students must be very comfortable with algebra.

### **Economics 1535. International Trade and Investment**

Catalog Number: 2557

*Thomas Sampson*

*Half course (fall term). M., W., 2–3:30. EXAM GROUP: 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 1010a1, 1010a2, or 1011a.

### **[Economics 1540. Topics in International Trade]**

Catalog Number: 7470

*Pol Antràs*

*Half course (spring term). Hours to be arranged.*

Covers advanced topics in international economics with a special emphasis on an analytical approach to the recent process of globalization. Topics include the role of multinational firms in the global economy, the effect of international outsourcing on wages, and trade and industrial development.

*Note:* This course offers an optional writing requirement which if completed will satisfy the concentration writing requirement.

*Prerequisite:* Economics 1535 and basic knowledge of calculus and econometrics.

### **[Economics 1542. International Trade Policy]**

Catalog Number: 2613

*Elhanan Helpman*

*Half course (fall term). Hours to be arranged.*

Provides a discussion of the economic impacts of international trade policies and the political economy of trade policy formation. The course will focus on analytical methods and therefore requires knowledge of calculus.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a, or permission of instructor.

### **Economics 1544. Foundations of International Macroeconomic Policy**

Catalog Number: 83909

*Gita Gopinath*

*Half course (spring term). M., W., 10:30–12. EXAM GROUP: 5*

This is an intermediate level international finance and macroeconomics course that uses a mix of theoretical, empirical, and policy frameworks to analyze topical problems in international finance. The core objective of the course is to develop simple macroeconomic models of open economies that can be usefully applied to international economic phenomena. We will examine the balance of payments, the determination of exchange rates, the effect of fiscal and monetary policies under fixed and floating exchange rate regimes, balance of payment crisis, international macroeconomic dependence, financial globalization, and the challenges facing developing



economies. Recent issues such as the crisis in the Euro area and the sustainability of the Euro, the global transmission of the financial crisis, global imbalances, China's exchange rate policy, among others, will receive attention. Note: May not be taken for credit with Economics 1530 or 1435.

*Prerequisite:* Economics 1010b or 1011b. Students must be very comfortable with algebra and basic calculus.

### **[Economics 1545. International Financial and Macroeconomic Policy]**

Catalog Number: 5166

*Kenneth Rogoff*

*Half course (fall term). M., W., 1–2:30.*

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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Economics 1010b or 1011b.

### ***Primarily for Graduates***

#### **Economics 2530a. International Trade**

Catalog Number: 4537

*Elhanan Helpman*

*Half course (fall term). M., W., 8:30–10. EXAM GROUP: 10*

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. Open to undergraduates only with permission of instructor.

*Prerequisite:* Economics 2010a and 2010b.

#### **Economics 2530b. International Finance**

Catalog Number: 7144

*Gita Gopinath*

*Half course (spring term). M., W., 8:30–10. EXAM GROUP: 10*

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

*Marc J. Melitz*

*Half course (spring term). M., W., 10–11:30. EXAM GROUP: 5*

Covers advanced theoretical and empirical topics concerning the determinants of world trade patterns.

*Prerequisite:* Economics 2530a or permission of instructor.



### **\*Economics 2540hf. Research in International Economics**

Catalog Number: 4008

*Marc J. Melitz and members of the Department*

*Half course (throughout the year). W., at 12. EXAM GROUP: Fall: 11; Spring: 7*

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.

*Note:* Popularly known as the International Lunch.

### ***Industrial Organization and Regulation; Environmental Economics***

***For Undergraduates and Graduates***

### **\*Economics 1620. Industry Structure, Strategy, and Public Policy**

Catalog Number: 90055

*F. M. Scherer (Kennedy School)*

*Half course (spring term). Tu., Th., 1:10–2:30. EXAM GROUP: 1*

Provides a systematic economic and historical framework for evaluating industrial policies such as agricultural crop price supports, international dumping and subsidy rules, energy policy, technology policy, competition policy (antitrust), public regulation, and corporate bailouts. It proceeds through a series of 10 industry case studies, in order: agriculture, crude petroleum, petroleum refining, steel, integrated circuits, computers, the Internet, automobiles, pharmaceuticals (domestic and international), and beer. Grading will be on the basis of two short policy papers and a final examination. A longer industry study can be substituted for the final exam.

*Note:* Jointly offered with the Kennedy School as BGP-201. This course offers an optional writing requirement which if completed will satisfy the concentration writing requirement.

### **[Economics 1640. Industrial Organization: Theory and Applications]**

Catalog Number: 7875 Enrollment: Limited to 30.

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

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.

*Note:* Students may not take both Economics 1640 and Economics 1641 for credit.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a.

### **Economics 1642. Advanced Industrial Organization**

Catalog Number: 9613

*Marc Rysman*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Theory and modern empirical techniques in industrial organization. Topics may include static analysis and estimation of market equilibrium; dynamic models of entry and investment; price discrimination, collusion, mergers and vertical control, with applications to antitrust policy; and issues in auctions and market design.

*Note:* Optional writing Requirement: This course offers an optional writing requirement which if



completed will satisfy the concentration writing requirement. This is a hands-on course, and students will be expected to use Stata or other statistical software to perform data analysis.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a; Economics 1123 or 1126.

### **Economics 1661. Fundamentals of Environmental Economics and Policy**

Catalog Number: 2115

*Robert N. Stavins (Kennedy School)*

*Half course (spring term). M., W., 1:10–2:30; and an optional review section F., 10:10–11:30.*

*EXAM GROUP: 8*

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.

*Note:* Optional writing Requirement: This course offers an optional writing requirement which if completed will satisfy the concentration writing requirement. Offered jointly with the Kennedy School as API-135.

*Prerequisite:* Ec 10a and Ec 10b or permission of instructor.

### **Economics 1687. Advanced Economics of the Environment, Natural Resources, and Climate Change**

Catalog Number: 44432

*Martin L. Weitzman*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Survey of foundations and applications of the modern theory of environmental and natural-resource economics. What are the basic models and what are they suggesting about policy?

Externalities, public goods, common property, strategies for controlling pollution. Dynamics of renewable resources (fisheries, forestry) and dynamics of non-renewable resources (minerals like oil). Discounting, uncertainty, cost-benefit analysis, investment criteria for environmental projects, green accounting, sustainability. Basic economic analysis of climate change as prototype example.

*Note:* Students from other concentrations are welcome to take this course for credit.

*Prerequisite:* Economics 1010a1 or 1010a2.

### ***Primarily for Graduates***

### **Economics 2610. Industrial Organization I**

Catalog Number: 3766

*Robin S. Lee*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

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

*Pierre Dubois*



*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

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 2612. Dynamic Topics in Industrial Organization]**

Catalog Number: 83893

*Ariel Pakes and Ali R. Yurukoglu*

*Half course (spring term). M., W., 10–11:30.*

*Note:* Expected to be given in 2015–16.

**\*Economics 2640hf. Research in Industrial Organization**

Catalog Number: 5981

*Robin S. Lee*

*Half course (throughout the year). W., 2:30–4. EXAM GROUP: Fall: 7; Spring: 18*

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 2665. The Economics of Organizations Workshop]**

Catalog Number: 9819

*Oliver S. Hart*

*Half course (throughout the year). Hours to be arranged.*

Speakers present current research in the field in a seminar setting.

*Note:* Expected to be given in 2015–16. Offered jointly with the Business School as 4230.

**[Economics 2670. Organizational Economics]**

Catalog Number: 6913

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

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:* Expected to be given in 2015–16. Offered jointly with the Business School as 4180.

*Prerequisite:* Economics 2020.

**Economics 2687. Advanced Economics of the Environment, Natural Resources, and Climate Change - (New Course)**

Catalog Number: 96942

*Martin L. Weitzman*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Survey of foundations and applications of the modern theory of environmental and natural-resource economics. What are the basic models and what are they suggesting about policy?

Externalities, public goods, common property, strategies for controlling pollution. Dynamics of



renewable resources (fisheries, forestry) and dynamics of non-renewable resources (minerals like oil). Discounting, uncertainty, cost-benefit analysis, investment criteria for environmental projects, green accounting, sustainability. Basic economic analysis of climate change as prototype example.

*Prerequisite:* Economics 1010a1 or 1010a2.

### **\*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: Fall: 17; Spring: 13*

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 API-905Y.

*Prerequisite:* Graduate-level course in microeconomic theory.

## ***Financial Economics***

### ***For Undergraduates and Graduates***

#### **Economics 1723. Capital Markets**

Catalog Number: 1917

*John Y. Campbell*

*Half course (fall term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

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:* Statistics 100 and Economics 1010a1, 1010a2, or 1011a.

#### **Economics 1730 (formerly Economics 2730). Crony Capitalism - (New Course)**

Catalog Number: 13057

*Luigi Zingales*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

The economic system prevailing in most of the world today differs greatly from the idealist version of free markets generally taught in economic classes. This course analyzes the role played by corporate governance, wealth inequality, the media, regulation, and the political process in general in producing these deviations. It will explain why crony capitalism prevails in most of the world and why it is becoming more entrenched also in the United States of America.

#### **Economics 1745. Corporate Finance**

Catalog Number: 5889

*Matteo Maggiori*

*Half course (spring term). Tu., Th., 1-2:30, and a weekly section to be arranged. EXAM GROUP: 1*

Introduction to corporate finance, including asset valuation, capital structure, theory of



managerial incentives, banking and short-term debt, topics on financial crises.

*Prerequisite:* Economics 1010a1, 1010a2, or 1011a, Mathematics 20, and Statistics 100.

### **Economics 1759. The Financial System and the Central Bank**

Catalog Number: 90007

*Jeremy C. Stein*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

This course analyzes the modern financial system. Topics include: (i) the behavior of various types of intermediaries (e.g., banks, broker-dealers, mutual funds, hedge funds); (ii) key elements of the system's plumbing and infrastructure; (iii) sources of systemic risk; and (iv) the multiple roles of the central bank as monetary policymaker, lender of last resort, and regulator.

### **Economics 1760. Behavioral Finance**

Catalog Number: 77458

*Owen A. Lamont*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

Theory and evidence on mispricing in financial markets due to investor psychology or institutional constraints. Broad themes are the practical limits of arbitrage, models of psychological behavior, and predictability of security returns. Specific topics may include market bubbles and crashes, closed end funds, value vs. growth, momentum, the money management industry, and short sale constraints.

*Prerequisite:* Econ 1723

### ***Cross-Listed Courses***

[[Statistics 123. Applied Quantitative Finance](#)]

**[Statistics 170. Quantitative Analysis of Capital Markets](#)**

### ***Primarily For Graduates***

#### **Economics 2723. Asset Pricing I**

Catalog Number: 2847

*John Y. Campbell*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

An introduction to financial economics emphasizing discrete-time models and empirical applications. Reviews basic asset pricing theory. Discusses empirical topics including predictability of stock and bond returns, the equity premium puzzle, and intertemporal equilibrium models.

*Note:* Offered jointly with the Business School as 4209.

*Prerequisite:* Economics 2010a or 2020a, or permission of instructor.

#### **Economics 2725. Corporate Finance and Banking**

Catalog Number: 1427

*David S. Scharfstein (Business School) and Jeremy C. Stein*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Theory and empirical evidence on capital structure, dividends, investment policy, and managerial



incentives. Topics include banking, corporate governance, and mergers.

*Note:* Offered jointly with the Business School as 4243.

*Prerequisite:* Economics 2060.

### **Economics 2726. Theoretical and Empirical Perspective on Entrepreneurship: Economics and Finance**

Catalog Number: 4451

*William Robert Kerr (Business School) and Joshua Lerner (Business School)*

*Half course (spring term). Th., 2:30–5:30. EXAM GROUP: 11*

Entrepreneurship is a complex phenomenon that has attracted little academic attention. This course explores the emerging work in this area. Students taking the course for credit will be expected to complete two referee reports and a paper.

*Note:* Offered jointly with the Business School as 4350.

### **Economics 2727. Empirical Methods in Corporate Finance**

Catalog Number: 9055

*Samuel Gregory Hanson (Business School), Paul Gompers (Business School), and Aditya Vikram Sunderam (Business School)*

*Half course (spring term). M., 2:30–5:30. EXAM GROUP: 18*

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:* Expected to be omitted in 2013–14. Structured to minimize overlap with Economics 2725. Seminar format; students write referee reports and a research paper. Offered jointly with the Business School as 4220.

### **[Economics 2728. Behavioral Finance]**

Catalog Number: 8633

*Jeremy C. Stein*

*Half course (spring term). W., 1:30–3:30.*

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 2015–16.

### **Economics 2735. Crony Capitalism - (New Course)**

Catalog Number: 25375

*Luigi Zingales*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

The economic system prevailing in most of the world today differs greatly from the idealist version of free markets generally taught in economic classes. This course analyzes the role played by corporate governance, wealth inequality, the media, regulation, and the political process in general in producing these deviations. It will explain why crony capitalism prevails in most of the world and why it is becoming more entrenched also in the United States of America.



### **\*Economics 2770hf. Research in Financial Economics**

Catalog Number: 1379

*John Y. Campbell and Jeremy C. Stein*

*Half course (throughout the year). F., 12–1:30. EXAM GROUP: Fall: 11; Spring: 7*

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.

*Note:* Offered jointly with the Business School as 4601.

### ***Labor, Human Resources, and Income Distribution; Urban Economics***

#### ***For Undergraduates and Graduates***

##### **[Economics 1815. Social Problems of the American Economy]**

Catalog Number: 3130

*Lawrence F. Katz*

*Half course (spring term). Hours to be arranged.*

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:* Expected to be given in 2015–16. A research paper is required. This course meets the concentration writing requirement.

*Prerequisite:* Ec 10a and Ec 10b or permission of the instructor.

##### **[Economics 1816. Race in America]**

Catalog Number: 2483 Enrollment: Limited to 40.

*Roland G. Fryer*

*Half course (fall term). M., W., 1–2:30.*

Examines the causes and consequences of racial inequality in America and evaluates the efficacy of various market and non-market solutions. Topics include: the racial achievement gap in education, the impact of crack cocaine on inner cities, racial differences in health, crime and punishment, labor market discrimination, social interactions and the effects of peer groups, affirmative action, and more.

*Note:* Expected to be given in 2015–16. Optional writing Requirement: This course offers an optional writing requirement which if completed will satisfy the concentration writing requirement. Offered in alternate years.

*Prerequisite:* Ec 10a and Ec 10b.

##### **[Economics 1818. Economics of Discontinuous Change]**

Catalog Number: 3029

*Richard B. Freeman*

*Half course (spring term). Tu., Th., 1–2:00, and a weekly section to be arranged.*

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:* Expected to be given in 2015–16. Writing requirement: A research paper is required. This course meets the concentration writing requirement. Students should have some mathematical background, but there is no prerequisite.

*Prerequisite:* Ec 10a and Ec 10b.

### [Economics 1820. Education Reform in America]

Catalog Number: 52303

*Roland G. Fryer*

*Half course (fall term). M., W., 2:30–4.*

Introduces students to the methods and the research frontier in the economics of education. The first quarter of the course will cover common statistical methods in applied microeconomics, including instrumental variable models, regression discontinuities, difference-in-differences, and randomized inference. With these tools in hand, the course will critically survey the economics of education literature, placing particular emphasis on policies and practices designed to raise achievement among vulnerable populations. Topics will include achievement gaps, the role of incentives, the rise of charter schools, school turnaround efforts, and education's role in determining economic outcomes.

*Note:* Expected to be given in 2015–16. Writing requirement: A research paper is required.

Fulfills the department writing requirement.

*Prerequisite:* Courses in introductory statistics, econometrics, and/or microeconomics would be useful preparation, but there are no official prerequisites. A non-trivial amount of math fluency is expected, however.

### *Primarily for Graduates*

#### Economics 2810a. Labor Market Analysis

Catalog Number: 4862

*Lawrence F. Katz*

*Half course (fall term). M., W., 10–11:30. EXAM GROUP: 5*

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

*Amanda D. Pallais*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

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, and globalization and the labor market.

### [Economics 2811. Social Economics]

Catalog Number: 5188



*Roland G. Fryer*

*Half course (spring term). Tu., 5:30–8:30 p.m.*

Applies the tools of economics to explore social issues including crime, discrimination, racial and gender differences, poverty, family structure, urban problems, social interactions and peer effects, and intergenerational mobility.

*Note:* Expected to be given in 2015–16.

### **\*Economics 2812hf. Research in Labor Economics**

Catalog Number: 0230

*Lawrence F. Katz, Roland G. Fryer, Edward L. Glaeser, Claudia Goldin, and Amanda D. Pallais*

*Half course (throughout the year). Tu., 1–2:30. EXAM GROUP: Fall: 8; Spring: 1*

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.

### **Economics 2880. Economics of Science**

Catalog Number: 7488

*Richard B. Freeman*

*Half course (spring term). Th., 2:30–5:30. EXAM GROUP: 11*

Analyzes economic issues regarding the role of science and RD in the economy and in the deployment and productivity of scientists, engineers, and highly skilled technical workers. Topics include: wage levels/employment prospects; stipend policy, education/recruitment, student unionization/post-doc organization, career choices/trajectories, with reference to women; scientific competition/collaboration.

### **Economics 2888r. Economics of Science and Engineering Workshop**

Catalog Number: 6311

*Richard B. Freeman*

*Half course (fall term; repeated spring term). F., 12–1:30. EXAM GROUP: Fall: 11; Spring: 7*

Focus on work force and career issues. Topics include: Effects of globalization on work force and innovation, growth of networks in work; impact of career incentives on productivity; university policies; mobility between academe and industry; link between ideas and outputs.

*Note:* Offered jointly with the Business School as 4245.

## ***Graduate Courses of Reading and Research***

### **\*Economics 3000. Research Paper**

Catalog Number: 4174

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

Intended to fulfill the Research Paper Requirement for the PhD degree in Economics.

*Note:* Ordinarily, this course is taken during the spring term of the second year of graduate study.

### **\*Economics 3005. Reading and Research**

Catalog Number: 3493

*Philippe Aghion 1263, Alberto F. Alesina 2074, Robert J. Barro 1612, John Y. Campbell 1230,*



*Gary Chamberlain 1745 (on leave fall term), Richard N. Cooper 7211, David M. Cutler (Public Health) 2954, Martin Feldstein 1509, Richard B. Freeman 4127 (on leave spring term), Benjamin M. Friedman 3787, Drew Fudenberg 3460, Edward L. Glaeser 3219 (on leave spring term), Claudia Goldin 2667, Gita Gopinath 5042, Jerry R. Green 1539, Oliver S. Hart 3462 (on leave fall term), Elhanan Helpman 2334, Richard A. Hornbeck 6423 (on leave 2014-15), Dale W. Jorgenson 2000, Lawrence F. Katz 1480, Michael R. Kremer 2112, Gregory M. Lewis 5868, N. Gregory Mankiw 1118, Stephen A. Marglin 1505, Jeffrey A. Miron 5067, Sendhil Mullainathan 5139, Ariel Pakes 1774 (on leave 2014-15), Rohini Pande (Kennedy School) 5786, Dwight H. Perkins 2300, Jack R. Porter 2337, Dani Rodrik (Kennedy School) 2394, Kenneth Rogoff 1746 (on leave 2014-15), Michael A. Schwarz 2729, Amartya Sen 1705 (on leave spring term) (spring term only), Andrei Shleifer 2772, Robert N. Stavins (Kennedy School) 2093, Martin L. Weitzman 2262, and Jeffrey G. Williamson 7680*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

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*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

*Note:* In all cases, the dissertation topic must have been formally submitted to, and approved by, a dissertation adviser.

#### **\*Economics 3011. The Behavioral and Experimental Economics Workshop**

Catalog Number: 0109

*Jerry R. Green 1539, David I. Laibson 1241, and Tomasz Strzalecki 6294*

*Half course (fall term; repeated spring term). Tu., 2:30-4. EXAM GROUP: Fall: 14; Spring: 11*

For students with an interest in economic theory. Faculty presentations by Harvard and MIT economists and invited guests. The location alternates between Harvard and MIT.

*Prerequisite:* Economics 2010a (or 2020a) and 2010b (or 2020b).

#### **\*Economics 3086. The Theory Workshop**

Catalog Number: 53875

*Drew Fudenberg 3460, Jerry R. Green 1539, and Tomasz Strzalecki 6294*

*Half course (fall term; repeated spring term). Th., 4-6. EXAM GROUP: 12*

For students with an interest in economic theory. Faculty presentations by Harvard and MIT economists and invited guests. The location alternates between Harvard and MIT.

#### **\*Economics 3087. Applied Theory: Research Workshop**

Catalog Number: 13964

*Oliver S. Hart 3462 (on leave fall term) and Andrei Shleifer 2772*

*Half course (fall term). M., 5:30-7 p.m. EXAM GROUP: 4*

Presentations of current research in the Applied Theory Field.



### **\*Economics 3163hf. The Econometrics Workshop**

Catalog Number: 4392

*Gary Chamberlain 1745 (on leave fall term), Dale W. Jorgenson 2000, and Maximilian Kasy 6990 (on leave spring term)*

*Half course (throughout the year). Th., 4:30–6. EXAM GROUP: 4*

Outside speakers and faculty present current research topics in theory and applications of econometrics.

### **\*Economics 3336hfr. Economic History Workshop**

Catalog Number: 0639

*Claudia Goldin 2667, Eric Chaney 6129, and Nathan J. Nunn 5838*

*Half course (throughout the year). F., 2–3:30. EXAM GROUP: 12*

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 3390hf. Economic Development Workshop**

Catalog Number: 2532

*Michael R. Kremer 2112, Shawn Cole (Business School) 1228, Richard A. Hornbeck 6423 (on leave 2014–15), Asim I. Khwaja (Kennedy School) 3994, and Sendhil Mullainathan 5139*

*Half course (throughout the year). Fall: Tu., 2:30–4; Spring: W., 2:30–4. EXAM GROUP: Fall: 1; Spring: 8*

Fall speakers cover issues in growth and development. Spring speakers alternate between “growth and institutions,” focusing on the macro aspects of growth and development, and “labor and development,” focusing on the micro aspects.

### **\*Economics 3410. The Monetary and Fiscal Policy Seminar**

Catalog Number: 2126

*Alberto F. Alesina 2074, Philippe Aghion 1263, Robert J. Barro 1612, Emmanuel Farhi 5715, Benjamin M. Friedman 3787, David I. Laibson 1241, and N. Gregory Mankiw 1118*

*Full course (indivisible). M., at 4. EXAM GROUP: Fall: 14; Spring: 11*

Seminar speakers present papers on macroeconomic topics, including issues relating to monetary and fiscal policies, economic growth, the role of institutions, and other research issues in the field.

*Note:* Popularly referred to as the Macro Seminar.

### **\*Economics 3450hf. The Public Economics and Fiscal Policy Seminar**

Catalog Number: 3436

*David M. Cutler (Public Health) 2954, Raj Chetty 6276, Edward L. Glaeser 3219 (on leave spring term), and Lawrence F. Katz 1480*

*Half course (throughout the year). M., 4–6. EXAM GROUP: Fall: 2; Spring: 16*

Invited speakers present theoretical and empirical research on a broad range of topics related to the design of government policy.

### **\*Economics 3460c. Research in Health Economics**

Catalog Number: 5309



*Joseph P. Newhouse (Kennedy School and Public Health, Medical School) 2425*

*Half course (fall term). . EXAM GROUP: 16*

Participants discuss recent research in health economics. Course may also include presentation of original research by participants. Open to doctoral students only.

**\*Economics 3530hf. The International Economics Workshop**

Catalog Number: 5777

*Pol Antràs 4666 (on leave 2014-15), Richard N. Cooper 7211, Gita Gopinath 5042, Elhanan Helpman 2334, and Joseph P. Newhouse (Kennedy School and Public Health, Medical School) 2425*

*Half course (throughout the year). W., 4–6. EXAM GROUP: Fall: 18; Spring: 14*

Outside speakers and faculty present research papers in all aspects of international economics, including theory, econometrics, and policy.

**\*Economics 3650hf. The Industrial Organization Workshop**

Catalog Number: 3318

*Robin S. Lee 7724*

*Half course (throughout the year). M., 2:30–4. EXAM GROUP: Fall: 16; Spring: 6*

Speakers present current research in the field in a seminar setting.

**\*Economics 3660hf. The Law, Economics, and Organizations Workshop**

Catalog Number: 4325

*Lucian A. Bebchuk (Law School) 2042, Oliver S. Hart 3462 (on leave fall term), Louis E. Kaplow (Law School) 3223, Joshua Lerner (Business School) 1601, and Andrei Shleifer 2772*

*Half course (throughout the year). M., 12:30–2. EXAM GROUP: Fall: 9; Spring: 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 with the Business School as 4670.

**\*Economics 3680hf. Research in Environmental Economics**

Catalog Number: 1227

*Robert N. Stavins (Kennedy School) 2093*

*Half course (throughout the year). Fall: F., at 12; Spring: F., 12–1:30. EXAM GROUP: Fall: 17; Spring: 13*

Participants discuss recent research in environmental and natural resource economics and present their own work in progress.

*Note:* Open to doctoral students only.

**\*Economics 3723hfr. The Financial Economics Workshop**

Catalog Number: 4107

*John Y. Campbell 1230 and Jeremy C. Stein 3752*

*Half course (throughout the year). W., 4–5:30. EXAM GROUP: 5*

Outside speakers present current research in the field in a seminar setting.



### **\*Economics 3810chfr. The Labor Economics Workshop**

Catalog Number: 4066

*Lawrence F. Katz 1480, Roland G. Fryer 5523 (on leave 2014-15), and Amanda D. Pallais 1652*

*Half course (throughout the year). W., 4–5:30. EXAM GROUP: 3*

Outside speakers present research concerning the operation of labor markets.

## Education

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### *Faculty of the Committee on Higher Degrees in Education*

Nonie Kathleen Lesaux, Professor of Education (*Faculty of Education*) (*Chair*)

Paul Lansley Harris, Victor S. Thomas Professor in Education (*Faculty of Education*)

Jennifer L. Hochschild, Henry LaBarre Jayne Professor of Government and Professor of African and African American Studies

Andrew Jewett, Associate Professor of History and of Social Studies

Thomas Kane, Walter H. Gale Professor of Education and Economics (*Faculty of Education*)

Julie A. Reuben, Charles Warren Professor of the History of American Education (*Faculty of Education*)

Jon Robert Star, Nancy Pforzheimer Aronson Associate Professor in Human Development and Education (*Faculty of Education*)

Natasha Warikoo, Associate Professor of Education (*Faculty of Education*)

Martin Raymond West, Associate Professor of Education (*Faculty of Education*)

The PhD in Education combines advances in the social sciences, sciences, arts and humanities with deep expertise in educational research, policy and practice, training students for careers as academics, researchers, policy-makers, and leaders who will improve educational outcomes in the United States and around the world.

Candidates for the PhD in Education are affiliated with one of three concentrations: Culture, Institutions, and Society (CIS); Education Policy and Program Evaluation (EPPE); or Human Development, Learning and Teaching (HDLT). The program's concentrations, curricular requirements, and milestones are structured to achieve four goals: to equip students with domain knowledge in education; to provide training in relevant disciplines; to ensure rigorous training in a range of research methods; and to promote the development of new research and knowledge with a transformative impact on education.

Requirements for the PhD in Education include both qualitative and quantitative research



methods courses, a program proseminar, a concentration seminar, and elective coursework across the University. Students must pass written and oral comprehensive examinations in order to advance to the dissertation stage, and will be expected to participate in research projects and apprenticeships as well as ongoing concentration-based colloquia on topics critical to education.

For more information about the PhD in Education, visit the program website at [www.gse.harvard.edu/academics/doctorate/phd/index.html](http://www.gse.harvard.edu/academics/doctorate/phd/index.html).

## Engineering Sciences

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### *Faculty of the School of Engineering and Applied Sciences Offering Instruction in Engineering Sciences*

David Eric Abrams, Visiting Lecturer on Engineering Sciences

Ferran Adria, Visiting Lecturer on Creativity and Science

Joanna Aizenberg, Amy Smith Berylson Professor of Materials Science

Beth Altringer, Lecturer on Innovation and Design

Ariel Amir, Assistant Professor of Applied Mathematics and Applied Physics

James G. Anderson, Philip S. Weld Professor of Atmospheric Chemistry (*on leave fall term*)

Michael J. Aziz, Gene and Tracy Sykes Professor of Materials and Energy Technologies (*on leave spring term*)

Katia Bertoldi, John L. Loeb Associate Professor of the Natural Sciences

Sujata K. Bhatia, Lecturer on Biomedical Engineering

Paul Blake Bottino, Lecturer on Innovation and Entrepreneurship

John Briscoe, Visiting Professor of Environmental Engineering (FAS), and (Public Health)

Federico Capasso, Robert L. Wallace Professor of Applied Physics and Vinton Hayes Senior Research Fellow in Electrical Engineering

Yiling Chen, John L. Loeb Associate Professor of the Natural Sciences

David R. Clarke, Extended Tarr Family Professor of Materials (*on leave fall term*)

David A. Edwards, Gordon McKay Professor of the Practice of Idea Translation

Daniela Faas, Senior Preceptor in Design Instruction

Thomas Fai, Lecturer on Applied Mathematics

Brian F. Farrell, Robert P. Burden Professor of Meteorology (*on leave fall term*)

John Andrew Girash, Lecturer on Engineering and Applied Sciences

Roy G. Gordon, Thomas Dudley Cabot Professor of Chemistry and Professor of Materials Science

Fawwaz Habbal, Senior Lecturer on Applied Physics



Donhee Ham, Gordon McKay Professor of Electrical Engineering and Applied Physics  
Donal Padraic Holland, Visiting Lecturer in Engineering Sciences  
Kathryn Ann Hollar, Lecturer on Engineering Sciences  
Robert D. Howe, Abbott and James Lawrence Professor of Engineering, Area Dean for Bioengineering  
Evelyn Hu, Tarr-Coyne Professor of Applied Physics and of Electrical Engineering (*on leave 2014-15*)  
Peter John Huybers, Professor of Earth and Planetary Sciences and of Environmental Science and Engineering  
Donald E. Ingber, Professor of Bioengineering  
Daniel J. Jacob, Vasco McCoy Family Professor of Atmospheric Chemistry and Environmental Engineering (*on leave spring term*)  
Neel S. Joshi, Associate Professor of Chemical and Biological Engineering  
David Keith, Gordon McKay Professor of Applied Physics  
Frank N. Keutsch, Stonington Professor of Engineering and Atmospheric Science and Professor of Chemistry and Chemical Biology  
Navin Khaneja, Gordon McKay Professor of Electrical Engineering (*on leave 2014-15*)  
Zhiming Kuang, Gordon McKay Professor of Atmospheric and Environmental Science  
Jennifer Lewis, Hansjorg Wyss Professor of Biologically Inspired Engineering  
Na Li, Assistant Professor of Electrical Engineering  
Christopher Lombardo, Lecturer on Engineering Sciences  
Marko Loncar, Tiansai Lin Professor of Electrical Engineering  
Yue Lu, Assistant Professor of Electrical Engineering  
L. Mahadevan, Lola England de Valpine Professor of Applied Mathematics, of Organismic and Evolutionary Biology, and of Physics (*on leave 2014-15*)  
Vinothan N. Manoharan, Gordon McKay Professor of Chemical Engineering and Professor of Physics  
Scot T. Martin, Gordon McKay Professor of Environmental Chemistry  
Richard McCullough, Professor of Materials Science and Engineering  
Michael B. McElroy, Gilbert Butler Professor of Environmental Studies (*on leave 2014-15*)  
Harold McGee, Visiting Lecturer on Science and Cooking  
Karena A. McKinney, Lecturer on Environmental Science and Engineering  
David J. Mooney, Robert P. Pinkas Family Professor of Bioengineering (*on leave spring term*)  
Cherry Murray, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, and Professor of Physics (*on leave spring term*)  
Venkatesh Narayananamurti, Benjamin Peirce Professor of Technology and Public Policy (*on leave fall term*)  
Daniel Joseph Needleman, Associate Professor of Applied Physics and of Molecular and Cellular Biology  
Kevin K. Parker, Tarr Family Professor of Bioengineering and Applied Physics  
David C. Parkes, George F. Colony Professor of Computer Science, Harvard College Professor, Area Dean for Computer Science  
Shriram Ramanathan, Associate Professor of Materials Science (*on leave fall term*)  
James R. Rice, Mallinckrodt Professor of Engineering Sciences and Geophysics (*on leave spring term*)  
Christ Richmond, Visiting Lecturer in Electrical Engineering



Shmuel Rubinstein, Assistant Professor of Applied Physics  
 Daniel P. Schrag, Sturgis Hooper Professor of Geology and Professor of Environmental Science and Engineering  
 Margo I. Seltzer, Herchel Smith Professor of Computer Science  
 John H. Shaw, Harry C. Dudley Professor of Structural and Economic Geology and Professor of Environmental Science and Engineering  
 Maurice A. Smith, Thomas D. Cabot Associate Professor of Bioengineering, Gordon McKay Professor of Bioengineering  
 Pia M. Sorensen, Preceptor in Science and Cooking, Lecturer on Science and Cooking  
 Frans A. Spaepen, John C. and Helen F. Franklin Professor of Applied Physics  
 Peter RH Stark, Visiting Associate Professor in Engineering Sciences  
 Elynor M. Sunderland, Associate Professor of Environmental Science and Engineering (*on leave fall term*)  
 Zhigang Suo, Allen E. and Marilyn M. Puckett Professor of Mechanics and Materials, Area Dean for Materials Sciences & Mechanical Engineering  
 Vahid Tarokh, Perkins Professor of Applied Mathematics and Vinton Hayes Senior Research Fellow of Electrical Engineering, Area Dean for Electrical Engineering  
 Patrick D. Ulrich, Lecturer on Environmental Science and Engineering  
 Avinash Raj Uttamchandani, Preceptor in Electrical Engineering  
 Chad D. Vecitis, Associate Professor of Environmental Engineering (*on leave spring term*)  
 Joost J. Vlassak, Abbott and James Lawrence Professor of Materials Engineering (*on leave spring term*)  
 Conor J. Walsh, Assistant Professor of Mechanical and Biomedical Engineering  
 Gu-Yeon Wei, Gordon McKay Professor of Electrical Engineering and Computer Science (*on leave 2014-15*)  
 David A. Weitz, Mallinckrodt Professor of Physics and of Applied Physics  
 Robert M. Westervelt, Mallinckrodt Professor of Applied Physics and of Physics (*on leave fall term*)  
 Steven C. Wofsy, Abbott Lawrence Rotch Professor of Atmospheric and Environmental Science  
 Robert J. Wood, Charles River Professor of Engineering and Applied Sciences  
 Robin Wordsworth, Assistant Professor of Environmental Science and Engineering  
 Woodward Yang, Gordon McKay Professor of Electrical Engineering and Computer Science  
 Todd Zickler, William and Ami Kuan Danoff Professor of Electrical Engineering and Computer Science

The School of Engineering and Applied Sciences ([www.seas.harvard.edu](http://www.seas.harvard.edu)) offers undergraduate and graduate courses in Applied Computation, Applied Mathematics, Applied Physics, Computer Science, and Engineering Sciences. Engineering and Applied Sciences faculty also offer several courses in the section entitled Freshman Seminars, Extra-Departmental Courses, and House Seminars.

For information concerning concentration in Engineering Sciences, please consult the Director of Undergraduate Studies or the Office of Student Affairs, School of Engineering and Applied Sciences, Pierce Hall 110.

***Primarily for Undergraduates***



### **[Engineering Sciences 1. Introduction to Engineering Sciences]**

Catalog Number: 0314

*Todd Zickler and Sujata K. Bhatia*

*Half course (spring term). M., W., 1-2:30, and a weekly lab section to be arranged.*

An integrative introduction to engineering sciences. Combines classroom discussion with activity-based learning, and emphasizes concepts that span multiple disciplines. Covers topics having direct societal impact, and presents them in historical context. Involves qualitative and quantitative analysis, mathematical modeling, and design. Introduces common engineering software and hardware tools.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for either Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

### **Engineering Sciences 6. Environmental Science and Technology**

Catalog Number: 2969

*Scot T. Martin and Patrick D. Ulrich*

*Half course (spring term). Tu., Th., 1-2:30. EXAM GROUP: 1*

An introduction to the role of technology in the environmental sciences, with foci on energy and water topics. The basic scientific principles underlying human use and control of the environment are emphasized. The course includes several field trips.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.

*Prerequisite:* The course presumes basic knowledge in chemistry, physics, and mathematics at the high school level.

### **\*Engineering Sciences 20. How to Create Things and Have Them Matter**

Catalog Number: 9676 Enrollment: Limited to 20.

*David A. Edwards*

*Half course (spring term). M., 1-5. EXAM GROUP: 8*

This course teaches students to generate, develop and realize breakthrough ideas for social and cultural change. Students form groups of four to five around one of four seed ideas. Over the course of the semester students mold their idea, learn idea translation skills, and develop idea proposals they pitch at the end of the semester. Students have the opportunity to apply for Idea Translation Fellowships, funded by the Wyss Institute and the Harvard Global Health Institute. Winners are funded to develop their ideas further over the course of the summer starting with a week long workshop with students from around the world at Le Laboratoire Cambridge. Students brainstorm, give public presentations, and write final group reports. Students also engage in studio practice with artists, designers, technologists, and scientists. Case study and conceptual readings will complement student idea exploration.

*Note:* Open to all students by permission of instructor. All completely passionate students (any concentration) welcomed - no prior experience necessary.

### **\*Engineering Sciences 21. The Innovator's Practice: Finding, building and leading good ideas with others**

Catalog Number: 70925 Enrollment: Limited to 25. Permission of instructor required.

*Beth Altringer*

*Half course (fall term). M., W., 9-11. EXAM GROUP: 10*



Students gain direct experience overcoming under-represented challenges of becoming an innovator: identifying opportunities big enough to pursue, leading team projects under realistic entrepreneurial conditions, and building a coalition of support to scale their ideas. Students define their own interest areas and learn to: identify important unmet needs through behavioral fieldwork, work effectively with others to develop and prototype potential solutions, and lead innovative projects to implementation. They learn ethnographic and design processes (observing, interpreting, ideating, testing, refining, planning) for identifying needs, practice applying insights from industry cases and research to move their ideas through organizational and political systems (e.g., negotiate, strategize, motivate others, and build support). Students get substantial tailored individual feedback on research-based factors linked to effective multi-disciplinary innovation at multiple levels (individual, team, organization) designed to help prepare them for entrepreneurial work in the future. Features guest speakers from industry, academia, and involves collaborating with cutting-edge companies.

*Note:* Offered jointly with the Design School as SCI-06271.

### **\*Engineering Sciences 22. Design Survivor: Experiential Lessons in Designing for Desirability**

Catalog Number: 87699 Enrollment: Limited

*Beth Altringer*

*Half course (spring term). M., W., 9–11. EXAM GROUP: 10*

Multi-disciplinary course for students interested in designing products and services that are simple, irresistible, delightful, cool, covetable, viral, and, in today's competitive market, increasingly much more likely to be successful. Students study real world cases of exceptionally designed products and services (from Apple, Gucci, Zipcar and more) strategically design for desirability (via status, belonging, usability, etc.). In weekly design challenges, students use analogical transfer to apply these insights to diverse industries and target markets (e.g., health literacy campaigns, declining technologies, the future of luxury). Each week we prototype using different software and constraints, helping students to flexibly work across tools, with weekly prototyping workshops help supplement students' skills across prototyping areas. Weekly critiques enable students to develop their own design point of view and to finish with a diverse design portfolio.

*Note:* Permission required for all students.

### **Engineering Sciences 24. Flavor Molecules of Food Fermentation: Exploration and Inquiry - (New Course)**

Catalog Number: 54649 Enrollment: Limited to 20.

*Pia M. Sorensen*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Course description: Microorganisms produce a diverse array of specialized small molecules as part of their metabolic processes. In this course we will study the production, properties, and characterization of these molecules through the lens of food fermentation. In particular, we will focus on the small molecules that contribute taste and aroma in fermented foods. Students will experience the scientific inquiry process in a creative way by designing and implementing their own research project based on a fermented food of their choosing. Still a field with much potential for discovery, interested students are invited to continue their research project in the



summer.

*Prerequisite:* Ls1a , LPSA or equivalent, first semester Organic Chemistry.

### **\*Engineering Sciences 27. Design By Committee. Digital Interfaces for Collaborative and Participatory Design**

Catalog Number: 33688

*Panagiotis Michalatos (Design School)*

*Half course (fall term). F., 1–4. EXAM GROUP: 1*

This Seminar/Workshop will look into the design and technical challenges involved in the development of web based interfaces for collaborative and participatory design scenarios where more than one agents are involved. The designer in a sense is given the chance to design and experiment with the communication architecture and temporality of the design process itself. Students will be introduced to web technologies for front end and back end development [javascript, webGL, nodeJS, MongoDB].

*Note:* Offered jointly with the Graduate School of Design as GSD-6468. Meets at GSD. More information can be found at [www.gsd.harvard.edu/cgi-bin/courses/index.cgi](http://www.gsd.harvard.edu/cgi-bin/courses/index.cgi).

### **[\*Engineering Sciences 28. Material Systems: Designing Composites for the Architectural Envelope ]**

Catalog Number: 15582 Enrollment: Limited

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

Digital design and fabrication methods available to composite material manufacturing have been employed by the automotive, marine, and aerospace industries for some time, allowing significant advancements in performance. Not yet a material system commonly employed by the construction industry, contemporary architecture is positioned to benefit from the adoption of this material system and the highly customizable opportunities it offers. Offered as a limited enrollment seminar/workshop, this course will focus on designing and prototyping envelope systems constructed of resin-infused fiber composite parts. Particular interest will be placed on controlling the direct correlation between geometry and material performance within the design solution. Workshops addressing the related material processes and necessary digital design tools will be offered as part of the weekly course content.

*Note:* Expected to be given in 2015–16. Offered jointly with the Graduate School of Design as GSD-6437. Meets at GSD.

### **\*Engineering Sciences 29. Introduction to Computational Design**

Catalog Number: 78467

*Panagiotis Michalatos (Design School)*

*Half course (fall term). Th., 9–11:30, Tu., 10–11:30. EXAM GROUP: 12*

This is an introductory course to computational design and the prerequisite for a spring course that deals with more advanced topics in the field. This course is primarily intended for designers with little background in programming who are interested in developing their skills in order to be able to better understand, interface with and customize the digital tools they are using, or develop their own software and interactive applications. The course introduces students to fundamental concepts and techniques in computational design. By the term "computational design" we mean an ad hoc set of methods borrowed from computer science, computational geometry and other



fields, and adapted to specific design problems such as design development, fabrication, analysis, interaction and communication.

*Note:* Offered jointly with the Graduate School of Design as GSD-6338. Meets at GSD. More information can be found at [www.gsd.harvard.edu/cgi-bin/courses/index.cgi](http://www.gsd.harvard.edu/cgi-bin/courses/index.cgi).

### **Engineering Sciences 50. Introduction to Electrical Engineering**

Catalog Number: 4499

*Marko Loncar and Christopher Lombardo*

*Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7*

The main course objectives are to introduce students to the exciting and powerful world of electrical engineering and to explain how gadgets that we use every day actually work. After taking ES 50, you will be able to leverage the power of electricity to build systems that sense, control and program the physical world around you. Examples include intelligent and autonomous systems (robots), audio amplifiers (e.g. guitar amp), interactive art installations, light-shows, mind-controlled machines, and so on.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for either Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

*Prerequisite:* Enthusiasm, curiosity and desire to build things! Previous engineering or programming experience is NOT needed. The amount of high school physics required is minimal, and is limited to basic concepts only.

### **\*Engineering Sciences 51. Computer-Aided Machine Design**

Catalog Number: 0322 Enrollment: Limited to 60.

*Daniela Faas and Donal Padraic Holland*

*Half course (fall term; repeated spring term). Fall: M., W., F., at 10; Spring: M., W., F., at 12.*

*EXAM GROUP: Fall: 5; Spring: 7*

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:* Intended for freshmen and sophomores.

*Prerequisite:* High school calculus; high school physics.

### **\*Engineering Sciences 52. The Joy of Electronics - Part 1**

Catalog Number: 50605

*David Eric Abrams*

*Half course (fall term; repeated spring term). Fall: M., W., 1–2:30, followed by 2-hour lab;*

*Spring: M., W., 11:30–1, followed by 2-hour lab. EXAM GROUP: Fall: 1; Spring: 14*

Introduction to designing circuits to solve real problems. Two lecture and two lab sessions a week blend instruction with hands-on lab work to emphasize understanding, building and testing circuits. The course incorporates useful design experiences from day one. Covered topics include amplification, feedback, impedance, stability, filtering, switching, digital logic, microcontrollers, and more. The class ends with an open ended project that challenges students to build on core concepts.



### **Engineering Sciences 53. Quantitative Physiology as a Basis for Bioengineering**

Catalog Number: 3604

*Maurice A. Smith and Sujata K. Bhatia*

*Half course (fall term). M., W., F., at 12. EXAM GROUP: 11*

A foundation in human organ systems physiology, including cardiac, respiratory, renal, gastrointestinal, and neural systems. Quantitative description of organ systems function and control in terms of physical principles and physiologic mechanisms. Simple mathematical models representing key aspects of organ systems function. Emphasis will be given to understanding the ways in which dysfunction in these systems gives rise to common human disease processes.

*Note:* Open to freshmen.

### **\*Engineering Sciences 91r. Supervised Reading and Research**

Catalog Number: 1113

*Todd Zickler, Christopher Lombardo, and Patrick D. Ulrich*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 13; Spring: 9*

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 School of Engineering and Applied Sciences. Normally may not be taken for more than two terms; may be counted for concentration in Engineering Sciences with prior approval and if taken for graded credit. Applicants must file a project sheet before study cards are filed. Project sheets may be obtained from the Student Affairs Office, Pierce Hall 110.

### **\*Engineering Sciences 95r. Startup R & D**

Catalog Number: 60126 Enrollment: Limited

*Paul Blake Bottino*

*Half course (fall term; repeated spring term). W., 2–4. EXAM GROUP: Fall: 7; Spring: 18*

Students do field-based work in entrepreneurship to develop their existing startup and explore new ideas and opportunities for startup design. The course is for students seeking innovation experience as a founder of a startup. Students may work individually; teams are preferred. Requires self-directed, independent work and active outreach to mentors, customers, and partners for guidance and feedback in addition to that provided by the instructor. Students will share their work regularly and engage in a peer-to-peer feedback forum. The coursework is customized to the needs of each student and their startup role and includes development of product, technology, market, business, organization and leadership.

*Note:* Enrollment limited; permission of instructor required.

### **\*Engineering Sciences 96. Engineering Problem Solving and Design Project**

Catalog Number: 8461

*Robert D. Howe (fall term), Kevin K. Parker (spring term), James G. Anderson and Karena A. McKinney (spring term)*

*Half course (fall term; repeated spring term). Fall: M., W., 9–11; Spring: Section 1: M., W., 12–2; Section 2: Tu., Th., 1–3. EXAM GROUP: Fall: 10; Spring: 13*

Semester-long team project that provides engineering experience working with clients on real-world problems. Projects provide exposure to problem definition, performance measurement,



quantitative analysis, modeling, generation of creative solutions, engineering design trade-offs, and documentation/communication skills. Ordinarily taken in the junior year.

*Note:* Preference given to SB candidates.

### ***Cross-listed Courses***

#### **Earth and Planetary Sciences 52. Introduction to Global Geophysics**

##### ***For Undergraduates and Graduates***

Additional courses of interest to students in Electrical Engineering include: Computer Sciences 141, 143, and 148.

##### **[\*Engineering Sciences 100. Engineering Design Projects]**

Catalog Number: 4268

*Woodward Yang, Robert J. Wood, Sujata K. Bhatia, and Christopher Lombardo*

*Half course (fall term; repeated spring term). W., 2:30–4.*

Individual engineering design projects which demonstrate mastery of engineering knowledge and techniques. During the year, each student will pursue an appropriate capstone project which involves both engineering design and quantitative analysis and culminating in a final oral presentation and final report/thesis.

*Note:* Expected to be given in 2015–16. Ordinarily taken in the senior year. Enrollment is conditional on the student having an approved project before May 1 in the spring semester preceding actual enrollment. Formal project approval rests with ES100 teaching staff. Weekly lectures (fall only) and one hour sections (throughout the year) are mandatory.

*Prerequisite:* \*Engineering Sciences 96.

##### **\*Engineering Sciences 100hf. Engineering Design Projects**

Catalog Number: 7535

*Woodward Yang, Robert J. Wood, Sujata K. Bhatia, and Christopher Lombardo*

*Half course (throughout the year). Fall: W., 2:30–4. EXAM GROUP: Fall: 7*

Individual engineering design projects which demonstrate mastery of engineering knowledge and techniques. During the year, each student will pursue an appropriate capstone project which involves both engineering design and quantitative analysis and culminating in a final oral presentation and final report/thesis.

*Note:* Ordinarily taken in the senior year. Enrollment is conditional on the student having an approved project before May 1 in the spring semester preceding actual enrollment. Formal project approval rests with ES100 teaching staff. Weekly lectures (fall only) and one hour sections (throughout the year) are mandatory."

*Prerequisite:* \*Engineering Sciences 96.

##### **Engineering Sciences 103. Spatial Analysis of Environmental and Social Systems**

Catalog Number: 9277

*Sumeeta Srinivasan*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

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 110. Science, Engineering, and the Community]**

Catalog Number: 0452 Enrollment: Limited to 15.

*Vinothan N. Manoharan*

*Half course (fall term). M., 5–7:30 p.m.*

Activity-based course for beginning/intermediate science and engineering undergraduates. Combines readings and discussions on techniques for learning science and engineering design with implementation in an 8th grade science class in Cambridge. Students work directly with the 8th graders to guide how they learn. Students apply what they discover to improve their own understanding of college-level science and engineering.

*Note:* Offered in alternate years.

*Prerequisite:* Interest in science, engineering, learning, and outreach.

### **Engineering Sciences 111. Introduction to Scientific Computing - (New Course)**

Catalog Number: 49592

*Thomas Fai*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

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. The purpose of the course is to introduce methods that are useful in applications and research and to give the students hands-on experience with these methods.

*Note:* Engineering Sciences 111 is also offered as Applied Mathematics 111. Students may not take both for credit. Undergraduate Engineering Students should enroll in Engineering Sciences 111.

*Prerequisite:* Applied Mathematics 21a and 21b, or Mathematics 21a and 21b, or permission of instructor.

### **Engineering Sciences 114r (formerly Engineering Sciences 111r). Quantum Materials and Devices: From Research Lab to Classroom**

Catalog Number: 24049

*Robert M. Westervelt and Kathryn Ann Hollar*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

The STC Center for Integrated Quantum Materials (Harvard University, Howard University, and MIT) builds electronics and photonics from Quantum Materials: Atomic Layers (graphene, boron nitride, transition-metal dichalcogenides) for atomic-scale devices, Topological Insulators for corruption-free data channels, and Nitrogen Vacancy Center Diamond for single-atom memory. Faculty from the Center will present tutorial lectures about their research.



*Prerequisite:* Some experience and knowledge of electricity, magnetism, and quantum mechanics, either through research or courses.

### [Engineering Sciences 115. Mathematical Modeling - \(New Course\)](#)

Catalog Number: 75518

*Zhiming Kuang (fall term) and Ariel Amir (spring term)*

*Half course (fall term; repeated spring term). Fall: M., W., 11–12:30; Spring: M., W., 1–2:30.*

*EXAM GROUP: Fall: 18; Spring: 8*

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 approaches a number of problems without the prejudice of trying to apply a particular method of solution. Topics drawn from biology, economics, engineering, physical and social sciences.

*Note:* Engineering Sciences 115 is also offered as Applied Mathematics 115. Students may not take both for credit. Undergraduate Engineering Students should enroll in Engineering Sciences 115.

*Prerequisite:* Mathematics at least at the level of Applied Mathematics 21a, b but preferably at the level of Applied Mathematics 105 (formerly Applied Mathematics 105b). Additional skills in analysis, algebra, probability, statistics and computer programming will increase the value of the course to students.

### [Engineering Sciences 120. Introduction to the Mechanics of Solids](#)

Catalog Number: 1493

*Zhigang Suo*

*Half course (spring term). M., W., F., at 1. EXAM GROUP: 8*

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. Torsion. Beam theory with applications to beam deflections, vibrations, and buckling. Three laboratory sessions required.

*Prerequisite:* Applied Physics 50 a, Physical Sciences 12a, Physics 11a (no longer offered), or 15a and Applied Mathematics 21a or Mathematics 21a (previously) and Applied Mathematics 21b or Mathematics 21b (previously or concurrently).

### [Engineering Sciences 121. Introduction to Optimization: Models and Methods - \(New Course\)](#)

Catalog Number: 68206 Enrollment: Limited to 60

*Yiling Chen and David C. Parkes*

*Half course (fall term). M., W., 10–11:30. EXAM GROUP: 5*

Introduction to basic mathematical ideas and computational methods for solving deterministic and stochastic optimization problems. Topics covered: linear programming, integer programming, branch-and-bound, branch-and-cut, Markov chains, Markov decision processes. Emphasis on modeling. Examples from business, society, engineering, sports, e-commerce. Exercises in AMPL, complemented by Maple or Matlab.

*Note:* Engineering Sciences 121 is also offered as Applied Mathematics 121. Students may not



take both for credit. Undergraduate Engineering Students should enroll in Engineering Sciences 121.

*Prerequisite:* Applied Mathematics 21b or Mathematics 21b (linear algebra) and some knowledge of probability and statistics at the level of Statistics 110 or Applied Mathematics 101 or permission of instructor.

### **Engineering Sciences 123. Introduction to Fluid Mechanics and Transport Processes**

Catalog Number: 8323

*Shmuel Rubinstein*

*Half course (spring term). M., W., F., at 10, and laboratory. EXAM GROUP: 5*

Dimensional analysis. Basic elements of steady and unsteady thermal conduction and mass diffusion. Statics and dynamics of fluids. Buoyancy-stability and hydrostatics. Laminar viscous flows, potential flows, origin of lift, and basic aspects of boundary layers. Navier-Stokes and continuity equations. Applications in aerodynamics, chemical, environmental, and mechanical engineering, and physics.

*Prerequisite:* Applied Mathematics 21a,b or Mathematics 21a,b.

### **Engineering Sciences 125. Mechanical Systems**

Catalog Number: 7274

*Katia Bertoldi*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

Modeling and analysis of mechanical and electromechanical systems. Topics include 3D rigid body dynamics, resonance, damping, frequency response, Laplace transform methods, Lagrange's equations, multiple degree-of-freedom systems and an introduction to nonlinear vibration, continuous systems, and control. Analytical modeling will be supplemented with numerical simulations and lab experiments. Laboratory exercises will explore vibration, stabilization, and nonlinear systems using data acquisition systems.

*Prerequisite:* Applied Mathematics 21a,b or Mathematics 21a,b or Mathematics 23a,b; Applied Physics 50a, Physical Sciences 12a, Physics 11a (no longer offered), or 15a.

### **[Engineering Sciences 128. Computational Solid and Structural Mechanics]**

Catalog Number: 0359

*Katia Bertoldi*

*Half course (spring term). Tu., Th., 1–2:30 and a weekly section to be arranged.*

Introduction to finite element methods for analysis of steady-state and transient problems in solid, structural, fluid mechanics, and heat transfer. Implementation of simple MATLAB codes and use of existing general-purpose programs (ABAQUS and COMSOL).

*Note:* Offered alternate years.

*Prerequisite:* Engineering Sciences 120 or equivalent introduction to the mechanics of deformable materials and fluids. Engineering Sciences 123 may be taken concurrently.

### **[Engineering Sciences 131. Introduction to Physical Oceanography and Climate] - (New Course)**

Catalog Number: 38692

*Eli Tziperman*

*Half course (spring term). M., Th., 2:30–4.*



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 Niño, the oceans and global warming.

*Note:* Given in alternate years. When offered, a field trip to Cape Cod and Woods Hole Oceanographic Institution will be included. ES 131 is also offered as EPS 131. Students may not take both for credit.

*Prerequisite:* Applied Mathematics 21a,b; Physics 12a,b, Physics 15a,b,c or Applied Physics 50a,b; or permission of instructor.

### **Engineering Sciences 132. Introduction to Meteorology and Climate - (New Course)**

Catalog Number: 38742

*Brian F. Farrell*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

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.

*Note:* ES 132 is also offered as EPS 132. Students may not take both EPS 132 and ES 132 for credit.

*Prerequisite:* Mathematics 21 or Applied Mathematics 21a and 21b; Physics 11 (no longer offered) or 15 or Physical Sciences 12; or permission of instructor.

### **Engineering Sciences 133. Atmospheric Chemistry - (New Course)**

Catalog Number: 38967

*Steven C. Wofsy*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Physical and chemical processes determining the composition of the atmosphere and its implications for climate, ecosystems, and human welfare. Construction of atmospheric composition models. Atmospheric transport. Nitrogen, oxygen, and carbon cycles. Climate forcing by greenhouse gases and aerosols. Stratospheric ozone. Oxidizing power of the atmosphere. Surface air pollution: aerosols and ozone. Deposition to ecosystems: acid rain, nitrogen, mercury.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe. ES 133 is also offered as EPS 133. Students may not take both EPS 133 and ES 133 for credit.

*Prerequisite:* Physical Sciences 1, 2, Mathematics 1b; or equivalents.

### **[Engineering Sciences 135. Physics and Chemistry: In the Context of Energy and Climate at the Global and Molecular Level]**

Catalog Number: 98766 Enrollment: Limited to 30.

*James G. Anderson*

*Half course (fall term). Tu., Th., 1–2:30.*

A solution to the problems set by the intersection of global energy demand and climate



feedbacks requires the teaching of physics and chemistry in that context. Core topics include thermodynamics, free energy, entropy, acid-base and oxidation-reduction reactions, electrochemistry, electromagnetic induction, circuit theory, AC and DC circuits, the nature of photons and of electromagnetic radiation, photochemistry, materials, catalysis, kinetics, molecular bonding, and biological processes for energy conversion and storage.

*Note:* ES 135 is also offered as EPS 135. Students may not take both EPS 135 and ES 135 for credit.

*Prerequisite:* Physical Sciences 1, or Physical Sciences 11, or permission of instructor.

### **\*Engineering Sciences 137. Energy within Environmental Constraints - (New Course)**

Catalog Number: 19461

*David Keith and Carolann Koleci*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

This course provides a systematic introduction to the energy system for students in engineering and applied sciences. Students should gain a working understanding of the some of the most important energy technologies, from prime movers--gas turbines, steam cycles, and reciprocating engines--to secondary energies including fuel production and refining technologies and the electricity transmission and distribution system. The course aims at a systematic understanding of the energy system's environmental footprint as a tool to help students who will work to reduce it. Energy is a commodity. One cannot hope to re-shape the energy system to meet environmental constraints without a rough working understanding of energy markets--costs, prices and elasticities of supply and demand. So the course will integrate engineering economics and other applied social sciences into the treatment of energy technologies to enable a system's view of energy.

*Prerequisite:* Advanced high school mathematics, chemistry, and physics.

### **Engineering Sciences 139. Innovation in Science and Engineering: Conference Course**

Catalog Number: 0994

*David A. Weitz*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

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:* Offered jointly with the Design School as SCI-06272. Taught through a combination of lectures, discussions, and exercises led by innovators in science, engineering, arts, and business.

### **Engineering Sciences 150. Introduction to Probability with Engineering Applications**

Catalog Number: 8997

*Yue Lu*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This course introduces students to probability theory and statistics, and their applications to physical, biological and information systems. Topics include: random variables, distributions and densities, conditional expectations, Bayes' rules, laws of large numbers, central limit theorems, Markov chains, Bayesian statistical inferences and parameter estimations. The goal of this course



is to prepare students with adequate knowledge of probability theory and statistical methods, which will be useful in the study of several advanced undergraduate/graduate courses and in formulating and solving practical engineering problems.

*Prerequisite:* Mathematics 21a or Applied Mathematics 21a, and Mathematics 21b or Applied Mathematics 21b.

### **Engineering Sciences 151. Applied Electromagnetism**

Catalog Number: 5742

*Donhee Ham*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

Electromagnetism and its applications in science and technology. Topics: Maxwell's equations; electromagnetic waves (e.g., light, microwaves, etc.); wave propagation through media discontinuity; transmission lines, waveguides, and microwave circuits; radiation and antennae; interactions between electromagnetic fields and matters; optics of solids; optical devices; origin of colors; interference and diffraction; lasers and masers; nuclear magnetic resonance and MRI; radio astronomy; wireless networking; plasmonic wave (charge density wave).

*Prerequisite:* Basic electromagnetism (Applied Physics 50b, Physical Sciences 12b, Physics 11b (no longer offered), or 15b or equivalent), basic vector calculus (Applied Math 21a or equivalent), basic differential equations (Applied Math 21b or equivalent) and familiarity with Fourier analysis (Applied Math 21b or equivalent).

### **Engineering Sciences 153. Laboratory Electronics - (New Course)**

Catalog Number: 54999 Enrollment: Limited to 22.

*Thomas C. Hayes*

*Half course (fall term; repeated spring term). Tu., Th., 1:30–5:30. EXAM GROUP: Fall: 8;*

*Spring: 1*

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 (PLDs).

*Note:* Engineering Sciences 153 is also offered as Physics 123. Students may not take both for credit. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.

### **Engineering Sciences 154. Electronic Devices and Circuits**

Catalog Number: 6319

*Donhee Ham*

*Half course (fall term). Tu., Th., 2:30–4, and a laboratory to be arranged. EXAM GROUP: 14*

Design of electronic circuits (including integrated circuits) using semiconductor transistors.

Topics: the physics of electrical conduction; the physics of semiconductors; bipolar transistors; field effect transistors; single- and multi-stage amplifiers; operational amplifiers; frequency responses and stability; feedback circuits; the physics of noise; self-sustained oscillators; phase-locked loops.



*Prerequisite:* Familiarity with differential equations and Fourier analysis (Applied Mathematics 21b or Mathematics 21b), familiarity with basic electricity (Applied Physics 50b, Physical Sciences 12b, Physics 11b (no longer offered), or 15b).

### [Engineering Sciences 155. Biological Signal Processing ]

Catalog Number: 63833

*Vahid Tarokh and Paul Coote*

*Half course (fall term). Tu., Th., 10–11:30.*

General properties of common biosignals, Bioelectrical (electrophysiological), Biomechanical, Biomagnetic , and Biochemical signals, Bioelectrical acquisition process. Brief discussion of bio-signals obtained from tomography and inverse imaging. Brief introduction to underlying principles of MRI, Ultrasound, CT-Scan, PET, and SPECT, and their associated signals, inverse imaging, ill-posed problems and regularization. Non-transformed and transformed methods for biosignal processing. Structural and Graphical descriptions. Overview of Fourier transforms, Sine and cosine transform, Wavelet transform, Principle Component Analysis, dimension reduction techniques. Blind Source Separation, Representation models based on the statistical independence of the underlying sources, Independent component analysis (ICA), Dependent component analysis, Independent Subspace separation, Pattern Recognition, neural networks, clustering, and genetics algorithms. Applications to Biosignal Processing, and Human computer interaction.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* AM21a (knowledge of AM21b can be helpful).

### Engineering Sciences 156. Signals and Systems

Catalog Number: 6284

*Vahid Tarokh*

*Half course (spring term). Tu., Th., 10-11:30, and weekly one hour Matlab section and one hour problem section to be arranged. EXAM GROUP: 11*

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 158. Feedback Systems: Analysis and Design] - (New Course)

Catalog Number: 17656

*Na Li*

*Half course (fall term). Hours to be arranged.*

This course provides an introduction to feedback and control in physical, biological, engineering, information, financial, and social sciences. The focus is on the basic principles of feedback and its use as a tool for inferring and/or altering the dynamics of systems under uncertainty. Key themes throughout the course will include linear system analysis, state/output feedback, frequency response, reference tracking, PID controller, dynamic programming, and limit of performance. This includes both the practical and theoretical aspects of the topic.

*Note:* Expected to be given in 2015–16.



*Prerequisite:* Applied Math 21b or Math 21b or equivalent (ordinary differential equations and basic linear algebra).

### **Engineering Sciences 159. Introduction to Robotics**

Catalog Number: 3126

*Robert J. Wood*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

Introduction to computer-controlled robotic manipulators. Topics include coordinate frames and transformations, kinematic structure and solutions, statics and dynamics of serial and parallel chain manipulators, control and programming, introduction to path planning, introduction to teleoperation, robot design, and actuation and sensing devices. Laboratory exercises provide experience with industrial robot programming and robot simulation and control.

*Note:* Offered in alternate years.

*Prerequisite:* Computer Science 50, and either Engineering Sciences 125 or 156.

### **Engineering Sciences 161. Applied Environmental Toxicology - (New Course)**

Catalog Number: 47399

*Elynor M. Sunderland*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

This course will examine the theory and practical application of environmental chemistry and toxicology for assessing the behavior, toxicity and human health risks of chemical contaminants in the environment. The goals of the course are to: (a) illustrate how various sub-disciplines in environmental toxicology are integrated to understand the behavior of pollutants; (b) demonstrate how scientific information is applied to inform environmental management decisions and public policy through several case studies; and (c) provide an introduction to the legislative framework in which environmental toxicology is conducted. This course will be directed toward undergraduate students with a basic understanding of chemistry and calculus and an interest in applied science and engineering to address environmental management problems.

*Prerequisite:* Physical Sciences 1 or 11 and Mathematics 1a and 1b.

### **[Engineering Sciences 162. Hydrology and Environmental Geomechanics]**

Catalog Number: 4163

*James R. Rice*

*Half course (spring term). M., W., F., at 11, for three one-hour lecture sessions and 1 and a half hour lab session or section for discussion of assigned problems.*

Study of water as a critical resource and as a factor in Earth surface and near-surface processes. Focus on development of relevant mechanics and physics. Hydrologic cycle, surface and groundwater, evapotranspiration, soil physics. Flow in porous media, Darcy law, contaminant transport, remediation strategies. Poroelasticity, subsidence, well hydraulics. Seepage forces, landslides, dam failures, sediment liquefaction. Glacial processes. Stream flows, turbulence concepts. Gravity waves, flood control; tsunamis; erosion and sediment transport.

*Note:* Engineering Sciences 162 is also offered as Earth and Planetary Sciences 162. Students may not take both Engineering Sciences 162 and Earth and Planetary Sciences 162 for credit.

*Prerequisite:* Applied Mathematics 21a,b or Mathematics 21a,b and Applied Physics 50a,b, Physics 11a,b (no longer offered) 15a,b, or Physical Sciences 12a,b.



### **Engineering Sciences 163. Pollution Control in Aquatic Ecosystems**

Catalog Number: 72571

*Patrick D. Ulrich*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

This course is focused on aspects of environmental engineering related to the fate, transport, and control of pollution in aquatic ecosystems. The course will cover human impacts to water resources; the sources and ecological impacts of environmental contaminants; quantitative models of the fate and transport of pollutants in natural aquatic ecosystems; best management practices for the prevention and control of pollution; and sustainable natural treatment systems for water quality improvement.

*Prerequisite:* Applied Mathematics 21b (or equivalent); Engineering Sciences 6 (or equivalent)

### **Engineering Sciences 164. Environmental Chemistry (formerly Soil and Environmental Chemistry)**

Catalog Number: 4099

*Karena A. McKinney*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

Basic concepts, principles, and applications of environmental chemistry for students in Earth and environmental sciences. We will investigate a variety of chemistry topics relevant for environmental systems, including water chemistry, acids and bases, redox reactions, precipitation/dissolution, sorption, gas solubility, and aqueous and atmospheric reaction rates and mechanisms. The principal goal is to explore and apply the fundamental principles of chemical thermodynamics and kinetics to understand Earth processes and solve complex environmental problems.

*Note:* Cannot be taken for credit by students who have already taken ENG-SCI 264.

*Prerequisite:* Physical Sciences 1 or permission of the instructor.

### **Engineering Sciences 165. Water Engineering**

Catalog Number: 4274

*Chad D. Vecitis*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Introduces the fundamentals of water biology, chemistry, physics and transport processes needed to understand water quality and water purification technologies. Practical instruction in basic water analyses concluding with a final water treatment project in place of exam.

*Note:* Offered jointly with the Design School as SCI-06273.

*Prerequisite:* Physical Sciences 1 or Physical Sciences 11 or equivalent and Engineering Sciences 6 or equivalent or with permission of instructor.

### **[Engineering Sciences 169. Seminar on Global Pollution Issues: Case Study of Lead Biogeochemistry]**

Catalog Number: 59143

*Instructor to be determined*

*Half course (fall term). M., W., 2:30–4.*

This course provides a cross-disciplinary overview of environmental science and how research contributes to public policy and human health risk assessment through a case study of a global pollution issue: lead biogeochemistry. The scientific foundations of environmental research



methods are discussed (i.e., analytical chemistry, ecology, use of environmental archives, environmental modeling). Experience conducting multidisciplinary environmental research and data analysis will be provided. Course Activities: Lectures, discussions, case studies, field/lab visits.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Two semesters of undergraduate chemistry including Physical Sciences 1 or Physical Sciences 11; Mathematics 1a & 1b. Knowledge of basic statistics is also helpful.

### [Engineering Sciences 170. Applied Quantum Mechanics]

Catalog Number: 51087

*Instructor to be determined*

*Half course (fall term). M., W., 2:30–4.*

Quantum mechanics provides not only an essential tool for engineers, material scientists and biologists to study and control objects in nano and atomic scales but also radical ways to do information processing, sensing, and fabrication. Advances in nanotechnology and quantum information processing raise growing interests in engineering students to learn applied quantum mechanics that is also essential for understanding modern devices and systems in electronics photonics. Topics of this course will cover topics ranging from solution of Schrodinger equation in quantum confined nano-structures and most recent topics such as quantum circuits and entanglement. Examples, problems and numerical simulation are designed to address the applications of the course contents to real problems in semiconductor electronics, optoelectronics, photonics, quantum information processing and superconducting electronics.

*Prerequisite:* Applied Mathematics 21b and Applied Physics 50 a or b.

### Engineering Sciences 173. Introduction to Electronic and Photonic Devices

Catalog Number: 3490

*Christopher Lombardo and Carolann Koleci*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

This course will focus on physical principles underlying semiconductor devices: electrons and holes in semiconductors , energies and bandgaps, transport properties of electrons and holes, p-n junctions, transistors, light emitting diodes, lasers, solar cells and thermoelectric devices.

*Prerequisite:* Applied Physics 50a and b, Physics 11a and b (no longer offered), or Physics 15a and b, Physical Sciences 12a and b, or equivalent (mechanics; electromagnetism); undergraduate level quantum mechanics highly useful, but not required.

### [\*Engineering Sciences 175. Photovoltaic Devices]

Catalog Number: 15494 Enrollment: 20 students, upper level undergraduates, and graduate students.

*Instructor to be determined*

*Half course (fall term). Tu., Th., 11:30–1.*

The course will provide an overview of the solid state device physics and p-n junction operation necessary to understand the operation. Several different solar architectures will be discussed including crystalline and amorphous silicon, multijunction, CdTe, CIGS, organic, dye sensitized as well as additional related topics light management, building integrated devices, and policy and economic issues relating to adoption.

*Prerequisite:* Engineering Sciences 173 or equivalent, or permission from instructor.



### **\*Engineering Sciences 176. Introduction to MicroElectroMechanical System**

Catalog Number: 20243 Enrollment: Limited to 25.

*Fawwaz Habbal and Peter RH Stark*

*Half course (fall term). Tu., 5:30–7:30 p.m. EXAM GROUP: 16*

This course introduces student to the rapidly emerging, multi-disciplinary and exciting field of MicroElectroMechanical Systems (MEMS). It teaches fundamentals of micro machining and Micro fabrication techniques, including planar thin-film process technologies, photolithography and soft-lithography techniques, deposition and etching techniques, and surface, bulk, and electroplating micro machining technologies.

*Prerequisite:* Applied Physics 50a,b, Physical Sciences 12a,b, Physics 11a,b (no longer offered) or 15a,b; College Chemistry at the level of Life Sciences 1a and Physical Sciences 1.

### **Engineering Sciences 177. Microfabrication Laboratory**

Catalog Number: 96807

*Fawwaz Habbal, Marko Loncar, and Peter RH Stark*

*Half course (spring term). M., at 10, and weekly 3-hour laboratory. EXAM GROUP: 5*

Introduction to micro- and nanofabrication processes used for photonic and electronic devices. Students use state-of-the-art cleanroom in Center for Nanoscale Systems to fabricate transistors and light-emitting diodes (LEDs). Lectures on fabrication processes, including lithography, deposition, etching, oxidation, implantation, diffusion and electrical characterization.

*Prerequisite:* Applied Physics 50a and 50b, Physical Sciences 12a and 12b, Physics 11a and 11b (no longer offered); or Physics 15a and 15b or equivalent.

### **Engineering Sciences 181. Engineering Thermodynamics**

Catalog Number: 3889

*Michael J. Aziz*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Introduction to classical engineering thermodynamics. Topics: Zeroth Law and temperature. Properties of single-component gases, liquids, and solids. Equations of state for ideal and simple nonideal substances. First Law, heat and heat transfer, work, internal energy, enthalpy. Second Law, Third Law, entropy, free energy, exergy. 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. Electrochemistry, batteries, fuel cells. Laboratory included.

*Prerequisite:* One semester of calculus-based college-level physics. Chemistry at the high school Advanced Placement level.

### **Engineering Sciences 183. Introduction to Heat Transfer**

Catalog Number: 16727

*David R. Clarke*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

The macroscopic description of the fundamentals of heat transfer and applications to practical problems in energy conversion, electronics and living systems with an emphasis on developing a physical and analytical understanding of conductive, convective and radiative heat transfer. Emphasis will also be given to problem solving skills based on applying governing principles, mathematical models and physical intuition. Includes laboratory sessions and semester-long



projects.

*Prerequisite:* Applied Math 21a (Mathematical Methods in Science) or equivalent.

### **Engineering Sciences 190. Introduction to Materials Science and Engineering**

Catalog Number: 6973

*Frans A. Spaepen*

*Half course (fall term). M., W., 11–12:30. EXAM GROUP: 18*

Introduction to the structure, properties, and applications of materials. Crystal structure and defects. Phase transformations: phase diagrams, diffusion, nucleation and growth. Mechanisms of deformation and fracture. Effect of microstructure on properties. Examples from a variety of engineering applications.

*Prerequisite:* Physical Sciences 12a,b, and Applied Mathematics 21a,b or Mathematics 21a,b.

### **[Engineering Sciences 198r. Probability Applications in Social Engineering]**

Catalog Number: 66894

*Kevin K. Parker*

*Half course (spring term). M., 11–2.*

Introductory statistical methods for students in the applied sciences and engineering with a focus on social networks. Random variables and probability distributions; the concept of random sampling, including random samples, statistics, and sampling distributions; role of statistics in social network analysis; mathematical interpretation of social networks; connections and homophily, propinquity, mutuality/reciprocity, multiplexity, network closure; distributions and bridges, distance, centrality, density; segmentation and cliques, cohesion, clustering; graph theory and adjacency matrices; Erdos-Renyi model; Watts-Strogatz Small World model; Barabasi -Albert (BA) Preferential Attachment model; special topics in social network analysis.

*Prerequisite:* Applied Mathematics 21b or Mathematics 21b or equivalent.

### ***Cross-listed Courses***

#### **Biomedical Engineering 110 (formerly Engineering Sciences 145). Physiological Systems Analysis**

#### **\*Biomedical Engineering 121 (formerly \*Engineering Sciences 122). Cellular Engineering**

[Biomedical Engineering 125 (formerly Engineering Sciences 130). Tissue Engineering]

#### **Biomedical Engineering 130 (formerly Engineering Sciences 149). Neural Control of Movement**

#### **Earth and Planetary Sciences 133. Atmospheric Chemistry**

[Earth and Planetary Sciences 135. Physics and Chemistry: In the Context of Energy and Climate at the Global and Molecular Level]

#### **Physics 129. Energy Science**

[Physics 136. Physics of Medical Imaging]

#### **Societies of the World 47. Contemporary South Asia: Entrepreneurial Solutions to Intractable Social & Economic Problems**

### ***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

*Na Li*

*Half course (spring term). M., W., F., at 10.*

Mathematical analysis of decision making. Bayesian inference and risk. Maximum likelihood and nonparametric methods. Algorithmic methods for decision rules: perceptrons, neural nets, and back propagation. Hidden Markov models, Blum-Welch, principal and independent components.

*Note:* Expected to be given in 2015–16.

*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

*Na Li*

*Half course (spring term). M., W., 10–11:30. EXAM GROUP: 5*

This graduate level course studies dynamic systems in time domain with inputs and outputs. Students will learn how to design estimator and controller for a system to ensure desirable properties (e.g., stability, performance, robustness) of the dynamical system. In particular, the course will focus on systems that can be modeled by linear ordinary differential equations (ODEs) and that satisfy time-invariance conditions. The course will introduce the fundamental mathematics of linear spaces, linear operator theory, and then proceeds with the analysis of the response of linear time-variant systems. Advanced topics such as robust control, model predictive control, linear quadratic games and distributed control will be presented based on allowable time and interest from the class. The material learned in this course will form a valuable foundation for further work in systems, control, estimation, identification, detection, signal processing, and communications.

*Prerequisite:* Linear algebra, differential equations, and signals and systems (AM 120, ES 156, or equivalent). Undergraduates need permission.

### **[Engineering Sciences 203. Stochastic Control]**

Catalog Number: 6982

*Instructor to be determined*

*Half course (spring term). Tu., Th., 10–11:30.*

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 104 (formerly Applied Mathematics 105a), Applied Mathematics 105 (formerly Applied Mathematics 105b), or equivalent. Some prior exposure to probability; Engineering Sciences 202 desirable but not essential.



**[\*Engineering Sciences 207. Communicating Science ]**

Catalog Number: 5993 Enrollment: Limited to 12.

*Instructor to be determined*

*Half course (fall term). M., 1–4.*

Climate change, health insurance reform, space exploration, the teaching of science and a host of other issues - today Americans confront more and more important public debates in which the argument hangs on technical issues. On the whole, however, they have difficulty dealing with these issues, in large part because the scientists and engineers who could help them are missing from the debate. This course is designed for graduate students in engineering and the biological and physical sciences who are interested in learning how to engage with the public on these and other issues. It also offers useful guidance on how to explain their own work - writing, speaking and online - intelligently and intelligibly.

**[Engineering Sciences 209. Nonlinear Control Systems]**

Catalog Number: 1194

*Instructor to be determined*

*Half course (fall term). Tu., Th., 10–11:30.*

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.

**[Engineering Sciences 211. Microphysiological Systems]**

Catalog Number: 71979

*Kevin K. Parker*

*Half course (fall term). Tu., Th., 1–2:30.*

A sophisticated perspective on the design, construction, and testing of model physiological systems recapitulated with tissue engineering and lab on a chip technologies. Topics include organ and multiorgan physiology and pathophysiology; in vitro disease models; and design tools and fabrication techniques for lab on a chip technologies.

**[Engineering Sciences 212. Quantitative Cell Biology: Self-Organization and Cellular Architecture]**

Catalog Number: 30956

*Instructor to be determined*

*Half course (fall term). Tu., Th., 10–11:30.*

Cell biology – from foundations to current research topics. Intended for students without cell/molecular biology training. Cell architecture, molecular and phenomenological aspects, signaling, organelle form/function, trafficking, quantitative experimental techniques, models of cellular organization and dynamics.

*Note:* Offered in alternate years.

**Engineering Sciences 220. Fluid Dynamics**

Catalog Number: 2759

*James R. Rice*

*Half course (fall term). Tu., Th., 10–11:30, and a supplementary weekly meeting for problem discussion (or make-up sessions), M. at 3 pm. EXAM GROUP: 12*



Continuum mechanics; conservation of mass and momentum, energy; stress, kinematics, and constitutive equations; vector and tensor calculus. Dimensional analysis and scaling. Navier-Stokes equations, Reynolds number. Solutions for simple flow states. Low Reynolds number flows; porous media flows; lubrication theory; gravity currents. Inviscid flows, Kelvin circulation theorem, Bernoulli integrals, Vortical flows. Waves in fluids; acoustics, shocks, water waves. Airfoil theory. Boundary layers. Flow instabilities. Mixing, and turbulence in unbounded and bounded flows.

*Prerequisite:* Familiarity with dynamics, vectors, multivariable calculus, and partial differential equations. An undergraduate course in fluid dynamics or other continuum mechanics is strongly recommended.

### [Engineering Sciences 221. Drug Delivery]

Catalog Number: 8223

*Instructor to be determined*

*Half course (spring term). M., W., 2:30–4.*

Methods to deliver molecules to the human body. Physiological obstacles and engineering solutions. Characterization techniques for drug delivery synthesis and in vitro analysis. Case studies of current pharmaceutical products.

*Prerequisite:* Mathematics 21a,b or Applied Mathematics 21a,b, and Chemistry 5 or Life Sciences 1a.

### \*Engineering Sciences 222. Advanced Cellular Engineering

Catalog Number: 0696

*Neel S. Joshi*

*Half course (fall term). M., W., F., at 9. EXAM GROUP: 10*

This is a combined introductory graduate/upper-level undergraduate course that focuses on examining modern techniques for manipulating cellular behavior and the application of these techniques to problems in the biomedical and biotechnological arenas. Topics will include expanding the genetic code, genetic circuits, rewiring signaling pathways, controlling behavior through cell-matrix interactions, and directed differentiation of stem cells. Lectures will review fundamental concepts in cell biology before delving into topical examples from current literature. Students will work individually and in teams to determine the boundaries of existing cellular engineering techniques using scientific literature and propose original research to address unmet technological needs.

*Note:* This course does not have a laboratory section, but it is taught concurrently with Biomedical Engineering 121. Students interested in gaining hands-on experience with cell culture experiments should enroll in Biomedical Engineering 121.

*Prerequisite:* At least one semester of college-level organic chemistry and molecular/cellular biology. Physics at the level of Physics AP50 or Physics 12.

### [Engineering Sciences 226r. Special Topics in Neural Engineering: Learning and Memory in Neural Systems]

Catalog Number: 3086

*Maurice A. Smith*

*Half course (spring term). Tu., 2:30–5.*

Course will present classical findings and new research that give insight into mechanisms of



learning and memory formation in neural systems. Learning and memory will be studied both as neurobiological phenomena and as computational challenges.

*Note:* Offered in alternate years.

*Prerequisite:* Applied Mathematics 105a and 105b, probability and statistics.

### **\*Engineering Sciences 227. Medical Device Design**

Catalog Number: 73679 Enrollment: Limited to 16.

*Conor J. Walsh and Donal Padraic Holland*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*

Project-based course on the design of medical devices to address needs identified by hospital-based clinicians. Students work in teams with physicians to develop a novel device. The design process includes: needs finding; problem identification; prior art searches; strategy and concept generation; estimation; sketching; sketch modeling; machine elements, ergonomics and prototyping.

*Prerequisite:* Engineering Sciences 51 or machine design experience. Graduate course, but open to qualified junior and senior undergraduates.

### **Engineering Sciences 228. Biomaterials**

Catalog Number: 49617

*Neel S. Joshi*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Overview of materials for biomedical devices and therapies. Polysaccharide- and protein-based polymers as building blocks. Biological templating of inorganic structures. Emerging frontiers in protein and DNA self-assembly. Molecular scale origin of materials properties for naturally occurring biological materials and the use of this information to rationally design new biomaterials for specific applications.

*Prerequisite:* Organic chemistry, cell biology, applied physics at the level 50a.b, physical sciences 12a.b or physics at the level of 11a.b (no longer offered). Suggested courses include molecular biology.

### **\*Engineering Sciences 229. Survey of Energy Technology**

Catalog Number: 94822

*David Keith*

*Half course (spring term). Th., 1–4. EXAM GROUP: 1*

Principles governing energy generation and interconversion. Current and projected world energy use. Selected important current and anticipated future technologies for energy generation, interconversion, storage, and end usage.

*Note:* This course must be taken Sat/Unsat. Cannot be used for SEAS concentration credit.

Students may not take both Engineering Sciences 229 and Engineering Sciences 231 for credit.

*Prerequisite:* Calculus of a single variable, one semester of college-level physics, and familiarity with chemistry at the high school advanced placement level.

### **[Engineering Sciences 230. Advanced Tissue Engineering]**

Catalog Number: 5718

*David J. Mooney*

*Half course (spring term). Tu., Th., 1–2:30; and a weekly laboratory scheduled the first week of*



*class (4 hr/week).*

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 prepare a research proposal and participate in a weekly laboratory.

*Prerequisite:* Biochemistry or cell biology background.

### **\*Engineering Sciences 231. Energy Technology**

Catalog Number: 1486

*David Keith*

*Half course (spring term). Th., 1–4. EXAM GROUP: 1*

Principles governing energy generation and interconversion. Current and projected world energy use. Selected important current and anticipated future technologies for energy generation, interconversion, storage, and end usage.

*Note:* Students may not take both Engineering Sciences 231 and Engineering Sciences 229 for credit.

*Prerequisite:* One semester of college-level calculus-based physics and familiarity with chemistry at the high school advanced placement level.

### **\*Engineering Sciences 233a. Innovating in Health Care**

Catalog Number: 67397

*Regina E. Herzlinger (Business School) and Margo I. Seltzer*

*Half course (fall term). See HBS course schedule for course meeting day/times and location.*

*EXAM GROUP: 6*

This course helps students to create successful entrepreneurial health care ventures by enabling them to: 1) Identify the alignment between an entrepreneurial health care venture and the six forces that shape health care - structure, financing, technology, consumers, accountability, and public policy; and 2) Create a product and business model that responds appropriately to any misalignments. The course covers four modules: The analytic framework, case studies of the six forces, case studies of firms responses to the forces, and student presentation of business plans.

*Note:* Must be taken concurrently with ES233b. Offered jointly with the Business School as 6340.

### **\*Engineering Sciences 233b. Health Care Computer-Assisted Innovations**

Catalog Number: 59443

*Regina E. Herzlinger (Business School) and Margo I. Seltzer*

*Half course (fall term). See HBS course schedule for course meeting day/times and location.*

*EXAM GROUP: 17*

This is a field study course in which students undertake significant external research in the in-depth development of a business plan for a health-care and technology business venture.

Students will learn to develop such a business plan, evaluate and select appropriate technologies, define a new technology based product in the health-care space, and develop appropriate prototypes for presentation to customers and investors.

*Note:* Must be taken concurrently with ES233a. Offered jointly with the Business School as 6180.



### **Engineering Sciences 237. Planetary Radiation and Climate - (New Course)**

Catalog Number: 87754

*Robin Wordsworth*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Atmospheric radiative transfer, including stellar properties, spectroscopy, gray and real gas calculations, Mie theory and scattering, satellite retrievals, and radiative-convective climate modelling. Climate feedbacks: the runaway greenhouse, volatile cycles on Mars and Titan, and atmospheric collapse around M-stars. Atmospheric evolution and escape (Jeans, diffusion-limited, hydrodynamic), and key processes in planetary atmospheric chemistry.

### **[Engineering Sciences 238. Introduction to Innovation and Entrepreneurship]**

Catalog Number: 73624

*Joseph B. Lassiter (Business School)*

*Half course (spring term). Tu., Th., 3–4:30.*

This course is designed for those who want to understand the role of start-ups and venture capital in the creation of new products and services in the for-profit and not-for-profit sectors. It is intended to help students identify areas in which changes in science and technology, consumer and social attitudes, or political and regulatory processes support the creation of new businesses and organizations in independent ventures or within established organizations. Margo Seltzer and Bill Anderson are supporting the course by supervising course projects in their respective areas of expertise.

*Note:* Open to undergraduates. Not intended for freshmen. May not be taken concurrently with SCRB 235. May not be taken concurrently with SCRB 335qc. Credit may be earned for either Engineering Sciences 238 or SCRB 235, but not both. Not offered in 2014-15. Undergraduates interested in entrepreneurship offerings provided by HBS faculty should consider United States in the World 36: Innovation and Entrepreneurship: American Experience in Comparative Perspective in Fall 2014. Graduate students should consider HBS 2017: Commercializing Science in Fall 2014.

### **Engineering Sciences 239. Advanced Innovation in Science and Engineering: Conference Course**

Catalog Number: 8303

*David A. Weitz*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

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.

*Note:* Offered jointly with the Design School as SCI-06272.

### **Engineering Sciences 240. Solid Mechanics**

Catalog Number: 2984

*Joost J. Vlassak*

*Half course (fall term). M., W., F., at 10, and a weekly section to be arranged. EXAM GROUP: 5*  
 Foundations of continuum mechanics, development of elasticity theory, and introduction to plasticity and creep. Elastic waves. Basic elasticity solutions. Variational principles.

*Prerequisite:* Applied Mathematics 105 (formerly Applied Mathematics 105b) or equivalent;



introduction to solid mechanics at the level of Engineering Sciences 120, or Earth and Planetary Sciences 108 or 166, or Applied Physics 293.

### **[Engineering Sciences 241. Advanced Elasticity]**

Catalog Number: 6711

*Instructor to be determined*

*Half course (spring term). Tu., Th., 10–11:30.*

Finite deformation; instabilities; thermodynamics; thermoelasticity; poroelasticity; electroactive polymers, hydrogels, polyelectrolyte gels

*Note:* Offered in alternate years.

*Prerequisite:* Engineering Sciences 240 and Applied Mathematics 201 or equivalents.

### **[Engineering Sciences 242r. Solid Mechanics: Advanced Seminar]**

Catalog Number: 5379

*Katia Bertoldi*

*Half course (spring term). Tu., Th., 1:30–3.*

Finite elements for analysis and design. The key goal of this class is the application of the finite element method to classical and state-of-the-art modeling and design problems. We introduce a commercial finite element program - ABAQUS - and demonstrate how to use it in modeling and analysing design problems. Topics include the implementations of user-defined subroutines (UMAT and VUMAT), instability analyses, analysis of waves propagation, fluid-structure interactions.

*Prerequisite:* Engineering Sciences 240 or equivalent. To take this course, basic knowledge and general interest in finite elements, mathematics, strength of materials, structural and solid mechanics is highly recommended.

### **Engineering Sciences 246. Plasticity**

Catalog Number: 4271

*Zhigang Suo*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

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

*Zhigang Suo*

*Half course (spring term). Tu., Th., 2:30–4.*

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.

*Prerequisite:* Engineering Sciences 240 or equivalent.



### **Engineering Sciences 249. Advanced Neural Control of Movement**

Catalog Number: 3145

*Maurice A. Smith*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Students expected to meet all of the requirements of Biomedical Engineering 130 (formerly Engineering Sciences 149) and in addition to submit a term project with significant analytic content.

*Note:* Offered in alternate years.

*Prerequisite:* Mathematics 21b or Applied Mathematics 21b or equivalent, probability and statistics, Applied Physics 50a, Physical Sciences 12a, or Physics 11a (no longer offered), or equivalent.

### **Engineering Sciences 250. Information Theory**

Catalog Number: 8606

*Christ Richmond and Vahid Tarokh*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

Fundamental concepts of information theory, Entropy, Kullback-Leibler divergence, Mutual information; typical sequences and their applications, Loss-less data compression, Huffman codes, Elias Codes, Arithmetic Codes, Discrete Memory-less Channels, Channel Coding and Capacity, Differential Entropy, Gaussian Channels, rate distortion theory, Multi-user Information Theory, Connections between information theory and statistics.

*Prerequisite:* Engineering Sciences 150 or knowledge of basic probability.

### **[Engineering Sciences 252r (formerly Engineering Sciences 252). Advanced Topics in Robotics Research]**

Catalog Number: 0239

*Robert J. Wood*

*Half course (spring term). Tu., Th., 11:30–1.*

A graduate seminar course on advanced topics in robotics research. Students read and present research papers and undertake a research project. Spring 2013 will focus on robot design and manipulation.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Engineering Sciences 159/259 or equivalent, or permission of instructor.

### **Engineering Sciences 253. Bioelectromagnetics - (New Course)**

Catalog Number: 23983

*Daniel M. Merfeld (Medical School)*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

This course will introduce bioelectricity and bioelectromagnetics starting with Maxwell Equations, which will quickly be simplified to the quasi-static form typically applicable in physiology. We will introduce the basics of membrane electrical biophysics, which we will use to study action potentials and action potential propagation. Applications will include electrocardiograms (ECGs), electro-myograms (EMGs), electro-oculograms (EOGs), and electro-encephalograms (EEGs). EEG investigations will include analyses of spatial resolution as well as dynamic properties. A course project will allow students to choose an area of specific interest for more in-depth investigation and analysis.



*Note:* The content and course requirements are similar to Biomedical Engineering 153. Students may not take both courses for credit.

*Prerequisite:* Basic electromagnetism (Applied Physics 50b, Physics 11b or 15b, Physical Sciences 12b, or equivalent), basic vector calculus (Applied Math 21a or equivalent), basic differential equations (Applied Math 21bor equivalent).

**[Engineering Sciences 255. Statistical Inference with Engineering Applications (formerly Detection and Estimation Theory and Applications)]**

Catalog Number: 9816

*Yue Lu*

*Half course (fall term). Tu., Th., 10–11:30.*

Statistical decision theory; hypothesis testing; linear and non-linear estimation; maximum likelihood and Bayes approaches; graphical models and message passing algorithms; large deviation analysis and asymptotic methods in statistics; stochastic processes and systems; Wiener and Kalman filtering; Markov chain Monte-Carlo methods; applications to physical, chemical, biological and information systems.

*Prerequisite:* Knowledge of probability theory and calculus.

**\*Engineering Sciences 256. Informal Robotics / New paradigms for Design and Construction - (New Course)**

Catalog Number: 24439

*Chuck Hoberman (Design School)*

*Half course (fall term). M., 2–6. EXAM GROUP: 7*

Today, robotic devices are being made from folded paper, carbon laminates or soft gels. Rather than assembled, they can be formed directly from 2D or 3D printer. These Informal robots are light, flexible, compliant, highly customized, and demonstrate programmable behavior that is closely coupled with material composition. Taught in collaboration with the Wyss Institute, the course will focus on techniques to create original robotic devices. Lectures will be organized along four primary topics: Kinematics, Fabrication, Controls and Applications. There will be assignments to produce test mechanisms and CAD models, followed by semester-long group projects.

*Note:* This course does not count for concentration credit for SEAS undergraduate concentrators; this course does not count as a disciplinary course for SEAS Ph.D. students. Offered jointly with the Design School as SCI-06478 and will meet at GSD. For more information, see

[www.gsd.harvard.edu/#/academics/courses/sci-06478-fall-2014.html](http://www.gsd.harvard.edu/#/academics/courses/sci-06478-fall-2014.html).

*Prerequisite:* There are no strict prerequisites; however, those taking the class should have a strong interest in working at the intersection between technology and design. Some knowledge of mechanism design, use of CAD software, and/or exposure to electronics and controls are beneficial.

**Engineering Sciences 259. Advanced Introduction to Robotics**

Catalog Number: 3671

*Robert J. Wood*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

Course requirements are similar to Engineering Sciences 159, with the exception that students enrolled in Engineering Sciences 259 are required to prepare a term project analyzing current



research in a specific problem area within Robotics.

*Note:* Offered in alternate years.

*Prerequisite:* Computer Science 50 and either Engineering Sciences 125 or 156.

### [Engineering Sciences 260. Water and Economic Development]

Catalog Number: 96956

*To be determined*

*Half course (spring term). M., W., 4:30–6.*

The course focuses on the engineering, infrastructure and institutions needed to manage water on a basin and city scale. The course does this using the case study method. All cases are presented by practitioners who have had deep engagement with the cases.

*Note:* Offered jointly with the Kennedy School as IGA 435 and with Public Health as EH524.

### [Engineering Sciences 265. Advanced Water Treatment]

Catalog Number: 20731

*Instructor to be determined*

*Half course (spring term). M., W., 2:30–4.*

Advanced Water Treatment will give students detailed instruction in emerging technologies for municipal wastewater treatment, industrial wastewater treatment, wastewater reclamation and reuse, desalination, and groundwater remediation. The course will begin by introducing wastewater quality, effluent water quality endpoints, and conventional treatment methodologies. The theoretical focus of the course will be on the fundamental biology, chemistry, and physics of processes including nanofiltration, reverse osmosis, membrane bioreactors, denitrification and phosphate removal, ozonolysis, UV photolysis, photocatalysis, and sonolysis. We will also discuss wastewater-to-energy processes including microbial fuel cells, anaerobic digestion, and electrochemical waste-to-hydrogen.

*Note:* Offered in alternate years.

*Prerequisite:* Engineering Sciences 165

### [Engineering Sciences 267. Aerosol Science and Technology]

Catalog Number: 4446

*Instructor to be determined*

*Half course (fall term). Tu., Th., 11:30–1.*

Physics and chemistry of aerosol particles. Concepts: size, shape, and density; number size distributions; uniform, accelerated, and Brownian motion; electrical properties; measurement instrumentation; condensation/evaporation; coagulation; and optical properties. Taught by reference to topical problems.

*Note:* Offered in alternate years.

### Engineering Sciences 268. Chemical Kinetics

Catalog Number: 8711

*Scot T. Martin*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Time rate of change of chemical species. Rate constants. Formulating a coupled chemical system. Numerical analysis of complex systems.

*Note:* Offered in alternate years.



### [Engineering Sciences 269. Environmental Nanotechnology]

Catalog Number: 57068

*Instructor to be determined*

*Half course (spring term). M., W., 2:30–4.*

Introduces students to the environmental aspects of nanoscience and nanotechnology. We will study the fundamental physical chemical properties, characterization, environmental implications, and environmental applications of nanoparticles and nanomaterials. Case studies from recent publications on engineered carbon nanomaterials such as fullerenes, carbon nanotubes, and graphene will be discussed.

*Prerequisite:* College-level chemistry course or equivalent and Physical Sciences 1 or equivalent.

### [Engineering Sciences 271r. Topics in Mixed-Signal Integrated Circuits]

Catalog Number: 1158

*Gu-Yeon Wei*

*Half course (spring term). M., W., 10–11:30.*

A seminar course that reviews research and development of various topics in integrated circuits and systems for low-power and/or high-performance computing.

*Prerequisite:* Computer Science 148 or equivalent, and Computer Science 146 or equivalent, or with permission of instructor.

### [Engineering Sciences 272. RF and High-Speed Integrated Circuits]

Catalog Number: 5157

*Donhee Ham*

*Half course (spring term). Tu., Th., 10–11:30.*

Design of RF and high speed integrated communication circuits at both transistor and system levels.

*Prerequisite:* Solid-state devices and analog circuits (Engineering Sciences 154 or equivalent), basic electromagnetism (Applied Physics 50b, Physical Sciences 12b, Physics 11b (no longer offered), 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 273. Optics and Photonics

Catalog Number: 8382

*Federico Capasso*

*Half course (spring term). W., F., 1:30–3. EXAM GROUP: 8*

The focus is on the foundations of optics/photonics and on some of its most important modern developments and applications. Powerful and widely used computational tools will be developed in the sections. Topics to be covered: Maxwell's equations, Free space optics. Reflection, refraction, polarization (Jones Calculus and Stokes parameters); interference and diffraction. Light-matter interaction, dispersion and absorption. Guided wave optics (including optical fibers). Perturbation and couple mode theory, transfer matrix methods; numerical methods. Optical resonators. Lasers and elements of nonlinear optics. Photonic crystals. Near-field optics. Metal optics and Plasmonics. Metamaterials.

*Note:* Open to graduate students and advanced undergraduates.



*Prerequisite:* Elements of Electromagnetism, such as taught in Applied Physics 50b, Physics 11b (no longer offered), Physics 15b, Physical Sciences 12b, Engineering Sciences 151 or equivalent.

### **Engineering Sciences 274 (formerly Quantum Technology I). Quantum Devices**

Catalog Number: 5645

*Federico Capasso*

*Half course (fall term). W., F., 1–2:30. EXAM GROUP: 1*

Electronic structure of crystals. Semiconductor heterostructures: bandstructure engineering. Low-dimensional solids: quantum wells, wires and dots; superlattices; 2D electron gas; carbon nanotubes, nanowires, graphene. Tunneling and resonant tunneling, superlattice transport. Quantum point contacts. Interband and intersubband optical transitions. Quantum confined Stark effect. Device concepts (diodes, transistors, lasers). Quantum well lasers, modulators and detectors. Resonant tunneling devices. Quantum cascade lasers.

*Prerequisite:* Undergraduate level quantum mechanics such as Physics 143a or equivalent.

### **[Engineering Sciences 275. Nanophotonics]**

Catalog Number: 9815

*Instructor to be determined*

*Half course (fall term). Tu., Th., 1–2:30.*

Recent developments in micro- and nano-photonics materials, devices and microscopy. Computational electromagnetics. Photonic crystals. Optical properties of metal nanostructures. Optical forces. Scanning near-field optical microscopy. Term-long research project.

*Note:* Expected to be given in 2015–16. Open to graduate students and advanced undergraduates.

*Prerequisite:* Electromagnetism (Applied Physics 50b, Physics 11b (no longer offered) or 15b, Physical Sciences 12b, or Engineering Sciences 151 or equivalent).

### **\*Engineering Sciences 276. Introduction to MicroElectroMechanical System**

Catalog Number: 54441 Enrollment: Limited to 25.

*Fawwaz Habbal and Peter RH Stark*

*Half course (fall term). Tu., 5:30–7:30 p.m. EXAM GROUP: 16*

This course introduces student to the rapidly emerging, multi-disciplinary and exciting field of MicroElectroMechanical Systems (MEMS). It teaches fundamentals of micro machining and Micro fabrication techniques, including planar thin-film process technologies, photolithography and soft-lithography techniques, deposition and etching techniques, and surface, bulk, and electroplating micro machining technologies.

*Prerequisite:* Applied Physics 50a,b, Physical Sciences 12a,b, Physics 11a,b (no longer offered), or 15a,b; College Chemistry at the level of Life Sciences 1a and Physical Sciences 1.

### **Engineering Sciences 277. Microfabrication Laboratory**

Catalog Number: 48852

*Fawwaz Habbal, Marko Loncar, and Peter RH Stark*

*Half course (spring term). M., at 10, and weekly 3-hour laboratory. EXAM GROUP: 5*

Content and requirements are similar to ENG-SCI 177, with the exception that students enrolled in ENG-SCI 277 are assigned more demanding problem sets and are required to prepare a term project.



*Prerequisite:* Applied Physics 50a and 50b, Physical Sciences 12a and 12b, Physics 11a and 11b (no longer offered); or Physics 15a and 15b or equivalent.

**[\*Engineering Sciences 280. Designing Transformational Policy Proposals: The Dynamics of Success in Water, Fishery and Environmental Management]**

Catalog Number: 98711 Enrollment: Limited to 30.

*Michael Denis Young*

*Half course (spring term). Tu., Th., 1:10–2:30.*

Unpacking the dynamics of getting transformational policy reforms over the line. An examination of case studies in the design and implementation of successful reforms in water, fishery, natural resource and environmental management.

*Note:* Offered jointly with the Kennedy School as IGA-438.

**\*Engineering Sciences 289. Innovation and National Security - (New Course)**

Catalog Number: 19438 Enrollment: By permission of instructor

*Kevin Kit Parker*

*Half course (fall term). Tu., Th., 11:40–1. EXAM GROUP: 15*

This course will ask if the US defense industrial complex facilitates victory by technological innovation. We define defense technologies in three categories: 1) Convenience Technologies, 2) Sustainability Technologies, and 3) Decisive Technologies. If we define Decisive Technologies as those technologies that are strategically managed and tactically deployed, the last century may have seen only two: radar and the atomic bomb. We will debate money as a weapon system and whether or not it is a valid weapon technology. We will examine technologies introduced during the Global War on Terror (GWOT) and ask which category they fall in, if they were a true technological innovation, and if they facilitated victory in a battle vs war. We will discuss barriers to innovation and technological surprise on the battlefield.

*Note:* Permission of instructor required. Offered jointly with the Harvard Kennedy School as IGA-216 and will meet at HKS.

*Prerequisite:* National Security background or graduate level coursework in engineering, mathematics, computer science, physics, or chemistry.

**[Engineering Sciences 291. Nano|Micro|Macro: Adaptive Materials Laboratory--from Technologies to Products through Design] - (New Course)**

Catalog Number: 72531

*Joanna Aizenberg*

*Half course (fall term). Hours to be arranged.*

This course explores research methods and techniques through the analyses of emerging energy-efficient materials and systems and their applications in buildings. It serves as an interdisciplinary platform for engineers, materials and computer scientists to interact with the design students and develop new products. The course introduces ideas-to-innovation processes in a hands-on, project/product focused manner that balance engineering concepts with promising, real-world opportunities. Switching back and forth between guided discovery and focused development, between bottom-up and top-down thinking, and market analyses, the course helps students establish generalizable frameworks as researchers and innovators with a focus on new and emerging technologies.

*Note:* Offered jointly with the Design School.



**[Engineering Sciences 298r. Quantum Electronics and Photonics]**

Catalog Number: 28719

*Instructor to be determined*

*Half course (fall term). M., W., 10–11:30.*

This course is designed for engineers who are interested to learn applied quantum mechanics to study quantum behavior of electron, photon and their interaction. The course content is a mix of topics usually covered in more conventional courses such as quantum electronics and quantum optics to invite a wide range of audiences who are working on areas such as optoelectronics, quantum photonics, nanoelectronics, nanophotonics, spintronics, and in general quantum devices and systems. The course emphasizes on the fundamental concepts and engineering applications without a need for previous exposure to quantum mechanics. Examples and problems are designed to address the applications of the course contents to real problems.

**Engineering Sciences 299r. Special Topics in Engineering Sciences**

Catalog Number: 6710

*Fawwaz Habbal*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

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 School of Engineering and Applied Sciences. 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 Student Affairs Office, Pierce Hall 110.

***Cross-listed Courses***

**[Earth and Planetary Sciences 202. Mechanics in Earth and Environmental Science]**

**\*Earth and Planetary Sciences 231. Climate Dynamics**

**MCB 294 (formerly MCB 225). Interesting Questions in Engineering and Physical Biology**

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. Nanophotonics**

Catalog Number: 7403,4838

*Instructor to be determined*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Engineering Sciences 303,304. Topics in Electronic Materials and Semiconductor****Heterostructure Physics**

Catalog Number: 8668,2824

*Venkatesh Narayananamurti 5445 (on leave fall term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Engineering Sciences 305,306. Control Theory - (New Course)**

Catalog Number: 55593,19178

*Na Li 7607**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Engineering Sciences 307,308. Control Theory, Robotics, Computer Vision, and Intelligent Machines**

Catalog Number: 7566,2719

*Roger W. Brockett 3001**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Engineering Sciences 309,310. Design, Sensing, and Control**

Catalog Number: 5043,7419

*Robert D. Howe 2789**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*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 (on leave 2014-15)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Engineering Sciences 313,314. Image Processing and Computer Vision**

Catalog Number: 4254,8534

*Todd Zickler 5143**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Engineering Sciences 315,316. Wireless Computing and Networking**

Catalog Number: 2848,2849

*H. T. Kung 3155**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Engineering Sciences 319,320. Microrobotics and Bio-inspired Autonomous Robotic Systems**

Catalog Number: 5306,5314

*Robert J. Wood 5339**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*Engineering Sciences 321,322. Heterogeneous Nanophotonic Devices and Bio-templated Electronic Materials**



Catalog Number: 85105,33583

*Evelyn Hu 6682 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Engineering Sciences 323,324. Materials Processing**

Catalog Number: 1174,5484

*Jennifer Lewis 7229*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Engineering Sciences 325,326. Mixed-Signal VLSI Design**

Catalog Number: 8415,9336

*Gu-Yeon Wei 4102 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Engineering Sciences 327,328. Circuit Design and Scientific Instrumentation**

Catalog Number: 4901,6521

*Paul Horowitz 3537*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Engineering Sciences 329,330. Biological Signal Analysis and Tomography**

Catalog Number: 4111,7427

*Vahid Tarokh 4368*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Engineering Sciences 331,332. RF/Microwave/Analog/Mixed-Signal Integrated Circuits and Ultrafast Electronics**

Catalog Number: 9645,9655

*Donhee Ham 4519*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Engineering Sciences 333,334. Mechanics and Materials in Small Structures**

Catalog Number: 6528,5449

*Zhigang Suo 4761*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Engineering Sciences 335,336. Mechanics of Engineering Materials and Small Devices**

Catalog Number: 8173,2399

*Joost J. Vlassak 3184 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Engineering Sciences 337,338. Mechanics of Solids and Fluids: Earthquake Seismology and Environmental Geomechanics**

Catalog Number: 4316,3948

*James R. Rice 7270 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Engineering Sciences 339,340. Materials Physics and Engineering**

Catalog Number: 39784,54891

*David R. Clarke 6684 (on leave fall term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Engineering Sciences 341,342. Mechanics of Soft Materials**

Catalog Number: 39227,54334

*Katia Bertoldi 6440**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Engineering Sciences 343,344. Deformation and Fracture of Materials**

Catalog Number: 3907,2803

*John W. Hutchinson 1573**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Engineering Sciences 345,346. Neural Control of Movement**

Catalog Number: 6002,6007

*Maurice A. Smith 5342**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Engineering Sciences 347,348. Biomolecular Engineering, Molecular Self-Assembly and Responsive Materials**

Catalog Number: 84569,90749

*Neel S. Joshi 6595**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Engineering Sciences 349,350. Materials Science**

Catalog Number: 90856,39334

*Roy G. Gordon 1353**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Engineering Sciences 351,352. Engineering Mammalian Cell Phenotype**

Catalog Number: 4879,6421

*David J. Mooney 4879 (on leave spring term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Engineering Sciences 353,354. Cellular Biophysics**

Catalog Number: 3813,3798

*Kevin K. Parker 4788**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Engineering Sciences 355,356. Bioinspired Engineering**

Catalog Number: 94599,47624

*Donald E. Ingber 2832**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Engineering Sciences 357,358. Atmosphere-Biosphere Interactions**

Catalog Number: 7661,8060

*Steven C. Wofsy 4396**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Engineering Sciences 359,360. Stratospheric Chemistry and Transport**

Catalog Number: 8410,6856

*Steven C. Wofsy 4396**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Engineering Sciences 361,362. Atmospheric Chemistry**

Catalog Number: 7238,7514

*Daniel J. Jacob 1781 (on leave spring term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Engineering Sciences 363,364. Dynamic Meteorology**

Catalog Number: 3756,3757

*Brian F. Farrell 7628 (on leave fall term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Engineering Sciences 365,366. Topics in Atmospheric and Climate Dynamics**

Catalog Number: 3233,3236

*Zhiming Kuang 5285**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Engineering Sciences 367,368. Environmental Science**

Catalog Number: 6773,9810

*Michael B. McElroy 2462 (on leave 2014-15)**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Engineering Sciences 369,370. Urban and Regional Systems Analysis**

Catalog Number: 8775,8768

*Peter P. Rogers 2804**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Engineering Sciences 371,372. Environmental Microbiology**

Catalog Number: 6258,3885

*Instructor to be determined**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Engineering Sciences 373,374. Water Management**

Catalog Number: 63797,12275

*To be determined**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Engineering Sciences 375,376. Environmental Biology**

Catalog Number: 3985,2863

*Ralph Mitchell 1587**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Engineering Sciences 377,378. Transport Phenomena and Biomaterials for Drug Delivery**

Catalog Number: 6385,8671

*David A. Edwards 3919**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Engineering Sciences 379,380. Biologically Inspired Design and Control of Medical Devices and Robots**

Catalog Number: 2354,0313

*Conor J. Walsh 6860**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Engineering Sciences 381,382. Environmental Nanotechnology**

Catalog Number: 69441,17919

*Chad D. Vecitis 6609 (on leave spring term)**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Engineering Sciences 389,390. Environmental Chemistry**

Catalog Number: 6660,1639

*Scot T. Martin 3365**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Engineering Sciences 393,394. Microelectronics and VLSI Systems**

Catalog Number: 6037,6056

*Woodward Yang 2790**Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*Engineering Sciences 395,396. Nanoscale Optics, NEMS and Nanofabrication Technology**

Catalog Number: 2564,3687

*Marko Loncar 5703**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Engineering Sciences 397,398. Multidimensional Signal Processing, Sensor Networks, and Computational Imaging**

Catalog Number: 78552,93659

*Yue Lu 6750**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14****Cross-listed Courses*****\*Computer Science 365. SEAS Teaching Practicum**



# English

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Department of English*

Jill Abramson, Visiting Lecturer on English

Daniel Albright, Ernest Bernbaum Professor of Literature

David J. Alworth, Assistant Professor of English and of History and Literature (*on leave 2014-15*)

Joshua David Bell, Briggs-Copeland Lecturer on English

Homi K. Bhabha, Anne F. Rothenberg Professor of the Humanities (*on leave 2014-15*)

Marina Bilbija, College Fellow in the Department of English

Nicholas Philip Richard Bradley, Visiting Associate Professor of English

Stephen Louis Burt, Professor of English (*Co-Director of Undergraduate Studies*) (*on leave fall term*)

Glenda R. Carpio, Professor of English and of African and African American Studies

Amanda Claybaugh, Professor of English

Daniel G. Donoghue, John P. Marquand Professor of English (*on leave spring term*)

James Engell, Gurney Professor of English Literature and Professor of Comparative Literature (*on leave fall term*)

Philip J. Fisher, Felice Crowl Reid Professor of English

Darcy Frey, Briggs Copeland Lecturer on English , Senior Lecturer on English

Marjorie Garber, William R. Kenan, Jr. Professor of English and of Visual and Environmental Studies

Henry Louis Gates, Jr., Alphonse Fletcher, Jr. University Professor

Jorie Graham, Boylston Professor of Rhetoric and Oratory, Harvard College Professor (*on leave fall term*)

Stephen J. Greenblatt, Cogan University Professor

Amy Hempel, Senior Lecturer on English

Bret A. Johnston, Senior Lecturer on English

Ju Yon Kim, Assistant Professor of English

Deidre Lynch, Professor of English

Sam Marks, Briggs Copeland Lecturer on English

Louis Menand, Anne T. and Robert M. Bass Professor of English

Derek K. Miller, Assistant Professor of English

Elisa New, Powell M. Cabot Professor of American Literature (*on leave 2014-15*)

Stephen G. Osadetz, Assistant Professor of English

Mark Jude Poirier, Briggs Copeland Lecturer on English



Leah Price, Francis Lee Higginson Professor of English Literature  
 Martin Puchner, Byron and Anita Wien Professor of Drama and of English and Comparative Literature (*Director of Graduate Studies*)  
 Laura Wang, College Fellow in the Department of English  
 Peter Sacks, John P. Marquand Professor of English (*on leave fall term*)  
 Robert Scanlan, Professor of the Practice of Theatre (*on leave fall term*)  
 Elaine Scarry, Walter M. Cabot Professor of Aesthetics and the General Theory of Value, Harvard College Professor  
 Marc Shell, Irving Babbitt Professor of Comparative Literature and Professor of English  
 James Simpson, Donald P. and Katherine B. Loker Professor of English (*Chair*)  
 Werner Sollors, Henry B. and Anne M. Cabot Professor of English Literature and Professor of African and African American Studies (*on leave 2014-15*)  
 John Stauffer, Professor of English and of African and African American Studies (*on leave fall term*)  
 Gordon Teskey, Professor of English (*on leave 2014-15*)  
 Helen Vendler, Arthur Kingsley Porter University Professor  
 Andrew Warren, John L. Loeb Associate Professor of the Humanities  
 Nicholas Watson, Professor of English (*Co-Director of Undergraduate Studies*)  
 Leah Jane Whittington, Assistant Professor of English (*on leave spring term*)  
 Joan Wickersham, Visiting Lecturer on English  
 James Wood, Professor of the Practice of Literary Criticism

### ***Other Faculty Offering Instruction in the Department of English***

Lawrence Buell, Powell M. Cabot Professor of American Literature, Emeritus  
 Leo Damrosch, Ernest Bernbaum Professor of Literature, Emeritus  
 Joseph C. Harris, Francis Lee Higginson Professor of English Literature and Professor of Folklore, Emeritus  
 Jamaica Kincaid, Professor in African and African American Studies in Residence  
 Barbara K. Lewalski, William R. Kenan, Jr. Professor of History and Literature and of English, Emerita

Department of English Common Ground Courses are required of concentrators, and are ordinarily not an entry point to the study of English at Harvard for non-concentrators. Students are invited, however, to begin with any course that seems suited to their interests and level of preparation: a Freshman Seminar taught by faculty members from the English Department or a 100-level course, all of which are taught in lecture or discussion 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 (two half courses) 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 Camr. Advanced Playwriting: Workshop**

Catalog Number: 2555 Enrollment: Limited to 12.

*Sam Marks*

*Half course (fall term; repeated spring term). Tu., 4–7 p.m. EXAM GROUP: Fall: 16; Spring: 6*  
 This workshop is a continued exploration of writing for the stage. Students will be encouraged to excavate their own voice in playwriting. They will examine and attempt multiple narrative strategies and dialogue techniques. They will bolster their craft of playwriting through generating short scripts and a completed one act. Readings will include significant contributors to the theatrical form such as Ibsen and Beckett as well as contemporary dramatists such as Annie Baker, Caryl Churchill and Sam Shepard.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Capr. Poetry: Workshop**

Catalog Number: 6523 Enrollment: Limited to 12.

*Jorie Graham*

*Half course (spring term). W., 4–7 p.m. EXAM GROUP: 13*

Open by application to both undergraduates and graduates. Class lasts 3 hours and includes the study of poetic practice in conjunction with the discussion of student work.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Cbbr. Intermediate Poetry: Workshop**

Catalog Number: 59646 Enrollment: Limited to 12.

*Joshua Bell*

*Half course (fall term; repeated spring term). Tu., 4–7 p.m. EXAM GROUP: Fall: 16; Spring: 6*  
 Initially, students can expect to read, discuss, and imitate the strategies of a wide range of poets writing in English; to investigate and reproduce prescribed forms and poetic structures; and to engage in writing exercises meant to expand the conception of what a poem is and can be. As the course progresses, reading assignments will be tailored on an individual basis, and an increasing amount of time will be spent in discussion of student work.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Cffr. Adapting Short Fiction to Film: Workshop - (New Course)**

Catalog Number: 29902 Enrollment: Limited to 12.

*Mark Jude Poirier*

*Half course (fall term). Tu., 3–6. EXAM GROUP: 2*

This workshop explores the principles of literary adaptation from short fiction to film. By viewing films and reading their screenplays and the source stories, we will consider what makes for a successful adaptation from print to film. We'll spend the majority of the class critiquing students' adaptations - either the first act of a feature-length script, or a complete short script (under thirty pages).



### **\*English Chcr. Advanced Poetry: Workshop**

Catalog Number: 53445 Enrollment: Limited to 12.

*Joshua Bell*

*Half course (fall term; repeated spring term). M., 4–7 p.m. EXAM GROUP: Fall: 17; Spring: 13*  
 By guided reading, classroom discussion, one on one conference, and formal and structural experimentation, members of the Advanced Poetry Workshop will look to hone, deepen, and challenge the development of their poetic inquiry and aesthetic. Students will be required to write and submit one new poem each week and to perform in-depth, weekly critiques of their colleagues' work.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Cjlr. Introduction to Journalism - (New Course)**

Catalog Number: 18198 Enrollment: Limited to 12.

*Jill Abramson*

*Half course (fall term; repeated spring term). M., 4–7 p.m. EXAM GROUP: Fall: 17; Spring: 13*  
 An intense seminar for those interested in understanding the changing role of journalism and in learning the art of reporting and writing narrative stories. The course is intended for those contemplating careers as journalists or because they want a better sense of how journalism really works. Coursework will include two narrative articles that are ready for publication. Readings will include some of the best examples of modern journalism, from magazine features by authors including Gay Talese to multimedia narratives such as *The New York Times'* "Snow Fall." The course offers in depth analysis of what makes a compelling narrative in feature, explanatory and investigative journalism and exposes students to journalism from *New York Times*, *The New Yorker*, Buzzfeed, Wired, and Vice Media, among others. Multimedia journalism, including news documentaries, is also covered.

*Note:* Admission based on submitted samples of writing. Class will not meet during shopping week.

### **\*English Ckr. Introduction to Playwriting: Workshop**

Catalog Number: 6781 Enrollment: Limited to 12.

*Sam Marks*

*Half course (fall term; repeated spring term). M., 4–7 p.m. EXAM GROUP: Fall: 17; Spring: 13*  
 This workshop is an introduction to writing for the stage through intensive reading and in-depth written exercises. Each student will explore the fundamentals and possibilities of playwriting by generating short scripts and completing a one act play with an eye towards both experimental and traditional narrative styles. Readings will examine various ways of creating dramatic art and include work from contemporary playwrights such as Kenneth Lonergan, Martin McDonagh, Suzan Lori-Parks, and Sarah Ruhl as well established work from Anton Chekhov, Sarah Kane, and Harold Pinter.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Clr. Dramatic Screenwriting I: Workshop**

Catalog Number: 6121 Enrollment: Limited to 12.

*Mark Jude Poirier*



*Half course (fall term; repeated spring term). Fall: M., 4–7 p.m.; Spring: Section I: M., 4–7 p.m.; Section II: Tu., 3–6 p.m. EXAM GROUP: Fall: 17; Spring: 13*

This class introduces the screenplay, from the Hollywood blockbuster to the indie sleeper. Students will learn the basics of screenwriting by reading scripts and viewing the resulting films, focusing on dramatic structure, character development, tone, dialogue, and the other aspects of film determined by the writer. Students will develop their own feature-length screenplays—which we'll workshop from the earliest stages—and finish the semester with a first act and the tools, knowledge, and skills necessary to continue screenwriting.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Cnfr. Introduction to Creative Nonfiction: Workshop**

Catalog Number: 6740 Enrollment: Limited to 12.

*Darcy Frey*

*Half course (fall term; repeated spring term). W., 4–7 p.m. EXAM GROUP: Fall: 17; Spring: 13*  
Whether in essay, memoir or reportage, creative nonfiction employs many of the same literary techniques as fiction: narrative structure, character development, scene-setting, extended dialogue, emphasis on voice and point of view. In addition to workshopping student writing, we discuss examples of the genre by writers such as Virginia Woolf, William Maxwell, Joan Didion, and John McPhee. Assignments include two 10-15 page narratives, an extensive revision, and typed critiques of classmates' work.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Cnnr. Advanced Creative Nonfiction: Workshop**

Catalog Number: 2121 Enrollment: Limited to 12.

*Darcy Frey*

*Half course (fall term; repeated spring term). Th., 4–7 p.m. EXAM GROUP: Fall: 16; Spring: 6*  
In any long-form nonfiction (essay, memoir, travelogue, journalism), there are countless ways of structuring and telling a true story. In this workshop, students examine various techniques for giving nonfiction material dramatic and suspenseful energy: chronology, argument, juxtaposition, retrospection, evolving revelation. In addition to workshopping student writing, we discuss examples of the genre by writers such as Julia Blackburn, Truman Capote, Spalding Gray, and Janet Malcolm. Assignments include two 10-15 page narratives, an extensive revision, and typed critiques of classmates' work.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Cpwr. Poetry: Workshop**

Catalog Number: 4606 Enrollment: Limited to 12.

*Jorie Graham*

*Half course (spring term). Tu., 1–4. EXAM GROUP: 1*

Open by application to both undergraduates and graduates. Class includes the discussion of literary texts as well as work written by students.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.



### **\*English Crr. Fiction Writing: Workshop**

Catalog Number: 1893 Enrollment: Limited to 12.

*Bret A. Johnston*

*Half course (fall term; repeated spring term). W., 4–7 p.m. EXAM GROUP: Fall: 17; Spring: 13*  
 An introduction to fundamental aspects (technical and conceptual) of writing fiction, beginning with short exercises and moving toward the completion and revision of original work. Readings include Munro, Welty, Díaz, Lahiri, and others, and explore how practicing writers negotiate character, narrative structure, setting, voice, etc. Individual reading assignments are also devised on a per project basis. As the term continues, increasing amounts of time are devoted to the discussion of student work.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Ctr. Advanced Fiction Writing: Workshop**

Catalog Number: 7175 Enrollment: Limited to 12.

*Bret A. Johnston*

*Half course (fall term; repeated spring term). Th., 4–7 p.m. EXAM GROUP: Fall: 16; Spring: 6*  
 Writers will become familiar with more sophisticated aspects (technical and conceptual) of writing fiction, beginning with short exercises and moving toward the completion and revision of original work. Readings include Munro, Welty, Diaz, Lahiri, and others, and we will explore how practicing writers negotiate character, narrative structure, setting, voice, etc. Individual reading assignments are also devised on a per project basis. As the term continues, increasing amounts of time are devoted to the discussion of student work. Students in this course will be expected to revise work often and to a very high standard.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Cvr. Fiction Writing**

Catalog Number: 1223 Enrollment: Limited to 12.

*Jamaica Kincaid*

*Half course (spring term). W., 1–4. EXAM GROUP: 8*

A seminar/workshop. Readings to be announced.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Cwar. Advanced Fiction: Workshop**

Catalog Number: 88347 Enrollment: Limited to 12.

*Amy Hempel (fall term) and Joan Wickersham (spring term)*

*Half course (fall term; repeated spring term). Fall: Th., 1–4; Spring: Tu., 1–4. EXAM GROUP: Fall: 8; Spring: 1*

Writing fiction requires risk-taking and rigor: the ability to dream while staying awake to subtleties of dialogue, description, character, structure, point of view, and voice. The only way to learn to balance all these elements is to immerse yourself in reading and writing - it's a lifelong pursuit, and we can continue it here. The class will include discussion of an eclectic range of published stories; much writing and revision; and close reading of and written response to one another's work.



*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

### **\*English Cwfr. Introductory Fiction: Workshop**

Catalog Number: 21718 Enrollment: Limited to 12.

*Amy Hempel (fall term) and Joan Wickersham (spring term)*

*Half course (fall term; repeated spring term). M., 1–4. EXAM GROUP: Fall: 1; Spring: 8*

An introduction to the short story with emphasis on amplifying the idea of what a story can be. We will look at a range of contemporary narrative strategies that exploit--in the best sense of the word--voice, character, place, logic, and (always) language. Readings will include Barry Hannah, Tillie Olsen, Leonard Michaels, Mark Richard, Mary Robison, Yasunari Kawabata, and selected poets. Short assignments will aim to strengthen writing at the sentence level, and suggest personal ways into the largest concerns. Students should expect to complete and revise two stories, and be prepared to discuss the work of colleagues each week.

*Note:* Admission based on submitted samples of writing. For information on specific application requirements, please see the English Department's Creative Writing web page.

## ***II. Literature***

### ***Primarily for Undergraduates***

Common Ground Courses (two hours of lecture, one hour of discussion section weekly).

Preference is given to English concentrators. Enrollment determined after first meeting.

### **\*English 40. Arrivals**

Catalog Number: 62547 Enrollment: Limited to 27.

*Daniel G. Donoghue*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

An introduction to major works in English literature from Beowulf through the seventeenth century, the course will explore various ways that new literatures are created in response to cultural forces that shape poets, genres, and group identity. We will hone close reading skills, introduce rhetorical tropes, and develop techniques of critical writing.

### **\*English 41. Arrivals: 700-1700**

Catalog Number: 74158 Enrollment: Limited to 27.

*James Simpson*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Across the period 700-1700 the shapes of British culture were absorbed from different centers of Western Europe. When these cultural forms arrive in Britain, they meet and mix with established cultures. This course will delineate the principal cultural forces (e.g. religious, political, social) that shaped England in particular. We will look to the ways in which those vibrant yet opposed forces find expression in the shape, or form, of literary works.

### **\*English 44. Arrivals: The Invention of English Literature, 700-1700 - (New Course)**

Catalog Number: 74412 Enrollment: Limited to 27.

*Laura Wang*



*Half course (fall term). M., W., at 10. EXAM GROUP: 5*

A study of major works of English literature from 700-1700, with particular attention to the relationship between literary forms and the cultural changes brought by war, commerce, and religion. Key texts include *Beowulf*, selections from the *Canterbury Tales*, *Sir Gawain and the Green Knight*, *Doctor Faustus*, and *The Pilgrim's Progress*. We will learn to read Middle English aloud, analyze poetic language, and construct cogent essays.

**\*English 50. Poets: Ode, Elegy, Epigram, Fragment, Song**

Catalog Number: 23427 Enrollment: Limited to 27.

*Stephen Louis Burt*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

Ways of reading and ways of hearing poetry (mostly short poems) in English from the Renaissance to the present, with a particular focus on kinds of poems: elegies, odes, meditations, epigrams, palinodes, landscapes, puzzles, and some modern kinds without names, by Shakespeare, Bishop, Dickinson, Hughes, Armantrout, Ashbery, Muldoon, Whitman, Keats, Yeats, O'Hara...

**\*English 55 (formerly English 184). Poets: Fundamentals of Lyric Poetry**

Catalog Number: 58318 Enrollment: Limited to 27.

*Peter Sacks*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

An introduction to the fundamentals of Lyric poetry.

**\*English 56. Poets: Narrative Poetry**

Catalog Number: 56043 Enrollment: Limited to 27.

*Andrew Warren*

*Half course (fall term). M., W., at 11. EXAM GROUP: 18*

This course is a general introduction to reading poetry, with a focus on narrative poetry. We begin with Milton's epic, *Paradise Lost*, and then turn to eighteenth-century mock epics and verse narratives by Pope and Swift, and work by the Romantics, particularly Wordsworth, Coleridge, and Keats. The course will end with Byron's satiric masterstroke, *Don Juan*, and TS Eliot's toppled epic, *The Waste Land*.

**\*English 60a. Migrations: American Horrors - (New Course)**

Catalog Number: 20627 Enrollment: Limited to 27.

*Ju Yon Kim*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 15*

This course will examine the uncanny, the abject, and the ghostly as they appear in American literature, and consider their formal implications as well as their relationship to the major cultural and social issues of the time. Authors may include Louise Erdrich, William Faulkner, Charlotte Perkins Gilman, Washington Irving, Henry James, Maxine Hong Kingston, Herman Melville, Toni Morrison, Bharati Mukherjee, Flannery O'Connor, and Edgar Allan Poe.

**\*English 68. Migrations: American Immigrant Literature - (New Course)**

Catalog Number: 25566 Enrollment: Limited to 27.

*Glenda R. Carpio*



*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

During the last 50 years, the United States has received immigrants from Latin American, Caribbean, African, and Asian countries in contrast to previous waves of immigration, which were primarily from Northern or Eastern Europe. This course will first explore classic American immigrant narratives and then focus on contemporary texts (by writers such as Teju Cole, Junot Díaz, Chimamanda Adiche) taking on a comparative approach that is rooted in the history of immigration in American culture.

**\*English 69. Migrations: American Literature to 1865 - (New Course)**

Catalog Number: 62448 Enrollment: Limited to 27.

*Stephen G. Osadetz*

*Half course (spring term). M., W., at 12. EXAM GROUP: 7*

This course surveys American literature from the colonial period to the Civil War. We will read accounts of early contact, narratives of captivity and slavery, sermons, autobiographies, poems, and novels. Authors will include Winthrop, Rowlandson, Franklin, Douglass, Hawthorne, Melville, Stowe, Thoreau, Whitman, and Dickinson.

***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 90bc. Black Global Cities: Seminar - (New Course)**

Catalog Number: 10289 Enrollment: Limited to 15.

*Marina Bilbija*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

In this course we will analyze representations of cities and Black urban modernity in Afro-diasporic literature of the twentieth and twenty-first century. We will trace the transnational itineraries of Black modern subjects in texts by W.E.B Du Bois; Nella Larsen, Claude McKay, James Baldwin, C.L.R. James, Zadie Smith, and Teju Cole. Placing special emphasis on the global hubs of London, Paris, New York, Marseilles, and Cape Town, we will ask what makes these former imperial sites Black global cities?

**\*English 90bk. Lyric, Revolution: Blake & Ginsberg: Seminar - (New Course)**

Catalog Number: 51217 Enrollment: Limited to 15.

*Andrew Warren*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

This seminar looks at poets from two turbulent eras: England in the Age of Revolution (1789-1824) and America in the 1950's and '60s. During those times poetry was seen as a vital medium for change—but how? And why? Our case studies will be William Blake and Allen Ginsberg, though we'll also read widely in the work of their contemporaries: Romantics, particularly Keats and Shelley; and Americans, such as O'Hara, Bishop, Lowell, and Plath. We'll also look at a few important texts in between, like Rimbaud's Season in Hell.

**\*English 90cp. Contemporary American Playwrights: Seminar - (New Course)**

Catalog Number: 59321 Enrollment: Limited to 15.



*Derek K. Miller*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

This course surveys work by some of the most popular dramatists of the past decade, with particular attention to language, theatricality, and history. Writers may include Annie Baker, Amy Herzog, Jackie Sibblies Drury, Sarah Ruhl, Quiara Alegría Hudes, Lynn Nottage, and Will Eno.

**\*English 90en. Indigenous Literatures of North America -- Oral and Written Traditions: Seminar - (New Course)**

Catalog Number: 65148 Enrollment: Limited to 15.

*Nicholas Bradley*

*Half course (fall term). M., 1–3. EXAM GROUP: 1*

This course will examine aspects of the literary traditions of the indigenous peoples of North America. Students will read translations of traditional stories and songs as well as poems, novels, and stories by contemporary Native American and Canadian writers. The course will emphasize the diversity of the literature of North America from pre-Columbian times to the present, and will pay particular attention to the ways in which English has been employed and resisted as a literary language. Authors may include N. Scott Momaday, Leslie Marmon Silko, Louise Erdrich, Thomas King, Sherman Alexie, Tomson Highway, and Eden Robinson.

**\*English 90fd. The Rhetoric of Frederick Douglass and Abraham Lincoln: Seminar**

Catalog Number: 23333 Enrollment: Limited to 15.

*John Stauffer*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

A critical examination of Douglass' and Lincoln's speeches and other exemplary writings from Lincoln's 1838 Lyceum Address to Douglass's 1894 "Lessons of the Hour." We explore Douglass' and Lincoln's respective rhetorical practices in relation to their politics.

**\*English 90hb. Four Shakespeare Plays: Seminar**

Catalog Number: 59051 Enrollment: Limited to 15.

*Marc Shell*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

This is a survey course of Shakespeare plays.

*Note:* This course, when taken for letter grade, meets the Department of English Shakespeare requirement.

**\*English 90ht. How to Read a Book: Seminar**

Catalog Number: 50564 Enrollment: Limited to 15.

*Leah Price*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

Historical and literary narratives of reading; texts by Cervantes, Richardson, Franklin, Sterne, Flaubert, Ellison, and Bradbury, together with research exercises in Harvard library and museum collections.

**\*English 90hv. When Harlem Was in Vogue: Seminar - (New Course)**

Catalog Number: 33859 Enrollment: Limited to 15.



*Marina Bilbija*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

This course will examine the aesthetics and politics of the first Modern African American cultural movement, known today as the Harlem Renaissance. In our readings of key literary texts by authors such as Alain Locke, Jessie Fauset, Zora Neale Hurston, Eric Walrond, Langston Hughes, Claude McKay, Nella Larsen, and Jean Toomer, we will discuss both the national and global contexts of so-called "New Negro Writing" and focus on debates surrounding representation, "respectability" and racial authenticity.

#### **[\*English 90kb. Poems of Seamus Heaney and Thomas Hardy: Seminar]**

Catalog Number: 22333 Enrollment: Limited to 15.

*Elaine Scarry*

*Half course (spring term). Tu., 2–4.*

Written a century apart, the poems of Seamus Heaney and Thomas Hardy create an urgent call and response between earth and under-earth. The poets share metrical virtuosity, compressed lyric forms, the unfolding of personal history within public crisis and transformation, and the recognition that the acuity of sentience - the daily practice of exquisitely precise perceptual acts - is the ethical center of our brief stay above ground.

*Note:* Expected to be given in 2015–16.

#### **\*English 90lv. Consciousness in Fiction: Seminar**

Catalog Number: 3200 Enrollment: Limited to 15.

*James Wood*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

A 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, traces 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 90qp. 20th-Century American Poetry: Seminar**

Catalog Number: 6694 Enrollment: Limited to 15.

*Peter Sacks*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

This course attends to the work of several American poets whose careers span much of the second half of the 20th century. Poets include Elizabeth Bishop, James Wright, Randall Jarrell, Adrienne Rich, A.R. Ammons, Frank O'Hara, John Ashbery, and others.

#### **\*English 90sb. Samuel Beckett's Plays and Prose: Seminar**

Catalog Number: 3487 Enrollment: Limited to 15.

*Robert Scanlan*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

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: Seminar - (New Course)**

Catalog Number: 19069 Enrollment: Limited to 15.

*Helen Vendler*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

With Heaney's death, the canon of his poetry has closed. Using Opened Ground and selections from the later poetry, we will investigate the ways into Heaney's verse, from the political to the autobiographical to the symbolic.

#### **\*English 90tb. Literature and the Rise of Public Science: Seminar - (New Course)**

Catalog Number: 88481 Enrollment: Limited to 15.

*Stephen G. Osadetz*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

This seminar explores the relationship between literary and scientific experiment during the Restoration and the eighteenth century. Our readings, by authors such as Milton, Fontenelle, Pope, Hume, Diderot, and Mary Shelley, will be paired with hands-on activities: while reading Swift's *Gulliver's Travels*, for example, students will have the opportunity to use microscopes and telescopes from the period. Throughout, we will seek to understand how writers of various sorts - scientists, philosophers, poets, novelists, and essayists - were inspired by new accounts of nature, from the simplest experimental observations to the grandest visions of the cosmos.

#### ***Tutorials, for Undergraduates Only***

##### **\*English 91r. Supervised Reading and Research**

Catalog Number: 1464

*Stephen Louis Burt (spring term), Nicholas Watson (fall term) and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

Individual instruction in subjects of special interest that cannot be studied in regular courses.

*Note:* A graded course. May not be taken more than twice and only once for concentration.

##### **\*English 98r. Tutorial—Junior Year**

Catalog Number: 3831

*Nicholas Watson (fall term), Ju Yon Kim (spring term) and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 7; Spring: 17*

Supervised small group tutorial in the study of literature in English.

*Note:* Limited to honors concentrators.

##### **\*English 99r. Tutorial—Senior Year**

Catalog Number: 3901

*Nicholas Watson (fall term), Stephen Louis Burt (spring term), and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 18; Spring: 14*



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 in the junior year or earlier, and faculty approval of proposed thesis topic.

### ***For Undergraduates and Graduates***

#### **English 102h. Introduction to Old English: The Literature of Spiritual Warfare**

Catalog Number: 19013

*Laura Wang*

*Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12*

An introduction to the deeply religious, yet turbulent culture of Anglo-Saxon England, where the tension between new Christian belief and deeply engrained warrior culture produced works of provocative prose and astonishing poetry. We will first learn the fundamentals of Old English, which requires study as a foreign language. As we gain facility with the language, we will translate biblical narratives, sermons, and religious poems: some of them cautiously literal in their treatment of scripture, others fascinatingly hybrid. Ultimately, we will gain a sense of the development of English prose, and read some of the greatest poems in the English language.

*Note:* Students who complete both English 102 and 103 with honors grades will fulfill the College language requirement and the English Department's Foreign Literature requirement.

#### **English 103i. Advanced Old English: Anglo-Saxons at Home - (New Course)**

Catalog Number: 76893

*Laura Wang*

*Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 11*

This course deepens our sense of Anglo-Saxon culture through texts that bring its everyday, nitty-gritty details to life. We will encounter, for example, strange medical remedies as well as bawdy riddles; the domestic comforts of Beowulf's mead-hall as well as its epic battles. After a rapid review of skills taught in 102, we will translate progressively more challenging passages; transcribe from Old English manuscripts; and read John Gardner's Grendel, discussing the uses of engaging with an era that remains opaque in many ways. Class will culminate with final projects of translation, recitation, or research, which you will also present to the class in the last three sessions.

*Note:* Students who complete both English 102 and 103 with honors grades will fulfill the College language requirement and the English Department's Foreign Literature requirement.

*Prerequisite:* Honors grade in English 102 or the equivalent.

#### **English 111. Epic: From Homer to Star Wars**

Catalog Number: 12235

*Leah Jane Whittington*

*Half course (fall term). M., W., at 2, and a weekly section to be held F., at 2. EXAM GROUP: 7*

This course studies epic literature through six significant works in the genre: Homer's Iliad and Odyssey, Vergil's Aeneid, Milton's Paradise Lost, George Eliot's Middlemarch, and George Lucas' Star Wars. We will examine these works in terms of their formal conventions, thematic



interests, and historical contexts, as well as attending to the interactions between texts in the epic tradition, the shift from narrative poetry to novel and film, and the manifestations of epic in the modern world.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

### **English 115b. Chaucer: *The Canterbury Tales***

Catalog Number: 2945

*Nicholas Watson*

*Half course (fall term). M., W., at 12. EXAM GROUP: 11*

One of the most astonishing, vibrant, multivalent texts in the English language, Chaucer's *The Canterbury Tales* contains characters high and low telling stories of edification and pleasure, in poetry and prose, on topics bawdy and pious. We will read this work in its entirety, while also looking at some of Chaucer's shorter poems and the historical and cultural milieu in which he wrote.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **English 138. The 18th-Century English Novel - (New Course)**

Catalog Number: 56886

*Stephen G. Osadetz*

*Half course (spring term). M., W., at 11. EXAM GROUP: 14*

The rise of the novel, seen through eighteenth-century fiction by Defoe, Haywood, Richardson, Fielding, Sterne, and Jane Austen. Through fiction, we can live out our highest aspirations and blackest fantasies; we can imaginatively enter the minds of others and inhabit strange, sometimes terrifying alternate realities. The early novel was preoccupied with such possibilities for dislocation and change: what happens when a character ventures far from home, and how can someone rise or fall in the world? Alongside these issues, we will explore the paradoxes of "realism," the problems of gender and class, and the sheer pleasure of reading fiction

### **English 144a. American Plays and Musicals, 1940-1960**

Catalog Number: 93718

*Derek K. Miller*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

A lecture on Golden Age Broadway musicals within their theatrical context. Readings pair plays with musicals on a similar theme, including *Death of a Salesman* and *The Music Man*, *Mister Roberts* and *South Pacific*, and *The Miracle Worker* and *My Fair Lady*.

### **English 145a. Jane Austen's Fiction and Fans - (New Course)**

Catalog Number: 25412

*Deidre Lynch*

*Half course (fall term). Tu., Th., at 12. EXAM GROUP: 13*

In this class we'll read at least five of Jane Austen's novels and study the contribution they made to the early-nineteenth-century remaking of the novel as a form. Our chief concern will be Austen's intervention into her own era's discussions of what fiction could and should do, but



we'll also acknowledge the ardent feelings her books continue to arouse today. As part of that acknowledgment, we'll conclude the course by investigating the wild world of contemporary Austen fandom and the Austenian tourism, shopping, adaptations, and sequels that nurture it.

### **English 148. Modern Monsters in Literature and Film - (New Course)**

Catalog Number: 57128

*Deidre Lynch*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 15*

A class on the aesthetics and cultural politics of the Gothic tradition, from *Frankenstein* to *Freaks*. How has this tradition's fascination with those who come back from the dead mediated social anxieties about the generation of life or the lifelike? We'll consider vampire and other monster fictions by such authors as John Polidori, Mary Shelley, Sheridan Le Fanu, Bram Stoker, Mary Elizabeth Braddon, Robert Louis Stevenson, and Gaston Leroux. We'll conclude the semester with an investigation of early horror cinema, exploring how the modern medium of cinema gave Gothic preoccupations with the animation of the dead a new lease on life.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief.

### **English 154. Literature and Sexuality**

Catalog Number: 5928

*Stephen Louis Burt*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

What do love, sex, erotic desire, gender and personality have to do with one another, with how you see yourself, with what and how you read, with how others see you? What is this thing called sexuality, where did it come from, and how did literary creators find ways to reflect it, or change it? We'll look for answers in novels, plays, film, poetry, comics and nonfiction from the Renaissance to the present, among them Austen, Baldwin, Bechdel, Binnie, Lawrence, Rochester, Sedgwick, Wilde, and Whitman.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

### **English 157. The Classic Phase of the Novel**

Catalog Number: 4786

*Philip J. Fisher*

*Half course (fall term). M., W., at 10, and a weekly section to be arranged. EXAM GROUP: 5*

A set of major works of art produced at the peak of the novel's centrality as a literary form: *Sense and Sensibility*, *Madame Bovary*, *Anna Karenina*, *Middlemarch*, *The Brothers Karamazov*, *Buddenbrooks*. Society, family, generational novels and the negations of crime and adultery; consciousness and the organization of narrative experience; the novel of ideas and scientific programs; realism, naturalism, aestheticism and the interruptions of the imaginary.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

### **English 158a. A History of Western Drama**

Catalog Number: 53604

*Derek Miller*



*Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12*  
A survey history of Western drama, from the Greeks to the present. Plays include *Oedipus Rex*, *Tartuffe*, *The Cherry Orchard*, *Gypsy*, and *Fires in the Mirror*.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

### **English 168d. Postwar American and British Fiction**

Catalog Number: 8250

*James Wood*

*Half course (fall term). M., W., at 1; and a weekly section to be arranged. EXAM GROUP: 1*  
Examines 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.  
Attempts to situate these books in their larger historical traditions, while emphasizing that we are reading a living literature.

### **English 177. American Law, Race, and Narrative - (New Course)**

Catalog Number: 73842

*Marina Bilbija*

*Half course (fall term). M., W., at 1. EXAM GROUP: 1*

This course examines how American and African American writers engaged with legal definitions of race, personhood, and citizenship in the nineteenth and early twentieth century. In the first half of the course we will read literary texts from the antebellum alongside legal documents such as the Fugitive Slave Act, and Dred Scott v. Sandford. In the second half, we will analyze the literature of the "Jim Crow" era in the context of the Plessy v. Ferguson decision. Authors we will read include: Phillis Wheatley, Frederick Douglass, Herman Melville, Mark Twain, Pauline Hopkins and Charles Chesnutt.

*Note:* This course prepares students for the Spring course "When Harlem was in Vogue," but is not a requirement.

### **English 178x. The American Novel: Dreiser to the Present**

Catalog Number: 2168

*Philip J. Fisher*

*Half course (spring term). M., W., at 10. EXAM GROUP: 5*

A survey of the 20th-century novel, its forms, patterns of ideas, techniques, cultural context, rivalry with film and radio, short story, and fact. Wharton, *Age of Innocence*; Cather, *My Ántonia*; 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*; Salinger, *Catcher in the Rye* and stories; Ha Jin, *Waiting*. Stories by James, London, Anderson, Gaitskill, Wallace, Beattie, Lahiri and Ford.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

### **English 181a. Asian American Literature**

Catalog Number: 33514

*Ju Yon Kim*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 15*



This course is both a survey of Asian American literature and an introduction to ongoing debates about what constitutes Asian American literature. How do we determine that a literary work is "Asian American" when the term has been continuously revised and expanded since it came into common usage in the late 1960s? How important are considerations of a work's thematic concerns, its relationship to specific cultural forms and traditions, or its author's biography?

### **English 190n. Writing Nature: Creativity, Poetry, Ethics, Science - (New Course)**

Catalog Number: 90776

*James Engell*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

What can writing tell us about nature and the relation of humans to it? Readings in William Wordsworth, Henry David Thoreau, John Muir, John Burroughs, Aldo Leopold, and Rachel Carson, who form a tradition blending poetry, ethics, and science. Additional nature and conservation writing (e.g., Susan Fenimore Cooper, Theodore Roosevelt), recent poets (e.g., Gary Snyder, Mary Oliver, Jorie Graham) and prose writers (e.g., Annie Dillard, Gretel Ehrlich, John Elder). Critical papers assigned, also individual nature writing as essays or poems.

*Note:* This course includes one additional hour of discussion section.

### **English 190we (formerly \*English 90we). David Foster Wallace**

Catalog Number: 68015

*Andrew Warren*

*Half course (fall term). Tu., Th., at 1. EXAM GROUP: 8*

This course looks at the scene of contemporary American fiction via the work of someone whom many—perhaps controversially—have called the writer of his generation: David Foster Wallace. This year we will pay particular attention to influences on Wallace: Pynchon, Barth, Dostoyevsky, Kierkegaard, Ozick, Borges, Kafka.

### **English 192. Political Theatre and the Structure of Drama**

Catalog Number: 10566

*Elaine Scarry*

*Half course (spring term). M., W., at 1. EXAM GROUP: 8*

The estranged, didactic, intellectual theatre of Brecht, and the ritualistic, emergency theatre of Artaud serve as reference points for a range of American, English, and Continental plays. The unique part played by "consent" in theatrical experience. Emphasis on the structural features of drama: establishing or violating the boundary between audience and stage; merging or separating actor and character; expanding or destroying language. Readings include Brecht, O'Neill, Artaud, Genet, Pirandello, Beckett, and such earlier authors as Euripides and Shelley.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

### **English 195m. Money - (New Course)**

Catalog Number: 80817

*Marc Shell*

*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 1*

Money and language as means of representation, exchange, and production. Principal literary texts include works by Shakespeare, Melville, Poe, Thoreau, Ruskin, Joyce, and Martineau as



well as attention to novels where a coin is the narrator and to coins inscribed with poetic epigrams. Special consideration of the economics of literature from Aristotle to Heidegger, the relationship between monetary and aesthetic form in visual arts and cinema, and various theories of money as social fiction.

### [\*\*English 199a. Rules of the Game: The History of Literary Theory\*\*](#)

Catalog Number: 44265

*Louis Menand*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 18*

The practice of reading literature is informed by theoretical assumptions that sometimes are made explicit but often are not. These (frequently rival) assumptions have a long history; understanding that history means understanding what is at stake when we argue about literature. The class considers theories of literature from Plato and Aristotle to the twentieth century.

### *Cross-listed Courses*

[\*\*Aesthetic and Interpretive Understanding 14. Putting Modernism Together\*\*](#)

[\*\*Aesthetic and Interpretive Understanding 20. Poems, Poets, Poetry\*\*](#)

[\*\*Aesthetic and Interpretive Understanding 55. Shakespeare, The Early Plays\*\*](#)

[\*\*African and African American Studies 10. Introduction to African American Studies\*\*](#)

[\*\*African and African American Studies 130x. Richard Wright: Literature, Philosophy, and Politics - \(New Course\)\*\*](#)

[\*\*African and African American Studies 131. African American Literature from the Beginnings to the Harlem Renaissance\*\*](#)

[\*\*Comparative Literature 283. Language Differences\*\*](#)

[\*\*Culture and Belief 45. The History of the English Language\*\*](#)

[\*\*Culture and Belief 51. Making the Middle Ages\*\*](#)

[\*\*Culture and Belief 55. The Enlightenment\*\*](#)

[\*\*Ethical Reasoning 37 \(formerly History of Art and Architecture 50g\). Adam & Eve\*\*](#)

[\*\*\\*Freshman Seminar 31u. The Varieties of Conservatism - \(New Course\)\*\*](#)

[\*\*\\*Freshman Seminar 33x. Complexity in Works of Art: Ulysses and Hamlet\*\*](#)

[\*\*\\*Freshman Seminar 39n. The Call of Beauty\*\*](#)

[\*\*Government 1087. Shakespeare and Politics\*\*](#)

[\*\*History 2469hf. Multimedia History and Literature: New Directions in Scholarly Design: Seminar - \(New Course\)\*\*](#)

[\*\*Humanities 10a. The Humanities Colloquium: Essential Works 1 - \(New Course\)\*\*](#)

[\*\*Humanities 10b. The Humanities Colloquium: Essential Works 2 - \(New Course\)\*\*](#)

[\*\*Humanities 12 \(formerly Humanities 114\). Masterpieces of World Literature - \(New Course\)\*\*](#)

[\*\*Literature 139. Fictions of Kin and Kind - \(New Course\)\*\*](#)

[\*\*Music 194r. Special Topics\*\*](#)

### *Primarily for Graduates*

[\*\*\\*English 231. Divine Comedies: Graduate Seminar - \(New Course\)\*\*](#)

Catalog Number: 45972



*Nicholas Watson*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

A study of four poetic and/or visionary works written 1300-1400: Dante Alighieri's Divine Comedy, John of Morigny's Book of Flowers, Julian of Norwich's Revelation of Love, and William Langland's Piers Plowman. We consider the inter-relationship between the poetic and the visionary in light of the categories of "orthodoxy" and "discretion of spirits" during a period when both were fiercely contested.

**\*English 233. Trans-Reformation English Writing: Graduate Seminar**

Catalog Number: 44363

*James Simpson*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

English literary history shies away from one of cultural history's most momentous revolutions: the Reformation. This course looks to a series of discursive areas (e.g. literature, theology, politics) to shape that literary history. We will look to both canonical and non-canonical texts, from Chaucer to Shakespeare; each session will be grounded in a Houghton-possessed book.

**\*English 238. Seeing Things in the Enlightenment: Graduate Seminar - (New Course)**

Catalog Number: 36259

*Deidre Lynch*

*Half course (spring term). M., 3–5. EXAM GROUP: 17*

This seminar on eighteenth-century novels and their philosophical surrounds situates itself at a crossroads where the histories of epistemology, the senses, and belief (both in God and in fictions) intersect. The Enlightenment described itself as the moment when an educated populace, weaned from superstition, would begin to see the world in its true colors: knowledge was to replace credulity. Our task will be to investigate its writers' investment in replaying the benighted, "Gothic" delusions they were meant to have put behind them. Our readings will encompass novels by Defoe, Lennox, Walpole, Radcliffe, and others, which we'll read alongside eighteenth-century philosophy of mind, philosophy of religion, and twenty-first-century discussions of magic and secularism.

**\*English 239. English Literature in the Continental Renaissance: Graduate Seminar - (New Course)**

Catalog Number: 73589

*Leah Jane Whittington*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

A study of English writers of the late sixteenth and early seventeenth centuries in relation to the international cultural movement of the European Renaissance, with an emphasis on changing attitudes towards the Renaissance project of reviving the classical past.

**\*English 256n. Theory and Practice of the Victorian Novel: Graduate Seminar**

Catalog Number: 4996

*Leah Price*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

Reading-list to be determined in consultation with seminar members will include Austen, Brontë, Thackeray, Gaskell, Dickens, Collins, Trollope, read against both contemporaneous and new



criticism and theory. Exercises in book reviewing, abstract-writing and conference presentation/public speaking.

**\*English 258. The Poetry of Emily Dickinson: Graduate Seminar - (New Course)**

Catalog Number: 48923

*Helen Vendler*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

The poetry of Emily Dickinson, with some attention to the letters. Ways of grouping the poems into sub-groups for purposes of examination. Dickinson from sublime to sardonic, from intellectual to faux-naïve "girl."

**\*English 261. Joyce/Beckett: Graduate Seminar**

Catalog Number: 95885

*Martin Puchner*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

The seminar offers an in-depth study of *Ulysses* and of Beckett's dramatic oeuvre. It doubles as an introduction to scholarly methods, including biography, history of the book, genre, geography, theater history, media studies, and philosophy.

**[\*English 276x. African-American Literary Tradition: Graduate Seminar]**

Catalog Number: 3536

*Henry Louis Gates, Jr.*

*Half course (spring term). Tu., 1–3.*

An exploration of the emergence and 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 2015–16.

**\*English 283. New Research in Theater and Performance Studies: Graduate Seminar - (New Course)**

Catalog Number: 74068

*Ju Yon Kim*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

This course will examine key books in the fields of theater and performance studies published in the last five years. We will look closely at their methodology, theoretical contributions, and engagement with earlier texts that have helped define and shape the fields.

**\*English 286. The Bildungsroman: Graduate Seminar**

Catalog Number: 55252

*Amanda Claybaugh*

*Half course (spring term). W., 11–I. EXAM GROUP: 14*

A survey of the Bildungsroman, with particular attention to the scholarship of this genre and to theoretical accounts of genre more generally.

**\*English 294z. On Beauty: Graduate Seminar**

Catalog Number: 7277



*Elaine Scarry*

*Half course (fall term). Th., 11–1. EXAM GROUP: 15*

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 296a. Poets of the Pacific West: Graduate Seminar - (New Course)**

Catalog Number: 39824

*Nicholas Bradley*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

The West Coast of North America has been imagined in a variety of ways: as paradise, as the end of the world, and as a point of contact with Asia, among others. This seminar will concentrate on poetic responses to the natural and social environments of the Pacific West—a transborder region that spans the U.S. and Canada—in an effort to discern the intricate tangles of regional cultures and geography. Of particular interest will be the place of the West Coast in American and Canadian literature. Authors may include Jeffers, Snyder, Ginsberg, Duncan, Hugo, Kizer, Zwicky, Marlatt.

***Graduate Courses of Reading and Research***

**\*English 300hf. Old and Middle English: Doctoral Conference**

Catalog Number: 2334

*Daniel G. Donoghue 1469 (on leave spring term), James Simpson 4791, and Nicholas Watson 3851*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*  
 The Conference focuses upon dissertations 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

*Marjorie Garber 7264, Stephen J. Greenblatt 3436, and Leah Jane Whittington 6977 (on leave spring term)*

*Half course (throughout the year). Alternate W., at 4:15. EXAM GROUP: 10*

The Conference focuses upon dissertations 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 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 on Renaissance topics.

**\*English 304hf. The Extended 18th-Century: Doctoral Conference**

Catalog Number: 6110

*James Engell 8076 (on leave fall term), Deidre Lynch 7672, Stephen G. Osadetz 7673, and*



*Andrew Warren 6838*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: 5*

Focuses on dissertations, dissertations 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 306hf. 19th- and 20th-Century British Literature: Doctoral Conference**

Catalog Number: 5268

*Leah Price 3501 and Amanda Claybaugh 5800*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 13*

**\*English 308hf. Drama: Doctoral Conference**

Catalog Number: 6909

*Marjorie Garber 7264, Ju Yon Kim 2986, Derek K. Miller 7338, and Martin Puchner 5842*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: Fall: 9; Spring: 2*

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

*David J. Alworth 7000 (on leave 2014-15) and Amanda Claybaugh 5800*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: 12*

Colloquium open to all graduate students working in the area of American literature and culture. Papers delivered by students writing seminar papers or dissertations, faculty members, and visiting scholars.

**\*English 350. Teaching Colloquium**

Catalog Number: 8208

*Marjorie Garber 7264*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 5*

The craft of teaching (discussion, lectures, tutorials, course descriptions, syllabi). This colloquium, designed for third-year graduate students, also considers 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*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 14; Spring: 11*

**\*English 398. Direction of Doctoral Dissertations**

Catalog Number: 5968

*David J. Alworth 7000 (on leave 2014-15) (fall term only), Homi K. Bhabha 4100 (on leave 2014-15), Stephen Louis Burt 5945 (on leave fall term), Glenda R. Carpio 4408, Amanda Claybaugh 5800, Daniel G. Donoghue 1469 (on leave spring term), James Engell 8076 (on leave*



*fall term), Philip J. Fisher 1470, Marjorie Garber 7264, Henry Louis Gates, Jr. 2899, Jorie Graham 2358 (on leave fall term), Stephen J. Greenblatt 3436, Ju Yon Kim 2986, Deidre Lynch 7672, Louis Menand 4752, Derek K. Miller 7338, Elisa New 2428 (on leave 2014-15), Stephen G. Osadetz 7673, Leah Price 3501, Martin Puchner 5842, Peter Sacks 2161 (on leave fall term), Robert Scanlan 2496 (on leave fall term), Elaine Scarry 2206, Marc Shell 3176, James Simpson 4791, Werner Sollors 7424 (on leave 2014-15), John Stauffer 1006 (on leave fall term), Gordon Teskey 4466 (on leave 2014-15), Helen Vendler 7226, Andrew Warren 6838, Nicholas Watson 3851, Leah Jane Whittington 6977 (on leave spring term), and James Wood 4720*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 16; Spring: 6*

*Note:* Normally limited to students reading specifically in the field of a proposed doctoral dissertation. 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. EXAM GROUP: Fall: 2; Spring: 16*

*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***

Paul R. Moorcroft, Professor of Organismic and Evolutionary Biology (*Chair*)

William C. Clark, Harvey Brooks Professor of International Science, Public Policy and Human Development, John F. Kennedy School of Government (*Kennedy School*)

N. Michele Holbrook, Charles Bullard Professor of Forestry

Michael Hooper, Associate Professor of Urban Planning and Design (*Design School*)

Sheila Jasanoff, Pforzheimer Professor of Science and Technology Studies, Professor of Environmental Science and Public Policy (*Kennedy School*)

James J. McCarthy, Professor of Biological Oceanography and Alexander Agassiz Professor of



### Biological Oceanography

Ann Pearson, Murray and Martha Ross Professor of Environmental Sciences

Forest Lee Reinhardt, John D. Black Professor (*Business School*)

Andrew Richardson, Associate Professor of Organismic and Evolutionary Biology

Daniel P. Schrag, Sturgis Hooper Professor of Geology and Professor of Environmental Science and Engineering

John H. Shaw, Harry C. Dudley Professor of Structural and Economic Geology and Professor of Environmental Science and Engineering

Robert N. Stavins, Albert Pratt Professor of Business and Government (*Kennedy School*)

Martin L. Weitzman, Professor of Economics

Steven C. Wofsy, Abbott Lawrence Rotch Professor of Atmospheric and Environmental Science

### ***Other Faculty Offering Instruction in Environmental Science and Public Policy***

Douglas W. Dockery, Professor of Environmental Epidemiology (*Public Health*)

Shaun Alaric Goho, Lecturer on Environmental Science and Public Policy (*Law School*)

James K. Hammitt, Professor of Economics and Decision Sciences (*Public Health*)

N. Michele Holbrook, Charles Bullard Professor of Forestry

Jennifer Leaning, Francois-Xavier Bagnoud Professor of the Practice of Health and Human Rights, Director of the Francois-Xavier Bagnoud Center for Health and Human Rights (*Public Health*)

Joe Roman, 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 11. Sustainable Development**

Catalog Number: 79625 Enrollment: Limited to 30.

William C. Clark (*Kennedy School*)

Half course (spring term). M., W., 2:30–4, and mandatory section meetings most weeks on Thursday or Friday. EXAM GROUP: 18

Explores contemporary understandings and practical implications of the idea of sustainable development. Investigates the meanings and measures that different groups have given to



"sustainable development;" scientific understanding of the complex social-environmental systems we seek to develop sustainably; and lessons on how societies have avoided the "tragedy of the commons" while instituting practical action that advances sustainable development effectively and equitably. Employs case studies in development to meet needs for energy, food, water and health.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Societies of the World.

### [Environmental Science and Public Policy 77. Technology, Environment, and Society]

Catalog Number: 11172

*Sheila Jasanoff (Kennedy School)*

*Half course (fall term). M., W., (F.), at 10; and a weekly section to be arranged.*

Our interactions with the natural world are increasingly mediated through changes in technology. Technologies create risks, generate solutions, reshape the environment, and alter our perception of the boundaries between nature and artifice. This course draws on major theories of technology and society to inform and deepen our understanding of environmental problems and policy options.

*Note:* Expected to be given in 2015–16. Offered in alternate years.

### Environmental Science and Public Policy 78. Environmental Politics

Catalog Number: 3613

*Sheila Jasanoff (Kennedy School)*

*Half course (fall term). M., W., (F.), at 10. EXAM GROUP: 5*

An introduction to the history, organization, goals, and ideals of environmental protection in America. Examines the shifts in emphasis from nature protection to pollution control to sustainability over the past hundred years 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.

*Note:* Expected to be omitted in 2015–16. Offered in alternate years with ESPP 77. This course, when taken for a letter grade, meets the General Education requirement for United States in the World.

### *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. Energy, Technology, and the Environment]

Catalog Number: 2189

*Michael B. McElroy*

*Half course (fall term). M., 1–4.*

The seminar will provide an account of the technologies that shape our world with a perspective



on how they evolved, the benefits that ensued and the environmental challenges that arose as a consequence. Topics include prospects for renewable energy and options to minimize damage from conventional sources of energy. Specific attention is directed to challenges faced by large developing economies emphasizing the need for a cooperative approach to ensure an equitable, environmentally sustainable, global future.

*Note:* Expected to be given in 2015–16.

### **\*Environmental Science and Public Policy 90e. Marine Conservation Biology**

Catalog Number: 6879

*Joe Roman*

*Half course (spring term). W., 3–5:30. EXAM GROUP: 17*

Conservation biology strives to describe, understand, and preserve biodiversity by applying ecological and evolutionary theory within the contexts of resource management, economics, sociology, and political science. This course will explore the motivations and tools used for preserving biodiversity with a focus on coastal and marine ecosystems. Case studies will include major contemporary issues in conservation biology such as endangered species protection and reintroduction, over-harvesting of marine resources, and marine spatial planning. Students will be challenged to answer: How can we restore New England's coastal ecosystems?

*Note:* Local field trips within New England to be arranged.

### **\*Environmental Science and Public Policy 90j. Environmental Crises, Climate Change, and Population Flight**

Catalog Number: 9841

*Jennifer Leaning (Public Health) and James J. McCarthy*

*Half course (fall term). M., 2–4:30. EXAM GROUP: 7*

War, disaster, drought, or famine force people to flee their land. Climate change is contributing to many of these factors. The humanitarian consequences of population flight, including loss of place and livelihood, are filled with complexity, relating to the extent and permanence of environmental destruction wrought by these crises, people's attachment to their homes and ecosystems, the circumstances of departure, the destinations of refuge, and the possibilities for return. These issues will be examined through case studies and review of literature on forced migration and calamity.

### **[\*Environmental Science and Public Policy 90n. China's Energy Economy: Perspectives from the Past: Challenges for the Future]**

Catalog Number: 8477

*Michael B. McElroy and Xi Lu*

*Half course (fall term). W., 2:30–5.*

The seminar will provide a historical perspective on the development of the Chinese economy with emphasis on the energy sector, including analysis of related environmental problems.

Energy options available for China's future will be discussed, including opportunities for clean-coal technology, nuclear, wind, hydro, and biofuels. The seminar will discuss tradeoffs implicit in these choices with respect to reconciling competing goals for environmental protection and economic development.

*Note:* Expected to be given in 2015–16.



**[\*Environmental Science and Public Policy 90p. Biotechnology, Sustainability and Public Policy]**

Catalog Number: 62576

*Calestous Juma (Kennedy School)*

*Half course (spring term). W., 2:30–5.*

This seminar examines the implications of biotechnology for sustainability. Using case studies, it focuses on policy approaches for maximizing the benefits of biotechnology and minimizing their risks. It addresses the following themes: (1) scientific and technological advances in biotechnology and sustainability; (2) social responses to the use of biotechnology; (3) application of biotechnology specific sectors such as agriculture; industry; energy; bioremediation and species conservation; (4) socio-economic impacts; and (5) policy and institutional considerations.

*Note:* Expected to be given in 2015–16.

**[\*Environmental Science and Public Policy 90s. The Technology, Economics, and Public Policy of Renewable Energy]**

Catalog Number: 53953 Enrollment: Limited to 50.

*George Pierce Baker (Business School)*

*Half course (spring term). Th., 1–4.*

Energy is the lifeblood of economic activity, and there is little prospect of this changing. However, the planet's stores of easily accessed fossil fuels are limited, and the climatological cost of continuing to rely on fossil fuels is high. This course examines the long run and short run prospects for renewable energy. We start by understanding the technology of hydro, solar, wind, and biomass. We then examine the economics of these technologies, and how subsidies and taxes affect their viability. Special attention will be paid to the interaction of technology, economics, and public policy.

*Note:* Expected to be given in 2015–16. This course will be offered in a seminar format with an enrollment limit of 50.

*Prerequisite:* Economics 10a.

**Environmental Science and Public Policy 90t. Environmental Health: Your World and Your Life at Risk**

Catalog Number: 40047

*Douglas W. Dockery (Public Health)*

*Half course (spring term). M., 2:30–5 with local field trips to be arranged. EXAM GROUP: 18*  
 Through the seminar course students will be introduced to ongoing environmental health research. They will read published articles and interview faculty. Studies will include birth outcomes and heavy metals; neurological and cognitive development in children exposed to lead; dietary interventions and pesticide exposure; asthma and public housing; air pollution and cardiovascular health; exposures and effects of plasticizers, flame retardants, polychlorinated biphenyls (PCBs), bisphenol A (BPA) and other synthetic organic compounds; cell phone use and brain cancer; respiratory effects of biomass cooking and heat fuels on children and women; heat waves and heat stress mortality; and land-use factors and obesity.

**Environmental Science and Public Policy 90v. Economic Evaluation of Environmental Regulation**



Catalog Number: 74118

*James K. Hammitt (Public Health)*

*Half course (fall term). Tu., 2:30–5. EXAM GROUP: 14*

What level of environmental protection is best? Stronger regulations provide greater protection against the target harm, but generally at the cost of reduced economic consumption or increases in other environmental harms. What principles can be used to determine the ‘right’ level of protection, and how can regulations be evaluated? This course provides an introduction to environmental risk assessment and benefit-cost analysis of environmental regulation, incorporating theory and case studies.

### **Environmental Science and Public Policy 90x. Current Issues in U.S. Environmental Law - (New Course)**

Catalog Number: 82042

*Shaun Alaric Goho (Law School)*

*Half course (fall term). W., 6:30–9 p.m. EXAM GROUP: 17*

This course examines some of the main U.S. environmental laws, the methods of regulation and enforcement represented by those laws, and current controversies regarding their implementation and development. Each week’s class will be divided between a discussion of key cases and regulations implementing a particular law and an in-depth examination of a case study involving the law under examination.

### **\*Environmental Science and Public Policy 91r. Supervised Reading and Research**

Catalog Number: 1705

*Paul R. Moorcroft and Members of the Committee*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 16*

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 99. Tutorial — Senior Year**

Catalog Number: 5666

*Paul R. Moorcroft and Members of the Committee*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 7; Spring: 18*

Research and writing of the senior thesis under faculty direction. Senior honors candidates must take at least one term of this course while writing a thesis. The signature of the faculty adviser is required.



# Ethnicity, Migration, Rights

## **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

### ***Faculty of the Committee on Ethnicity, Migration, Rights***

Kay Kaufman Shelemay, G. Gordon Watts Professor of Music and Professor of African and African American Studies (*Chair*)

Jacqueline Bhabha, Professor of the Practice of Health and Human Rights, Director of Research FXB Center (*Public Health*)

Ann D. Braude, Lecturer, Director of the Women's Studies in Religion Program (*Divinity School*) (*spring term*)

Glenda R. Carpio, Professor of English and of African and African American Studies

Davíd L. Carrasco, Neil L. Rudenstine Professor for the Study of Latin America (*Divinity School and Faculty of Arts and Sciences*)

Jean Comaroff, Alfred North Whitehead Professor of African and African American Studies and of Anthropology (*on leave spring term*)

John Comaroff, Hugh K. Foster Professor of African and African American Studies and of Anthropology (*on leave spring term*)

Deborah D. Foster, Senior Lecturer on Folklore and Mythology

Lorgia H. García Peña, Assistant Professor of Romance Languages and Literatures and of History and Literature

Filiz Garip, Associate Professor of Sociology

Jennifer L. Hochschild, Henry LaBarre Jayne Professor of Government and Professor of African and African American Studies

Ju Yon Kim, Assistant Professor of English

Jennifer Leaning, Francois-Xavier Bagnoud Professor of the Practice of Health and Human Rights, Director of the Francois-Xavier Bagnoud Center for Health and Human Rights (*Public Health*)

Matthew Joseph Liebmann, Associate Professor of Anthropology (*on leave fall term*)

Shelly C. Lowe, Executive Director of the Harvard University Native American Program

Robert A. Lue, Professor of the Practice of Molecular and Cellular Biology

Stephen P. Marks, Francois-Xavier Bagnoud Professor of Health and Human Rights (*Public Health*)

George Paul Meiu, Assistant Professor of Anthropology and African and African American Studies (*spring term*)

Ingrid Monson, Quincy Jones Professor of African-American Music, Supported by the Time Warner Endowment

Francisco Moreno-Fernandez, Executive Director, Instituto Cervantes Observatory of the



Spanish Language and Cultures in the United States

Gerald L. Neuman, J. Sinclair Armstrong Professor of International, Foreign, and Comparative Law (*Law School*)

Dennis Keith Norman, Associate Professor of Psychology in the Department of Psychiatry (*Medical School*)

Maria Luisa Parra-Velasco, Senior Preceptor in Romance Languages and Literatures

Michael J. Puett, Walter C. Klein Professor of Chinese History

Laurence A. Ralph, Assistant Professor of African and African American Studies and Anthropology

Fernando Miguel Reimers, Ford Foundation Professor of International Education (*Faculty of Education*)

Mayra Rivera Rivera, Associate Professor of Theology and Latina/o Studies, Affiliate of the Department of Romance Languages and Literatures (*Divinity School*)

Kathryn A. Sikkink, Ryan Family Professor of Human Rights Policy (*Kennedy School, on leave 2014-15*), Carol K. Pforzheimer Professor at the Radcliffe Institute for Advanced Study

Doris Sommer, Ira Jewell Williams, Jr. Professor of Romance Languages and Literatures and of African and African American Studies

The Standing Committee on Ethnicity, Migration, Rights (EMR) focuses on the closely linked areas of ethnicity, migration, indigeneity, and human rights to provide curricular and co-curricular enrichment for Harvard College Students.

The committee is charged with encouraging courses on topics related to Asian American, Latino, and Native American studies in the United States. At the same time, many offerings listed by the committee are broadly comparative and international in their content. Questions of rights and specifically human rights - including political, legal, cultural, and economic rights - occupy an important position within studies of shifting ethnic boundaries.

Courses in EMR are taught by faculty from across the disciplines in FAS as well as at other Harvard schools and draw on materials from the humanities and social sciences. The Committee also offers a secondary concentration.

For more information, please visit <http://emr.fas.harvard.edu>.

### *Portal Courses*

[**African and African American Studies 161. Religion, Diaspora, and Migration: Seminar**]

[**Anthropology 1190. Encountering the Conquistadors**]

[**Ethical Reasoning 11. Human Rights: A Philosophical Introduction**]

**Music 97c. Music History and Repertory: Music in Cross-Cultural Perspective**

**Societies of the World 30. Moctezuma's Mexico: Then and Now (2012)!**

**Societies of the World 44. Human Trafficking, Slavery and Abolition in the Modern World**

[\***Sociology 98L. Racism and Anti-Racism in Comparative Perspective**]

[**Sociology 183. Race and Ethnic Relations**]

**United States in the World 15. Is the American Racial Order Being Transformed?**



### *General Education Courses in Ethnic Studies*

#### Aesthetic and Interpretive Understanding 13. Cultural Agents

[Aesthetic and Interpretive Understanding 26. Race, Gender, and Performance]

#### Culture and Belief 16. Performance, Tradition and Cultural Studies: An Introduction to Folklore and Mythology

#### Culture and Belief 21. Pathways through the Andes—Culture, History, and Beliefs in Andean South America

[Culture and Belief 59. Athens, Rome, and Us: Questions of Identity]

[Ethical Reasoning 11. Human Rights: A Philosophical Introduction]

#### Ethical Reasoning 30. The Just World

[Societies of the World 15. The Cuban Revolution, 1956-1971: A Self-Debate]

[Societies of the World 28. Exploration and Empire Building]

#### Societies of the World 30. Moctezuma's Mexico: Then and Now (2012)!

#### Societies of the World 34. The Caribbean: Globalization, Socio-Economic Development & Cultural Adaptation

#### Societies of the World 44. Human Trafficking, Slavery and Abolition in the Modern World

[United States in the World 12. American Encounters: Art, Contact, and Conflict, 1560-1860]

#### United States in the World 15. Is the American Racial Order Being Transformed?

#### United States in the World 24. Reinventing Boston: The Changing American City

[United States in the World 26. Sex and the Citizen: Race, Gender, and Belonging in the United States]

[United States in the World 28. Slavery/Capitalism/Imperialism: The US in the Nineteenth Century]

#### United States in the World 31. American Society and Public Policy

#### United States in the World 32. The World's Religions in Multicultural America: Case Studies in Religious Pluralism

### *Freshman Seminars*

#### \*Freshman Seminar 30u. Multiethnic American Short Stories: Tales We Tell Ourselves - (New Course)

#### \*Freshman Seminar 30v. Mexico: Revolution, Authoritarianism and Democracy: 100 Years - (New Course)

#### \*Freshman Seminar 38o. The Evolution of Latino/a Culture: Analyzing the Interplay Between Stereotypes and Self-Definition - (New Course)

#### \*Freshman Seminar 46p. Human Rights in Peace and War

### *African and African American Studies*

#### African and African American Studies 10. Introduction to African American Studies

#### African and African American Studies 20. Introduction to African Languages and Cultures

#### African and African American Studies 97. Sophomore Tutorial

#### African and African American Studies 108x. Exploring Race and Community in the Digital



## World

[African and African American Studies 111. Spectral Fictions, Savage Phantasms: Race and Gender in Anti-Racist South African and African American Drama, Fiction and Film](#)

[African and African American Studies 117x. Of Mean Streets and Jungle Fevers: Race, Gender and Ethnicity in Martin Scorsese and Spike Lee](#)

[African and African American Studies 118. The History of African Americans From the Slave Trade to the Civil War](#)

[African and African American Studies 137. Literature, Oratory, Popular Music and the Politics of Liberation](#)

[African and African American Studies 140x. Film, Fiction and Diaspora](#)

[African and African American Studies 161. Religion, Diaspora, and Migration: Seminar]

[African and African American Studies 162. Indigenous Religious Traditions and Modernity: Seminar](#)

[African and African American Studies 179. Jazz, Freedom, and Culture](#)

[African and African American Studies 183x. Queer of Color Theory]

[African and African American Studies 190x. The Anthropology of Law: Perspectives from Africa and Elsewhere]

[African and African American Studies 197. Poverty, Race, and Health]

## *Anthropology*

[Anthropology 1080. North American Archaeology: Lost Tribes and Ancient Capitals of Native America]

[Anthropology 1170. Mesoamerican Writing Systems ]

[Anthropology 1175. The Archaeology of Ethnicity]

[Anthropology 1190. Encountering the Conquistadors]

[Anthropology 1606. Being Asian American: Representations and Realities - \(New Course\)](#)

[Anthropology 1648. Latin@s Remaking America: Immigration, Culture and Language]

[Anthropology 1682. Gangsters and Troublesome Populations](#)

[Anthropology 1795. The Politics of Language and Identity in Latin America](#)

## *Comparative Literature*

[Comparative Literature 263. Journey, Exile, and Displacement in Modern Arabic Literature]

[Comparative Literature 277. Literature and Diaspora]

## *Economics*

[\\*Economics 980u. Immigration Economics](#)

## *English*

[\\*English 68. Migrations: American Immigrant Literature - \(New Course\)](#)

[\\*English 90en. Indigenous Literatures of North America -- Oral and Written Traditions:](#)



**Seminar - (New Course)**

**English 181a. Asian American Literature**

***Environmental Science and Public Policy***

**\*Environmental Science and Public Policy 90j. Environmental Crises, Climate Change, and Population Flight**

***Expository Writing***

**Expository Writing 20.066. Cross-Cultural Contact Zones**

**Expository Writing 20.067. Cross-Cultural Contact Zones**

**Expository Writing 20.068. Cross-Cultural Contact Zones**

**Expository Writing 20.069. Cross-Cultural Contact Zones**

***Government***

**Government 40. International Conflict and Cooperation**

**\*Government 94gz. International Human Rights: Law and Politics**

**\*Government 94of. Law and Politics in Multicultural Democracies**

**\*Government 94xy. Migration and Politics in the Era of Globalization - (New Course)**

***History***

**\*History 60j. Empire of Dirt: History of the United States West - (New Course)**

**\*History 60o. American Indian History in Four Acts - (New Course)**

**[\*History 75f. Before and After 2012: History of the Maya ]**

**\*History 88d. Australia's Black History - (New Course)**

**History 1206. Empire, Nation, and Immigration in France since 1870**

**[History 1511. Latin America and the United States]**

**[\*History 1911. Pacific History]**

**[\*History 1913 (formerly \*History 1512). Dirty Wars, Peace Processes, and the Politics of History in Latin America]**

**\*History 1988. Indigenous Histories and Settler Societies - (New Course)**

**\*History 1991. Asian America in the World - (New Course)**

**\*History 1996. An Introduction to Issues in American Indian Studies: Black Elk Speaks - (New Course)**

***History and Literature***

**\*History and Literature 90az. The African American Great Migration**

**\*History and Literature 90be. Tropical Fantasies: The Hispanic Caribbean and Haiti in the Global Imaginary - (New Course)**

**\*History and Literature 90bg. Colonialism, Globalization, and Culture in Asian Diaspora(s) - (New Course)**



### *Human Evolutionary Biology*

#### [Human Evolutionary Biology 1540. Human Migration](#)

### *Latin American Studies*

#### [Latin American Studies 70. Modernity, Culture and Politics in Latin America](#)

### *Music*

#### [Music 97c. Music History and Repertory: Music in Cross-Cultural Perspective](#)

### *Psychology*

#### [\\*Psychology 1502. Cultural Psychology: Exploring Social Identities in the U.S. and Beyond](#)

#### [\\*Psychology 2570r. Intergroup Relations: Research Seminar](#)

### *Romance Languages and Literatures*

#### [\\*French 59. French and the Community](#)

#### [Portuguese 30 \(formerly Portuguese 37\). Brasil hoje: Contemporary Brazilian Culture through Media](#)

#### [\\*Portuguese 59. Portuguese and the Community](#)

#### [\\*Spanish 59. Spanish and the Community](#)

#### [Spanish 90n. Border Flux and Border Subjects: Cultural Practices of the US-Mexico Border]

#### [Spanish 126. Performing Latinidad](#)

#### [Spanish 242. Being and Knowing in Latina Theory - \(New Course\)](#)

#### [Spanish 254. Imagining Caribbean Communities: Border, Nations, and Diaspora in Contemporary Hispanic Caribbean Literatures - \(New Course\)](#)

### *Social Studies*

#### [\\*Social Studies 98li. Protest and Conflict in Asia](#)

#### [\\*Social Studies 98mi. Migration in Theory and Practice](#)

#### [\\*Social Studies 98nd. Mass Violence, Memory, and Reconciliation](#)

#### [\\*Social Studies 98oa. Human Rights in Africa](#)

### *Sociology*

#### [\*Sociology 98Ga. Understanding Mexican Migration Flows to the US]

#### [\\*Sociology 98Gc. Global Workers, Professionals & Entrepreneurs: The New Economic Order Across Borders](#)

#### [\*Sociology 98L. Racism and Anti-Racism in Comparative Perspective]

#### [\\*Sociology 98Wb. Race, Poverty, and Justice](#)

#### [Sociology 129. Education and Society]



[**Sociology 175. Sociology of Immigration**]

[**Sociology 183. Race and Ethnic Relations**]

**Sociology 248. Race, Politics, and Social Inequality: Seminar**

[**Sociology 254. Social Structure and Culture in the Study of Race and Urban Poverty**]

### *South Asian Studies*

[**South Asian Studies 190. Religious Nationalism and Ethnic Conflict in Modern South Asia**]

### *Studies of Women, Gender, and Sexuality*

**\*Studies of Women, Gender, and Sexuality 1221. La Chicana: Race, Gender, and Mexican-American Identity - (New Course)**

## Ethnic Studies

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

The name of the Standing Committee on Ethnic Studies has been changed to the Standing Committee on Ethnicity, Migration, Rights. Please see the Standing Committee on Ethnicity, Migration, Rights for course listings.

## European Studies

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### *Faculty of the Committee on European Studies*

Grzegorz Ekiert, Professor of Government (*Chair*)

Philippe Aghion, Robert C. Waggoner Professor of Economics

Alberto F. Alesina, Nathaniel Ropes Professor of Political Economy

Jason Beckfield, Professor of Sociology



Jonathan H. Bolton, Professor of Slavic Languages and Literatures (*on leave fall term*)  
Peter J. Burgard, Professor of German  
Niall Ferguson, Laurence A. Tisch Professor of History  
Peter E. Gordon, Amabel B. James Professor of History, Harvard College Professor  
Peter A. Hall, Krupp Foundation Professor of European Studies (*on leave 2014-15*)  
Maya Jasanoff, Professor of History  
Alison Frank Johnson, Professor of History (*on leave spring term*)  
Michèle Lamont, Robert I. Goldman Professor of European Studies and Professor of Sociology and of African and African American Studies (*on leave 2014-15*)  
Mary D. Lewis, Professor of History  
Charles S. Maier, Leverett Saltonstall Professor of History (*on leave fall term*)  
Daniel F. Ziblatt, Professor of Government

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

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

*Standing Committee on Undergraduate Educational Policy*



Rakesh Khurana, Dean of Harvard College, Professor of Sociology (*FAS*), and Marvin Bower Professor of Leadership Development (*Business School*) (*Chair*)  
 Noël Bisson, Associate Dean of Undergraduate Education  
 Jeremy Bloxham, Dean of Science, and Mallinckrodt Professor of Geophysics  
 David L. Carrasco, Neil L. Rudenstine Professor for the Study of Latin America (*Divinity School and Faculty of Arts and Sciences*)  
 Amanda Claybaugh, Professor of English  
 David A. Haig, George Putnam Professor of Organismic and Evolutionary Biology  
 Jay M. Harris, Dean of Undergraduate Education, and Harry Austryn Wolfson Professor of Jewish Studies  
 Stephanie H. Kenen, Associate Dean of Undergraduate Education, and Administrative Director of the Program in General Education  
 Harry R. Lewis, Interim Dean of the School of Engineering and Applied Sciences, and Gordon McKay Professor of Computer Science  
 Mary D. Lewis, Professor of History  
 Peter V. Marsden, Dean of Social Science, and Edith and Benjamin Geisinger Professor of Sociology  
 Xiao-Li Meng, Dean of the Graduate School of Arts and Sciences, and Whipple V.N. Jones Professor of Statistics  
 Cherry Murray, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, and Professor of Physics (*on leave spring term*)  
 John H. Shaw, Harry C. Dudley Professor of Structural and Economic Geology and Professor of Environmental Science and Engineering  
 Michael D. Smith, Edgerley Family Dean of the Faculty of Arts and Sciences, and John H. Finley, Jr. Professor of Engineering and Applied Sciences  
 Diana Sorensen, Dean of Arts and Humanities, and James F. Rothenberg Professor of Romance Languages and Literatures and of Comparative Literature  
 Karen Thornber, Professor of Comparative Literature and of East Asian Languages and Civilizations  
 Joost J. Vlassak, Abbott and James Lawrence Professor of Materials Engineering (*on leave spring term*)

### ***For Undergraduates Only***

Expository Writing 20 fulfills the basic requirement in Expository Writing, a requirement for all undergraduates in their first year of residence. The Expository Writing Program also offers two elective courses, Expos 10 and Expos 40. No Expository Writing courses have midterm or final examinations. For additional information on Expository Writing courses, see the Writing Program website: <http://writingprogram.fas.harvard.edu>.

### ***Expository Writing 10***

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, engaging essays. Students also meet frequently in



individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

**[Expository Writing 10.001. Introduction to Expository Writing]**

Catalog Number: 77429 Enrollment: Limited to 10.

*Patricia M. Bellanca*

*Half course (fall term). M., W., at 11.*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

*Note:* Expected to be given in 2015–16.

**Expository Writing 10.002. Introduction to Expository Writing**

Catalog Number: 25907 Enrollment: Limited to 10.

*Donna L. Mumme*

*Half course (fall term). M., W., at 10. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

**Expository Writing 10.003. Introduction to Expository Writing**

Catalog Number: 92536 Enrollment: Limited to 10.

*Karen L. Heath*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

**Expository Writing 10.004. Introduction to Expository Writing**

Catalog Number: 41014 Enrollment: Limited to 10.

*Thomas R. Jehn*

*Half course (fall term). M., W., at 10. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

**Expository Writing 10.005. Introduction to Expository Writing**

Catalog Number: 56121 Enrollment: Limited to 10.

*Kelsey W. McNiff*



*Half course (fall term). Tu., Th., at 10. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

### **Expository Writing 10.006. Introduction to Expository Writing**

Catalog Number: 71228 Enrollment: Limited to 10.

*Kelsey W. McNiff*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

### **Expository Writing 10.007. Introduction to Expository Writing**

Catalog Number: 86335 Enrollment: Limited to 10.

*Jane A. Rosenzweig*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

### **Expository Writing 10.008. Introduction to Expository Writing**

Catalog Number: 34813 Enrollment: Limited to 10.

*Jonah M. Johnson*

*Half course (fall term). M., W., at 12. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

### **Expository Writing 10.009. Introduction to Expository Writing**

Catalog Number: 65027 Enrollment: Limited to 10.

*Jonah M. Johnson*

*Half course (fall term). M., W., at 1. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.



### **Expository Writing 10.010. Introduction to Expository Writing**

Catalog Number: 13505 Enrollment: Limited to 10.

*Rebecca Summerhays*

*Half course (fall term). Tu., Th., at 12. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

### **Expository Writing 10.011. Introduction to Expository Writing**

Catalog Number: 80134 Enrollment: Limited to 10.

*Rebecca Summerhays*

*Half course (fall term). Tu., Th., at 1. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

### **Expository Writing 10.012. Introduction to Expository Writing**

Catalog Number: 28612 Enrollment: Limited to 10.

*Vernon Tad Davies*

*Half course (fall term). Tu., Th., at 12. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

### **Expository Writing 10.013. Introduction to Expository Writing**

Catalog Number: 95241 Enrollment: Limited to 10.

*Vernon Tad Davies*

*Half course (fall term). Tu., Th., at 1. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

### **Expository Writing 10.014. Introduction to Expository Writing**

Catalog Number: 43719 Enrollment: Limited to 10.

*Dwight Fee*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

### **Expository Writing 10.015. Introduction to Expository Writing**

Catalog Number: 58826 Enrollment: Limited to 10.

*Dwight Fee*

*Half course (fall term). Tu., Th., at 12. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

### **Expository Writing 10.016. Introduction to Expository Writing**

Catalog Number: 84655 Enrollment: Limited to 10.

*James P. Herron*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

### **Expository Writing 10.017. Introduction to Expository Writing**

Catalog Number: 74635 Enrollment: Limited to 10.

*Donna L. Mumme*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

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, engaging essays. Students also meet frequently in individual conferences with instructors to discuss their work. Assignments are based on sources from a range of disciplines and genres.

## ***Expository Writing 20***

An intensive seminar that aims to improve each student's ability to discover and reason about evidence through the medium of essays. Each section focuses on a particular theme or topic, described on the Expos Website. All sections give students practice in formulating questions, analyzing both primary and secondary sources and properly acknowledging them, supporting arguments with strong and detailed evidence, and shaping clear, lively essays. All sections emphasize revision.

### **Expository Writing 20.012. The Rise of Pop**

Catalog Number: 77097 Enrollment: Limited to 15.



*Kevin Brian Birmingham*

*Half course (fall term). M., W., at 10. EXAM GROUP: 9*

The idea that there is a hierarchy separating high and low art extends as far back as Aristotle, but during the past fifty years American culture has depended upon destroying this hierarchy. This course examines what happens to art and society when the boundaries separating high and low art are gone. We will examine Thomas Pynchon, Andy Warhol, and *The Rocky Horror Picture Show* along with cultural theorists such as Adorno, Benjamin, Sontag, and Bakhtin.

### **Expository Writing 20.013. The Rise of Pop**

Catalog Number: 25575 Enrollment: Limited to 15.

*Kevin Brian Birmingham*

*Half course (spring term). M., W., at 10. EXAM GROUP: 9*

The idea that there is a hierarchy separating high and low art extends as far back as Aristotle, but during the past fifty years American culture has depended upon destroying this hierarchy. This course examines what happens to art and society when the boundaries separating high and low art are gone. We will examine Thomas Pynchon, Andy Warhol, and *The Rocky Horror Picture Show* along with cultural theorists such as Adorno, Benjamin, Sontag, and Bakhtin.

### **[Expository Writing 20.018. Representations of American Democracy and Government]**

Catalog Number: 70896 Enrollment: Limited to 15.

*Vernon Tad Davies*

*Half course (fall term). Tu., Th., at 12.*

Beyond the abstraction of American democracy as government of, by and for the people, what can we glean about our definitions of American governance from historical and artistic representations of it? This course will examine what US democracy looks like when brought to life in campaign commercials, in the architecture of government buildings, and in conspiracy films. We will ask how these works shape our understanding of the possibilities and constraints of democratic action.

*Note:* Expected to be given in 2015–16.

### **[Expository Writing 20.019. Representations of American Democracy and Government]**

Catalog Number: 19374 Enrollment: Limited to 15.

*Vernon Tad Davies*

*Half course (fall term). Tu., Th., at 1.*

Beyond the abstraction of American democracy as government of, by and for the people, what can we glean about our definitions of American governance from historical and artistic representations of it? This course will examine what US democracy looks like when brought to life in campaign commercials, in the architecture of government buildings, and in conspiracy films. We will ask how these works shape our understanding of the possibilities and constraints of democratic action.

*Note:* Expected to be given in 2015–16.

### **Expository Writing 20.020. Representations of American Democracy and Government**

Catalog Number: 86003 Enrollment: Limited to 15.

*Vernon Tad Davies*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*



Beyond the abstraction of American democracy as government of, by and for the people, what can we glean about our definitions of American governance from historical and artistic representations of it? This course will examine what US democracy looks like when brought to life in campaign commercials, in the architecture of government buildings, and in conspiracy films. We will ask how these works shape our understanding of the possibilities and constraints of democratic action.

### **Expository Writing 20.021. Representations of American Democracy and Government**

Catalog Number: 34481 Enrollment: Limited to 15.

*Vernon Tad Davies*

*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 9*

Beyond the abstraction of American democracy as government of, by and for the people, what can we glean about our definitions of American governance from historical and artistic representations of it? This course will examine what US democracy looks like when brought to life in campaign commercials, in the architecture of government buildings, and in conspiracy films. We will ask how these works shape our understanding of the possibilities and constraints of democratic action.

### **Expository Writing 20.039. Race in the Americas**

Catalog Number: 61199 Enrollment: Limited to 15.

*James P. Herron*

*Half course (spring term). M., W., at 11. EXAM GROUP: 9*

This course compares the significance of race in social life in North and Latin America. We will consider questions such as the following. How are we to understand "race?" How are racial ideologies in North and Latin America different? Are Latin American societies less racist than the U.S., as is sometimes claimed? Our texts will include theoretical and ethnographic works drawn mainly from the disciplines of anthropology, sociology, and history.

### **Expository Writing 20.041. Why Shakespeare?**

Catalog Number: 24784 Enrollment: Limited to 15.

*Jeffrey Robert Wilson*

*Half course (fall term). Tu., Th., at 9. EXAM GROUP: 9*

We will first examine what *Hamlet* and *Romeo and Juliet* can tell us about how individuals—in particular Shakespeare himself—actively invent and renegotiate their identities within the confines of a given culture. In the third unit we will look at Tom Stoppard's *Rosencrantz and Guildenstern Are Dead* (1966) and *Shakespeare in Love* in order to assess the extent to which we rely on the re-invention of Shakespeare's works for our own cultural identity.

### **Expository Writing 20.042. Why Shakespeare?**

Catalog Number: 91413 Enrollment: Limited to 15.

*Jeffrey Robert Wilson*

*Half course (fall term). Tu., Th., at 10. EXAM GROUP: 9*

We will first examine what *Hamlet* and *Romeo and Juliet* can tell us about how individuals—in particular Shakespeare himself—actively invent and renegotiate their identities within the confines of a given culture. In the third unit we will look at Tom Stoppard's *Rosencrantz and*



*Guildenstern Are Dead* (1966) and *Shakespeare in Love* in order to assess the extent to which we rely on the re-invention of Shakespeare's works for our own cultural identity.

### **Expository Writing 20.043. Why Shakespeare?**

Catalog Number: 39891 Enrollment: Limited to 15.

*Jeffrey Wilson*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 9*

We will first examine what *Hamlet* and *Romeo and Juliet* can tell us about how individuals—in particular Shakespeare himself—actively invent and renegotiate their identities within the confines of a given culture. In the third unit we will look at Tom Stoppard's *Rosencrantz and Guildenstern Are Dead* (1966) and *Shakespeare in Love* in order to assess the extent to which we rely on the re-invention of Shakespeare's works for our own cultural identity.

### **Expository Writing 20.044. Why Shakespeare?**

Catalog Number: 54998 Enrollment: Limited to 15.

*Jeffrey Wilson*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

We will first examine what *Hamlet* and *Romeo and Juliet* can tell us about how individuals—in particular Shakespeare himself—actively invent and renegotiate their identities within the confines of a given culture. In the third unit we will look at Tom Stoppard's *Rosencrantz and Guildenstern Are Dead* (1966) and *Shakespeare in Love* in order to assess the extent to which we rely on the re-invention of Shakespeare's works for our own cultural identity.

### **Expository Writing 20.046. Darwinian Dating**

Catalog Number: 18583 Enrollment: Limited to 15.

*Elissa Krakauer Jacobs*

*Half course (fall term). M., W., at 10. EXAM GROUP: 9*

In this course we will examine patterns of human attraction, using an evolutionary perspective to better understand mate choice. In the first unit, we will explore the roles of biology versus culture in human behavior. Next, we will address female attraction and attempt to determine whether women prefer “nice guys” or “bad boys.” In the final unit, students will have an opportunity to undertake independent research as they explore the nature of male attraction.

### **Expository Writing 20.047. Darwinian Dating**

Catalog Number: 85212 Enrollment: Limited to 15.

*Elissa Krakauer Jacobs*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

In this course we will examine patterns of human attraction, using an evolutionary perspective to better understand mate choice. In the first unit, we will explore the roles of biology versus culture in human behavior. Next, we will address female attraction and attempt to determine whether women prefer “nice guys” or “bad boys.” In the final unit, students will have an opportunity to undertake independent research as they explore the nature of male attraction.

### **Expository Writing 20.048. Darwinian Dating**

Catalog Number: 48797 Enrollment: Limited to 15.

*Elissa Krakauer Jacobs*



*Half course (spring term). M., W., at 10. EXAM GROUP: 9*

In this course we will examine patterns of human attraction, using an evolutionary perspective to better understand mate choice. In the first unit, we will explore the roles of biology versus culture in human behavior. Next, we will address female attraction and attempt to determine whether women prefer “nice guys” or “bad boys.” In the final unit, students will have an opportunity to undertake independent research as they explore the nature of male attraction.

**Expository Writing 20.049. Darwinian Dating**

Catalog Number: 63904 Enrollment: Limited to 15.

*Ariane Mary Liazos*

*Half course (spring term). M., W., at 11. EXAM GROUP: 9*

In this course we will examine patterns of human attraction, using an evolutionary perspective to better understand mate choice. In the first unit, we will explore the roles of biology versus culture in human behavior. Next, we will address female attraction and attempt to determine whether women prefer “nice guys” or “bad boys.” In the final unit, students will have an opportunity to undertake independent research as they explore the nature of male attraction.

**Expository Writing 20.059. Interpreting the Civil Rights Movement**

Catalog Number: 57703 Enrollment: Limited to 15.

*Ariane Mary Liazos*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 9*

According to civil rights scholar Charles Payne, "Our understanding of social change, our conceptions of leadership, our understanding of the possibilities of interracial cooperation are all affected by how we remember the movement." In this seminar, we investigate the work of remembering and interpreting the mid-twentieth-century civil rights movement. We consider both popular and scholarly accounts, and we focus on the use of speeches, memoirs, and newspapers to reconstruct the events of the past.

**Expository Writing 20.060. Interpreting the Civil Rights Movement**

Catalog Number: 21288 Enrollment: Limited to 15.

*Ariane Mary Liazos*

*Half course (fall term). Tu., Th., at 12. EXAM GROUP: 9*

According to civil rights scholar Charles Payne, "Our understanding of social change, our conceptions of leadership, our understanding of the possibilities of interracial cooperation are all affected by how we remember the movement." In this seminar, we investigate the work of remembering and interpreting the mid-twentieth-century civil rights movement. We consider both popular and scholarly accounts, and we focus on the use of speeches, memoirs, and newspapers to reconstruct the events of the past.

**Expository Writing 20.061. Interpreting the Civil Rights Movement**

Catalog Number: 87917 Enrollment: Limited to 15.

*Ariane Mary Liazos*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 9*

According to civil rights scholar Charles Payne, "Our understanding of social change, our conceptions of leadership, our understanding of the possibilities of interracial cooperation are all affected by how we remember the movement." In this seminar, we investigate the work of



remembering and interpreting the mid-twentieth-century civil rights movement. We consider both popular and scholarly accounts, and we focus on the use of speeches, memoirs, and newspapers to reconstruct the events of the past.

### **Expository Writing 20.062. Interpreting the Civil Rights Movement**

Catalog Number: 36395 Enrollment: Limited to 15.

*Ariane Mary Liazos*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

According to civil rights scholar Charles Payne, "Our understanding of social change, our conceptions of leadership, our understanding of the possibilities of interracial cooperation are all affected by how we remember the movement." In this seminar, we investigate the work of remembering and interpreting the mid-twentieth-century civil rights movement. We consider both popular and scholarly accounts, and we focus on the use of speeches, memoirs, and newspapers to reconstruct the events of the past.

### **Expository Writing 20.063. Gothic Fiction**

Catalog Number: 51502 Enrollment: Limited to 15.

*Patricia M. Bellanca*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

This course explores the meaning and function of Gothic literature, a genre characterized by secrecy, perversion, madness, and death. In our first unit, short stories—of various centuries and nations—will allow us to develop a working definition of Gothic. In unit two we'll interpret Jane Austen's Gothic spoof *Northanger Abbey* in the context of both popular fiction and eighteenth-century debates about reading. The third unit introduces research methods that focus on the works of Edgar Allan Poe.

### **Expository Writing 20.066. Cross-Cultural Contact Zones**

Catalog Number: 81716 Enrollment: Limited to 15.

*Srilata Mukherjee*

*Half course (fall term). M., W., at 12. EXAM GROUP: 9*

How does fiction represent cross-cultural encounters between Eurocentric and non-Eurocentric worlds? In what ways do the specific social and political circumstances under which these contacts occur influence the nature of the cross-cultural encounters? Do issues of power, class, and gender function differently in cross-cultural environments for the racial groups involved than they would within a single culture? In exploring literature about three kinds of cross-cultural encounters—transient, colonial/postcolonial, and immigrant—we'll pose such resonant questions.

### **Expository Writing 20.067. Cross-Cultural Contact Zones**

Catalog Number: 30194 Enrollment: Limited to 15.

*Srilata Mukherjee*

*Half course (fall term). M., W., at 1. EXAM GROUP: 9*

How does fiction represent cross-cultural encounters between Eurocentric and non-Eurocentric worlds? In what ways do the specific social and political circumstances under which these contacts occur influence the nature of the cross-cultural encounters? Do issues of power, class, and gender function differently in cross-cultural environments for the racial groups involved than



they would within a single culture? In exploring literature about three kinds of cross-cultural encounters-transient, colonial/postcolonial, and immigrant-we'll pose such resonant questions.

### **Expository Writing 20.068. Cross-Cultural Contact Zones**

Catalog Number: 96823 Enrollment: Limited to 15.

*Srilata Mukherjee*

*Half course (spring term). M., W., at 12. EXAM GROUP: 9*

How does fiction represent cross-cultural encounters between Eurocentric and non-Eurocentric worlds? In what ways do the specific social and political circumstances under which these contacts occur influence the nature of the cross-cultural encounters? Do issues of power, class, and gender function differently in cross-cultural environments for the racial groups involved than they would within a single culture? In exploring literature about three kinds of cross-cultural encounters-transient, colonial/postcolonial, and immigrant-we'll pose such resonant questions.

### **Expository Writing 20.069. Cross-Cultural Contact Zones**

Catalog Number: 45301 Enrollment: Limited to 15.

*Srilata Mukherjee*

*Half course (spring term). M., W., at 1. EXAM GROUP: 9*

How does fiction represent cross-cultural encounters between Eurocentric and non-Eurocentric worlds? In what ways do the specific social and political circumstances under which these contacts occur influence the nature of the cross-cultural encounters? Do issues of power, class, and gender function differently in cross-cultural environments for the racial groups involved than they would within a single culture? In exploring literature about three kinds of cross-cultural encounters-transient, colonial/postcolonial, and immigrant-we'll pose such resonant questions.

### **[Expository Writing 20.070. The Ethics of Human Experimentation]**

Catalog Number: 97946 Enrollment: Limited to 15.

*Donna L. Mumme*

*Half course (fall term). M., W., at 10.*

To learn about human biology and behavior, researchers often use people as research subjects. Although such research has produced many social benefits, it sometimes comes at a cost to study participants. In this course, you will weigh the costs and benefits of a controversial psychological study, take a psychological approach to understanding why unethical research practices occur, and consider how research can be done to maximize its impact while minimizing the risks to human participants.

*Note:* Expected to be given in 2015–16.

### **[Expository Writing 20.071. The Ethics of Human Experimentation]**

Catalog Number: 46424 Enrollment: Limited to 15.

*Donna L. Mumme*

*Half course (fall term). M., W., at 11.*

To learn about human biology and behavior, researchers often use people as research subjects. Although such research has produced many social benefits, it sometimes comes at a cost to study participants. In this course, you will weigh the costs and benefits of a controversial psychological study, take a psychological approach to understanding why unethical research practices occur, and consider how research can be done to maximize its impact while minimizing the risks to



human participants.

*Note:* Expected to be given in 2015–16.

### **Expository Writing 20.072. The Ethics of Human Experimentation**

Catalog Number: 61531 Enrollment: Limited to 15.

*Donna L. Mumme*

*Half course (spring term). M., W., at 10. EXAM GROUP: 9*

To learn about human biology and behavior, researchers often use people as research subjects. Although such research has produced many social benefits, it sometimes comes at a cost to study participants. In this course, you will weigh the costs and benefits of a controversial psychological study, take a psychological approach to understanding why unethical research practices occur, and consider how research can be done to maximize its impact while minimizing the risks to human participants.

### **Expository Writing 20.073. The Ethics of Human Experimentation**

Catalog Number: 10009 Enrollment: Limited to 15.

*Donna L. Mumme*

*Half course (spring term). M., W., at 11. EXAM GROUP: 9*

To learn about human biology and behavior, researchers often use people as research subjects. Although such research has produced many social benefits, it sometimes comes at a cost to study participants. In this course, you will weigh the costs and benefits of a controversial psychological study, take a psychological approach to understanding why unethical research practices occur, and consider how research can be done to maximize its impact while minimizing the risks to human participants.

### **Expository Writing 20.078. Jewish Identity in American Culture**

Catalog Number: 54207 Enrollment: Limited to 15.

*Jane A. Rosenzweig*

*Half course (spring term). M., W., at 11. EXAM GROUP: 9*

This course will examine representations of Jews in American culture and the evolution of Jewish-American culture since World War II, as well as how shifts in the cultural conversation about minorities in America have affected our understanding of Jewish identity. We will question how recent works of literature, art, film, and television challenge and reinforce Jewish stereotypes, and how they continue to shape our ideas about assimilation, the Holocaust, ethnicity, and religious practice in America.

### **Expository Writing 20.084. Urban America**

Catalog Number: 76638 Enrollment: Limited to 15.

*Lindsay M. Silver Cohen*

*Half course (fall term). M., W., at 12. EXAM GROUP: 9*

This course addresses questions about the past and present urban experience by analyzing American cities from various disciplinary perspectives. Unit I hones critical skills through close readings of *How the Other Half Lives*, an exposé of late nineteenth-century New York. Unit II emphasizes the importance of context through analysis of the play, *A Raisin in the Sun* with companion texts. Unit III teaches the fundamentals of research through independent projects on our local, urban environment: Cambridge, Massachusetts. Together, these units teach the



mechanics of academic writing while providing insight into the problems and promise of the American city over time.

### **Expository Writing 20.085. Urban America**

Catalog Number: 25116 Enrollment: Limited to 15.

*Lindsay M. Silver Cohen*

*Half course (fall term). M., W., at 1. EXAM GROUP: 9*

This course addresses questions about the past and present urban experience by analyzing American cities from various disciplinary perspectives. Unit I hones critical skills through close readings of *How the Other Half Lives*, an exposé of late nineteenth-century New York. Unit II emphasizes the importance of context through analysis of the play, *A Raisin in the Sun* with companion texts. Unit III teaches the fundamentals of research through independent projects on our local, urban environment: Cambridge, Massachusetts. Together, these units teach the mechanics of academic writing while providing insight into the problems and promise of the American city over time.

### **Expository Writing 20.086. Urban America**

Catalog Number: 48006 Enrollment: Limited to 15.

*Lindsay M. Silver Cohen*

*Half course (spring term). M., W., at 12. EXAM GROUP: 9*

This course addresses questions about the past and present urban experience by analyzing American cities from various disciplinary perspectives. Unit I hones critical skills through close readings of *How the Other Half Lives*, an exposé of late nineteenth-century New York. Unit II emphasizes the importance of context through analysis of the play, *A Raisin in the Sun* with companion texts. Unit III teaches the fundamentals of research through independent projects on our local, urban environment: Cambridge, Massachusetts. Together, these units teach the mechanics of academic writing while providing insight into the problems and promise of the American city over time.

### **Expository Writing 20.097. HIV/AIDS in Culture**

Catalog Number: 50711 Enrollment: Limited to 15.

*Joaquin Sebastian Terrones*

*Half course (fall term). M., W., at 10. EXAM GROUP: 9*

Perhaps more than any other event in the last quarter of the twentieth century, the AIDS crisis condensed or crystallized cultural anxieties about the body, identity, and difference. In this course, we will examine the cultural response to HIV/AIDS in North and Latin America through fiction, poetry, and visual art from the pandemic's first fifteen years. No knowledge of Spanish or Portuguese is necessary; all materials will be available in English.

### **Expository Writing 20.098. HIV/AIDS in Culture**

Catalog Number: 65818 Enrollment: Limited to 15.

*Joaquin Sebastian Terrones*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

Perhaps more than any other event in the last quarter of the twentieth century, the AIDS crisis condensed or crystallized cultural anxieties about the body, identity, and difference. In this course, we will examine the cultural response to HIV/AIDS in North and Latin America through



fiction, poetry, and visual art from the pandemic's first fifteen years. No knowledge of Spanish or Portuguese is necessary; all materials will be available in English.

### **Expository Writing 20.099. HIV/AIDS in Culture**

Catalog Number: 14296 Enrollment: Limited to 15.

*Joaquin Sebastian Terrones*

*Half course (spring term). M., W., at 10. EXAM GROUP: 9*

Perhaps more than any other event in the last quarter of the twentieth century, the AIDS crisis condensed or crystallized cultural anxieties about the body, identity, and difference. In this course, we will examine the cultural response to HIV/AIDS in North and Latin America through fiction, poetry, and visual art from the pandemic's first fifteen years. No knowledge of Spanish or Portuguese is necessary; all materials will be available in English.

### **Expository Writing 20.100. HIV/AIDS in Culture**

Catalog Number: 80925 Enrollment: Limited to 15.

*Joaquin Sebastian Terrones*

*Half course (spring term). M., W., at 11. EXAM GROUP: 9*

Perhaps more than any other event in the last quarter of the twentieth century, the AIDS crisis condensed or crystallized cultural anxieties about the body, identity, and difference. In this course, we will examine the cultural response to HIV/AIDS in North and Latin America through fiction, poetry, and visual art from the pandemic's first fifteen years. No knowledge of Spanish or Portuguese is necessary; all materials will be available in English.

### **Expository Writing 20.101. The Voice of Authority**

Catalog Number: 29403 Enrollment: Limited to 15.

*Jane E. Unrue*

*Half course (fall term). M., W., at 10. EXAM GROUP: 9*

What is authority? First, we will read the controversial *One Flew Over the Cuckoo's Nest*, closely investigating that explosive novel's complex treatment of authority. Next, we will read and meet two "at-risk" writers, comparing and analyzing effects and expressions of artistic challenges to governmental and cultural authority. Finally, our ongoing inquiry into authority will shape research topics as we investigate issues arising out of authority's relation to education, rhetorical strategy, politics, human rights, and art.

### **[Expository Writing 20.102. The Voice of Authority]**

Catalog Number: 96032 Enrollment: Limited to 15.

*Jane E. Unrue*

*Half course (fall term). M., W., at 11.*

What is authority? First, we will read the controversial *One Flew Over the Cuckoo's Nest*, closely investigating that explosive novel's complex treatment of authority. Next, we will read and meet two "at-risk" writers, comparing and analyzing effects and expressions of artistic challenges to governmental and cultural authority. Finally, our ongoing inquiry into authority will shape research topics as we investigate issues arising out of authority's relation to education, rhetorical strategy, politics, human rights, and art.

*Note:* Expected to be given in 2015–16.



### **Expository Writing 20.103. The Voice of Authority**

Catalog Number: 59617 Enrollment: Limited to 15.

*Jane E. Unrue*

*Half course (spring term). M., W., at 10. EXAM GROUP: 9*

What is authority? First, we will read the controversial *One Flew Over the Cuckoo's Nest*, closely investigating that explosive novel's complex treatment of authority. Next, we will read and meet two "at-risk" writers, comparing and analyzing effects and expressions of artistic challenges to governmental and cultural authority. Finally, our ongoing inquiry into authority will shape research topics as we investigate issues arising out of authority's relation to education, rhetorical strategy, politics, human rights, and art.

### **[Expository Writing 20.104. The Voice of Authority]**

Catalog Number: 74724 Enrollment: Limited to 15.

*Jane E. Unrue*

*Half course (spring term). M., W., at 11.*

What is authority? First, we will read the controversial *One Flew Over the Cuckoo's Nest*, closely investigating that explosive novel's complex treatment of authority. Next, we will read and meet two "at-risk" writers, comparing and analyzing effects and expressions of artistic challenges to governmental and cultural authority. Finally, our ongoing inquiry into authority will shape research topics as we investigate issues arising out of authority's relation to education, rhetorical strategy, politics, human rights, and art.

*Note:* Expected to be given in 2015–16.

### **Expository Writing 20.123. Urban America**

Catalog Number: 72556 Enrollment: Limited to 15.

*Lindsay M. Silver Cohen*

*Half course (spring term). M., W., at 1. EXAM GROUP: 9*

This course addresses questions about the past and present urban experience by analyzing American cities from various disciplinary perspectives. Unit I hones critical skills through close readings of *How the Other Half Lives*, an exposé of late nineteenth-century New York. Unit II emphasizes the importance of context through analysis of the play, *A Raisin in the Sun* with companion texts. Unit III teaches the fundamentals of research through independent projects on our local, urban environment: Cambridge, Massachusetts. Together, these units teach the mechanics of academic writing while providing insight into the problems and promise of the American city over time.

### **Expository Writing 20.131. Philosophy of the State**

Catalog Number: 31014 Enrollment: Limited to 15.

*Owen Chen*

*Half course (fall term). Tu., Th., at 10. EXAM GROUP: 9*

This course inquires into the origin and political and moral nature of the state, into its forms, functions, and connections with the education and the erotic life of its citizens. Readings to be discussed and written on are taken from Plato, Aristotle, Rousseau, Tocqueville, and Marx. Throughout the course, students adjudicate between different conceptions of the state and their ends, and examine the source of power of the state.



### **Expository Writing 20.132. Philosophy of the State**

Catalog Number: 22108 Enrollment: Limited to 15.

*Owen Chen*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 9*

This course inquires into the origin and political and moral nature of the state, into its forms, functions, and connections with the education and the erotic life of its citizens. Readings to be discussed and written on are taken from Plato, Aristotle, Rousseau, Tocqueville, and Marx. Throughout the course, students adjudicate between different conceptions of the state and their ends, and examine the source of power of the state.

### **Expository Writing 20.133. Philosophy of the State**

Catalog Number: 88737 Enrollment: Limited to 15.

*Owen Chen*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 9*

This course inquires into the origin and political and moral nature of the state, into its forms, functions, and connections with the education and the erotic life of its citizens. Readings to be discussed and written on are taken from Plato, Aristotle, Rousseau, Tocqueville, and Marx. Throughout the course, students adjudicate between different conceptions of the state and their ends, and examine the source of power of the state.

### **Expository Writing 20.134. Philosophy of the State**

Catalog Number: 46121 Enrollment: Limited to 15.

*Owen Chen*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

This course inquires into the origin and political and moral nature of the state, into its forms, functions, and connections with the education and the erotic life of its citizens. Readings to be discussed and written on are taken from Plato, Aristotle, Rousseau, Tocqueville, and Marx. Throughout the course, students adjudicate between different conceptions of the state and their ends, and examine the source of power of the state.

### **\*Expository Writing 20.135. The Body in Art: From Ideal to Real**

Catalog Number: 21317 Enrollment: Limited to 15.

*Justine Renee De Young*

*Half course (fall term). Tu., Th., at 10. EXAM GROUP: 9*

This course explores how artists have idealized, humanized, and celebrated the naked and nude human form over the centuries. Taking advantage of local museum collections, we will consider the tradition of the flawless classical god and goddess, how modern artists like Manet, Degas, Matisse and Picasso transgressed it, and, finally, how contemporary artists continue to radically transform the nude today. No experience with art history is necessary.

### **\*Expository Writing 20.136. The Body in Art: From Ideal to Real**

Catalog Number: 87946 Enrollment: Limited to 15.

*Justine Renee De Young*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 9*

This course explores how artists have idealized, humanized, and celebrated the naked and nude human form over the centuries. Taking advantage of local museum collections, we will consider



the tradition of the flawless classical god and goddess, how modern artists like Manet, Degas, Matisse and Picasso transgressed it, and, finally, how contemporary artists continue to radically transform the nude today. No experience with art history is necessary.

### **\*Expository Writing 20.137. The Body in Art: From Ideal to Real**

Catalog Number: 36424 Enrollment: Limited to 15.

*Justine Renee De Young*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 9*

This course explores how artists have idealized, humanized, and celebrated the naked and nude human form over the centuries. Taking advantage of local museum collections, we will consider the tradition of the flawless classical god and goddess, how modern artists like Manet, Degas, Matisse and Picasso transgressed it, and, finally, how contemporary artists continue to radically transform the nude today. No experience with art history is necessary.

### **\*Expository Writing 20.138. The Body in Art: From Ideal to Real**

Catalog Number: 51531 Enrollment: Limited to 15.

*Justine Renee De Young*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

This course explores how artists have idealized, humanized, and celebrated the naked and nude human form over the centuries. Taking advantage of local museum collections, we will consider the tradition of the flawless classical god and goddess, how modern artists like Manet, Degas, Matisse and Picasso transgressed it, and, finally, how contemporary artists continue to radically transform the nude today. No experience with art history is necessary.

### **[Expository Writing 20.140. The Experience of Class]**

Catalog Number: 18944 Enrollment: Limited to 15.

*James P. Herron*

*Half course (spring term). M., W., at 11.*

This course explores the subjective experience of social class in the U.S. from an ethnographic perspective. We will examine how members of the working and professional classes define themselves and view the classes above and below them. We will focus in particular on how class position influences beliefs about work, achievement, and taste. We will also consider the role of elite educational institutions such as Harvard in shaping the class system.

*Note:* Expected to be given in 2015–16.

### **[Expository Writing 20.141. Portraits of Madness]**

Catalog Number: 68425 Enrollment: Limited to 15.

*Karen L. Heath*

*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 9*

Writers and filmmakers have long been fascinated by the artistic challenge of representing madness. What can those portraits tell us about the relationship of illness and identity, the ease of losing touch with rationality, the nature of the mind, and our own relative sanity? We will study Susanna Kaysen's memoir *Girl, Interrupted*; Patrick McGrath's gothic novel *Spider* and its film adaptation; and the films *Donnie Darko*, *The Hours*, and *The Silence of the Lambs*.

*Note:* Expected to be given in 2015–16.



### **Expository Writing 20.142. Jane Austen, Then and Now**

Catalog Number: 16903 Enrollment: Limited to 15.

*Tess O'Toole*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

This course considers Austen in her own historical context and ours, and as an author whose importance lies both inside and outside the university. In our first unit, we'll undertake a close reading of *Persuasion* in order to assess Austen's analysis of British society at a transitional moment in its history; in unit 2 we'll consider how film and television adaptations have reinvented her best known novel, *Pride and Prejudice*, for a different historical moment, and in unit 3 students will engage with Austen scholarship by writing a research paper on an Austen novel or film adaption of their choice.

### **Expository Writing 20.144. Jane Austen, Then and Now**

Catalog Number: 98639 Enrollment: Limited to 15.

*Tess O'Toole*

*Half course (spring term). M., W., at 11. EXAM GROUP: 9*

This course considers Austen in her own historical context and ours, and as an author whose importance lies both inside and outside the university. In our first unit, we'll undertake a close reading of *Persuasion* in order to assess Austen's analysis of British society at a transitional moment in its history; in unit 2 we'll consider how film and television adaptations have reinvented her best known novel, *Pride and Prejudice*, for a different historical moment, and in unit 3 students will engage with Austen scholarship by writing a research paper on an Austen novel or film adaption of their choice.

### **Expository Writing 20.156. Resistance**

Catalog Number: 34715 Enrollment: Limited to 15.

*Kelsey W. McNiff*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 9*

What constitutes an act of resistance? What role do individual beliefs, collective action, public protest, art and literature have in resistance movements? What can the study of resistance teach us about the past and about the world we live in today? This course will explore these questions through case studies drawn from contemporary politics and culture, the apartheid era in South Africa, and Harvard history.

### **Expository Writing 20.157. Resistance**

Catalog Number: 49822 Enrollment: Limited to 15.

*Kelsey W. McNiff*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

What constitutes an act of resistance? What role do individual beliefs, collective action, public protest, art and literature have in resistance movements? What can the study of resistance teach us about the past and about the world we live in today? This course will explore these questions through case studies drawn from contemporary politics and culture, the apartheid era in South Africa, and Harvard history.

### **[Expository Writing 20.162. Gothic Fiction]**

Catalog Number: 26805 Enrollment: Limited to 15.



*Patricia M. Bellanca*

*Half course (spring term). Tu., Th., at 1.*

This course explores the meaning and function of Gothic literature, a genre characterized by secrecy, perversion, madness, and death. In our first unit, short stories-of various centuries and nations-will allow us to develop a working definition of Gothic. In unit two we'll interpret Jane Austen's Gothic spoof *Northanger Abbey* in the context of both popular fiction and eighteenth-century debates about reading. The third unit introduces research methods that focus on the works of Edgar Allan Poe.

*Note:* Expected to be given in 2015–16.

### **Expository Writing 20.163. Cities and Globalization**

Catalog Number: 65925 Enrollment: Limited to 15.

*Elizabeth Greenspan*

*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 9*

This course investigates how "the global city" brings to the fore the opportunities and challenges of contemporary globalization. How do economic and cultural forms link cities like New York, Paris, and Mumbai? How is urban protest a response to globalization? We will answer these questions by reading a variety of texts - including theoretical works by Saskia Sassen and Ulf Hannerz, and literary non-fiction by Suketu Mehta - and viewing artistic interpretations, including the film "La Haine."

### **Expository Writing 20.164. Tragedy and Everyday Life**

Catalog Number: 14403 Enrollment: Limited to 15.

*Jonah M. Johnson*

*Half course (spring term). M., W., at 12. EXAM GROUP: 9*

In this course we will examine tragedies both ancient and modern, focusing on problems such as self-knowledge, certainty, intra- and interpersonal conflict, and loneliness. We will explore tragedy both as a form and as a collection of themes, and we will compare the idiosyncratic ways in which terms such as "tragedy" and "tragic" have developed within academic as well as mainstream contexts. Readings and screenings will include works by Sophocles, Shakespeare, Bergman, and Hitchcock.

### **Expository Writing 20.165. Tragedy and Everyday Life**

Catalog Number: 81032 Enrollment: Limited to 15.

*Jonah M. Johnson*

*Half course (spring term). M., W., at 1. EXAM GROUP: 9*

In this course we will examine tragedies both ancient and modern, focusing on problems such as self-knowledge, certainty, intra- and interpersonal conflict, and loneliness. We will explore tragedy both as a form and as a collection of themes, and we will compare the idiosyncratic ways in which terms such as "tragedy" and "tragic" have developed within academic as well as mainstream contexts. Readings and screenings will include works by Sophocles, Shakespeare, Bergman, and Hitchcock.

### **Expository Writing 20.167. Social Worlds of Friendship**

Catalog Number: 38416 Enrollment: Limited to 15.

*Dwight Fee*



*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 9*

Most of us appreciate the importance of friendship, but do we really understand how friendships are formed and how they shape our lives? Do friendships hold a larger potential for social transformation? This course explores the meaning and significance of friendship, particularly in terms of personal identity, community building, and social change. We will explore classical ideas about friendship and delve into contemporary issues such as friendship and difference, changes in personal communities, and the challenge that friendship poses to traditional relational forms.

### **Expository Writing 20.168. Social Worlds of Friendship**

Catalog Number: 53523 Enrollment: Limited to 15.

*Dwight Fee*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

Most of us appreciate the importance of friendship, but do we really understand how friendships are formed and how they shape our lives? Do friendships hold a larger potential for social transformation? This course explores the meaning and significance of friendship, particularly in terms of personal identity, community building, and social change. We will explore classical ideas about friendship and delve into contemporary issues such as friendship and difference, changes in personal communities, and the challenge that friendship poses to traditional relational forms.

### **Expository Writing 20.174. Reading the Body**

Catalog Number: 43826 Enrollment: Limited to 15.

*Rebecca Summerhays*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

What does it mean-and what has it meant-to have a body? How does the way we think about our bodies depend upon the technologies we use to manage and measure them and the artistic forms we use to represent them? We will explore Harvard's collection of medical curiosities and instruments, analyze how Lamarck, Paley, Darwin, and Byatt theorize the human body, and explore contemporary representations of the body in many contexts, from films to athletics.

### **Expository Writing 20.175. Reading the Body**

Catalog Number: 58933 Enrollment: Limited to 15.

*Rebecca Summerhays*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

What does it mean-and what has it meant-to have a body? How does the way we think about our bodies depend upon the technologies we use to manage and measure them and the artistic forms we use to represent them? We will explore Harvard's collection of medical curiosities and instruments, analyze how Lamarck, Paley, Darwin, and Byatt theorize the human body, and explore contemporary representations of the body in many contexts, from films to athletics.

### **[Expository Writing 20.176. Social Worlds of Friendship]**

Catalog Number: 42619 Enrollment: Limited to 15.

*Dwight Fee*

*Half course (fall term). Tu., Th., at 11.*

Most of us appreciate the importance of friendship, but do we really understand how friendships



are formed and how they shape our lives? Do friendships hold a larger potential for social transformation? This course explores the meaning and significance of friendship, particularly in terms of personal identity, community building, and social change. We will explore classical ideas about friendship and delve into contemporary issues such as friendship and difference, changes in personal communities, and the challenge that friendship poses to traditional relational forms.

*Note:* Expected to be given in 2015–16.

### **[Expository Writing 20.177. Social Worlds of Friendship]**

Catalog Number: 73332 Enrollment: Limited to 15.

*Dwight Fee*

*Half course (fall term). Tu., Th., at 12.*

Most of us appreciate the importance of friendship, but do we really understand how friendships are formed and how they shape our lives? Do friendships hold a larger potential for social transformation? This course explores the meaning and significance of friendship, particularly in terms of personal identity, community building, and social change. We will explore classical ideas about friendship and delve into contemporary issues such as friendship and difference, changes in personal communities, and the challenge that friendship poses to traditional relational forms.

*Note:* Expected to be given in 2015–16.

### **Expository Writing 20.190. The Rise of China**

Catalog Number: 51015 Enrollment: Limited to 15.

*Sara A. Newland*

*Half course (fall term). M., W., at 1. EXAM GROUP: 9*

If the 20th century was the "American Century," will the 21st be the "Chinese Century"? As the locus of global economic growth shifts to Asia, what cultural and political changes will accompany this transformation? Does China's rise represent a threat, a competing set of values, an opportunity, or some combination of the three? In this course, we will examine the causes and consequences of China's ascendancy as a global power. Relying on sources ranging from oral histories to Wikileaks cables, we will analyze how China is changing and how people across the globe understand China's relevance to their own lives.

### **Expository Writing 20.191. The Rise of China**

Catalog Number: 92256 Enrollment: Limited to 15.

*Sara A. Newland*

*Half course (fall term). M., W., at 2. EXAM GROUP: 9*

If the 20th century was the "American Century," will the 21st be the "Chinese Century"? As the locus of global economic growth shifts to Asia, what cultural and political changes will accompany this transformation? Does China's rise represent a threat, a competing set of values, an opportunity, or some combination of the three? In this course, we will examine the causes and consequences of China's ascendancy as a global power. Relying on sources ranging from oral histories to Wikileaks cables, we will analyze how China is changing and how people across the globe understand China's relevance to their own lives.



### **Expository Writing 20.192. The Rise of China**

Catalog Number: 93478 Enrollment: Limited to 15.

*Sara A. Newland*

*Half course (spring term). M., W., at 1. EXAM GROUP: 9*

If the 20th century was the "American Century," will the 21st be the "Chinese Century"? As the locus of global economic growth shifts to Asia, what cultural and political changes will accompany this transformation? Does China's rise represent a threat, a competing set of values, an opportunity, or some combination of the three? In this course, we will examine the causes and consequences of China's ascendance as a global power. Relying on sources ranging from oral histories to WikiLeaks cables, we will analyze how China is changing and how people across the globe understand China's relevance to their own lives.

### **Expository Writing 20.193. The Rise of China**

Catalog Number: 77031 Enrollment: Limited to 15.

*Sara A. Newland*

*Half course (spring term). M., W., at 2. EXAM GROUP: 9*

If the 20th century was the "American Century," will the 21st be the "Chinese Century"? As the locus of global economic growth shifts to Asia, what cultural and political changes will accompany this transformation? Does China's rise represent a threat, a competing set of values, an opportunity, or some combination of the three? In this course, we will examine the causes and consequences of China's ascendance as a global power. Relying on sources ranging from oral histories to WikiLeaks cables, we will analyze how China is changing and how people across the globe understand China's relevance to their own lives.

### **Expository Writing 20.194. Dangerous Speech**

Catalog Number: 24282 Enrollment: Limited to 15.

*Jessica W. Ziparo*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

"Congress shall make no law . . . abridging the freedom of speech." The First Amendment has, with this short statement, made America exceptional in its protection of free expression. Yet our commitment to the freedom of speech has real limits. In this course, we'll examine the extent to which the First Amendment protects "dangerous speech"-a category that includes incitements to violence, hate speech, and the communication of "subversive" ideas. Through analysis of Supreme Court decisions, First Amendment theorists and contextual materials, we'll probe the boundaries of, in Justice Holmes's words, "the freedom for the thought that we hate."

### **Expository Writing 20.195. Dangerous Speech**

Catalog Number: 20143 Enrollment: Limited to 15.

*Jessica W. Ziparo*

*Half course (fall term). M., W., at 12. EXAM GROUP: 9*

"Congress shall make no law . . . abridging the freedom of speech." The First Amendment has, with this short statement, made America exceptional in its protection of free expression. Yet our commitment to the freedom of speech has real limits. In this course, we'll examine the extent to which the First Amendment protects "dangerous speech"-a category that includes incitements to violence, hate speech, and the communication of "subversive" ideas. Through analysis of



Supreme Court decisions, First Amendment theorists and contextual materials, we'll probe the boundaries of, in Justice Holmes's words, "the freedom for the thought that we hate."

### **Expository Writing 20.196. Dangerous Speech**

Catalog Number: 39724 Enrollment: Limited to 15.

*Jessica W. Ziparo*

*Half course (spring term). M., W., at 11. EXAM GROUP: 9*

"Congress shall make no law . . . abridging the freedom of speech." The First Amendment has, with this short statement, made America exceptional in its protection of free expression. Yet our commitment to the freedom of speech has real limits. In this course, we'll examine the extent to which the First Amendment protects "dangerous speech"-a category that includes incitements to violence, hate speech, and the communication of "subversive" ideas. Through analysis of Supreme Court decisions, First Amendment theorists and contextual materials, we'll probe the boundaries of, in Justice Holmes's words, "the freedom for the thought that we hate."

### **Expository Writing 20.197. Dangerous Speech**

Catalog Number: 70696 Enrollment: Limited to 15.

*Jessica W. Ziparo*

*Half course (spring term). M., W., at 12. EXAM GROUP: 9*

"Congress shall make no law . . . abridging the freedom of speech." The First Amendment has, with this short statement, made America exceptional in its protection of free expression. Yet our commitment to the freedom of speech has real limits. In this course, we'll examine the extent to which the First Amendment protects "dangerous speech"-a category that includes incitements to violence, hate speech, and the communication of "subversive" ideas. Through analysis of Supreme Court decisions, First Amendment theorists and contextual materials, we'll probe the boundaries of, in Justice Holmes's words, "the freedom for the thought that we hate."

### **[Expository Writing 20.210. Tragedy and Everyday Life]**

Catalog Number: 26509 Enrollment: Limited to 15.

*Jonah M. Johnson*

*Half course (fall term). M., W., at 12.*

In this course we will examine tragedies both ancient and modern, focusing on problems such as self-knowledge, certainty, intra- and interpersonal conflict, and loneliness. We will explore tragedy both as a form and as a collection of themes, and we will compare the idiosyncratic ways in which terms such as "tragedy" and "tragic" have developed within academic as well as mainstream contexts. Readings and screenings will include works by Sophocles, Shakespeare, Bergman, and Hitchcock.

*Note:* Expected to be given in 2015–16.

### **[Expository Writing 20.211. Tragedy and Everyday Life]**

Catalog Number: 65696 Enrollment: Limited to 15.

*Jonah M. Johnson*

*Half course (fall term). M., W., at 11.*

In this course we will examine tragedies both ancient and modern, focusing on problems such as self-knowledge, certainty, intra- and interpersonal conflict, and loneliness. We will explore tragedy both as a form and as a collection of themes, and we will compare the idiosyncratic ways



in which terms such as "tragedy" and "tragic" have developed within academic as well as mainstream contexts. Readings and screenings will include works by Sophocles, Shakespeare, Bergman, and Hitchcock.

*Note:* Expected to be given in 2015–16.

### **Expository Writing 20.221. Slave Narratives**

Catalog Number: 61846 Enrollment: Limited to 15.

*Peter Becker*

*Half course (spring term). M., W., at 9. EXAM GROUP: 9*

Written in the United States from the late eighteenth to the late nineteenth century, slave narratives represented the story from slavery to freedom, the escape from the South to the North, and the intellectual journey towards literacy and public speaking. This course examines some famous representatives of the genre and the complex questions it provoked as well as post-Civil Rights modifications of such narratives. We will focus on the *Narrative of the Life of Frederick Douglass* (1845), William and Ellen Craft's *Running a Thousand Miles for Freedom* (1860), Toni Morrison's *Beloved* (1987), and Quentin Tarantino's *Django Unchained* (2012).

### **Expository Writing 20.224. Sports and the Law**

Catalog Number: 54029 Enrollment: Limited to 15.

*Brian T. Fobi*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

The world of sports is one of the most dynamic and complete microcosms of American life. Since the advent of big-money professional and "amateur" athletics at the dawn of the 20th century, sports has had to confront a range of important issues revolving around fairness: race, gender, labor versus ownership, drugs, money, violence, and economic freedom. We will address these issues through court cases, articles, and documentary films. Using these sources, students will craft essays that present powerful arguments about the role and place of sports within American life.

### **Expository Writing 20.225. Sports and the Law**

Catalog Number: 16753 Enrollment: Limited to 15.

*Brian T. Fobi*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

The world of sports is one of the most dynamic and complete microcosms of American life. Since the advent of big-money professional and "amateur" athletics at the dawn of the 20th century, sports has had to confront a range of important issues revolving around fairness: race, gender, labor versus ownership, drugs, money, violence, and economic freedom. We will address these issues through court cases, articles, and documentary films. Using these sources, students will craft essays that present powerful arguments about the role and place of sports within American life.

### **Expository Writing 20.226. Who Owns the Past?**

Catalog Number: 54641 Enrollment: Limited to 15.

*Janling L. Fu*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

What does it mean for archaeologists to discover and curate the past? We will consider the rights



and problems around the passage of legislation arguing for the return of objects to Native American tribes in the United States. We will grapple with the very mission of archaeology as we study tombstones in Harvard's own backyard, investigating the challenges faced by archaeologists as they collect and interpret often apparently scant, fragile, and historically distant data. We will probe how political regimes use archaeology to legitimate versions of the past, examining cases in Israel and Palestine, Nazi Germany, and Saddam Hussein's regime.

### **Expository Writing 20.229. Slave Narratives**

Catalog Number: 44768 Enrollment: Limited to 15.

*Peter Becker*

*Half course (fall term). M., W., at 9. EXAM GROUP: 9*

Written in the United States from the late eighteenth to the late nineteenth century, slave narratives represented the story from slavery to freedom, the escape from the South to the North, and the intellectual journey towards literacy and public speaking. This course examines some famous representatives of the genre and the complex questions it provoked as well as post-Civil Rights modifications of such narratives. We will focus on the *Narrative of the Life of Frederick Douglass* (1845), William and Ellen Craft's *Running a Thousand Miles for Freedom* (1860), Toni Morrison's *Beloved* (1987), and Quentin Tarantino's *Django Unchained* (2012).

### **Expository Writing 20.230. Slave Narratives**

Catalog Number: 22728 Enrollment: Limited to 15.

*Peter Becker*

*Half course (fall term). M., W., at 10. EXAM GROUP: 9*

Written in the United States from the late eighteenth to the late nineteenth century, slave narratives represented the story from slavery to freedom, the escape from the South to the North, and the intellectual journey towards literacy and public speaking. This course examines some famous representatives of the genre and the complex questions it provoked as well as post-Civil Rights modifications of such narratives. We will focus on the *Narrative of the Life of Frederick Douglass* (1845), William and Ellen Craft's *Running a Thousand Miles for Freedom* (1860), Toni Morrison's *Beloved* (1987), and Quentin Tarantino's *Django Unchained* (2012).

### **Expository Writing 20.231. Sports and the Law**

Catalog Number: 78227 Enrollment: Limited to 15.

*Brian T. Fobi*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 9*

The world of sports is one of the most dynamic and complete microcosms of American life. Since the advent of big-money professional and "amateur" athletics at the dawn of the 20th century, sports has had to confront a range of important issues revolving around fairness: race, gender, labor versus ownership, drugs, money, violence, and economic freedom. We will address these issues through court cases, articles, and documentary films. Using these sources, students will craft essays that present powerful arguments about the role and place of sports within American life.

### **Expository Writing 20.232. Sports and the Law**

Catalog Number: 98883 Enrollment: Limited to 15.

*Brian T. Fobi*



*Half course (fall term). Tu., Th., at 12. EXAM GROUP: 9*

The world of sports is one of the most dynamic and complete microcosms of American life. Since the advent of big-money professional and "amateur" athletics at the dawn of the 20th century, sports has had to confront a range of important issues revolving around fairness: race, gender, labor versus ownership, drugs, money, violence, and economic freedom. We will address these issues through court cases, articles, and documentary films. Using these sources, students will craft essays that present powerful arguments about the role and place of sports within American life.

### **Expository Writing 20.233. Who Owns the Past?**

Catalog Number: 64885 Enrollment: Limited to 15.

*Janling L. Fu*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 9*

What does it mean for archaeologists to discover and curate the past? We will consider the rights and problems around the passage of legislation arguing for the return of objects to Native American tribes in the United States. We will grapple with the very mission of archaeology as we study tombstones in Harvard's own backyard, investigating the challenges faced by archaeologists as they collect and interpret often apparently scant, fragile, and historically distant data. We will probe how political regimes use archaeology to legitimate versions of the past, examining cases in Israel and Palestine, Nazi Germany, and Saddam Hussein's regime.

### **Expository Writing 20.234. Who Owns the Past?**

Catalog Number: 62896 Enrollment: Limited to 15.

*Janling L. Fu*

*Half course (fall term). Tu., Th., at 12. EXAM GROUP: 9*

What does it mean for archaeologists to discover and curate the past? We will consider the rights and problems around the passage of legislation arguing for the return of objects to Native American tribes in the United States. We will grapple with the very mission of archaeology as we study tombstones in Harvard's own backyard, investigating the challenges faced by archaeologists as they collect and interpret often apparently scant, fragile, and historically distant data. We will probe how political regimes use archaeology to legitimate versions of the past, examining cases in Israel and Palestine, Nazi Germany, and Saddam Hussein's regime.

### **Expository Writing 20.235. Slave Narratives**

Catalog Number: 67053 Enrollment: Limited to 15.

*Peter Becker*

*Half course (spring term). M., W., at 10. EXAM GROUP: 9*

Written in the United States from the late eighteenth to the late nineteenth century, slave narratives represented the story from slavery to freedom, the escape from the South to the North, and the intellectual journey towards literacy and public speaking. This course examines some famous representatives of the genre and the complex questions it provoked as well as post-Civil Rights modifications of such narratives. We will focus on the Narrative of the *Life of Frederick Douglass* (1845), William and Ellen Craft's *Running a Thousand Miles for Freedom* (1860), Toni Morrison's *Beloved* (1987), and Quentin Tarantino's *Django Unchained* (2012).



### **Expository Writing 20.236. Who Owns the Past?**

Catalog Number: 24829 Enrollment: Limited to 15.

*Janling L. Fu*

*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 9*

What does it mean for archaeologists to discover and curate the past? We will consider the rights and problems around the passage of legislation arguing for the return of objects to Native American tribes in the United States. We will grapple with the very mission of archaeology as we study tombstones in Harvard's own backyard, investigating the challenges faced by archaeologists as they collect and interpret often apparently scant, fragile, and historically distant data. We will probe how political regimes use archaeology to legitimate versions of the past, examining cases in Israel and Palestine, Nazi Germany, and Saddam Hussein's regime.

### **Expository Writing 20.237. Woolf and Hemingway**

Catalog Number: 41035 Enrollment: Limited to 15.

*Christina Kim Becker*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 9*

Ernest Hemingway and Virginia Woolf-few authors have been as celebrated and as influential as these two great literary stylists. Yet it is hard to imagine two authors who differ more in their literary outlook and style. In this course, we will read Woolf and Hemingway side by side. We will investigate how their gendered views on life and art create iconic texts of the twentieth century. Primary sources will include short stories by Hemingway, critical essays and short fiction by Woolf, Hemingway's novel *A Farewell to Arms*, and Woolf's novel *Mrs. Dalloway*.

### **Expository Writing 20.238. Woolf and Hemingway**

Catalog Number: 38892 Enrollment: Limited to 15.

*Christina Kim Becker*

*Half course (fall term). Tu., Th., at 12. EXAM GROUP: 9*

Ernest Hemingway and Virginia Woolf-few authors have been as celebrated and as influential as these two great literary stylists. Yet it is hard to imagine two authors who differ more in their literary outlook and style. In this course, we will read Woolf and Hemingway side by side. We will investigate how their gendered views on life and art create iconic texts of the twentieth century. Primary sources will include short stories by Hemingway, critical essays and short fiction by Woolf, Hemingway's novel *A Farewell to Arms*, and Woolf's novel *Mrs. Dalloway*.

### **Expository Writing 20.239. Woolf and Hemingway**

Catalog Number: 91768 Enrollment: Limited to 15.

*Christina Kim Becker*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

Ernest Hemingway and Virginia Woolf-few authors have been as celebrated and as influential as these two great literary stylists. Yet it is hard to imagine two authors who differ more in their literary outlook and style. In this course, we will read Woolf and Hemingway side by side. We will investigate how their gendered views on life and art create iconic texts of the twentieth century. Primary sources will include short stories by Hemingway, critical essays and short fiction by Woolf, Hemingway's novel *A Farewell to Arms*, and Woolf's novel *Mrs. Dalloway*.



### **Expository Writing 20.240. Woolf and Hemingway**

Catalog Number: 92364 Enrollment: Limited to 15.

*Christina Kim Becker*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

Ernest Hemingway and Virginia Woolf—few authors have been as celebrated and as influential as these two great literary stylists. Yet it is hard to imagine two authors who differ more in their literary outlook and style. In this course, we will read Woolf and Hemingway side by side. We will investigate how their gendered views on life and art create iconic texts of the twentieth century. Primary sources will include short stories by Hemingway, critical essays and short fiction by Woolf, Hemingway's novel *A Farewell to Arms*, and Woolf's novel *Mrs. Dalloway*.

### **Expository Writing 20.241. Paradox in Public Health**

Catalog Number: 20808 Enrollment: Limited to 15.

*Jerusha T. Achterberg*

*Half course (fall term). M., W., at 10. EXAM GROUP: 9*

What are the goals of public health interventions? What should they be? If public health as practiced today is often concerned with empowering individuals to make their own health choices, then what happens when the health interests of the population conflict with the interests and rights of the individual? In this class, we will use scientific articles and other academic sources to consider potential paradoxes of public health, both historical and contemporary.

### **Expository Writing 20.242. Paradox in Public Health**

Catalog Number: 83462 Enrollment: Limited to 15.

*Jerusha T. Achterberg*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

What are the goals of public health interventions? What should they be? If public health as practiced today is often concerned with empowering individuals to make their own health choices, then what happens when the health interests of the population conflict with the interests and rights of the individual? In this class, we will use scientific articles and other academic sources to consider potential paradoxes of public health, both historical and contemporary.

### **Expository Writing 20.243. Paradox in Public Health**

Catalog Number: 37993 Enrollment: Limited to 15.

*Jerusha T. Achterberg*

*Half course (spring term). M., W., at 10. EXAM GROUP: 9*

What are the goals of public health interventions? What should they be? If public health as practiced today is often concerned with empowering individuals to make their own health choices, then what happens when the health interests of the population conflict with the interests and rights of the individual? In this class, we will use scientific articles and other academic sources to consider potential paradoxes of public health, both historical and contemporary.

### **Expository Writing 20.244. Paradox in Public Health**

Catalog Number: 89896 Enrollment: Limited to 15.

*Jerusha T. Achterberg*

*Half course (spring term). M., W., at 11. EXAM GROUP: 9*

What are the goals of public health interventions? What should they be? If public health as



practiced today is often concerned with empowering individuals to make their own health choices, then what happens when the health interests of the population conflict with the interests and rights of the individual? In this class, we will use scientific articles and other academic sources to consider potential paradoxes of public health, both historical and contemporary.

### **Expository Writing 20.245. Democracy in the Digital Age**

Catalog Number: 31391 Enrollment: Limited to 15.

*Yascha Benjamin Mounk*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

Information technology has transformed politics with breathtaking speed. But have these changes been as important, and as positive, as is widely claimed? In this course, we assess technology's alleged role in destabilizing autocratic regimes, look at technology's impact on American politics, and assess whether we should reform our political institutions to make greater use of new technologies. We consult studies by social scientists, read the Twitter feed of the Syrian opposition, watch a documentary about the protestors in Tahrir Square, analyze the rise of the Tea Party and Occupy Wall Street, study a short story by Isaac Asimov, and debate "The Dictator's Practical Internet Guide to Power Retention."

### **Expository Writing 20.246. Democracy in the Digital Age**

Catalog Number: 92306 Enrollment: Limited to 15.

*Yascha Benjamin Mounk*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

Information technology has transformed politics with breathtaking speed. But have these changes been as important, and as positive, as is widely claimed? In this course, we assess technology's alleged role in destabilizing autocratic regimes, look at technology's impact on American politics, and assess whether we should reform our political institutions to make greater use of new technologies. We consult studies by social scientists, read the Twitter feed of the Syrian opposition, watch a documentary about the protestors in Tahrir Square, analyze the rise of the Tea Party and Occupy Wall Street, study a short story by Isaac Asimov, and debate "The Dictator's Practical Internet Guide to Power Retention."

### **Expository Writing 20.247. American Criminals**

Catalog Number: 34777 Enrollment: Limited to 15.

*Lindsay Joanna Mitchell*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

The United States is a country fascinated with crime stories. But why do crime novels attract us? What do they reveal about where we come from, what we believe in, and who we are? This course will explore these and other related questions by studying fictional and nonfictional accounts of crimes committed in the United States by its citizens. In our third unit, students will research a crime that occurred in their hometown, and think about how that crime might have been shaped by the town's specific culture. Here students will draw on theoretical discussions about culture and criminality and uncover materials from the public record.

### **\*Expository Writing 20.249. American Criminals**

Catalog Number: 36066 Enrollment: Limited to 15.

*Lindsay Joanna Mitchell*



*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 9*

The United States is a country fascinated with crime stories. But why do crime novels attract us? What do they reveal about where we come from, what we believe in, and who we are? This course will explore these and other related questions by studying fictional and nonfictional accounts of crimes committed in the United States by its citizens. In our third unit, students will research a crime that occurred in their hometown, and think about how that crime might have been shaped by the town's specific culture. Here students will draw on theoretical discussions about culture and criminality and uncover materials from the public record.

**\*Expository Writing 20.250. Wizards and Wild Things**

Catalog Number: 28327 Enrollment: Limited to 15.

*David C. Barber*

*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 9*

This course will consider the origin and evolution of children's literature by examining pivotal works from the Puritan era to the present. We'll also draw on critical perspectives as we consider evolving ideas of childhood, persistent disputes about what children should read, and the essential function of imaginative literature for children. In the final unit, students will conduct research to place a major children's author of their choice in a relevant cultural and historical context.

**Expository Writing 20.251. The Rise of Pop - (New Course)**

Catalog Number: 31549 Enrollment: Limited to 15.

*Kevin Brian Birmingham*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

The idea that there is a hierarchy separating high and low art extends as far back as Aristotle, but during the past fifty years American culture has depended upon destroying this hierarchy. This course examines what happens to art and society when the boundaries separating high and low art are gone. We will examine Thomas Pynchon, Andy Warhol, and *The Rocky Horror Picture Show* along with cultural theorists such as Adorno, Benjamin, Sontag, and Bakhtin.

**Expository Writing 20.252. The Rise of Pop - (New Course)**

Catalog Number: 50022 Enrollment: Limited to 15.

*Kevin Brian Birmingham*

*Half course (spring term). M., W., at 11. EXAM GROUP: 9*

The idea that there is a hierarchy separating high and low art extends as far back as Aristotle, but during the past fifty years American culture has depended upon destroying this hierarchy. This course examines what happens to art and society when the boundaries separating high and low art are gone. We will examine Thomas Pynchon, Andy Warhol, and *The Rocky Horror Picture Show* along with cultural theorists such as Adorno, Benjamin, Sontag, and Bakhtin.

**Expository Writing 20.253. Wizards and Wild Things - (New Course)**

Catalog Number: 55275 Enrollment: Limited to 15.

*David C. Barber*

*Half course (fall term). Tu., Th., at 1. EXAM GROUP: 9*

This course will consider the origin and evolution of children's literature by examining pivotal works from the Puritan era to the present. We'll also draw on critical perspectives as we consider



evolving ideas of childhood, persistent disputes about what children should read, and the essential function of imaginative literature for children. In the final unit, students will conduct research to place a major children's author of their choice in a relevant cultural and historical context.

### **Expository Writing 20.254. The Science of Emotion - (New Course)**

Catalog Number: 94868 Enrollment: Limited to 15.

*Adrienne Leigh Tierney*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 9*

Reason has been routinely championed as the epitome of human achievement and framed as profoundly at odds with emotion. For much of the 20th century, scientists had even characterized emotion as unimportant. However, after the past 30 years of research, we now understand emotion to be a crucial factor in human behavior, including reasoning. This class will focus on the science of emotion. We'll read theoretical and empirical pieces from psychology and neuroscience to explore what defines emotion, how it operates, and how it allows for the individuality and universality of human experience.

### **Expository Writing 20.255. The Science of Emotion - (New Course)**

Catalog Number: 30266 Enrollment: Limited to 15.

*Adrienne Leigh Tierney*

*Half course (fall term). Tu., Th., at 12. EXAM GROUP: 9*

Reason has been routinely championed as the epitome of human achievement and framed as profoundly at odds with emotion. For much of the 20th century, scientists had even characterized emotion as unimportant. However, after the past 30 years of research, we now understand emotion to be a crucial factor in human behavior, including reasoning. This class will focus on the science of emotion. We'll read theoretical and empirical pieces from psychology and neuroscience to explore what defines emotion, how it operates, and how it allows for the individuality and universality of human experience.

### **Expository Writing 20.256. The Science of Emotion - (New Course)**

Catalog Number: 97512 Enrollment: Limited to 15.

*Adrienne Leigh Tierney*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

Reason has been routinely championed as the epitome of human achievement and framed as profoundly at odds with emotion. For much of the 20th century, scientists had even characterized emotion as unimportant. However, after the past 30 years of research, we now understand emotion to be a crucial factor in human behavior, including reasoning. This class will focus on the science of emotion. We'll read theoretical and empirical pieces from psychology and neuroscience to explore what defines emotion, how it operates, and how it allows for the individuality and universality of human experience.

### **Expository Writing 20.257. The Science of Emotion - (New Course)**

Catalog Number: 94832 Enrollment: Limited to 15.

*Adrienne Leigh Tierney*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

Reason has been routinely championed as the epitome of human achievement and framed as



profoundly at odds with emotion. For much of the 20th century, scientists had even characterized emotion as unimportant. However, after the past 30 years of research, we now understand emotion to be a crucial factor in human behavior, including reasoning. This class will focus on the science of emotion. We'll read theoretical and empirical pieces from psychology and neuroscience to explore what defines emotion, how it operates, and how it allows for the individuality and universality of human experience.

### **Expository Writing 20.258. War Stories - (New Course)**

Catalog Number: 74574 Enrollment: Limited to 15.

*Margaret O'connor Doherty*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

This course looks at artistic representations of modern warfare and asks what effects war has on those who survive it. How should we represent the horrors of war, and how should we remember them? By reading books by O'Brien and Hemingway, and watching films by Coppola and Bigelow, we'll debate whether the experience of war can ever be adequately communicated to those who weren't there, and whether these attempts can prevent future generations from repeating the mistakes of the past.

### **[Expository Writing 20.259. War Stories] - (New Course)**

Catalog Number: 16344 Enrollment: Limited to 15.

*Margaret O'connor Doherty*

*Half course (fall term). Hours to be arranged.*

This course looks at artistic representations of modern warfare and asks what effects war has on those who survive it. How should we represent the horrors of war, and how should we remember them? By reading books by O'Brien and Hemingway, and watching films by Coppola and Bigelow, we'll debate whether the experience of war can ever be adequately communicated to those who weren't there, and whether these attempts can prevent future generations from repeating the mistakes of the past.

*Note:* Expected to be given in 2015–16.

### **Expository Writing 20.260. War Stories - (New Course)**

Catalog Number: 97723 Enrollment: Limited to 15.

*Margaret O'connor Doherty*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

This course looks at artistic representations of modern warfare and asks what effects war has on those who survive it. How should we represent the horrors of war, and how should we remember them? By reading books by O'Brien and Hemingway, and watching films by Coppola and Bigelow, we'll debate whether the experience of war can ever be adequately communicated to those who weren't there, and whether these attempts can prevent future generations from repeating the mistakes of the past.

### **[Expository Writing 20.261. War Stories] - (New Course)**

Catalog Number: 48076 Enrollment: Limited to 15.

*Margaret O'connor Doherty*

*Half course (spring term). Hours to be arranged.*

This course looks at artistic representations of modern warfare and asks what effects war has on



those who survive it. How should we represent the horrors of war, and how should we remember them? By reading books by O'Brien and Hemingway, and watching films by Coppola and Bigelow, we'll debate whether the experience of war can ever be adequately communicated to those who weren't there, and whether these attempts can prevent future generations from repeating the mistakes of the past.

*Note:* Expected to be given in 2015–16.

### **Expository Writing 20.262. Writing the Environment - (New Course)**

Catalog Number: 84233 Enrollment: Limited to 15.

*Martin Thomas Greenup*

*Half course (fall term). M., W., at 1. EXAM GROUP: 9*

How are we to make sense of the high-stakes debates about the environment today? In attempting to answer this question, this course focusses on the rhetoric and not the science of environmentalism. We will look at what happens when the impressions of a naturalist or the findings of a scientist are put into language and communicated to a wider public. As we examine a range of works including Thoreau's *Walden*, Carson's *Silent Spring*, and documentary movies, we will ask how each work presents nature to the reader through the medium of language, how each attempts to persuade the reader, and each draws upon sources as varied as literary romanticism and science.

### **Expository Writing 20.263. Writing the Environment - (New Course)**

Catalog Number: 27437 Enrollment: Limited to 15.

*Martin Thomas Greenup*

*Half course (fall term). M., W., at 2. EXAM GROUP: 9*

How are we to make sense of the high-stakes debates about the environment today? In attempting to answer this question, this course focusses on the rhetoric and not the science of environmentalism. We will look at what happens when the impressions of a naturalist or the findings of a scientist are put into language and communicated to a wider public. As we examine a range of works including Thoreau's *Walden*, Carson's *Silent Spring*, and documentary movies, we will ask how each work presents nature to the reader through the medium of language, how each attempts to persuade the reader, and each draws upon sources as varied as literary romanticism and science.

### **Expository Writing 20.264. Writing the Environment - (New Course)**

Catalog Number: 21922 Enrollment: Limited to 15.

*Martin Thomas Greenup*

*Half course (spring term). M., W., at 10. EXAM GROUP: 9*

How are we to make sense of the high-stakes debates about the environment today? In attempting to answer this question, this course focusses on the rhetoric and not the science of environmentalism. We will look at what happens when the impressions of a naturalist or the findings of a scientist are put into language and communicated to a wider public. As we examine a range of works including Thoreau's *Walden*, Carson's *Silent Spring*, and documentary movies, we will ask how each work presents nature to the reader through the medium of language, how each attempts to persuade the reader, and each draws upon sources as varied as literary romanticism and science.



### **Expository Writing 20.265. Writing the Environment - (New Course)**

Catalog Number: 80854 Enrollment: Limited to 15.

*Martin Thomas Greenup*

*Half course (spring term). M., W., at 11. EXAM GROUP: 9*

How are we to make sense of the high-stakes debates about the environment today? In attempting to answer this question, this course focusses on the rhetoric and not the science of environmentalism. We will look at what happens when the impressions of a naturalist or the findings of a scientist are put into language and communicated to a wider public. As we examine a range of works including Thoreau's *Walden*, Carson's *Silent Spring*, and documentary movies, we will ask how each work presents nature to the reader through the medium of language, how each attempts to persuade the reader, and each draws upon sources as varied as literary romanticism and science.

### **Expository Writing 20.266. Society and the Witch - (New Course)**

Catalog Number: 38779 Enrollment: Limited to 15.

*Richard Martin*

*Half course (fall term). M., W., at 1. EXAM GROUP: 9*

Witches are often imagined to be outside society. But this socially marginal figure may provide a key to understanding social norms, norms that get articulated through the witch's very violation of them. In this course, we ask what discourses about witches tell us about the societies that produce them. We'll examine enduring fascinations with the occult in modernity, a period when magic was supposed to disappear. We'll explore topics ranging from self-identified magicians to the sensationally successful Harry Potter series. Readings draw from anthropology, folklore and mythology, gender studies, history, literature, and popular culture.

### **Expository Writing 20.267. Society and the Witch - (New Course)**

Catalog Number: 52455 Enrollment: Limited to 15.

*Richard Martin*

*Half course (fall term). M., W., at 2. EXAM GROUP: 9*

Witches are often imagined to be outside society. But this socially marginal figure may provide a key to understanding social norms, norms that get articulated through the witch's very violation of them. In this course, we ask what discourses about witches tell us about the societies that produce them. We'll examine enduring fascinations with the occult in modernity, a period when magic was supposed to disappear. We'll explore topics ranging from self-identified magicians to the sensationally successful Harry Potter series. Readings draw from anthropology, folklore and mythology, gender studies, history, literature, and popular culture.

### **Expository Writing 20.268. Society and the Witch - (New Course)**

Catalog Number: 76728 Enrollment: Limited to 15.

*Richard Martin*

*Half course (spring term). M., W., at 1. EXAM GROUP: 9*

Witches are often imagined to be outside society. But this socially marginal figure may provide a key to understanding social norms, norms that get articulated through the witch's very violation of them. In this course, we ask what discourses about witches tell us about the societies that produce them. We'll examine enduring fascinations with the occult in modernity, a period when magic was supposed to disappear. We'll explore topics ranging from self-identified magicians to



the sensationally successful Harry Potter series. Readings draw from anthropology, folklore and mythology, gender studies, history, literature, and popular culture.

### [Expository Writing 20.269. Society and the Witch - \(New Course\)](#)

Catalog Number: 71959 Enrollment: Limited to 15.

*Richard Martin*

*Half course (spring term). M., W., at 2. EXAM GROUP: 9*

Witches are often imagined to be outside society. But this socially marginal figure may provide a key to understanding social norms, norms that get articulated through the witch's very violation of them. In this course, we ask what discourses about witches tell us about the societies that produce them. We'll examine enduring fascinations with the occult in modernity, a period when magic was supposed to disappear. We'll explore topics ranging from self-identified magicians to the sensationally successful Harry Potter series. Readings draw from anthropology, folklore and mythology, gender studies, history, literature, and popular culture.

### [Expository Writing 20.270. Breaking the Rules - \(New Course\)](#)

Catalog Number: 96194 Enrollment: Limited to 15.

*Margaret Cameron Rennix*

*Half course (fall term). M., W., at 10. EXAM GROUP: 9*

Everyone lives by rules, no matter how free they feel. This course uses literature and film to interrogate the relationship between social rules and individual freedom while considering the following questions: What does it mean to be "free"? How does social obligation impact our personal freedom? Are we even aware of the ways that society controls our behavior, or are rules of social conduct largely invisible? Course texts include short stories by Willa Cather, Flannery O'Connor and National Book Award winner Ha Jin, the films *The Graduate* and *Mean Girls*, and the television series *Mad Men* and *Downton Abbey*.

### [Expository Writing 20.271. Breaking the Rules - \(New Course\)](#)

Catalog Number: 15007 Enrollment: Limited to 15.

*Margaret Cameron Rennix*

*Half course (fall term). M., W., at 11. EXAM GROUP: 9*

Everyone lives by rules, no matter how free they feel. This course uses literature and film to interrogate the relationship between social rules and individual freedom while considering the following questions: What does it mean to be "free"? How does social obligation impact our personal freedom? Are we even aware of the ways that society controls our behavior, or are rules of social conduct largely invisible? Course texts include short stories by Willa Cather, Flannery O'Connor and National Book Award winner Ha Jin, the films *The Graduate* and *Mean Girls*, and the television series *Mad Men* and *Downton Abbey*.

### [Expository Writing 20.272. Breaking the Rules - \(New Course\)](#)

Catalog Number: 38208 Enrollment: Limited to 15.

*Margaret Cameron Rennix*

*Half course (spring term). M., W., at 10. EXAM GROUP: 9*

Everyone lives by rules, no matter how free they feel. This course uses literature and film to interrogate the relationship between social rules and individual freedom while considering the following questions: What does it mean to be "free"? How does social obligation impact our



personal freedom? Are we even aware of the ways that society controls our behavior, or are rules of social conduct largely invisible? Course texts include short stories by Willa Cather, Flannery O'Connor and National Book Award winner Ha Jin, the films *The Graduate* and *Mean Girls*, and the television series *Mad Men* and *Downton Abbey*.

### **Expository Writing 20.273. Breaking the Rules - (New Course)**

Catalog Number: 38949 Enrollment: Limited to 15.

*Margaret Cameron Rennix*

*Half course (spring term). M., W., at 11. EXAM GROUP: 9*

Everyone lives by rules, no matter how free they feel. This course uses literature and film to interrogate the relationship between social rules and individual freedom while considering the following questions: What does it mean to be "free"? How does social obligation impact our personal freedom? Are we even aware of the ways that society controls our behavior, or are rules of social conduct largely invisible? Course texts include short stories by Willa Cather, Flannery O'Connor and National Book Award winner Ha Jin, the films *The Graduate* and *Mean Girls*, and the television series *Mad Men* and *Downton Abbey*.

### **Expository Writing 20.274. Democracy in the Digital Age - (New Course)**

Catalog Number: 99038 Enrollment: Limited to 15.

*Yascha Benjamin Mounk*

*Half course (fall term). Tu., Th., at 1. EXAM GROUP: 9*

Information technology has transformed politics with breathtaking speed. But have these changes been as important, and as positive, as is widely claimed? In this course, we assess technology's alleged role in destabilizing autocratic regimes, look at technology's impact on American politics, and assess whether we should reform our political institutions to make greater use of new technologies. We consult studies by social scientists, read the Twitter feed of the Syrian opposition, watch a documentary about the protestors in Tahrir Square, analyze the rise of the Tea Party and Occupy Wall Street, study a short story by Isaac Asimov, and debate "The Dictator's Practical Internet Guide to Power Retention."

### **Expository Writing 20.275. Democracy in the Digital Age - (New Course)**

Catalog Number: 80449 Enrollment: Limited to 15.

*Yascha Benjamin Mounk*

*Half course (fall term). Tu., Th., at 2. EXAM GROUP: 9*

Information technology has transformed politics with breathtaking speed. But have these changes been as important, and as positive, as is widely claimed? In this course, we assess technology's alleged role in destabilizing autocratic regimes, look at technology's impact on American politics, and assess whether we should reform our political institutions to make greater use of new technologies. We consult studies by social scientists, read the Twitter feed of the Syrian opposition, watch a documentary about the protestors in Tahrir Square, analyze the rise of the Tea Party and Occupy Wall Street, study a short story by Isaac Asimov, and debate "The Dictator's Practical Internet Guide to Power Retention."

### **Expository Writing 20.276. American Criminals - (New Course)**

Catalog Number: 47078 Enrollment: Limited to 15.

*Lindsay Joanna Mitchell*



*Half course (fall term). Tu., Th., at 1. EXAM GROUP: 9*

The United States is a country fascinated with crime stories. But why do crime novels attract us? What do they reveal about where we come from, what we believe in, and who we are? This course will explore these and other related questions by studying fictional and nonfictional accounts of crimes committed in the United States by its citizens. In our third unit, students will research a crime that occurred in their hometown, and think about how that crime might have been shaped by the town's specific culture. Here students will draw on theoretical discussions about culture and criminality and uncover materials from the public record.

**Expository Writing 20.277. American Criminals - (New Course)**

Catalog Number: 37722 Enrollment: Limited to 15.

*Lindsay Joanna Mitchell*

*Half course (fall term). Tu., Th., at 2. EXAM GROUP: 9*

The United States is a country fascinated with crime stories. But why do crime novels attract us? What do they reveal about where we come from, what we believe in, and who we are? This course will explore these and other related questions by studying fictional and nonfictional accounts of crimes committed in the United States by its citizens. In our third unit, students will research a crime that occurred in their hometown, and think about how that crime might have been shaped by the town's specific culture. Here students will draw on theoretical discussions about culture and criminality and uncover materials from the public record.

**Expository Writing 20.282. Surveillance: Legal and Ethical Issues - (New Course)**

Catalog Number: 43262 Enrollment: Limited to 15.

*Gillian Mary Sinnott*

*Half course (fall term). Tu., Th., at 9. EXAM GROUP: 9*

Recent leaks by former NSA contractor Edward Snowden have revealed widespread surveillance by the U.S. government. It is easy to denounce the NSA's activities as Orwellian, or, on the other hand, to reassure ourselves that surveillance only harms those with something to hide. This course seeks to move beyond these simplistic responses. We will begin with a careful exploration of the concept of privacy. We will then turn to the specifics of the NSA's surveillance programs, both within the United States and overseas. We will examine the constitutionality of these programs and the broader policy questions they raise.

**Expository Writing 20.283. Surveillance: Legal and Ethical Issues - (New Course)**

Catalog Number: 22807 Enrollment: Limited to 15.

*Gillian Mary Sinnott*

*Half course (fall term). Tu., Th., at 10. EXAM GROUP: 9*

Recent leaks by former NSA contractor Edward Snowden have revealed widespread surveillance by the U.S. government. It is easy to denounce the NSA's activities as Orwellian, or, on the other hand, to reassure ourselves that surveillance only harms those with something to hide. This course seeks to move beyond these simplistic responses. We will begin with a careful exploration of the concept of privacy. We will then turn to the specifics of the NSA's surveillance programs, both within the United States and overseas. We will examine the constitutionality of these programs and the broader policy questions they raise.



### **Expository Writing 20.284. Surveillance: Legal and Ethical Issues - (New Course)**

Catalog Number: 63986 Enrollment: Limited to 15.

*Gillian Mary Sinnott*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 9*

Recent leaks by former NSA contractor Edward Snowden have revealed widespread surveillance by the U.S. government. It is easy to denounce the NSA's activities as Orwellian, or, on the other hand, to reassure ourselves that surveillance only harms those with something to hide. This course seeks to move beyond these simplistic responses. We will begin with a careful exploration of the concept of privacy. We will then turn to the specifics of the NSA's surveillance programs, both within the United States and overseas. We will examine the constitutionality of these programs and the broader policy questions they raise.

### **Expository Writing 20.285. Surveillance: Legal and Ethical Issues - (New Course)**

Catalog Number: 45126 Enrollment: Limited to 15.

*Gillian Mary Sinnott*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 9*

Recent leaks by former NSA contractor Edward Snowden have revealed widespread surveillance by the U.S. government. It is easy to denounce the NSA's activities as Orwellian, or, on the other hand, to reassure ourselves that surveillance only harms those with something to hide. This course seeks to move beyond these simplistic responses. We will begin with a careful exploration of the concept of privacy. We will then turn to the specifics of the NSA's surveillance programs, both within the United States and overseas. We will examine the constitutionality of these programs and the broader policy questions they raise.

### **\*Expository Writing 40. Public Speaking Practicum**

Catalog Number: 9155 Enrollment: Limited to 30.

*Margie Zohn*

*Half course (fall term; repeated spring term). M., W., 3–5. EXAM GROUP: 4*

This course develops and strengthens the skills necessary for successful public speaking. Students learn strategies for preparing and delivering presentations, formulating and organizing persuasive arguments, impromptu speaking, cultivating critical thinking, engaging with an audience, using the voice and body, and building confidence in oral expression. Students who successfully complete this course are eligible to apply to work as Peer Speaking Tutors.

*Note:* See the [Writing Program](#) for admission information.

## Film and Visual Studies

**AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**



### ***Faculty of the Standing Committee on Higher Degrees in Film and Visual Studies***

Eric Rentschler, Arthur Kingsley Porter Professor of Germanic Languages and Literatures (*Chair and Director of Graduate Studies*)

Giuliana Bruno, Emmet Blakeney Gleason Professor of Visual and Environmental Studies (*on leave 2014-15*)

Tom Conley, Abbott Lawrence Lowell Professor of Romance Languages and Literatures and of Visual and Environmental Studies

Laura A. Frahm, Assistant Professor of Visual and Environmental Studies (*on leave 2014-15*)

Peter L. Galison, Joseph Pellegrino University Professor (*on leave fall term*)

Haden R. Guest, Lecturer on Visual and Environmental Studies, Director of the Harvard Film Archive

Carrie Lambert-Beatty, Professor of History of Art and Architecture and of Visual and Environmental Studies (*on leave 2014-15*)

Jie Li, Assistant Professor of East Asian Languages and Civilizations (*on leave 2014-15*)

Robb Moss, Professor of Visual and Environmental Studies

Justin Weir, Professor of Slavic Languages and Literatures and of Comparative Literature

Alexander Nikolas Zahlten, Assistant Professor of East Asian Languages and Civilizations (*on leave 2014-15*) (*on leave spring term*)

### ***Related Courses of Interest for Film and Visual Studies Graduate Program***

[Aesthetic and Interpretive Understanding 63 \(formerly East Asian Film and Media Studies 151\). East Asian Cinema](#)

[Anthropology 1727. Sensory Korea - \(New Course\)](#)

[Anthropology 1732. China Through Ethnography and Film: Seminar]

[\\*Anthropology 2722. Sonic Ethnography](#)

[Comparative Literature 270. Urban Imaginary and Visual Culture - \(New Course\)](#)

[East Asian Film and Media Studies 121. Korean Cinema and Transnationality: Conference Course - \(New Course\)](#)

[East Asian Film and Media Studies 140 \(formerly Aesthetic and Interpretive Understanding 53\). Anime as Global Popular Culture](#)

[East Asian Film and Media Studies 222. Media Cultures in the People's Republic - \(New Course\)](#)

[\\*Literature 146. Space and Place: The Environment in Film](#)

[Visual and Environmental Studies 106. Artist as Typographer \(Seminar\) - \(New Course\)](#)

[\\*Visual and Environmental Studies 158ar. Sensory Ethnography 1a](#)

[\\*Visual and Environmental Studies 158cr. Sensory Ethnography 2](#)

[\\*Visual and Environmental Studies 162g. Water Musics--A Dialogue of Electroacoustic Music and Moving Images - \(New Course\)](#)

[Visual and Environmental Studies 174. Art of the Real - \(New Course\)](#)

[Visual and Environmental Studies 178n. The Documentary Moment - \(New Course\)](#)

[Visual and Environmental Studies 179f. Furious Cinema: 1968-1979 - \(New Course\)](#)

[Visual and Environmental Studies 186. Film, Media, Space - \(New Course\)](#)

[Visual and Environmental Studies 190. The Horror Film - \(New Course\)](#)

[Visual and Environmental Studies 192. Cinema and French Culture from 1896 to the](#)



## Present

[Visual and Environmental Studies 198. American Film Noir]

\*Visual and Environmental Studies 199. The Film Archive: History, Theory, Practice

\*Visual and Environmental Studies 209r. Curation, Conservation and Programming

\*Visual and Environmental Studies 250r. The Live Film: Graduate Production Course

\*Visual and Environmental Studies 270. Proseminar in Film and Visual Studies: History

\*Visual and Environmental Studies 271. Proseminar in Film and Visual Studies: Theory

Visual and Environmental Studies 289. The Frankfurt School on Mass Media and Mass Culture - (*New Course*)

Visual and Environmental Studies 291. The 1960s and the End(s) of French Cinema - (*New Course*)

\*Visual and Environmental Studies 301. Film and Visual Studies Workshop

\*Visual and Environmental Studies 310. Reading and Research

\*Visual and Environmental Studies 320. Directed Study

\*Visual and Environmental Studies 330. Teaching Workshop - (*New Course*)

\*Visual and Environmental Studies 351hf (formerly \*Visual and Environmental Studies 350hf). Film Study Center Non Fiction Filmmaking Workshop

\*Visual and Environmental Studies 355r. Critical Media Practice - (*New Course*)

## Folklore and Mythology

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

#### *Members of the Standing Committee on Degrees in Folklore and Mythology*

Stephen A. Mitchell, Professor of Scandinavian and Folklore (*Chair*)

David F. Elmer, Professor of the Classics

Deborah D. Foster, Senior Lecturer on Folklore and Mythology (*Head Tutor and Director of Undergraduate Studies*)

John T. Hamilton, William R. Kenan, Jr. Professor of Comparative Literature and of Germanic Languages and Literatures

Michael Herzfeld, Ernest E. Monrad Professor of the Social Sciences

Peter Machinist, Hancock Professor of Hebrew and Other Oriental Languages

Catherine McKenna, Margaret Brooks Robinson Professor of Celtic Languages and Literatures

Gregory Nagy, Francis Jones Professor of Classical Greek Literature and Professor of Comparative Literature

Kimberley C. Patton, Professor of the Comparative and Historical Study of Religion (*Divinity School*)



Michael J. Puett, Walter C. Klein Professor of Chinese History  
 Panagiotis Roilos, George Seferis Professor of Modern Greek Studies and of Comparative Literature  
 James R. Russell, Mashtots Professor of Armenian Studies (*on leave spring term*)  
 Maria Tatar, John L. Loeb Professor of Germanic Languages and Literatures and of Folklore and Mythology (*on leave 2014-15*)  
 Jan Ziolkowski, Arthur Kingsley Porter Professor of Medieval Latin

### ***Other Faculty Offering Instruction in Folklore and Mythology***

Leah K. Lowthorp, College Fellow in the Committee on Degrees in Folklore and Mythology  
 Felicity A. Lufkin, Lecturer on Folklore and Mythology

### ***Tutorials in Folklore and Mythology***

#### ***Primarily for Undergraduates***

Please note that Culture and Belief 16 (formerly Folklore and Mythology 100). Performance, Tradition and Cultural Studies: An Introduction to Folklore and Mythology is required for the concentration.

#### **Culture and Belief 16. Performance, Tradition and Cultural Studies: An Introduction to Folklore and Mythology**

Catalog Number: 6753

*Stephen A. Mitchell (Germanic Languages and Literatures; Folklore and Mythology)*

*Half course (fall term). M., W., (F.), at 11 and a weekly section to be arranged. EXAM GROUP: 18*

Examines major forms of folklore (e.g., myths, legends, epics, beliefs, rituals, festivals) and the theoretical approaches used in their study. Analyzes how folklore shapes national, regional, and ethnic identities, as well as daily life; considers the function of folklore within the groups that perform and use it, employing materials drawn from a wide range of areas (e.g., South Slavic oral epics, American occupational lore, Northern European ballads, witchcraft in Africa and America, Cajun Mardi Gras).

*Note:* Required of Concentrators and for the Secondary Field in Folklore and Mythology. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **[\*Folklore and Mythology 90h. Hero and Trickster]**

Catalog Number: 18681 Enrollment: Limited to 12. For undergraduates only.

*Deborah D. Foster*

*Half course (spring term). Tu., 2-4.*

Human imagination has conjured two enduring mythic characters that create habitable worlds for people in stories from cultures all over the world. Sometimes branded Hero, sometimes Trickster, these two share traits and antics, yet they seem to endorse fundamentally different values. This seminar examines both hero and trickster in several cultural contexts, comparing



them with each other and with their correlates worldwide, primarily in oral traditions, but also where each has migrated to other media.

*Note:* Expected to be given in 2015–16.

#### **[\*Folklore and Mythology 90s. African-American Folktales]**

Catalog Number: 10506 Enrollment: Limited to 12.

*Maria Tatar*

*Half course (spring term). Th., 12–2.*

We will begin with tales from African cultures, investigating them as repositories of local knowledge, then turn to African-American tales, with stories ranging from tales about animals and tricksters to tales about origins, about magic and transformation, and about survival.

*Note:* Expected to be given in 2015–16.

#### **\*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. EXAM GROUP: 10*

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 or the Head Tutor of the Committee. The signature of the Chairman or the Head Tutor is required.

#### **\*Folklore and Mythology 96r. Senior Projects**

Catalog Number: 70593

*Deborah D. Foster and members of the Committee*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

*Note:* Designed for seniors completing their (non-thesis) senior project to meet the requirement for the concentration's senior project option. Students must secure the written approval for the project from the faculty member with whom they wish to work as well as the signature of the Head Tutor. May be repeated with the permission of the Head Tutor.

#### **\*Folklore and Mythology 97. Fieldwork and Ethnography in Folklore**

Catalog Number: 3789 Enrollment: Limited to 12.

*Deborah D. Foster*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

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 98a. History and Theory of Folklore and Mythology**

Catalog Number: 5039 Enrollment: Limited to 12.

*Stephen A. Mitchell*

*Half course (fall term). M., 12:30–2:30. EXAM GROUP: 11*



Examines the development of folklore and mythology as fields of study, with particular attention to the methodological approaches suited to their areas of enquiry. Considers the study of folklore and mythology in the 19th and early 20th centuries, but focuses especially on theoretical contributions to the study of folklore, mythology, and oral literature in recent decades.

*Note:* Required of all, and limited to, concentrators.

### **\*Folklore and Mythology 98b. 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. EXAM GROUP: 5*

*Note:* Required of all concentrators. The signature of the Head Tutor or 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. EXAM GROUP: Fall: 13; Spring: 9*

*Note:* Required of all thesis writers. The signature of the Head Tutor or Chairman of the Committee on Degrees in Folklore and Mythology required. Graded Sat/Unsat.

## ***Folklore and Mythology Courses***

Please consult our cross-listings for other courses that may be counted for Folklore & Mythology concentration credit. Interested freshmen in particular should be aware of Freshman Seminar 32s. The Twilight of the Gods: Ragnarök and the Apocalyptic Tradition, and Freshman Seminar 32v. The Art of Storytelling. Upperclassmen should be aware of Literature 162. Theory and Methods in Comparative Oral Traditions: Seminar; Religion 17. Myth in History: An Introduction to Religion and to the Study of Religion; Religion 18. Realms of Power: Animals in Religion I; Indian Studies 219. Introduction to World Mythology; and others taught by Folklore & Mythology committee members.

### ***For Undergraduates and Graduates***

#### **[Folklore and Mythology 106. History of Witchcraft and Charm Magic]**

Catalog Number: 8749

*Stephen A. Mitchell*

*Half course (spring term). Tu., Th., at 10.*

This course examines witchcraft (and the "magical world view") from cross-cultural, historical, and literary perspectives. Although witches and witchcraft are considered in their non-Western settings, the course focuses on the melding of Christian and pagan views of witchcraft and magic in the European Middle Ages, and the evolving construction of witchcraft ideologies through the witch crazes of the sixteenth and seventeenth centuries to the rise of modern paganism.

*Note:* Expected to be given in 2015–16.



### **\*Folklore and Mythology 114. Embodied Expression/Expressive Body: Dance in Cultural Context**

Catalog Number: 7982 Enrollment: Limited to 20.

*Deborah D. Foster*

*Half course (fall term). Th., 1–3:30. EXAM GROUP: 8*

An examination of the ways in which the dancing body internalizes and communicates cultural knowledge to both dancer and observer. By participating in dance workshops, watching dance performances (live and on film), and reading ethnographic and theoretical texts, we attempt to understand the emergent meaning of dance performances from multiple perspectives.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief.

### **[\*Folklore and Mythology 128. Fairy Tale, Myth, and Fantasy Literature]**

Catalog Number: 4852 Enrollment: Limited to 30.

*Maria Tatar*

*Half course (fall term). W. 2-4, and a weekly section to be arranged.*

Traces the migration of traditional tales from communal storytelling circles into the literary culture of childhood and into new media. How are powerful cultural myths about innocence and seduction, monstrosity and compassion, or hospitality and hostility recycled in fairy-tale fashion? How do fantasy worlds - both utopian and dystopic - provide children with portals for exploring counterfactuals and worst-case scenarios? Authors include the Brothers Grimm, Andersen, Lewis Carroll, J.M. Barrie, and J.K. Rowling.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for either Aesthetic and Interpretive Understanding or Culture and Belief, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Folklore and Mythology 152. Globalization and Expressive Culture: Intangible Heritage, Intellectual Property, and Regimes of Power - (New Course)**

Catalog Number: 66795

*Leah K. Lowthorp*

*Half course (spring term). Th., 4–6. EXAM GROUP: 6*

This course addresses folklore's increasing inclusion on the international agenda by organizations such as UNESCO and WIPO. It examines what kind of claims to culture, and to associated economic and political rights, are being staked in a liberalizing world. Exploring the dynamics surrounding the global circulation of expressive culture and traditional knowledge, it considers how this circulation is being harnessed both politically and economically. Topics will include heritage practices, debates of tangible versus intangible heritage, intellectual property regimes, discourses of diversity and democracy, and notions of tradition and individual versus community authorship.

### **Folklore and Mythology 153. South Asian Folklore - (New Course)**

Catalog Number: 94414

*Leah K. Lowthorp*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

This course exposes students to key issues and theoretical concerns in the study of South Asian



folklore, both of the subcontinent and the South Asian diaspora. We will examine multiple genres of South Asian folklore through a variety of themes and modes of expression. The course will be divided into seven modules: an introduction to folklore and folklore studies; folklore and nationalism; oral epics; folktales; narrative and gender; folk songs and ballads; belief; and folk drama, dance and puppetry. By exploring this diverse array of South Asian expressive traditions, students will gain a greater understanding of both the fields of Folklore and South Asian Studies.

#### **\*Folklore and Mythology 154. Folklore and Gender - (New Course)**

Catalog Number: 67054 Enrollment: Limited to 24.

*Leah K. Lowthorp*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

This course engages critical gender studies in exploring the role of expressive culture in women and men's lives. Taking a cross-cultural perspective, it examines how folklore is implicated in the cultural construction of gender by embodying gender stereotypes, politics, and subversions. Topics will include diverse modes of expression such as verbal art (jokes, folktales), material culture (folk crafts, food, dress), festival, belief (magic, superstition, urban legends) and music (rap, ballads, protest music).

#### **[Folklore and Mythology 170. Folk Art in the Modern World]**

Catalog Number: 1278

*Felicity A. Lufkin*

*Half course (fall term). W., 2–4.*

Folk art is a world-wide phenomenon, with a lasting importance to modern culture and to national identities. But what are the commonalities and variations in how folk art is defined, what types are prized, and how is it studied, perpetuated, and preserved?

*Note:* Expected to be given in 2015–16.

#### **Folklore and Mythology 171. Chinese New Year Pictures: Folk Art and Visual Culture**

Catalog Number: 0485

*Felicity A. Lufkin*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

The colorful woodcut prints now commonly known as New Year pictures or *nianhua* are one of China's best known folk arts, thriving into the 20th c. We will look at how these prints were made and distributed, the roles they played in everyday life, and what they can tell us about the interactions of high and low, rural and urban, and tradition and modernity within Chinese culture and art.

#### **\*Folklore and Mythology 172. Quilts and Quiltmaking**

Catalog Number: 33788 Enrollment: Limited to 18.

*Felicity A. Lufkin*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Are quilts the great American (folk) art? From intricately stitched whole-cloth quilts, to the improvisational patchworks of Gee's Bend; from the graphic simplicity of Amish quilts to the cozy pastels of depression-era quilts; from the AIDS Quilt to art quilts; quilts have taken on extraordinary significance in American culture. This class surveys the evolution of quilt-making as a social practice, considering the role of quilts in articulations of gender, ethnic, class and



religious identities, and their positions within discourses of domesticity, technology, consumerism, and cultural hierarchy.

**[Folklore and Mythology 174. Chinese Folk Arts]**

Catalog Number: 81667

*Felicity A. Lufkin*

*Half course (fall term). W., 2–4.*

This course will introduce several types of Chinese (visual) folk art. We will consider them comparatively, and pay special attention to the position of folk art in contemporary Chinese society.

*Note:* Expected to be given in 2015–16.

**\*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. EXAM GROUP: Fall: 18;*

*Spring: 14*

Advanced reading in topics not covered in regular courses.

***Cross-listed Courses***

**[Aesthetic and Interpretive Understanding 33. Ancient Fictions: The Ancient Novel in Context]**

**[Aesthetic and Interpretive Understanding 36. Buddhism and Japanese Culture]**

**[Aesthetic and Interpretive Understanding 39. Reinventing Literary China: Old Tales Retold in Modern Times]**

**[African and African American Studies 142. Hiphop and Don't Stop: The Word]**

**African and African American Studies 162. Indigenous Religious Traditions and Modernity: Seminar**

**[African and African American Studies 182. From R & B to Neo Soul: Black Popular Music and Cultural Transformation]**

**African and African American Studies 187. African Religions**

**Akkadian 141r. Akkadian Myths and Epics**

**Ancient Near East 102. Introduction to Mesopotamian Religion**

**Ancient Near East 126. History of the Religion of Ancient Israel**

**Ancient Near East 142. The Bible Uncensored: Journeys into Texts Dark and Daring from the Hebrew Bible - (New Course)**

**Anthropology 1062 (formerly Anthropology 2062). Religions of Latin America: Mexico, Peru, El Caribe**

**[Anthropology 1158. Maya Narratives: Gods, Lords, and Courts]**

**Anthropology 1640. Language and Culture**

**[Anthropology 1995. Food, Culture, and Society]**

**Anthropology 1996. Angels, Ghosts, and Hustlers: Bangkok Live**

**[Armenian 120. Armenian Magical Texts]**

**[Armenian Studies 100. Armenian Epic]**

**[Celtic 101. The Hero of Irish Myth and Saga]**



[Celtic 103. Celts: People or Myth?]

[Celtic 106. The Folklore of Gaelic Scotland]

[Celtic 109. The Finn Cycle]

**Celtic 114. Early Irish Historical Tales**

[Celtic 137. Celtic Mythology]

[Celtic 138. Mabinogion: Narrative Traditions of Medieval Wales]

[Celtic 184. The *Táin*]

**Celtic 194. The World of the Celtic Bard**

**Comparative Literature 275. Theory of Narrative: Conference Course**

[Culture and Belief 11. Medicine and the Body in East Asia and in Europe]

**Culture and Belief 21. Pathways through the Andes—Culture, History, and Beliefs in Andean South America**

**Culture and Belief 22. The Ancient Greek Hero**

[Culture and Belief 28. Hindu Worlds of Art and Culture]

[Culture and Belief 32. Back Roads to Far Places: Literature of Journey and Quest]

**Culture and Belief 35. Classical Mythology**

**Culture and Belief 38. Apocalypse Then! Forging the Culture of Medieval Rus'**

[Culture and Belief 40. Popular Culture and Modern China]

**Culture and Belief 48. God, Justice, and the Book of Job**

[Culture and Belief 57. Animated Spirituality: Japanese Religion in *Anime, Manga, and Film*]

**\*English 90en. Indigenous Literatures of North America -- Oral and Written Traditions: Seminar - (New Course)**

**English 111. Epic: From Homer to Star Wars**

**\*Freshman Seminar 32v. The Art of Storytelling**

**\*Freshman Seminar 36s. Comparative Historical Mythology**

[\*Germanic Studies 202. Germanic Mythology]

[Italian 141. Renaissance Epic: War, Identity, Desire]

[Japanese History 117. Japanese Folk Religion: Conference Course]

[Japanese History 126. Shinto: Conference Course]

**\*Literature 121. From the 1001 Nights to the Arabian Nights : Adaptation, Transformation, Translation**

**Literature 162. Homer and Beyond: Theory and Comparative Methods in Studying Oral Traditions**

**Literature 168. The Quest for Epic: From Ariosto to Spenser and Milton - (New Course)**

**Music 207r. Ethnomusicology: Seminar**

[Music 209r. Ethnomusicology: Seminar]

**Persian 152. Literary and Visual Narrative in the Persian Epic Tradition**

**Religion 1012. Religion and Archaeology - (New Course)**

**Religion 1325. Ancient Greek Sanctuaries: Mysteries of Initiation - (New Course)**

[Religion 1631. Hindu Traditions of Devotion]

[Sanskrit 107. Vâlmîki's Râmâyana]

**Scandinavian 150r (formerly Scandinavian 150.). The Vikings and the Nordic Heroic Tradition**

[Scandinavian 160a. Old Norse Language, Literature, and Culture: The Viking Legacy]

[Scandinavian 160br. Old Norse Language, Literature, and Culture: Mythology]



**Societies of the World 30. Moctezuma's Mexico: Then and Now (2012)!**

[South Asian Studies 124. Introduction to World Mythology]

**Spanish 70a. Heroes, Rogues, Lovers, Rebels, Saints: Voices from Medieval and Early Modern Spain**

[Sumerian 141. Sumerian Myths and Epics]

[Welsh 227. Seminar: Welsh Bardic Poetry]

## Germanic Languages and Literatures

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

#### *Faculty of the Department of Germanic Languages and Literatures*

John T. Hamilton, William R. Kenan, Jr. Professor of Comparative Literature and of Germanic Languages and Literatures (*Chair*)

Peter J. Burgard, Professor of German

Jillian DeMair, College Fellow in the Department of Germanic Languages and Literatures

Racha Kirakosian, Assistant Professor of Germanic Languages and Literatures and of the Study of Religion

Maja Bäckvall, Preceptor in Scandinavian

Stephen A. Mitchell, Professor of Scandinavian and Folklore

Lisa Parkes, Senior Preceptor in German (*Director of the German Language Program*)

Eric Rentschler, Arthur Kingsley Porter Professor of Germanic Languages and Literatures

Judith Ryan, Robert K. and Dale J. Weary Professor of German and Comparative Literature

Nicole Suetterlin, Assistant Professor of Germanic Languages and Literatures

Maria Tatar, John L. Loeb Professor of Germanic Languages and Literatures and of Folklore and Mythology (*on leave 2014-15*)

#### *Affiliates of the Department of Germanic Languages and Literatures*

Benjamin Buchloh, Andrew W. Mellon Professor of Modern Art (*on leave spring term*)

Peter E. Gordon, Amabel B. James Professor of History, Harvard College Professor

Jeffrey F. Hamburger, Kuno Francke Professor of German Art and Culture

Jay Jasanoff, Diebold Professor of Indo-European Linguistics and Philology

Alison Frank Johnson, Professor of History (*on leave spring term*)

Sean D. Kelly, Teresa G. and Ferdinand F. Martignetti Professor of Philosophy

Joseph Koerner, Victor S. Thomas Professor of History of Art and Architecture

Alexander Rehding, Fanny Peabody Professor of Music (*on leave 2014-15*)



Anne C. Shreffler, James Edward Ditson Professor of Music (*on leave spring term*)

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.

For more information on the Department, please visit [www.fas.harvard.edu/~german](http://www.fas.harvard.edu/~german).

## ***German***

### ***Primarily for Undergraduates***

The placement test in German is offered during Freshman Week and during Intersession.

#### **German A. Beginning German**

Catalog Number: 4294

*Lisa Parkes and members of the Department*

*Full course (indivisible). M. through Th., sections at 9, 10, 11, or 12. EXAM GROUP: 4*

An 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 sessions emphasize the development of oral proficiency. Instruction is supplemented by literary and non-literary texts, videos, 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 Ax. German for Reading Knowledge**

Catalog Number: 7177

*Jillian DeMair*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

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 Bab. Beginning German (Intensive)**

Catalog Number: 8629

*Lisa Parkes and members of the Department*

*Full course (fall term; repeated spring term). Fall: M. through F., at 9, plus a weekly conversation hour F at 10; Spring: M. through F., at 9, plus a weekly conversation hour F at 10; M. through F., at 12, plus a weekly conversation hour F at 11. EXAM GROUP: 4*

A complete first-year course in one term for students with no knowledge of German. Provides an introduction to German language and culture encompassing all four skills: speaking, listening, reading, and writing, as well as an introduction to the culture of the German-speaking countries. Class sessions emphasize the development of oral proficiency. Instruction is supplemented by literary and non-literary texts, videos, and Internet activities.

*Note:* May not be taken Pass/Fail. Not open to auditors.



### **German Ca. Intermediate German: Speaking, Listening Comprehension, Reading, and Writing**

Catalog Number: 5779

*Lisa Parkes and members of the Department*

*Half course (fall term). M. through Th., at 9; M. through Th., at 12. EXAM GROUP: 4*

Aims at enhancing students' proficiency in all four skills, with special emphasis on speaking/discussion. The course also offers a thorough grammar review. Course materials consist of literary and non-literary texts and films that address a broad range of cultural topics.

*Note:* Conducted in German. May not be taken Pass/Fail. Not open to auditors.

### **German Cb. Intermediate German: Speaking, Listening Comprehension, Reading, and Writing**

Catalog Number: 2608

*Lisa Parkes and members of the Department*

*Half course (spring term). M. through Th., at 9; M. through Th., at 12. EXAM GROUP: 10*

Continuation of German Ca. Discussion materials include literary and non-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. May not be taken Pass/Fail. Not open to auditors.

*Prerequisite:* German Ca or permission of the instructor.

### **German Dab. Intermediate German (Intensive): Speaking, Listening Comprehension, Reading, and Writing**

Catalog Number: 1351

*Lisa Parkes and members of the Department*

*Full course (spring term). M., W., F., at 12; Tu., Th., 1–3. EXAM GROUP: 7*

A complete second-year course in one term for students with a basic knowledge of German. Focuses on enhancing students' proficiency in all four skill areas with special emphasis on speaking/discussion. Extensive vocabulary-building exercises, a thorough grammar review, and an introduction to various cultural topics of the German-speaking countries through the use of literary and non-literary texts, Internet, multimedia resources, and film.

*Note:* Conducted in German. May not be taken Pass/Fail. Not open to auditors.

*Prerequisite:* German A, German Bab, a score of 450 or above on the Harvard placement test, or permission of the instructor.

### **German 50. German Drama and Theater**

Catalog Number: 59998

*Lisa Parkes*

*Half course (fall term). Tu., Th., 2–4. EXAM GROUP: 14*

This course focuses on the full production of a German play. Introduction to performance theories and practices and intensive pronunciation practice. Students participate on stage and collaborate on different aspects of the production, including costumes, set, sound, and program. Two performances take place at the end of the term.

*Note:* Conducted in German.

*Prerequisite:* German C (or equivalent), German 115, or permission of the instructor.



### **German 61. Advanced Grammar and Reading**

Catalog Number: 5179

*Peter J. Burgard*

*Half course (fall term). Tu., Th., 9–11 or Tu., Th., 11–1. EXAM GROUP: 9*

Advanced instruction in German through systematic study of the rules of grammar, their nuances, and their exceptions. Application of this knowledge through readings of short selections of sophisticated texts (Goethe, Kant, Kleist, Heine, Marx, Nietzsche, Kafka, Mann) prepares students for courses and other work requiring advanced German reading comprehension. This course is prerequisite to advanced German speaking and writing, which students can then pursue in German 62.

*Note:* Conducted in German. Not open to auditors.

*Prerequisite:* German C, equivalent preparation, or permission of the instructor.

### **German 62. Advanced Conversation and Composition**

Catalog Number: 2201

*Lisa Parkes*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course is designed to further students' spoken and written German at the advanced level. Students will analyze and practice the stylistic and rhetorical features of various written and spoken genres. By focusing on aspects of contemporary society in the German-speaking countries, students will broaden and refine their vocabulary and idiom, become sensitized to different registers, as well as hone points of grammar.

*Note:* Conducted in German.

*Prerequisite:* German 61, equivalent preparation, or permission of the instructor.

### **[German 67. German in Revue: Kabarett through the 20th Century]**

Catalog Number: 73323 Enrollment: Limited to 12. Interested students are required to apply in writing. See Catalog Note.

*Lisa Parkes*

*Half course (spring term). Hours to be arranged.*

Immersion into German language and culture through German *Kabarett* of the 20th century. Introduction to the writing and performance techniques of German cabaret artists, including the analysis of comedic skits, political and social satire, parody, and humorous poetry. The final project involves a performance of a *Kabarett* revue.

*Note:* Expected to be given in 2015–16. Taught in German. Interested students are required to apply in writing to Dr. Lisa Parkes no later than the first day of the Spring term of 2014.

*Prerequisite:* German C or equivalent.

### **German 71. German Literature from Goethe to Nietzsche**

Catalog Number: 3213

*Jillian DeMair*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Through close readings of central texts from the Age of Goethe to the late 19th century, this course introduces students to key concepts of literary analysis. Readings include Goethe, Schiller, Kleist, Hoffmann, Büchner, and Nietzsche.



*Note:* Readings and discussions in German.

*Prerequisite:* German 61, equivalent preparation, or permission of the instructor.

### **German 72. German Literature from Kafka to Jelinek**

Catalog Number: 5412

*Judith Ryan*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

The course focuses on central texts in 20th-century German literature. Readings include works by Freud, Rilke, Kafka, Brecht, Celan, Bachmann, Bernhard, Jelinek, and Müller. The course provides an historical overview, introduces core concepts in literary analysis, and sharpens German reading and writing skills.

*Note:* Conducted in German.

*Prerequisite:* German 61, equivalent preparation, or permission of the instructor. German 71 is not a prerequisite for 72.

### **German 90r. Germanic Language Tutorial**

Catalog Number: 91467

*Lisa Parkes*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*

Individualized study of a Germanic language not ordinarily taught. Contact hours with language tutor. Emphasis on literacy.

*Note:* Not open to auditors.

### **\*German 91r. Supervised Reading and Research**

Catalog Number: 1059

*Lisa Parkes*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

Advanced reading in topics not covered in regular courses.

*Note:* Permission of the Director of Undergraduate Studies is required.

### **\*German 99. Tutorial — Senior Year**

Catalog Number: 3286

*Lisa Parkes*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

Open to concentrators writing an honors thesis under faculty supervision. Students are expected to enroll for the entire year. Permission of the Director of Undergraduate Studies is required.

### ***Cross-listed Courses***

#### **Aesthetic and Interpretive Understanding 52. Repression and Expression: Sexuality, Gender, and Language in Fin-de-siècle Literature and Art**

[Aesthetic and Interpretive Understanding 57. American Dreams from *Scarface* to *Easy Rider*]

#### **Aesthetic and Interpretive Understanding 59 (formerly Culture and Belief 54). Nazi Cinema: The Art and Politics of Illusion**



**Culture and Belief 16. Performance, Tradition and Cultural Studies: An Introduction to Folklore and Mythology**

**Culture and Belief 53. Sacred and Secular Poetry**

[Ethical Reasoning 12. Political Justice and Political Trials]

Ethical Reasoning 32. Security: Carefree or Careless

Ethical Reasoning 37 (formerly History of Art and Architecture 50g). Adam & Eve

\*Folklore and Mythology 98a. History and Theory of Folklore and Mythology

\*Freshman Seminar 31q. Literal Looking: What We See in Art

\*History 82b. Fin-de-Siècle Vienna

[Humanities: Essential Questions 51 (formerly Humanities: Essential Questions 21). Major Themes in the Humanities: Love and Freedom] - (*New Course*)

**Humanities: Frameworks 11b. Frameworks: The Art of Listening**

Yiddish A. Elementary Yiddish

Yiddish Ba. Intermediate Yiddish I

Yiddish Bb. Intermediate Yiddish II

[Yiddish Ca. Advanced Yiddish I]

[Yiddish Cb. Advanced Yiddish II]

*For Undergraduates and Graduates*

**German 105. Women's Voices in German Medieval Literature - (New Course)**

Catalog Number: 77012

*Racha Kirakosian*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

This course examines female expression in literature from the German speaking area in the Middle Ages and comprises Yiddish literature as well as Middle High and Middle Low German texts. We focus on thorough close readings and the history of textual transmission in secular and religious spheres. The women's voices shall be enacted in a performance at the end of the term.

*Note:* The course is conducted in English. No previous familiarity with German medieval literature is required or presumed. Readings of originals with modern English translations.

**[German 115. German Comedy]**

Catalog Number: 52703

*Lisa Parkes*

*Half course (fall term). Hours to be arranged.*

What provokes laughter in German culture? This course explores the genre of comedy from the 18th century to the present through major dramatists, satirists, stand-up comedians, and recent comedic films in German-speaking Europe. Introduction to forms, techniques, and theories of comedy, as well as workshops on techniques of comic performance.

*Note:* Expected to be given in 2015–16. Conducted in German.

*Prerequisite:* German 61, 62, or permission of the instructor.

**[German 120. Age of Goethe]**

Catalog Number: 3797

*Peter J. Burgard*

*Half course (fall term). Hours to be arranged.*



Major movements in German literature and thought from the mid-18th to early 19th century: Enlightenment, Sentimentalism, Storm and Stress, Classicism, Romanticism. Readings include Kant, Klopstock, Lessing, Goethe, Lenz, Schiller, Hölderlin, Kleist, Schlegel, Novalis.  
*Note:* Expected to be given in 2015–16. Readings in German, discussions in English.

**German 131. Deutsche Romantik: Zwischen Fragmentierung und Heilung - (New Course)**

Catalog Number: 26778

*Nicole Sütterlin*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

Examines the fragments and (w)holes of romantic literature, focusing on the productive tension between forms of decomposition, dismemberment, wounding, on the one hand, and ideas of ideality, unity, healing, on the other. Includes a study of conflicting traditions of romantic criticism and their preferences for either fragmentation or wholeness. Authors include Novalis, Brentano, Günderrode, Hoffmann, Arnim, Heine, as well as other key figures of the Goethezeit such as Hölderlin, Jean Paul, Kleist.

*Note:* Readings in German, discussions in German and English.

**[German 146 (formerly Ethical Reasoning 26). The Ethics of Atheism: Marx, Nietzsche, Freud]**

Catalog Number: 12763

*Peter J. Burgard*

*Half course (spring term). Hours to be arranged.*

Examines the Western secular tradition through the work of three seminal figures whose critiques of religion - in social and political theory, philosophy, and psycho-analysis and anthropology - are motivated by ethical concerns. Introductory readings of Kant, Hegel, and Feuerbach ground analysis of Marx's, Nietzsche's, and Freud's ethical atheism. Students do not develop or debate formulae for behavior, but rather become critically aware of ethical considerations that underlie actions and that are negotiated vis-à-vis prevailing moral codes. Readings include *The German Ideology*, *The Communist Manifesto*, *The Gay Science*, *Beyond Good and Evil*, *On the Genealogy of Morals*, *The Anti-Christ*, *Three Essays on the Theory of Sexuality*, *Totem and Taboo*, *The Future of an Illusion*.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning or Culture and Belief, but not both. No knowledge of German required. All readings and discussions in English. Not open to auditors.

**[German 147. Nietzsche]**

Catalog Number: 6994

*Peter J. Burgard*

*Half course (fall 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*, and *Ecce Homo*.

*Note:* Expected to be given in 2015–16. No knowledge of German required. All readings and discussions in English.



### [German 149. Thomas Mann: Stories of Six Decades]

Catalog Number: 71081

*Peter J. Burgard*

*Half course (fall term). Hours to be arranged.*

Addresses Mann's short stories and novellas (in translation) individually and as a body of work, as well as in their various literary, cultural, intellectual, and historical contexts. Texts: "Death in Venice," "Tonio Kröger," "Tristan," "Disillusionment," "Little Herr Friedemann," "Gladius Dei," "The Blood of the Walsungs," "Disorder and Early Sorrow," "Mario and the Magician," among others. Term papers may address stories discussed in class or one of Mann's novels (e.g. *Buddenbrooks*, *The Magic Mountain*, *Doctor Faustus*).

*Note:* Expected to be given in 2016–17. No knowledge of German required. All readings and discussions in English. Not open to auditors.

### [German 156. From Postwar to Postwall German Cinema]

Catalog Number: 14735

*Eric Rentschler*

*Half course (fall term). Hours to be arranged.*

The New German Cinema would become internationally prominent during the 1970s. This class will focus on exemplars of the movement and also important films that preceded and followed it, features by Staudte, Fassbinder, Herzog, Kluge, Schlöndorff, von Trotta, Wenders, Dörrie, Tykwer, and Petzold. What meanings do these works (both as single entries and as functions of a collective national ensemble) have for us today? No previous course work in film studies is required or presumed.

*Note:* Expected to be given in 2016–17.

### German 170. Biopolitics and Vampire Aesthetics, 1750-2015 - (New Course)

Catalog Number: 12357

*Nicole Sütterlin*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

This course traces the infamous bloodsucker's bite-marks through European literature from the 18th to the 21st century, exploring how the notion of vampirism is inextricably linked with the emergence of what Michel Foucault has termed 'biopolitics'. How do the 'body politic' and a vampiric aesthetics mutually condition each other? We pursue this question by engaging in a dialogue between literature, film, science, and critical theory. Authors include Goethe, Byron, Hoffmann, Baudelaire, Stoker, Nietzsche, Döblin, Tawada.

*Note:* Readings and discussions in English.

### [German 172. Hermeneutics and the Philology of the Flesh]

Catalog Number: 93059

*John T. Hamilton*

*Half course (spring term). Hours to be arranged.*

The course offers an historical overview of theories of interpretation from Luther to Gadamer and Merleau-Ponty, with specific focus on metaphors of incarnation, embodiment, and revelation. In tracking the shift from interpretation as an auxiliary art to hermeneutics as a philosophical universal, the literary readings broach questions concerning theories of the verbal sign, understanding, self-consciousness, phenomenology, and the human condition – all in



relation to the theological paradigms that have persistently motivated and shaped these investigations.

*Note:* Expected to be given in 2015–16.

### [German 173. The German Colonial Idea]

Catalog Number: 70618

*Judith Ryan*

*Half course (spring term). Hours to be arranged.*

Tracing the emergence of German colonial aspirations from mid-nineteenth century to nostalgic recollections of the colonies after World War I, the course examines novels, short stories, autobiographical and travel writings, essays, films, propaganda and advertising. These materials are selected to shed light on controversies about key terms such as imperialism, colonialism, decolonization, racism, and genocide. Attention is also paid to the implications of the colonial past for German society today.

*Note:* Expected to be given in 2015–16. Readings in German; discussions in English.

### German 177. Crime and Detection in German Narratives - (New Course)

Catalog Number: 53559

*Jillian DeMair*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Diverse characters, astonishing crimes, and tireless efforts to detect and uncover them. An exploration of narratives that lack clear solutions and traditional detective figures. Course materials range from classic 19th-century novellas to modern readings and film, plus selected excursions beyond the German tradition. Works by Schiller, Kleist, Hoffmann, Poe, Droste-Hülshoff, Fontane, Döblin, Lang, and Borges.

*Note:* Texts may be read in translation or in the original. Course conducted in English.

### [German 179. Germany and the Greeks: Winckelmann to Heidegger]

Catalog Number: 63378

*John T. Hamilton*

*Half course (fall term). Hours to be arranged.*

In reading through major works of literature and philosophical prose, this course critically interrogates the persistent fascination that ancient Greek literature and culture exerted on the modern German imagination from the eighteenth to the twentieth centuries. Areas of discussion include antiquarianism, the formation of national identity, genius and the classical tradition, pedagogy and politics, aesthetics and reception theory. Cross-listed with Comparative Literature.

*Note:* Expected to be given in 2015–16.

### [German 182. Music and German National Identity]

Catalog Number: 95593

*Lisa Parkes*

*Half course (spring term). Hours to be arranged.*

Introduction to the relationship between 'German' music, history, society and politics. By analyzing texted (vocal) music in various settings - historical, political, filmic, literary - this course revisits important and often controversial moments in musical history that have shaped German cultural and national identity. Musical genres include the Lied, folk song, the choral



symphony, opera, cabaret, post-war popular music, and contemporary hip-hop.

*Note:* Expected to be given in 2015–16. Reading and listening in German and English; discussion in German. An ability to read musical notation is not required.

### [German 185. German Lyric Poetry: Tradition and Innovation]

Catalog Number: 52546

*Judith Ryan*

*Half course (spring term). Hours to be arranged.*

The course will explore the interplay between innovation and tradition in German poetry from 1770 to the present, focusing on such topics as originality and authenticity, difficulty and hermeticism, and poetic responses to crisis. Authors include Goethe, Hölderlin, Heine, Mörike, Droste, George, Rilke, Benn, and Celan.

*Note:* Expected to be given in 2016–17.

### *Cross-listed Courses*

#### [History 1155. Early Modern Europe, 1450-1789](#)

[History 1266. Central Europe, 1789-1918: Empires, Nations, States]

[History 1322. Heidegger and Arendt]

[History 1323. German Social Thought, Nietzsche to Habermas](#)

[History 1324. French Social Thought, Durkheim to Foucault](#)

[\*History 1922. Habermas: Social Theory in Postwar Germany]

[History of Art and Architecture 145p. Court and Cloister in the Late Middle Ages]

[Humanities: Essential Questions 51 (formerly Humanities: Essential Questions 21). Major Themes in the Humanities: Love and Freedom] - (*New Course*)

[Linguistics 168. Introduction to Germanic Linguistics](#)

[Literature 155. Furor Poeticus: Madness, Inspiration, Genius]

[Philosophy 139. Later Heidegger](#)

### *Primarily for Graduates*

#### [German 210. Excess: Baroque Art and Literature](#)

Catalog Number: 8078

*Peter J. Burgard*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

European Baroque art and German Baroque literature. Revolutions of excess and devolutions of system in architecture, painting, sculpture, poetry, drama, narrative. Undergraduates welcome.

*Note:* Expected to be omitted in 2015–16. Readings in German, discussions in German and English.

#### [German 221. Goethe: Seminar]

Catalog Number: 76159

*Peter J. Burgard*

*Half course (fall term). Hours to be arranged.*

Examines selected major works, including poetry, essays on art, literature, and science, dramas,



and at least one novel.

*Note:* Expected to be given in 2015–16. Readings in German, discussions in English.

**[German 251. Kafka in Context]**

Catalog Number: 78016

*Judith Ryan*

*Half course (spring term). Hours to be arranged.*

Kafka's relation to his literary and cultural context, his characteristic narrative modes, humor and parody in his works, and the challenges his texts pose for readers.

*Note:* Expected to be given in 2016–17.

**German 260. Gegenwartsliteratur: Körper-Poetiken seit der Wende - (New Course)**

Catalog Number: 36409

*Nicole Siitterlin*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

Explores German literature from the Wendezeit to the present, focusing on a number of texts that we will define as 'body literature' or 'corpoetics'. Rather than directly addressing the fall of the Wall, these texts employ a transgressive poetics that tears down the walls between text and body in the search for authentic communication.

*Note:* Readings in German, discussions in German and English.

**[German 269. German Film: Analysis/History/Theory]**

Catalog Number: 17159

*Eric Rentschler*

*Half course (spring term). Hours to be arranged.*

This course offers a comprehensive survey of German film history from its beginnings to the present. Each of our sessions will provide interactive discussions of selected sequences from exemplary films. These exercises will acquaint students with the tools, methods, and emphases of close analysis. This careful formal scrutiny will go together with an equally painstaking investigation of the discursive places assumed by individual film texts within film history and history at large. In that endeavor we will also take recourse to pertinent film theoretical paradigms.

*Note:* Expected to be given in 2015–16. The course will be conducted in English. No previous familiarity with film studies is required or presumed.

**German 290. Experience and Remembrance in W. G. Sebald: Seminar**

Catalog Number: 7036

*Judith Ryan*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Close study of Sebald's narrative and poetic works, as well as a selection of his scholarly essays, against the backdrop of recent literary theory.

*Note:* Readings in German or English; discussions in English.

***Cross-listed Courses***



### **Comparative Literature 245. Intertextuality**

**\*History 2320hf. Foundations of Modern European Intellectual History: Seminar**

[History 2322. Adorno: Philosophy, Sociology, Aesthetics: Seminar]

**History 2324. Contesting Political Theology and Secularization: Schmitt, Löwith, Blumenberg: Seminar - (New Course)**

**\*History of Art and Architecture 272z. Post WW II European Art (Part II) : Seminar**

**Romance Studies 201. Questions of Theory**

**Visual and Environmental Studies 289. The Frankfurt School on Mass Media and Mass Culture - (New Course)**

### ***Graduate Courses of Reading and Research***

#### **\*German 300. Special Reading Programs and Research Problems for Advanced Students**

Catalog Number: 3646

Peter J. Burgard 2217, Eric Rentschler 2325, Judith Ryan 1135, Maria Tatar 3645, and Markus Wilczek 5863

Half course (fall term; repeated spring term). . EXAM GROUP: 10

### ***Cross-listed Courses***

#### **\*Visual and Environmental Studies 301. Film and Visual Studies Workshop**

### ***Germanic Philology***

#### ***Primarily for Graduates***

#### **Germanic Philology 200. Middle High German - (New Course)**

Catalog Number: 16474

Racha Kirakosian

Half course (fall term). W., 4–6. EXAM GROUP: 17

In this language course, the students learn how to read and understand Middle High German literature. We work closely with a range of texts (poetical, religious, scientific), translating and analyzing them as well as discussing their cultural context.

### ***Cross-listed Courses***

### ***Graduate Courses of Reading and Research***

#### **\*Germanic Philology 300. Special Reading Programs and Research Problems for Advanced Students**

Catalog Number: 1045

Jay Jasanoff 1661

Half course (fall term; repeated spring term). . EXAM GROUP: 5

### ***Germanic Studies***



### ***Primarily for Graduates***

#### **[\*Germanic Studies 202. Germanic Mythology]**

Catalog Number: 36062 Enrollment: Limited to 12.

*Stephen A. Mitchell*

*Half course (fall term). Hours to be arranged.*

Examines pre-Christian religions of the Germanic peoples, with an emphasis on Old Norse sources (especially *Snorra edda*, and eddic and scaldic poetry) but also with references to non-Scandinavian materials (e.g. *Heliand*; Old English metrical charms).

*Note:* Expected to be given in 2015–16.

### ***Scandinavian Languages***

#### ***Primarily for Undergraduates***

##### **Swedish Aa. Beginning Swedish Language and Literature**

Catalog Number: 7438

*Maja Bäckvall*

*Half course (fall term). M. through Th., at 9. EXAM GROUP: 10*

A basic course focusing on listening, speaking, reading, and writing skills. During fall term, pronunciation and listening comprehension will be emphasized, as well as regular writing assignments. Literary, film, music and other cultural texts will be introduced relatively early on. By semester's end, students will have achieved a basic literacy in everyday Swedish.

*Note:* Not open to auditors.

##### **Swedish Ab. Beginning Swedish Language and Literature**

Catalog Number: 69695

*Maja Bäckvall*

*Half course (spring term). M. through Th., at 9. EXAM GROUP: 10*

Continuation of the basic course focusing on a basic mastery of listening, speaking, reading, and writing skills. During spring term, the emphasis is on more advanced conversation and an exploration of Sweden's culture and civilization through selected texts and video. By semester's end, students will be able to carry on conversations in everyday Swedish, read news articles, and write letters and produce substantial creative work.

*Note:* Not open to auditors.

##### **Swedish Ba. Intermediate Swedish: Childhood in Swedish Literature and Culture**

Catalog Number: 3104

*Maja Bäckvall*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Sweden and Swedish Finland have produced some of the most translated and beloved works of children's fiction in the world. In this intermediate Swedish language course, we will review the essentials of Swedish grammar and vocabulary as we explore some of these classic works of children's fiction, film, and comic books and the aspects of Swedish culture they illuminate. The final project for this class involves producing your own work of children's fiction or film.



*Note:* Conducted in Swedish. Not open to auditors.

*Prerequisite:* Swedish Ab or equivalent.

### **Swedish Bbr. Special Topics in Swedish Literature and Culture: "Migration till och från Sverige"**

Catalog Number: 3405

*Maja Bäckvall*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

In this fourth semester Swedish course, the theme is immigration and emigration from a Swedish perspective. We will be studying the Swedish emigration to America in the 19th century, both in fiction and through letters sent home to Sweden, the so-called amerikabrev. Modern day immigration will be discussed through recent authors who have written about their experiences moving to Sweden. We will also be following the political debate about immigration through reading news stories and opinion pieces.

*Note:* Conducted in Swedish.

*Prerequisite:* Swedish Ba or equivalent.

### **\*Scandinavian 90r. Scandinavian Language Tutorial**

Catalog Number: 11972

*Maja Bäckvall and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 13*

Individualized study of a Scandinavian language at the elementary, intermediate and advanced levels. Contact hours with language coach. Emphasis on literacy. Any language not listed as a course is taught under this number.

*Note:* For instruction in languages that are not listed (for example, modern Icelandic or Faroese), please consult the Director of Undergraduate Studies for Scandinavian. Not open to auditors.

### **\*Scandinavian 90r.a. Danish**

Catalog Number: 91003

*Maja Bäckvall*

*Half course (fall term; repeated spring term). Hours to be Arranged. EXAM GROUP: Fall: 16; Spring: 7*

Individualized study of Danish at the elementary, intermediate and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Undergraduate Studies for Scandinavian for more information. Not open to auditors.

### **\*Scandinavian 90r.b. Finnish**

Catalog Number: 84802

*Maja Bäckvall*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 7; Spring: 6*

Individualized study of Finnish at the elementary, intermediate, and advanced levels. Contact hours with a language coach. Emphasis on literacy.



*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Undergraduate Studies for Scandinavian for more information. Not open to auditors.

### **\*Scandinavian 90r.c. Norwegian**

Catalog Number: 63494

*Maja Bäckvall*

*Half course (fall term; repeated spring term). Hours to be Arranged. EXAM GROUP: Fall: 6; Spring: 17*

Individualized study of Norwegian at the elementary, intermediate and advanced levels. Contact hours with language coach. Emphasis on literacy.

*Note:* This course is offered only when there is demonstrated curricular and academic need on the part of the student. Please consult the Director of Undergraduate Studies for Scandinavian for more information. Not open to auditors.

## ***Scandinavian Literature and Culture***

*Primarily for Undergraduates*

### **Scandinavian 50. Becoming Scandinavia: Introduction to Scandinavian History and Identity - (New Course)**

Catalog Number: 15187

*Maja Bäckvall*

*Half course (spring term). M., 12-2, W., 12. EXAM GROUP: 7*

This course takes a historical perspective on Scandinavian culture, introducing it through texts and art from the Viking Age until the present day. It also discusses how history has shaped and continues to shape contemporary Scandinavian identity and the relationships between the countries. We will be reading primary sources as well as fiction, in translation, watching films and making use of Harvard's library and museum collections.

### **\*Scandinavian 91r. Supervised Reading and Research**

Catalog Number: 7308

*Stephen A. Mitchell*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

Advanced reading in topics not covered in regular courses.

*Note:* Permission of the Director of Undergraduate Studies for Scandinavian required.

### **\*Scandinavian 97. Tutorial — Sophomore Year**

Catalog Number: 1592

*Stephen A. Mitchell*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 18; Spring: 14*

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 Director of Undergraduate Studies for Scandinavian required.

### **\*Scandinavian 98. Tutorial — Junior Year**

Catalog Number: 4255

*Stephen A. Mitchell*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 12*  
 Group or individual tutorial designed to supplement course work and to develop analytical techniques.

*Note:* Permission of the Director of Undergraduate Studies for Scandinavian required.

### **\*Scandinavian 99. Tutorial — Senior Year**

Catalog Number: 5542

*Stephen A. Mitchell*

*Full course. Hours to be arranged. EXAM GROUP: 12*

Open to concentrators writing an honors thesis under faculty supervision. Students are expected to enroll for the entire year.

*Note:* Permission of the Director of Undergraduate Studies for Scandinavian required.

### ***For Undergraduates and Graduates***

#### **Scandinavian 150r (formerly Scandinavian 150.). The Vikings and the Nordic Heroic Tradition**

Catalog Number: 3974

*Stephen A. Mitchell*

*Half course (spring term). M., W., (F) at 1. EXAM GROUP: 8*

Examines the historical events in Europe A.D. 800 to A.D. 1100, and the resulting heroic legacy in medieval poetry and Icelandic sagas. The course focuses on Viking Age figures as warriors, kings, poets, outlaws and adventurers; pre-Christian religion, the Viking raids and the Norse experience in "Vinland" carefully considered.

*Note:* All readings and discussions in English. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past. May be repeated for credit with the permission of the instructor.

#### **[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 2015–16. May be counted toward the Folklore and Mythology 90 requirement.



### [Scandinavian 160br. 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 2015–16. May be counted toward the Folklore and Mythology 90 requirement.

*Prerequisite:* Scandinavian 160a or equivalent.

### \*Scandinavian 191r. Supervised Reading and Research

Catalog Number: 6175

*Stephen A. Mitchell*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16;*

*Spring: 6*

Advanced readings in topics not covered in regular courses.

### *Graduate Courses of Reading and Research*

### \*Scandinavian 300. Special Reading Programs and Research Problems for Advanced Students

Catalog Number: 1708

*Stephen A. Mitchell 7056*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 1;*

*Spring: 8*

## Global Health and Health Policy

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

#### *Faculty of the Committee on Global Health and Health Policy*

David M. Cutler, Otto Eckstein Professor of Applied Economics, Harvard College Professor, Professor in the Department of Global Health and Population (*Public Health*) (*Co-Chair*)

Paul Farmer, Kolokotrones University Professor of Global Health and Social Medicine (*Medical School*) (*Co-Chair*)



- Barry R. Bloom, Harvard University Distinguished Service Professor and Joan L. and Julius H. Jacobson Professor of Public Health (*Public Health*)
- Allan M. Brandt, Amalie Moses Kass Professor of the History of Medicine in the Faculty of Medicine, and Professor of the History of Science in the Faculty of Arts and Sciences
- Daniel P. Carpenter, Allie S. Freed Professor of Government
- Colleen M. Cavanaugh, Edward C. Jeffrey Professor of Biology
- Amitabh Chandra, Professor of Public Policy (*Kennedy School*)
- Jean Comaroff, Alfred North Whitehead Professor of African and African American Studies and of Anthropology (*on leave spring term*)
- Christopher Paul Duggan, Associate Professor of Pediatrics (*Medical School*), Associate Professor in the Department of Nutrition (*Public Health*)
- David A. Edwards, Gordon McKay Professor of the Practice of Idea Translation
- Myron Essex, Mary Woodard Lasker Professor of Health Sciences (*Public Health*)
- Susanne J. Goldie, Roger Irving Lee Professor of Public Health; Director, Center for Health Decision Science; Director, Harvard Global Health Institute; Professor of Global Health and Social Medicine (*Public Health, Medical School*)
- Mary-Jo Del Vecchio Good, Professor of Global Health and Social Medicine (*Medical School*)
- Evelynn M. Hammonds, Barbara Gutmann Rosenkrantz Professor of the History of Science and of African and African American Studies
- David P. Harrington, Professor of Statistics (*FAS*) and Professor of Biostatistics (*Public Health*)
- Daniel L. Hartl, Higgins Professor of Biology (*FAS*) and Professor in the Department of Immunology and Infectious Diseases (*Public Health*)
- Ashish Kumar Jha, K.T. Li Professor of Economics (*Public Health*), and Associate Professor of Medicine (*Medical School*)
- David Shumway Jones, A. Bernard Ackerman Professor of the Culture of Medicine (*on leave spring term*)
- Arthur Kleinman, Esther and Sidney Rabb Professor of Anthropology in the Faculty of Arts and Sciences and Professor of Medical Anthropology in the Faculty of Medicine, Harvard College Professor
- Jennifer Leaning, Francois-Xavier Bagnoud Professor of the Practice of Health and Human Rights, Director of the Francois-Xavier Bagnoud Center for Health and Human Rights (*Public Health*)
- Clifford Lo, Associate Professor in the Department of Nutrition (*Public Health*), Associate Professor of Pediatrics (*Medical School*)
- Robert A. Lue, Professor of the Practice of Molecular and Cellular Biology
- Erez Manela, Professor of History (*on leave 2014-15*)
- John M. Mugane, Professor of the Practice of African Languages and Cultures and Director of the African Language Program
- Joseph P. Newhouse, John D. MacArthur Professor of Health Policy and Management, Professor of Health Care Policy (*Kennedy School and Public Health, Medical School*)
- Meredith B. Rosenthal, Professor of Health Economics and Policy (*Public Health*)
- Brittany Anne Seymour, Assistant Professor of Oral Health Policy and Epidemiology (*Dental School*)
- Daniel Louis Shapiro, Associate Professor of Psychology in the Department of Psychiatry (*Medical School*)
- Doris Sommer, Ira Jewell Williams, Jr. Professor of Romance Languages and Literatures and of



## African and African American Studies

David Williams, Florence Sprague Norman and Laura Smart Norman Professor of Public Health in the School of Public Health and Professor of African and African American Studies in the Faculty of Arts and Sciences (*on leave spring term*)

### ***Other Faculty Offering Instruction in Global Health and Health Policy***

The Standing Committee on Global Health and Health Policy promotes expanded and enhanced curricular, research, and advising opportunities to undergraduate students interested in the various aspects of health around the world. This committee coordinates course offerings related to global health and facilitates research opportunities for undergraduates. The committee also coordinates a Secondary Field in Global Health and Health Policy.

Global health and health policy present a fundamentally interdisciplinary set of challenges, including problems in the life sciences, along with economic, political, social, and cultural factors that influence health. Harvard has a deep investment and scholarly capacity in the many areas critical to these challenges. The Committee on Global Health and Health Policy, with its diverse representation from across the Faculty of Arts and Sciences and other Harvard Faculties, provides an entrée to Harvard undergraduates as they explore the significant problems shaping health policy around the world.

#### ***Primarily for Undergraduates***

##### **\*Global Health and Health Policy 50. The Quality of Health Care in America**

Catalog Number: 4832 Enrollment: Limited to 40.

*Ashish Kumar Jha (Medical School) and Anupam Bapu Jena (Medical School)*

*Half course (spring term). M., W., 4:30-6 and a weekly section to be arranged. EXAM GROUP: 13*

Offers information and experiences regarding 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.

##### **\*Global Health and Health Policy 60. Negotiation and Conflict Management: From the Interpersonal to the International**

Catalog Number: 52527 Enrollment: Limited to 34.

*Daniel Louis Shapiro (Medical School)*

*Half course (fall term). M., 2-5. EXAM GROUP: 7*

How can you best negotiate conflict in your own life? How should policymakers negotiate global conflict? Around the world, conflict imposes profound direct and indirect costs on global health and individual well-being, ranging from death and injury to trauma, the loss of social networks, and destabilization of political systems. Rather than focusing on how to address the aftermath of conflict and violence, this course examines theory and practical methods to prevent destructive conflict. Explores theory, frameworks, and tools developed to negotiate the substantive,



emotional, and identity-based dimensions of conflict. Applies the theory to a diversity of real-life negotiations, ranging from interpersonal disputes between friends to international conflicts in the Middle East and elsewhere.

*Note:* This highly interactive course aims to improve students' skill in resolving conflicts, and draws on a variety of learning methodologies, including lecture, case simulations, self-reflection exercises, and application of negotiation frameworks to conflicts depicted in movies. Students will have the opportunity to analyze firsthand case narratives of senior-level global leaders who have negotiated serious conflicts; these cases are part of an emerging Global Curriculum on Conflict Management spearheaded by the instructor, the Harvard International Negotiation Program, and the World Economic Forum.

### **\*Global Health and Health Policy 91r. Supervised Reading and Research**

Catalog Number: 37977

*David M. Cutler (Public Health) and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 10*

Supervised reading leading to a long term paper on a topic or topics not covered by regular courses of instruction.

*Note:* May not be taken Pass/Fail. To enroll in the course, a written proposal and signature of advisor and chair of GHHP Committee is required.

### **\*Global Health and Health Policy 99. Research in Global Health and Health Policy**

Catalog Number: 2981 Enrollment: Limited.

*David M. Cutler (Public Health)*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 17*

Explores research topics and methods that are critical to evaluating current issues in national and global health care policy. Students will develop and execute an original research project that utilizes quantitative or qualitative research approaches to studying a domestic and global health policy topic of their interest. Such topics may include: the elements of health care reform, cost containment, quality measurement and improvement, racial and ethnic disparities in care, politics of health care, comparative health systems, global health, and organizational influences on quality.

*Note:* This course fulfills the research requirement of the Secondary Field in Global Health and Health Policy and enrollment is ordinarily limited to seniors in the GHHP Secondary Field. Underclass GHHP students may petition to take the course if all other Secondary Field requirements have been met. Course is primarily taught by graduate students in the PhD in Health Policy program and guest lecturers. May not be taken pass/fail.

### ***Cross-listed Courses***

For additional courses taught at other Harvard Schools, consult the website for the Secondary Field in Global Health and Health Policy.

### ***General Education***

#### **Aesthetic and Interpretive Understanding 50. Literature and Medicine**

[Culture and Belief 11. Medicine and the Body in East Asia and in Europe]



### [\*\*Culture and Belief 34. Madness and Medicine: Themes in the History of Psychiatry\*\*](#)

[Culture and Belief 58. Case Studies in the Medical Humanities: Interdisciplinary Perspectives on the Experience of Illness and Healing]

### [\*\*Empirical and Mathematical Reasoning 20. The Business and Politics of Health\*\*](#)

[\*\*Empirical and Mathematical Reasoning 22. Nutrition and Health: Myths, Paradigms, and Science\*\*](#)

### [\*\*Ethical Reasoning 33. Medical Ethics and History\*\*](#)

[\*\*Science of Living Systems 11. Molecules of Life\*\*](#)

### [\*\*Science of Living Systems 16. Human Evolution and Human Health\*\*](#)

[Science of Living Systems 17. The Human Organism]

[\*\*Science of Living Systems 19. Nutrition and Global Health\*\*](#)

[\*\*Science of Living Systems 26. The Toll of Infection: Understanding Disease in Scientific, Social, and Cultural Contexts - \(New Course\)\*\*](#)

[\*\*Societies of the World 24. Global Health Challenges: Complexities of Evidence-Based Policy\*\*](#)

[\*\*Societies of the World 25. Case Studies in Global Health: Biosocial Perspectives\*\*](#)

[\*\*Societies of the World 44. Human Trafficking, Slavery and Abolition in the Modern World\*\*](#)

[United States in the World 11. American Health Care Policy]

[United States in the World 13. Medicine and Society in America]

[\*\*United States in the World 31. American Society and Public Policy\*\*](#)

### *Freshman Seminars*

[\*\*\\*Freshman Seminar 22l. Justice in Health: Ethics of Public Health in the Contemporary World - \(New Course\)\*\*](#)

[\*\*\\*Freshman Seminar 23g. Nature, Nurture, and Mental Illness - \(New Course\)\*\*](#)

[\*\*\\*Freshman Seminar 23k. Insights from Narratives of Illness\*\*](#)

[\*\*\\*Freshman Seminar 23l. Medicine, Law, and Ethics: An Introduction\*\*](#)

[\*\*\\*Freshman Seminar 23m. Nutrition and Public Health\*\*](#)

[\*\*\\*Freshman Seminar 24g. A Brief History of Surgery\*\*](#)

[\*\*\\*Freshman Seminar 24n. Child Health in America\*\*](#)

[\*\*\\*Freshman Seminar 25e. Autism\*\*](#)

[\*\*\\*Freshman Seminar 25k. You Are What You Eat\*\*](#)

[\*\*\\*Freshman Seminar 25n. Understanding Psychological Development, Disorder and Treatment: Learning through Literature and Research\*\*](#)

[\*\*\\*Freshman Seminar 25p. Neurotoxicology: Biological Effects of Environmental Poisons\*\*](#)

[\*\*\\*Freshman Seminar 25x. Human Brain in Health and Disease: A Neurologist's Perspective\*\*](#)

[\*\*\\*Freshman Seminar 25z. Stress and Disease \(Biobehavioral Aspects of Health and Disease\)\*\*](#)

[\*\*\\*Freshman Seminar 26u. What is Mental Illness?\*\*](#)

[\*\*\\*Freshman Seminar 26w. The Biology and Science of Cancer and Its Treatments: From Empiric to Scientific to Humanistic\*\*](#)

[\*\*\\*Freshman Seminar 27i. Global Health: Comparative Analysis of Healthcare Delivery Systems\*\*](#)

[\*\*\\*Freshman Seminar 39j. Dirty and Dangerous: Environmental Problems and Problem Environments in US History - \(New Course\)\*\*](#)

[\*\*\\*Freshman Seminar 48e. Health and Mental Health in Everyday Life\*\*](#)



*African and African American Studies*

**African and African American Studies 178. Health, Society, and Subjectivity in the American Context**

[African and African American Studies 189x. Medicine, Culture, and Society]

[African and African American Studies 197. Poverty, Race, and Health]

*Anthropology*

[Anthropology 1882. The Woman and the Body]

*Applied Mathematics*

**Applied Mathematics 101. Statistical Inference for Scientists and Engineers**

*Biomedical Engineering*

**Biomedical Engineering 110 (formerly Engineering Sciences 145). Physiological Systems Analysis**

[Biomedical Engineering 125 (formerly Engineering Sciences 130). Tissue Engineering]

**Biomedical Engineering 130 (formerly Engineering Sciences 149). Neural Control of Movement**

*Chemistry and Chemical Biology*

**Chemistry 101. Organic Synthesis Towards a Genomic Medicine**

*The Classics*

[Classical Studies 165. Medicine in the Greco-Roman World]

*Economics*

[\*Economics 980w. Policy Options in Health and Environmental Economics]

**Economics 1123 (formerly Economics 1123a1). Introduction to Econometrics**

**Economics 1126. Quantitative Methods in Economics**

**\*Economics 1389. Economics of Global Health**

**Economics 1460. Economics of Health Care Policy**

*Engineering Sciences*

**Engineering Sciences 6. Environmental Science and Technology**

**Engineering Sciences 53. Quantitative Physiology as a Basis for Bioengineering**

**Engineering Sciences 103. Spatial Analysis of Environmental and Social Systems**

**Engineering Sciences 165. Water Engineering**



### *Environmental Science and Public Policy*

**\*Environmental Science and Public Policy 90j. Environmental Crises, Climate Change, and Population Flight**

**Environmental Science and Public Policy 90t. Environmental Health: Your World and Your Life at Risk**

### *Government*

**Government 50. Introduction to Political Science Research Methods**

[Government 1093. Ethics, Biotechnology, and the Future of Human Nature]

### *History*

[\*History 97a. "What is the History of Medicine?"]

**\*History 1992. Disease and Public Health in Modern East Asian History - (New Course)**

### *History of Science*

**History of Science 108. Bodies, Sexualities, and Medicine in the Medieval Middle East**

[History of Science 112. Magic, Medicine and Miracles: Health and Healing in the Middle Ages and Renaissance]

[History of Science 113. Crusades, Plagues and Hospitals: Medicine and Society in the Islamic Middle Ages]

**History of Science 136. History of Biotechnology**

**History of Science 146v. Bodies in Flux: Medicine, Gender, and Sexuality in the Modern Middle East - (New Course)**

**History of Science 149v. Explaining Epidemics**

**History of Science 178v. History of the Psychotherapies - (New Course)**

**\*History of Science 253. Bioethics, Law, and the Life Sciences**

**History of Science 275v. Psychoanalytic Practices from Freud to the Present - (New Course)**

### *Human Evolutionary Biology*

**Human Evolutionary Biology 1424. Human Health in Evolutionary and Anthropological Perspective**

**Human Evolutionary Biology 1500. Building Babies: Developmental Trajectories from Conception to Weaning**

### *Life Sciences*

**Life Sciences 2. Evolutionary Human Physiology and Anatomy**

[Life Sciences 60. Ethics, Biotechnology, and the Future of Human Nature]

**Life Sciences 120. Global Health Threats**

### *Medical Sciences*



### **BCMP 230. Principles and Practice of Drug Development**

#### *Mind, Brain, and Behavior*

[\*Mind, Brain, and Behavior 980b (formerly Mind, Brain, and Behavior 95). Addiction, Choice, and Motivation]

**\*Mind, Brain, and Behavior 980k. Fighting Cancer with the Mind - (New Course)**

#### *Molecular and Cellular Biology*

**MCB 64. The Cell Biology of Human Life in the World - (New Course)**

**MCB 111. Mathematics in Biology**

**MCB 120. Global Health Threats - (New Course)**

**MCB 169. Molecular and Cellular Immunology**

**MCB 192. Principles of Drug Discovery and Development**

#### *Neurobiology*

**\*Neurobiology 101hfj. Brain Rhythms in Cognition, Mental Health & Epilepsy**

#### *Organismic and Evolutionary Biology*

**OEB 50. Genetics and Genomics**

[OEB 123. Biology of Symbiosis]

[OEB 221. Microbial Diversity]

**\*OEB 290. Microbial Sciences: Chemistry, Ecology and Evolution**

#### *Psychology*

**Psychology 18. Abnormal Psychology**

**Psychology 1005. Health Psychology**

**Psychology 1201. Your Brain on Drugs: Psychopharmacology**

**Psychology 1900. Introduction to Statistics for the Behavioral Sciences**

#### *Romance Languages and Literatures*

#### *Social Studies*

[\*Social Studies 98kg. The Political Economy of Health in the Developing World]

**\*Social Studies 98nw. Health Care in America**

#### *Sociology*

[\*Sociology 98Ha. Sociology of Health]

**\*Sociology 156. Quantitative Methods in Sociology**



**Sociology 165. Inequalities in Health Care**

**Sociology 168. Sociology of Biomedicine and Global Health - (New Course)**

***Statistics***

**Statistics 100. Introduction to Quantitative Methods for the Social Sciences and Humanities**

[Statistics 101. Introduction to Quantitative Methods for Psychology and the Behavioral Sciences]

**Statistics 102. Introduction to Statistics for Life Sciences**

**Statistics 104. Introduction to Quantitative Methods for Economics**

**Statistics 107. Introduction to Business and Financial Statistics**

**Statistics 110. Introduction to Probability**

***Stem Cell and Regenerative Biology***

**\*SCRB 130. Biomedical Entrepreneuring: Turning Ideas into Medicine**

[SCRB 150. Human Genetics: Mining Our Genomes for an Understanding of Human Variation and Disease]

**\*SCRB 167. Stem Cells and Regeneration in the Pathobiology and Treatment of Human Disease**

[\*SCRB 185. Human Disease]

**\*SCRB 187. Brains, Identity, and Moral Agency**

[SCRB 192. Principles of Drug Discovery and Development]

**SCRB 230. Principles and Practice of Drug Development - (New Course)**

***Women, Gender, and Sexuality***

[\*Studies of Women, Gender, and Sexuality 1421. Medical Management of the Female Body]

# Government

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

***Faculty of the Department of Government***

Timothy J. Colton, Morris and Anna Feldberg Professor of Government and Russian Studies  
*(Chair)*



James E. Alt, Frank G. Thomson Professor of Government (*on leave spring term*)  
Stephen Daniel Ansolabehere, Professor of Government  
Muhammet Ali Bas, Associate Professor of Government  
Robert H. Bates, Eaton Professor of the Science of Government and Professor of African and African American Studies (*on leave fall term*)  
Eric Beerbohm, Frederick S. Danziger Associate Professor of Government and of Social Studies  
Matthew Lee Blackwell, Assistant Professor of Government  
Aurel Braun, Visiting Professor of Government  
Colin Michael Brown, Lecturer on Government  
Melani Claire Cammett, Professor of Government  
Paul A. Cantor, Visiting Professor of Government  
Daniel P. Carpenter, Allie S. Freed Professor of Government  
Amy Louise Catalinac, Visiting Assistant Professor of Government  
Carlos E. Díaz Rosillo, Lecturer on Government  
Jorge I. Domínguez, Antonio Madero Professor for the Study of Mexico  
Grzegorz Ekiert, Professor of Government  
Ryan Enos, Assistant Professor of Government  
Michael Frazer, Associate Professor of Government and of Social Studies  
Charles David Freilich, Lecturer on Government  
Jeffry Frieden, Stanfield Professor of International Peace  
Claudine Gay, Professor of Government and of African and African American Studies (*Director of Graduate Studies*)  
Jill Iris Goldenziel, Lecturer on Government, Lecturer on Social Studies  
Frances Hagopian, Jorge Paulo Lemann Visiting Associate Professor  
Peter A. Hall, Krupp Foundation Professor of European Studies (*on leave 2014-15*)  
Chase Henri Harrison, Preceptor in Survey Research  
Rowena Xiaoqing He, Lecturer on Government  
Michael J. Hiscox, Clarence Dillon Professor of International Affairs (*on leave fall term*)  
Jennifer L. Hochschild, Henry LaBarre Jayne Professor of Government and Professor of African and African American Studies  
Torben Iversen, Harold Hitchings Burbank Professor of Political Economy  
Alastair Iain Johnston, Governor James Albert Noe and Linda Noe Laine Professor of China in World Affairs (*on leave 2014-15*)  
Joshua David Kertzer, Assistant Professor of Government  
Gary King, Albert J. Weatherhead III University Professor  
Joseph Stanley Kochanek, Lecturer on Government  
Horacio Alejandro Larreguy Arbesu, Assistant Professor of Government  
Steven R. Levitsky, Professor of Government  
Ofrit Liviatan, Lecturer on Government, and Director of Freshman Seminars  
Harvey C. Mansfield, William R. Kenan, Jr. Professor of Government  
Jose Manuel Martinez Sierra, Lecturer on Government  
Gwyneth McClendon, Assistant Professor of Government and of Social Studies  
Payam Mohseni, Lecturer on Government  
Yascha Benjamin Mounk, Preceptor in Expository Writing, Lecturer on Government  
Eric M. Nelson, Robert M. Beren Professor of Government  
Ruxandra Paul, College Fellow in the Department of Government



Gregg Andrew Peeples, Lecturer on Government  
 Mark J. Penn, Visiting Lecturer on Government  
 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 (*on leave spring term*)  
 Robert D. Putnam, Peter and Isabel Malkin Professor of Public Policy (*on leave spring term*)  
 Patrick T. Riley, Lecturer on Government  
 James Robinson, Wilbur A. Cowett Professor of Government  
 Michael E. Rosen, Professor of Government (*on leave 2014-15*)  
 Stephen P. Rosen, Beton Michael Kaneb Professor of National Security and Military Affairs  
 Nancy Lipton Rosenblum, Senator Joseph S Clark Professor of Ethics in Politics and  
*Government (on leave fall term)*  
 Pedram Safari, Preceptor in Government  
 Michael J. Sandel, Anne T. and Robert M. Bass Professor of Government  
 Mary Elise Sarotte, Visiting Professor of Government and of History  
 Anne E. Sartori, Visiting Associate Professor of Government  
 Kenneth A. Shepsle, George D. Markham Professor of Government  
 Beth A. Simmons, Clarence Dillon Professor of International Affairs (*on leave spring term*)  
 Theda Skocpol, Victor S. Thomas Professor of Government and Sociology  
 Daniel M. Smith, Assistant Professor of Government  
 James M. Snyder, Leroy B. Williams Professor of History and Political Science  
 George Soroka, Lecturer on Government  
 Arthur P. Spirling, John L. Loeb Associate Professor of the Social Sciences  
 Sumeeta Srinivasan, Preceptor in Government  
 Jessica E. Stern, Lecturer on Government  
 Latanya Sweeney, Professor of Government and Technology in Residence  
 Dustin Tingley, Paul Sack Associate Professor of Political Economy (*on leave spring term*)  
 Andrea Tivig, Lecturer on Government, Lecturer on Social Studies  
 Kris-Stella Trump, College Fellow in the Department of Government  
 Richard Tuck, Frank G. Thomson Professor of Government  
 Sanford J. Ungar, Visiting Lecturer on Government  
 Alexandra Vacroux, Lecturer on Government  
 Cheryl Brown Welch, Senior Lecturer on Government (*Director of Undergraduate Studies*)  
 Daniel F. Ziblatt, Professor of Government

### ***Other Faculty Offering Instruction in the Department of Government***

Paul A. Cantor, Visiting Professor of Government  
 Nara Dillon, Lecturer on East Asian Languages and Civilizations  
 Alexandra Achen Killewald, Assistant Professor of Sociology  
 Roderick Macfarquhar, Leroy B. Williams Professor of History and Political Science, Emeritus  
 Luke Weisman Miratrix, Assistant Professor of Statistics  
 Donald B. Rubin, John L. Loeb Professor of Statistics  
 Dennis F. Thompson, Alfred North Whitehead Professor of Political Philosophy in the Faculty of  
 Arts and Sciences and in the John F. Kennedy School of Government, Emeritus  
 Roberto Mangabeira Unger, Roscoe Pound Professor of Law (*Law School*)



Sidney Verba, Carl H. Pforzheimer University Professor, Emeritus  
 Christopher Winship, Diker-Tishman Professor of Sociology

### ***Affiliates of the Department of Government***

Rawi Abdelal, Herbert F. Johnson Professor of International Management (*Business School*)  
 Arthur I. Applbaum, Adams Professor of Political Leadership and Democratic Values at the John F. Kennedy School of Government (*Kennedy School*)  
 Matthew A. Baum, Marvin Kalb Professor of Global Communications (*Kennedy School*)  
 Richard H. Fallon, Ralph S. Tyler, Jr. Professor in Constitutional Law (*Law School*)  
 Archon Fung, Ford Foundation Professor of Democracy and Citizenship (*Kennedy School*)  
 Jacob E. Gersen, Professor of Law (*Law School*)  
 Jane Mansbridge, Adams Professor of Political Leadership and Democratic Values (*Kennedy School*)  
 Kathryn A. Sikkink, Ryan Family Professor of Human Rights Policy (*Kennedy School, on leave 2014-15*), Carol K. Pforzheimer Professor at the Radcliffe Institute for Advanced Study  
 Matthew C. Stephenson, Professor of Law (*Law School*)

A full list of courses that count toward undergraduate concentration is available in the Office of the Director of Undergraduate Studies.

Department of Government course listings are numerically ordered as follows:

10–64: Foundational Courses

91–99: Supervised Reading and Research, Tutorials and Seminars

1000–1024 and 2000–2024: Political Methodology and Formal Theory

1025–1099 and 2025–2099: 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

### ***Foundational Courses***

#### ***Primarily for Undergraduates***

##### **Government 10. Foundations of Political Theory**

Catalog Number: 8836

*Eric Beerbohm*



*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

This course investigates the central problems of political theory that concern the justification of democracy. Is democratic rule the uniquely just form of collective decision-making? What political institutions best express the democratic values of equality, deliberation, and participation? What are the moral responsibilities of citizens - whose representatives exercise political power in their name? Is democracy a human right? Readings integrate contemporary work in political philosophy with canonical thinkers, including Plato, Aristotle, Rousseau, and J.S. Mill.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

### **Government 20. Foundations of Comparative Politics**

Catalog Number: 6166

*Steven R. Levitsky*

*Half course (fall term). Tu., Th., at 10 and a weekly section to be arranged. EXAM GROUP: 12*

Provides an introduction to key concepts and theoretical approaches in comparative politics. Major themes include the causes of democratization, economic development, ethnic conflict, and social revolutions; as well as the role of the state, political institutions, and civil society. Examines and critically evaluates different theoretical approaches to politics including modernization, Marxist, cultural, institutionalist, and leadership-centered approaches. Compares cases from Africa, Asia, Europe, Middle East and Latin America to provide students with grounding in the basic tools of comparative analysis.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Societies of the World.

### **Government 30. American Government: A New Perspective**

Catalog Number: 0263

*Paul E. Peterson*

*Half course (fall term). M., W., at 11. EXAM GROUP: 18*

Provides an overview of contemporary American politics. It analyses the way in which recent changes in elections and media coverage have helped shape key aspects of American government, including the courts, Congress, and the Presidency, the workings of interest groups and political parties, and, also, the making of public policy. Permanent political campaigns have altered governmental institutions and processes. The course explains how and why.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for United States in the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Government 40. International Conflict and Cooperation**

Catalog Number: 72449

*Michael J. Hiscox and Amy Louise Catalinac*

*Half course (spring term). M., W., at 11. EXAM GROUP: 13*

This course is an introduction to the analysis of the causes and character of international conflict and cooperation. Theories of international relations are presented and then applied to historical cases to test those theories of international politics and to expand our understanding of the range of possible forms of international behavior.



*Note:* This course, when taken for a letter grade, meets the General Education requirement for Societies of the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Government 50. Introduction to Political Science Research Methods**

Catalog Number: 6500

*Arthur P. Spirling*

*Half course (fall term). M., W., at 11. EXAM GROUP: 18*

This class will introduce students to techniques used for research in the study of politics. Students will learn to think systematically about research design and causality, how data and theory fit together, and how to measure the quantities we care about. Students will learn a ‘toolbox’ of methods---including statistical software---that enable them to execute their research plans. This class is highly recommended for those planning to write a senior thesis.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning. This course must be taken for letter grade.

### **Government 61. Research Practice in Quantitative Methods**

Catalog Number: 52605

*Arthur P. Spirling*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

Class introduces students to statistical methods and practice commonly used in political science and likely to be of utility to those undertaking a quantitative methods thesis in Government. Topics will include techniques for dealing with binary or ordinal dependent variables, time series and ‘survival’ models, along with applications of more complicated approaches. Students will learn new statistical software skills, and be expected to both gather and work on their own data throughout the semester.

### **Government 62. Research Practice in Qualitative Methods**

Catalog Number: 67712

*Gwyneth McClendon*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

With the goal of preparing students to undertake original research, this course introduces students to basic principles and tools of qualitative research in the social sciences. Focus is on comparative research design and the principal tools of qualitative research. Topics examined include the pitfalls of selection bias, the logic of causal inference, measurement and conceptualization, and the potential of mixed methods. Research techniques covered are process tracing, analytic narratives, natural experiments, archival research, interviews, and ethnography.

### **Government 63. Topics and Resources in Political Theory**

Catalog Number: 37498

*Cheryl Brown Welch*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

This course introduces students to some of the methodological approaches in contemporary political theory—philosophical and historical—by looking at analyses of the “just war.” We then turn to other topics reflecting the individual interests of students who enroll. Designed to help participants to make the transition from being critical readers of political thought to being



independent contributors to debate, the course will be especially useful for those considering writing a political theory thesis.

### ***Tutorials and Seminars***

#### **\*Government 91r. Supervised Reading and Research**

Catalog Number: 2444

*Cheryl Brown Welch*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*

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 credit. Offered at the discretion of the individual instructors. Written proposal and signature of Director of Undergraduate Studies required.

#### **\*Government 92r. Faculty Research Assistant**

Catalog Number: 35789

*Cheryl Brown Welch, and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 13; Spring: 9*

*Note:* This course must be taken Sat/Unsat.

### ***Government 94. Undergraduate Seminars***

#### **\*Government 94ac. War and Peace: Actors, Institutions and Foreign Policy - (New Course)**

Catalog Number: 76349 Enrollment: Limited to 16.

*Amy Louise Catalinac*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

What determines states' decisions for war or peace? This course aims to familiarize students with the major variables, both systemic and unit-level, that we know influence the security policies of states, and also equip them with the necessary tools to conduct research and complete a research paper of their own.

#### **\*Government 94an. Politics at the Margins - (New Course)**

Catalog Number: 37934 Enrollment: Limited to 16.

*Andrea Tivig*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

This course examines the political implications of contemporary social marginality, such as being homeless, poor, racially segregated, incarcerated, or undocumented. What is the significance of the spatial metaphor of being at the "margins" of society? How do people come to inhabit this location? We will draw on readings from both political theory and empirical social science research to explore the normative and political concerns at stake, particularly the political invisibility of the marginalized.



### **\*Government 94au. Political Economy**

Catalog Number: 8213 Enrollment: Limited to 16.

*Torben Iversen*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

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.

### **\*Government 94bp. Business, Power and American Politics - (New Course)**

Catalog Number: 30439 Enrollment: Limited to 12.

*Cheryl Brown Welch and members of the Department*

*Half course (spring term). W., 10–12. EXAM GROUP: 5*

How much power does business exercise over the decisions that are made in American politics? How similar is business from other actors in our political system? How has business's power and modes of influence changed over time? And how does that influence compare to the role that business plays in other countries? This seminar will equip students to consider and debate these questions, drawing on evidence from contemporary events, history, political science, and sociology.

### **\*Government 94ca. Casino Capitalism: Gambling, finance, and the ethics of speculation - (New Course)**

Catalog Number: 43145 Enrollment: Limited to 16.

*Michael J. Sandel*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

Is casino gambling morally objectionable? What about financial speculation? Are they morally on a par? The seminar will explore ethical controversies about various risk-taking activities, from lotteries to life insurance to hedge funds.

### **\*Government 94dn. Mapping Social and Environmental Space**

Catalog Number: 2017 Enrollment: Limited to 16.

*Sumeeta Srinivasan*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

This seminar will use mapping as a methodological technique to examine social and environmental issues. Students will be expected to use mapping software to examine spatial data for a location and topic of their choice for their final paper. Weekly discussions will be conducted in class on various mapping related topics. References will range from books like "How to lie with Maps" to current journal articles examining the use of GIS in social science.

### **\*Government 94ef. Black Politics in the Post Civil Rights Era**

Catalog Number: 3345 Enrollment: Limited to 16.

*Claudine Gay*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Course examines shift among African Americans from protest to politics. Emphasis is on



development and use of political resources as the means to achieve policy objectives in the post-Civil Rights Era. Beginning with 1965 Voting Rights Act, course will explore the issues, opportunities, and challenges that have defined African American political life in the last forty years, as well as the attitudes and debates that have shaped efforts to increase African American influence over the political process.

**\*Government 94es. Spain 40 Years Later: From Franco Dictatorship to the Indignados Movement - (New Course)**

Catalog Number: 89299 Enrollment: This course will be conducted in Spanish.

*Jose Manuel Martinez Sierra*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

This seminar aims to develop an in-depth understanding of modern Democracy's discontent through the Spanish case study. In 40 years Spain has turned from being an exemplary model of the transition to democracy to a leading example of disaffection with political and economic elites. The Indignados/Podemos movement came seemingly out of nowhere to capture 1.2 million votes, becoming the third political force in many regions of Spain. It is an appropriate time for us to consider how to breathe new life into a decadent democracy.

**\*Government 94et. Ethics and International Relations - (New Course)**

Catalog Number: 44689 Enrollment: Limited to 16.

*Joseph Stanley Kochanek*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

How should ethical considerations shape the conduct of international politics? This course will address this question both from a theoretical perspective and with reference to events in international politics. Specific issues considered in this course will include state sovereignty, military intervention, human rights, and distributive justice.

**\*Government 94ex. Experiments and Politics - (New Course)**

Catalog Number: 25218 Enrollment: Limited to 16.

*Kris-Stella Trump*

*Half course (spring term). Tu., 10–12. EXAM GROUP: 12*

Description: Intended for undergraduates who are contemplating using experimental research in their senior thesis. The course is a blend of substance and methodology: we will look at famous political science experiments, primarily drawn from the field of American Politics, to get a sense of what can be done with this method. The students will also be introduced to the methods involved in doing good experimental research, and will leave the course prepared to run their own experiments.

**\*Government 94fg. Presidents, Governors, and Mayors: Chief Executive Power in Comparative Perspective**

Catalog Number: 8598 Enrollment: Limited to 16.

*Carlos E. Díaz Rosillo*

*Half course (fall term). W., 7–9 p.m. EXAM GROUP: 17*

Analyzes the foundation, development, and exercise of chief executive power at the national, state, and local levels of government in the United States. Examines the applicability of different political science theories of presidential power to the broader exercise of chief executive power.



Explores the sources and limits of executive authority, the roles and responsibilities of political chief executives at different levels of government, and the way in which institutions affect the exercise of chief executive power.

### **\*Government 94fp. The Military Instrument of Foreign Policy**

Catalog Number: 38494 Enrollment: Limited to 16.

*Aurel Braun*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

This seminar analyzes the relationship of military force to politics. Nuclear war and deterrence, conventional war, revolutionary war and counter-insurgency are examined from the perspectives of the U.S., Russia, China and other contemporary military powers. The aim of this course is to help acquaint students of international relations with the vital importance of the military instrument in the formulation and implementation of foreign policy and in the functioning of the international system.

### **\*Government 94gz. International Human Rights: Law and Politics**

Catalog Number: 65876 Enrollment: Limited to 16.

*Jill Iris Goldenziel*

*Half course (spring term). Th., 10–12. EXAM GROUP: 12*

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.

### **\*Government 94ha. The Political Science of American Democracy - (New Course)**

Catalog Number: 24199 Enrollment: Limited to 16.

*Harvey C. Mansfield*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

A close reading of the two essential books on American politics, *The Federalist* and Tocqueville's *Democracy in America*. Readings also in Tom Paine, the Anti-Federalists, Thomas Jefferson, and Abraham Lincoln.

### **\*Government 94hg. The Politics and Political Economy of Inequality in Latin America - (New Course)**

Catalog Number: 56885 Enrollment: Limited to 16.

*Frances Hagopian*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Maps dimensions of contemporary inequalities in Latin America, the most unequal region in the world. Focuses on socioeconomic origins and politics of, and strategies and policies for overcoming, inequality. Topics examined include colonial legacies, regimes and economic development models, systems of political representation, legal systems, political parties and social movements, and education, social welfare, and social insurance policies. Emphasis is on distributive conflicts and their resolutions. Considers a diversity of Latin American experiences with inequality.

### **\*Government 94hk. The Early Development of American Political Institutions and Organizations**



Catalog Number: 51268 Enrollment: Limited to 16.

*Daniel P. Carpenter*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

Survey of developments in the party system, social movements, Congress, the presidency and the bureaucracy from the colonial period through the Civil War. Rise of the two-party system, the mass party and changes in voting rights; congressional committees and their power; building of the Constitution and the federal judiciary; abolitionism and new social movements, the emergence of early bureaucratic institutions, and the presidency -- studied using three theoretical approaches (rational choice, historical institutionalism, and critical theory).

#### **\*Government 94im. Comparative Electoral Systems**

Catalog Number: 11904 Enrollment: Limited to 16.

*Daniel M. Smith*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

This seminar will survey and analyze the electoral systems used around the world to show how electoral rules can affect voters, politicians, parties, policymaking, and representation.

#### **\*Government 94is. Individual and Society: the psychology of how society affects its citizens**

Catalog Number: 29395 Enrollment: Limited to 16.

*Kris-Stella Trump*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

Description: In this course we use insights from social psychology to ask how the beliefs, desires and even perceived opportunities of citizens are affected by the society they live in. We contrast the rational and the psychological approaches to human beings, and ask under what conditions rational assumptions are useful. The readings are drawn largely but not exclusively from psychology, and they are used to spur questions about the realm of society and politics.

#### **\*Government 94jb. Secrecy and Transparency - (New Course)**

Catalog Number: 20619 Enrollment: Limited to 12.

*Cheryl Brown Welch and members of the Department*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

Liberal democratic principles suggest that the state should be largely transparent, while ordinary citizens should be free to act in private or secret. Recent leaks suggest that in fact we face the inverse: states often operate in secret, while citizens have become largely transparent to government oversight. What, if anything, is objectionable about these circumstances? We critically investigate normative arguments about political transparency, personal privacy, and state secrecy, and consider the implications for institutional design.

#### **\*Government 94le. Liberalism and Empire**

Catalog Number: 84202 Enrollment: Limited to 16.

*Cheryl Brown Welch*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

Can theories grounded in moral universalism and democratic principles legitimate imperial domination and intervention? Modern liberal political thought emerged in tandem with European expansion into the "new world" and then into Asia and Africa, generating both critics and supporters of imperialism. Focusing on the imperial impulse in Britain, France, and the United



States, this seminar examines the conceptual connections between liberal democracy and empire in political thinkers from John Locke to Niall Ferguson.

#### **\*Government 94nl. Election Polling and Public Opinion - (New Course)**

Catalog Number: 81597 Enrollment: Limited to 16.

*Chase Henri Harrison*

*Half course (fall term). W., 6–8 p.m. EXAM GROUP: 17*

Political polls and other survey methodologies are frequently used to understand and explain both voter intentions and public opinion. This course will examine the theoretical and practical issues involved in using polls and surveys. We will explore the normative assumptions involved in polling, study possible sources of error in survey measures, and discuss the prospective implications of polling for policy and governance.

#### **\*Government 94oa. Inequality and American Democracy**

Catalog Number: 2053 Enrollment: Limited to 16.

*Theda Skocpol*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

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 94of. Law and Politics in Multicultural Democracies**

Catalog Number: 14911 Enrollment: Limited to 16.

*Ofrit Liviatan*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

Examines the role of law in the governance of cultural diversity drawing on examples from the USA, Western Europe, India and Israel. Central themes at the intersection of law and politics will be explored, including: the impact of courts on rights protections, law's function as a venue of conflict resolution, and courts' relationship with other political institutions. Specific attention will be given to contemporary controversies such as Islamic veiling, abortion and same sex marriage.

#### **\*Government 94pt. Political Parties in Developed Democracies - (New Course)**

Catalog Number: 57948 Enrollment: Limited to 16.

*Colin Michael Brown*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

This seminar will prepare students to think about political parties as institutional actors in political science. The first part of this course will focus on the origins of parties, looking at the history of the U.S. Republican and Democratic parties and the British Conservative, Liberal, and Labour parties. The second part of the course will expand to cover Germany, the Netherlands, Italy, and a number of other developed democracies in order to understand the full range of party types that can exist (and have existed), and to introduce students to some of the theoretical models used in researching political parties.



### **\*Government 94py. Revolution and Politics in Contemporary Iran**

Catalog Number: 70025 Enrollment: Limited to 16.

*Payam Mohseni*

*Half course (fall term). Tu., 4–6. EXAM GROUP: 16*

Iran is increasingly a significant power in the Middle East and a salient country to global affairs. Accordingly, this course examines the intricacies of Iranian politics since the 1979 revolution. It explores a broad range of topics including the causes of the Iranian revolution; the political implications of the Islamic regime's institutional architecture; the competitive factional dynamics within the ruling elite; Iranian foreign policy, Iran-US relations, and nuclear negotiations; and Shia political ideology.

### **\*Government 94q. US-Latin American Relations: Seminar**

Catalog Number: 5153 Enrollment: Limited to 16.

*Jorge I. Domínguez*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

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 US and Latin America, and to alternative approaches to the study of international relations and foreign policy.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for United States in the World.

### **\*Government 94qa. Community in America**

Catalog Number: 4941 Enrollment: Limited to 16.

*Robert D. Putnam*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

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 94saf. EJ Safra Undergraduate Ethics Fellowship Seminar**

Catalog Number: 45386 Enrollment: Limited to and required of undergraduate fellows in the Center for Ethics.

*Arthur I. Appelbaum (Kennedy School)*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

Topics in moral philosophy and political theory that illuminate normative issues in public and professional life. Prepares undergraduate fellows across the social sciences, natural sciences, and the humanities to pursue research on normative questions.

### **\*Government 94sp. Future of War**

Catalog Number: 6012 Enrollment: Limited to 16.

*Stephen P. Rosen*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

Examines the character and implications of political and technological factors that could affect the future conduct of war.



### **\*Government 94td. Tough Transition: Consolidating Democracy under Adverse Circumstances - (New Course)**

Catalog Number: 67778 Enrollment: Limited to 16.

*George Soroka*

*Half course (fall term). Th., 4–6. EXAM GROUP: 16*

This course addresses the question of "tough transitions." Democracy has come to many different lands in the twentieth and twenty-first centuries, but its record of success once there has been remarkably variable. In this seminar we will ask two interrelated questions, drawing upon both theoretical literature and case studies: what conditions are advantageous or disadvantageous for democratic consolidation? And, in the latter instance, are there ways of overcoming less than ideal starting points?

### **\*Government 94xp. Cyberpolitics**

Catalog Number: 93956 Enrollment: Limited to 16.

*Ruxandra Paul*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

This seminar examines how the digital age has transformed politics around the world, in democratic and authoritarian contexts. Information and communication technologies change how people, states, and non-state actors interact. Social media (Facebook, Twitter) facilitate information-sharing and collective action. Technology creates new access points and new vulnerabilities. The course includes four modules: e-Democracy (civic engagement, elections, accountability); Online Revolutions (resistance, repression, mobilization); Security (cyberwar, terrorism, hacking); and Beyond State Boundaries (international cooperation, diasporas, transnational activism).

### **\*Government 94xy. Migration and Politics in the Era of Globalization - (New Course)**

Catalog Number: 37243 Enrollment: Limited to 16.

*Ruxandra Paul*

*Half course (fall term). Tu., 4–6. EXAM GROUP: 16*

International migrations constantly reshape politics, markets and societies. They generate challenges and opportunities for people, communities, businesses, civil society organizations, political parties, governments and international institutions. This course examines the political, social and economic consequences of migrations around the world, in both sending and receiving countries. We will study the impact of migration on citizenship, sovereignty, political regimes and platforms, economic development, inequality, human capital, as well as on political values and participation.

### **\*Government 94ym. The Politics of Climate Change - (New Course)**

Catalog Number: 76287 Enrollment: Limited to 16.

*Yascha Benjamin Mounk*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

This course examines the political challenges posed by global warming from both an empirical and a normative perspective. Drawing on a broad array of readings, we investigate why the global community has done so little to combat climate change; what kinds of domestic and international institutions we need to coordinate our response to global warming; whether we



should prioritize mitigation or adaptation; and what a just response to climate change might look like.

### ***Tutorials***

#### **\*Government 97. Tutorial — Sophomore Year**

Catalog Number: 3023

*Nancy Lipton Rosenblum and Stephen Daniel Ansolabehere*

*Half course (spring term). M., 2-3:30, and tutorial sections to be arranged. EXAM GROUP: 18*

This one-semester course is designed to provide all Government Department concentrators with a unified and challenging intellectual experience in the study of politics. The course covers a selection of topics on the theme of "Democracy" and draws on materials ranging from classics in political theory to cutting edge research in the discipline today.

#### **\*Government 99r. Tutorial — Senior Year**

Catalog Number: 3652

*George Soroka and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 14;*

*Spring: 11*

*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 94.

### ***Cross-listed Courses***

#### **East Asian Studies 98b. Junior Tutorial--Japan and the World**

#### **East Asian Studies 98d. Junior Tutorial--The Political Economy of Modern China**

#### **East Asian Studies 121. Global Cities in East Asia**

### ***Political Methodology and Formal Theory***

#### ***For Undergraduates and Graduates***

#### **\*Government 1000. Quantitative Methods for Political Science I**

Catalog Number: 3990

*Matthew Lee Blackwell*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

An introduction to statistical research in political science with a focus on applied multiple linear regression.

*Note:* Frequently taken by graduate students satisfying department requirements. Also open to qualified undergraduates.

*Prerequisite:* Gov. 50, or equivalent, or permission of the instructor.

#### **Government 1002. Advanced Quantitative Political Methodology**

Catalog Number: 0181

*Gary King*



*Half course (spring term). M., 2–4. EXAM GROUP: 18*

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 2000 or the equivalent.

### **Government 1008. Introduction to Geographical Information Systems**

Catalog Number: 9732

*Sumeeta Srinivasan*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course introduces Geographical Information Systems and their applications. GIS is a combination of software and hardware with capabilities for manipulating, analyzing and displaying spatially referenced information. The course will meet two times a week. Every week, there will be a lecture and discussion as well as a laboratory exercise where students will work with GIS software on the computer.

*Note:* No prerequisites.

### **Government 1009. Advanced Geographical Information Systems Workshop**

Catalog Number: 8150

*Sumeeta Srinivasan*

*Half course (spring term). M., 10–1. EXAM GROUP: 5*

This course is a workshop for students who have taken the introductory Geographical Information Systems course and want to explore detailed applications. The course will meet two times a week for a lecture and a laboratory exercise.

### **Government 1010. Survey Research Methods**

Catalog Number: 8482

*Chase Henri Harrison*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

This course introduces students to the theoretical underpinnings and practical challenges of survey research, designed to help students better understand, interpret and critically evaluate surveys and public opinion polls.

### **Government 1011. Practicum in Survey Research Field Methods**

Catalog Number: 52365

*Chase Henri Harrison*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

This course is targeted toward undergraduate students who are planning on designing or implementing an original survey research project as part of a thesis or similar project. It provides a focused opportunity to learn the principles and methods of survey research first-hand by designing an original survey or similar project.

### **Government 1016. Spatial Models for Social and Environmental Policy**

Catalog Number: 0737

*Sumeeta Srinivasan*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*



Introduces the fundamental statistical and mapping tools needed for analysis of environmental and social policy. Topics are linked by environmental and social themes and include spatial statistics; surface estimation; raster algebra; suitability modeling and remote sensing. Students acquire technical skills in both mapping and spatial models. Software packages used include STARS - Space-Time Analysis of Regional Systems, GeoVISTA, ArcGIS, Geoda and MULTISPEC.

*Prerequisite:* Some prior experience with GIS and knowledge of basic statistics.

### **Government 1019. Basic Mathematics for Social Scientists**

Catalog Number: 0989

*Pedram Safari*

*Half course (fall term). W., F., 1–2:30. EXAM GROUP: 1*

The aim of this course is to provide the students of social sciences with a conceptual understanding of the basic notions of calculus and matrix algebra.

### **Government 1020. Intermediate Mathematics for Social Scientists**

Catalog Number: 7487

*Pedram Safari*

*Half course (spring term). W., F., 1–2:30. EXAM GROUP: 8*

This course is geared toward graduate students of social sciences (such as government, education, psychology, etc.). The focus is on a conceptual understanding of vector calculus and probability, as well as applications.

### ***Cross-listed Courses***

#### **[Empirical and Mathematical Reasoning 13. Analyzing Politics]**

#### ***Primarily for Graduates***

### **\*Government 2000. Introduction to Quantitative Methods I**

Catalog Number: 2281

*Matthew Lee Blackwell*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

Graduate-level version of Government 1000. Meets with Government 1000, an introduction to statistical research in political science with a focus on applied linear regression. Will require extra homework and examination problems in addition to those for Government 1000.

*Prerequisite:* Permission of the instructor for anyone other than Government Department graduate students.

### **\*Government 2000e. Introduction to Quantitative Methods I**

Catalog Number: 36268

*Matthew Lee Blackwell*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

Essential elements of Gov. 2000. Meets with Government 2000 and provides an introduction to statistical research in political science with a focus on applied linear regression. Some of the statistical computing from Government 2000 will not be required.



*Prerequisite:* Permission of the instructor required for anyone other than Government Department graduate students.

### **Government 2001. Advanced Quantitative Research Methodology**

Catalog Number: 8941

*Gary King*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

Graduate-level version of Gov. 1002. Meets with Gov. 1002, 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. Will require extra homework and examination problems in addition to those for Gov. 1002.

*Prerequisite:* Government 2000 or the equivalent.

### **Government 2002. Topics in Quantitative Methods**

Catalog Number: 8168

*Arthur P. Spirling and Matthew Lee Blackwell*

*Half course (fall term). Th., 10–12. EXAM GROUP: 12*

Will cover topics of general interest to political methodology: causal inference, graphical models, mixed methods, contest modeling, text-as-data, item response. Illustrates how ideas and methods from these areas can be applied to substantive questions.

*Prerequisite:* Government 2000 and Government 2001, or equivalent, or permission of the instructor.

### **Government 2005. Formal Political Theory I**

Catalog Number: 1719

*Horacio Alejandro Larreguy Arbesu*

*Half course (fall term). W., 10–12. EXAM GROUP: 5*

A graduate seminar on microeconomic modeling, covering price theory, decision theory, social choice theory, and game theory.

### **\*Government 2006. Formal Models of Domestic Politics**

Catalog Number: 5487

*Horacio Alejandro Larreguy Arbesu*

*Half course (spring term). Th., 10–12. EXAM GROUP: 12*

An understanding of introductory game theory and basic mathematical tools is required. Topics covered include some combination of the following: electoral competition under certainty and uncertainty, special interest politics, veto players, coalitions, delegation, political agency, and regime change.

*Prerequisite:* Government 2005 or permission of instructor

### **Government 2011. Graduate Practicum in Survey Research**

Catalog Number: 86602

*Chase Henri Harrison*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

This course is geared to graduate students who are designing an original survey. Assignments



cover core aspects of survey design. By the end of the course, students should have produced a comprehensive research plan which can be implemented or submitted as part of a proposal to a funding agency.

### ***Political Thought and Its History***

#### ***For Undergraduates and Graduates***

##### **Government 1060. Ancient and Medieval Political Philosophy**

Catalog Number: 4978

*Harvey C. Mansfield*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Classical and medieval political philosophy, from Plato to Thomas Aquinas, with special attention to the question of natural right.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

##### **Government 1061. The History of Modern Political Philosophy**

Catalog Number: 5035

*Nancy Lipton Rosenblum*

*Half course (spring term). M., W., at 1. EXAM GROUP: 8*

Political philosophy from Machiavelli to Nietzsche, with attention to the rise and complex history of the idea of modernity.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

##### **Government 1074. Political Thought of the American Founding**

Catalog Number: 71248

*Eric M. Nelson*

*Half course (fall term). Tu., Th., at 1. EXAM GROUP: 8*

John Adams observed that the American Revolution took place, not on the battlefield, but rather "in the minds of the people...before a drop of blood was shed at Lexington." This course will examine the political debates leading to American independence, and, later to the ratification of the Federal Constitution. Famous works of the period, such as Paine's Common Sense and The Federalist, will be placed in the wider context of American political writing from 1763 to 1789.

##### **Government 1087. Shakespeare and Politics**

Catalog Number: 22391

*Paul A. Cantor*

*Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 11*

A study of politics in Shakespeare's plays, including such topics as forms of monarchy, the influence of Machiavelli, romantic love in a political context, the difference between tragedy and comedy in political terms, nature vs. convention in politics, and the philosopher-king and utopian politics. Readings include Richard II, Henry IV Parts One and Two, Henry V, Romeo and Juliet, A Midsummer Night's Dream, As You Like It, King Lear, and The Tempest (with background reading in political theorists such as Machiavelli).



### [Government 1092. Progressive Alternatives: Institutional Reconstruction Today]

Catalog Number: 6197 Enrollment: Open to graduate and undergraduate students alike.

*Roberto Mangabeira Unger (Law School)*

*Half course (spring term). W., 1–3.*

An exploration of the past and future agenda of progressives, whether self-described as liberals or as leftists. What should they propose, now that they no longer believe in the usefulness of governmental direction of the economy or in the sufficiency of redistributive social programs? A basic concern is the relation of programmatic thought to the understanding of change and constraint. The course draws on many disciplines and consider examples from many settings. It develops ways of thinking as well as proposals for change: such proposals require us to develop the structural imagination about society and its institutional alternatives in which contemporary social science and political discourse are deficient. Readings from classical and contemporary social and political theory.

*Note:* Expected to be given in 2015–16. Offered jointly with the Law School as 2391. Fifteen seats are reserved for FAS students.

### [Government 1093. Ethics, Biotechnology, and the Future of Human Nature]

Catalog Number: 4613 Enrollment: May be limited.

*Michael J. Sandel and Douglas A. Melton*

*Half course (fall term). Hours to be arranged.*

Explores the moral, political, and scientific implications of new developments in biotechnology. Does science give us the power to alter human nature? If so, how should we exercise this power? The course examines the science and ethics of stem cell research, human cloning, sex selection, genetic engineering, eugenics, genetic discrimination, and human-animal hybrids.

*Note:* Expected to be given in 2015–16. Priority given to undergraduate students. May not be taken concurrently with Life Sciences 60. May not be taken for credit if Life Sciences 60 has already been taken. The course is open to both science and non-science concentrators. Ethical Reasoning 22 (Justice) is recommended as a background. This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

### [Government 1096. Legal Thought Now: Law and the Structure of Society ]

Catalog Number: 47232

*Roberto Mangabeira Unger (Law School)*

*Half course (spring term). M., 1–3.*

Law is the institutional form of the life of a people. This course studies law as an embodiment of the formative institutions and assumptions of society. It views legal thought as an instrument for reproducing or reforming this regime. We begin with a discussion of what is distinctive about contemporary law and of how its most original ideas might be enlisted in the service of attempts to democratize the market and to deepen democracy. We relate the problems and prospects of legal thought to the task of imagining structural alternatives for society -- an attempt that classical social theory both embraced and restrained and that contemporary social science and political discourse have largely abandoned.

*Note:* Expected to be given in 2015–16. Offered jointly with the Law School as 2389. Meets at Law School.

### *Cross-listed Courses*



*Note:* These courses do *not* satisfy the political theory field requirement in Government except Ethical Reasoning 22 and Ethical Reasoning 16.

**[Ethical Reasoning 11. Human Rights: A Philosophical Introduction]**

**Ethical Reasoning 30. The Just World**

**Ethical Reasoning 34. Liberty**

**[History 1322. Heidegger and Arendt]**

**History 1323. German Social Thought, Nietzsche to Habermas**

**History 1324. French Social Thought, Durkheim to Foucault**

**[\*History 1922. Habermas: Social Theory in Postwar Germany]**

**Philosophy 178q. Equality and Liberty**

***Primarily for Graduates***

**\*Government 2030. Political Concepts: Field Seminar**

Catalog Number: 0551 Enrollment: Open to PhD students in Government and in Philosophy, and to other qualified students by permission of the instructor

*Arthur I. Appling (Kennedy School)*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

A thematic exploration of important normative concepts such as freedom, equality, justice, legitimacy, obligation and democracy. Readings are drawn largely from contemporary scholarship.

**\*Government 2034. Ethics Economics, and Law**

Catalog Number: 4652

*Michael J. Sandel*

*Half course (fall term). M., 5–7 p.m. EXAM GROUP: 17*

Explores controversies about the use of markets and market reasoning in areas such as organ sales, procreation, environmental regulation, immigration policy, military service, voting, health care, education, and criminal justice. The seminar will examine arguments for and against cost-benefit analysis, the monetary valuation of life and the risk of death, and the use of economic reasoning in public policy and law.

*Note:* Offered jointly with the Law School as LAW - 2076. Meets at the Law School. Open to GSAS students with permission of the instructor.

**\*Government 2080. Topics in Political Philosophy**

Catalog Number: 4345 Enrollment: Limited to 20.

*Harvey C. Mansfield*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

Machiavelli and the Discovery of Fact. Machiavelli as philosopher and as founder of modern philosophy. Readings in Machiavelli, Descartes, Hobbes, Locke, and Hume; and on the fact/value distinction.

*Note:* Open to selected undergraduates.

**Government 2082. Marx - (New Course)**

Catalog Number: 59529



*Richard Tuck*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

**\*Government 2097. Justice as Love and Benevolence (from Plato, Cicero and Augustine to Shakespeare, Leibniz and Freud)**

Catalog Number: 52088 Enrollment: Open to qualified undergraduates with instructor's permission

*Eric M. Nelson*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

Justice as 'ascent' from negative legal forbearance, from harm to doing positive good from 'wise love' and benevolence. Readings from Plato, Cicero, Augustine, Shakespeare (four plays), Leibniz, Wagner and Freud (*Civilization* and "Leonardo da Vinci".)

***Cross-listed Courses***

**[Economics 2080. Economics and Politics: The Foundations of Economics in Political Theory]**

**History 2113. Dante in Contexts: Seminar - (New Course)**

**History 2322. Adorno: Philosophy, Sociology, Aesthetics: Seminar**

**History 2324. Contesting Political Theology and Secularization: Schmitt, Löwith, Blumenberg: Seminar - (New Course)**

***Comparative Government***

***For Undergraduates and Graduates***

**Government 1197. The Political Economy of Africa**

Catalog Number: 9130

*James Robinson and Robert H. Bates*

*Half course (spring term). M., W., at 10. EXAM GROUP: 5*

The basic social science literature on Africa's development. Particular emphasis on political economy.

**Government 1203. Capitalism and Democracy in Central and Eastern Europe**

Catalog Number: 7078

*Grzegorz Ekiert*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 15*

General introduction to East European politics focusing on the countries outside the former Soviet Union. Examines critical periods and dynamics of political and economic changes in the region from the end of World War I to the recent enlargement of the European Union.

**Government 1207. Comparative Politics of the Middle East**

Catalog Number: 69802

*Payam Mohseni*

*Half course (spring term). M., W., at 4. EXAM GROUP: 13*

The Middle East is currently in the midst of a dramatic transformation since the Arab uprisings



in 2011. This course situates the ongoing developments within the broader historical and political context of the region. It examines the politics of the Middle East through a variety of topics, including the modern state-building project, the legacy of empires and Western colonialism, Islam and politics, monarchies and authoritarianism, political economies, war and conflict, and the prospects for democratization.

### **Government 1243. Russian Politics in Transition**

Catalog Number: 1982

*Timothy J. Colton*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

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 1270. Government and Politics of Modern Japan**

Catalog Number: 11288

*Daniel M. Smith*

*Half course (spring term). M., W., at 1. EXAM GROUP: 8*

An introduction to political life in contemporary Japan. Explores the interaction of political parties, the bureaucracy, interest groups, the media and the government, with an emphasis on the ongoing transformation of the Japanese political system. Special attention will be paid to contemporary issues, such as economic policy, social welfare programs, national security, disaster response, and administrative reform.

### **Government 1280. Government and Politics of China**

Catalog Number: 1643 Enrollment: Approval of instructor is needed for Graduate students to enroll in this course.

*Nara Dillon*

*Half course (fall term). Tu., Th., at 4. EXAM GROUP: 16*

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.

### **Government 1292. Politics in Brazil**

Catalog Number: 28365

*Frances Hagopian*

*Half course (fall term). M., W., at 10 and a weekly section to be arranged. EXAM GROUP: 5*

Introduces students to politics and political change in Latin America's largest country. Outlines historical perspectives and contemporary challenges, and examines political institutions, civil society, and contemporary politics and policy. Emphasis is on how institutional change, decentralization, and the mobilization of civil society have interacted to change the trajectory of Brazilian politics by deepening citizen participation, strengthening political parties and political representation, reforming social policy, guaranteeing citizenship rights, and ultimately reducing inequality and deepening democracy.



### **Government 1295. Comparative Politics in Latin America**

Catalog Number: 4241

*Steven R. Levitsky*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Examines dynamics of political and economic changes 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.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Societies of the World.

#### ***Cross-listed Courses***

##### **Economics 1340. World Economic History**

[Economics 1370. Media, Democracy and Economics]

##### **\*Religion 1080. Modern States and Religion**

[Societies of the World 15. The Cuban Revolution, 1956-1971: A Self-Debate]

##### **Societies of the World 54 (formerly Religion 1832). Islam and Politics in the Modern Middle East**

[Sociology 164. Successful Societies: Markers and Pathways]

[The Modern Middle East 120. The Arab Revolutions: popular uprisings and political transformations]

#### ***Primarily for Graduates***

##### **\*Government 2105. Comparative Politics: Field Seminar**

Catalog Number: 0154

*Torben Iversen and Robert H. Bates*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

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 2136. Political Regimes and Regime Change**

Catalog Number: 5702 Enrollment: Limited to 15.

*Daniel F. Ziblatt*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

This course examines theoretical approaches to democratization, evaluating them in light of historical and contemporary cases. We examine themes such as the relationship of free markets/democracy, the proliferation of hybrid regimes, and authoritarian persistence.



### **Government 2148. Civil Society, West and East**

Catalog Number: 4675

*Susan J. Pharr and Grzegorz Ekiert*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

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: 13*

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 2213. Comparative Politics of Post-Socialism**

Catalog Number: 6876

*Timothy J. Colton and Grzegorz Ekiert*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

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.

### **\*Government 2285. Political Science and China**

Catalog Number: 1566

*Elizabeth J. Perry*

*Half course (spring term). W., 10–12. EXAM GROUP: 5*

This graduate seminar gives students control over the secondary literature on Chinese politics, with special attention to competing theoretical and methodological approaches.

*Note:* Requires background in contemporary Chinese history/politics.

### ***Cross-listed Courses***

#### **Economics 2325. Comparative Historical Economic Development**

[Economics 2328. The Emergence of Modern Economic Growth: A Comparative and Historical Analysis]

### ***American Government, Public Law and Administration***

#### ***For Undergraduates and Graduates***

### **Government 1328. Electoral Politics**

Catalog Number: 72937

*James M. Snyder*



*Half course (spring term). M., W., at 1. EXAM GROUP: 8*

Elections are the foundation of American democracy. This course focuses on the simple questions: Who wins elections and why? Answers to these questions guide the interpretation of elections and evaluation of how well government represents the public preferences. The first half of the course presents the basic explanations and models of elections and voting behavior, and asks students to make their best forecast of the election. The second half of the course will examine why the models worked or didn't work. Students will learn how to interpret and analyze surveys and other data, to estimate models and make forecasts, and test arguments and models using predictions.

### **Government 1358. Presidential Power in the United States**

Catalog Number: 65711

*Carlos E. Díaz Rosillo*

*Half course (spring term). M., W., at 1. EXAM GROUP: 8*

Analyzes the origins and evolution of presidential power in the United States. Studies the powers of the President and how those powers translate into power. Examines and evaluates the most prominent political science theories, scholarly debates, and public controversies about presidential power. Explores the strategic choices available to modern American presidents in their efforts to augment the power of the presidency and provide active leadership to the political system.

### **\*Government 1360. American Public Opinion**

Catalog Number: 22949

*Stephen Daniel Ansolabehere and Mark Penn*

*Half course (spring term). Tu., 9–11. EXAM GROUP: 2*

### **\*Government 1368. The Politics of American Education**

Catalog Number: 8971 Enrollment: Limited to 48.

*Paul E. Peterson*

*Half course (fall term). Tu., Th., at 2. EXAM GROUP: 14*

This course examines historical and contemporary forces shaping American K-12 education policy. It also reviews research and commentary on contemporary issues: class size, fiscal policy, teacher recruitment, compensation and tenure, accountability, school vouchers, charter schools and digital learning.

*Note:* Offered jointly with the Kennedy School as SUP 447 (formerly HLE 347).

### **Government 1372. Political Psychology**

Catalog Number: 40477

*Ryan Enos*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course examines the psychological mechanisms behind political behaviors and institutions. Topics covered will include voting behavior, campaigns and media, partisanship, political violence, and racial attitudes. For these and other topics we will not only ask what happens but examine how human psychology makes it happen.



### **\*Government 1430. The Politics of Personal Data**

Catalog Number: 68912 Enrollment: Limited to 20.

*Latanya Sweeney*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Course examines legal, political, social, commercial and technical struggles for control over personal data in our globally connected data-rich world. Case studies include data sharing mandated by the state, traded for personal services, and controlled by individuals. Analyses demonstrate ways to think about clashes and the interplay between technology design and policy. Includes a data lab component, but course is accessible to all students willing to experiment with new technologies and participate in class discussions.

### **[\*Government 1510. American Constitutional Law]**

Catalog Number: 0383 Enrollment: Limited to 250.

*Richard H. Fallon (Law School)*

*Half course (fall term). Tu., Th., 1–2:30, and a weekly section to be arranged.*

Provides an introduction to contemporary American constitutional law, with a principal focus on decisions by the Supreme Court of the US. Topics to be studied include freedom of speech and religion, guarantees of due process and equal protection, and the powers of Congress and the courts.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

### **Government 1540. The American Presidency**

Catalog Number: 4925

*Roger B. Porter (Kennedy School)*

*Half course (fall term). Tu., Th., 11:30–1, and a weekly section to be arranged. EXAM GROUP: 15*

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.

*Note:* Offered jointly with the Kennedy School as DPI-115. Meets at FAS.

### ***Cross-listed Courses***

**[Environmental Science and Public Policy 77. Technology, Environment, and Society]**

**Environmental Science and Public Policy 78. Environmental Politics**

**United States in the World 15. Is the American Racial Order Being Transformed?**

**[United States in the World 18. Thinking About the Constitution]**

**[United States in the World 20. The Theory and Practice of Republican Government]**

**United States in the World 31. American Society and Public Policy**

### ***Primarily for Graduates***



### **\*Government 2305. American Government and Politics: Field Seminar**

Catalog Number: 2305

*James M. Snyder and Jennifer L. Hochschild*

*Half course (fall term). M., 10–12. EXAM GROUP: 5*

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: 17*

Topics in the relationship between politics and civil society in the US.

*Note:* Offered jointly with the Kennedy School as DPI-360. Meets at the Kennedy School.

### **\*Government 2340b. Social Policy II**

Catalog Number: 5491

*Jennifer L. Hochschild and Amitabh Chandra (Kennedy School)*

*Half course (spring term). M., 2–4. EXAM GROUP: 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 SUP-922.

### **Government 2372. Political Psychology - (New Course)**

Catalog Number: 50216

*Ryan Enos*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

### **\*Government 2430. Data Science to Save the World**

Catalog Number: 28112 Enrollment: Limited to 20. Open to qualified undergraduates with instructor's permission

*Latanya Sweeney*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

This course explores ways to create and use technology to assess and solve real-world societal, political and governance problems. Case studies involve real-world data (e.g., twitter, online ads, and images). Hands-on lab format.

### **Government 2474. Approaches to the Study of the US Congress: Models and Methods**

Catalog Number: 66433

*Kenneth A. Shepsle and James M. Snyder*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

In this seminar we survey and critically evaluate various models of Congressional politics.

Special emphasis is given quantitative and modeling approaches to legislative organization, legislative process, congressional elections, legislative parties, House-Senate comparisons, and inter-branch politics. Students are expected to participate actively each week, complete several small writing assignments, and produce a research paper.



### **Government 2576. Racial and Ethnic Politics in the United States**

Catalog Number: 7260

*Jennifer L. Hochschild and Claudine Gay*

*Half course (spring term). Tu., 10–12. EXAM GROUP: 12*

The course begins with the history and structure of the classic Black-White binary, then addresses ways in which it must be rethought to include other groups, mainly Asians and Latinos. Issues include racialization, immigrant incorporation, political coalitions and conflict, racial mixture, and links between race, class, gender, and ideology. Focuses on the United States but includes comparisons with Europe, Latin America, and South Africa.

#### ***Cross-listed Courses***

[\***Sociology 223. American Society and Public Policy: Research Seminar**]

#### ***International Relations***

##### ***For Undergraduates and Graduates***

### **Government 1729. Models of Conflict in International Relations**

Catalog Number: 55278

*Muhammet Ali Bas*

*Half course (spring term). M., W., at 11. EXAM GROUP: 14*

This course is both a simple introduction to game theory, and a literature review of game theoretical approaches to the study of international conflict and war. Game theory is a tool for analyzing strategic interaction between rational actors. The course will feature games like the Prisoners' Dilemma, the Chicken, and models of bargaining. Students will learn how these and related tools can be used to understand and analyze historical and current instances of international conflict. Specifically, we will try to answer questions like: why do states fight costly wars in international relations? Why do peaceful negotiations fail? How does deterrence work? Why do states get into costly arms races? How does domestic politics shape international conflict?

### **Government 1730. War and Politics**

Catalog Number: 6806

*Stephen P. Rosen*

*Half course (fall term). Tu., Th., 2-4. EXAM GROUP: 14*

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 1732. The Origins of Modern Wars**

Catalog Number: 7668

*Stephen Martin Walt (Kennedy School)*

*Half course (spring term). M., W., at 1; sections TBA. EXAM GROUP: 8*

This course explores the causes of war. It examines the different theories that have been devised to explain organized violence between states (or groups seeking to control a state), and evaluates these competing theories by exploring several major conflicts of the past 100 years: World War



I, World War II, the Cold War, the Arab-Israeli conflict, and the recent wars in the Persian Gulf. The course also considers the phenomenon of ethnic conflict, the implications of nuclear weapons and the question of whether large-scale war is becoming "obsolescent."

### **[\*Government 1760. International Relations of East Asia]**

Catalog Number: 2733 Enrollment: Limited to 50.

*Alastair Iain Johnston*

*Half course (fall term). M., W., at 1, and a weekly section to be arranged.*

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.

*Note:* Expected to be given in 2015–16.

### **Government 1780. International Political Economy**

Catalog Number: 0272

*Jeffry Frieden*

*Half course (fall term). M., W., 2–3:30. EXAM GROUP: 7*

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

*Joshua David Kertzer*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

Examines and explains the international actions of the US Government. Explanations drawn from history, international relations theory, and from the study of American political and bureaucratic 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 1793. Media, Public Opinion and Foreign Policy**

Catalog Number: 40813

*Matthew A. Baum (Kennedy School)*

*Half course (spring term). Tu., Th., 1:30–3. EXAM GROUP: 1*

This course investigates the means through which the media and public opinion influence U.S. foreign policy. We will consider how the public learns about foreign policy, whether and when they care about it, and when political leaders will be responsive to public preferences. We will also consider the effects of real-time global news reporting and media fragmentation. The goal is to understand the interaction between the media, the public and political leaders.

### **\*Government 1796. Central Challenges of American National Security, Strategy, and the Press**

Catalog Number: 3567 Enrollment: Limited to 30.

*Graham T. Allison, Jr. (Kennedy School) and David Sanger (Kennedy School)*



*Half course (fall term). Tu., 8:40–11:30. EXAM GROUP: 9*

Using a series of case studies from the front page, and from the most urgent issues on the U.S. national security agenda, this course will engage students in grappling with the hardest American national security challenges of the decade ahead. Issues range from the Arab Awakening and intervention in civil wars to combating Iran's nuclear ambitions and dealing with the economic and military rise of China. Assignments require strategic thinking: analyzing dynamics of issues and developing strategies in a government whose deliberations are discombobulated by leaks, reports about internal differences among policymakers, and press analyses. Students will learn to devise strategies and write strategic options memos as participants in the policymaking process. Strategic options memos combine careful analysis and strategic imagination, on the one hand, with the necessity to communicate to major constituencies in order to sustain public support, on the other. A subtheme of the course explores coping with a world where a pervasive press makes secrecy more often the exception than the rule. In each case, there will be exploration of how media coverage affects decision making, with an examination of WikiLeaks, the revelations about drones and secret, American-led cyberattacks, and other examples of the publication of classified information. Because of time constraints, Mr. Sanger will be joining a limited number of class sessions, and will join some remotely.

*Note:* Offered jointly with the Kennedy School as IGA-211.

### *Cross-listed Courses*

[\*History 82f. **The Origins of the Cold War: The Yalta Conference (1945)**]

[History 1465. **The United States in the World since 1900**]

**United States in the World 40 (formerly History 1989). New World Orders? From the Cold War to Contemporary International Relations**

### *Primarily for Graduates*

#### **\*Government 2710. International Relations: Field Seminar**

Catalog Number: 8310

*Beth A. Simmons and Joshua David Kertzer*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

A survey of the field.

*Note:* Limited to Government graduate students. Suitable for students preparing for general examinations.

#### **Government 2735. Empirical Models in International Relations**

Catalog Number: 9499

*Muhammet Ali Bas*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

This course examines statistical issues relevant to the study of international politics. The purpose is to familiarize students with different models that have been employed in research on international conflict, IPE and international institutions.

#### **Government 2830. International Security Studies - (New Course)**

Catalog Number: 63677



*Anne E. Sartori*

*Half course (fall term). M., 10–12. EXAM GROUP: 5*

This course is a graduate-level research seminar in international security studies. The course has two related goals: to introduce students to interesting research and debates in the field, and to help each student to initiate a research project in this area.

### **Cross-listed Courses**

[\*History 2222. The Cold War and Its Collapse: Seminar]

### **Graduate Courses of Reading and Research**

#### **\*Government 3000. Reading and Research**

Catalog Number: 3391

*James E. Alt 1593 (on leave spring term), Arthur I. Appelbaum (Kennedy School) 3077, Robert H. Bates 1251 (on leave fall term), Eric Beerbohm 5558, Daniel P. Carpenter 4509, Timothy J. Colton 2269, Jorge I. Domínguez 3823, Grzegorz Ekiert 2718, Jeffry Frieden 1627, Claudine Gay 5485, Adam Glynn 5600, Peter A. Hall 7272 (on leave 2014-15), Michael J. Hiscox 4104 (on leave fall term), Jennifer L. Hochschild 3785, Nahomi Ichino 5316, Torben Iversen 1250, Alastair Iain Johnston 3213 (on leave 2014-15), Gary King 1723, Steven R. Levitsky 2395, Roderick Macfarquhar 7856, Harvey C. Mansfield 1731, Eric M. Nelson 5345, Elizabeth J. Perry 3074, Paul E. Peterson 2114, Susan J. Pharr 1518 (on leave spring term), Robert D. Putnam 6193 (on leave spring term), Patrick T. Riley 5944, James Robinson 5022, Michael E. Rosen 5610 (on leave 2014-15), Stephen P. Rosen 2721, Nancy Lipton Rosenblum 3786 (on leave fall term), Pedram Safari 5849, Michael J. Sandel 7065, Kenneth A. Shepsle 1421, Beth A. Simmons 4487 (on leave spring term), Theda Skocpol 1387, Sumeeta Srinivasan 5215, Dennis F. Thompson 1426, Richard Tuck 1704, and Daniel F. Ziblatt 4641*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

*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*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

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.

#### **\*Government 3001. Approaches to the Study of Politics**

Catalog Number: 21415 Enrollment: Limited to and required of first year department graduate students.

*Daniel P. Carpenter 4509*

*Half course (fall term). Tu., 10–12. EXAM GROUP: 13*

Graduate Seminar designed to introduce research questions and frontiers across political science.



### **\*Government 3100. EJ Safra Graduate Fellowship Seminar**

Catalog Number: 40555 Enrollment: Limited to graduate fellows of the Center for Ethics only.

*Eric Beerbohm 5558*

*Full course (indivisible). . EXAM GROUP: Fall: 13; Spring: 9*

This seminar examines how moral and political theories should be brought to bear on institutional and policymaking choices. Special attention will be given to the relation between ideal and nonideal theory.

*Note:* Not repeatable for credit.

### **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

*Ryan Enos 6825 and Paul E. Peterson 2114*

*Full course (indivisible). Tu., 12–2. EXAM GROUP: 5*

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 3005. Research Workshop in International Relations**

Catalog Number: 1016

*Muhammet Ali Bas 5883, Joshua David Kertzer 7682, and Stephen P. Rosen 2721*

*Full course (indivisible). Th., 12–2. EXAM GROUP: 4*

Research workshop for advanced graduate students working on dissertation proposals in international relations.

#### **\*Government 3006. Research Workshop in Comparative Politics**

Catalog Number: 0910

*Gwyneth McClendon 7365 and Daniel M. Smith 7309*

*Full course (indivisible). W., 4–6. EXAM GROUP: Fall: 18; Spring: 14*

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

*Torben Iversen 1250, Horacio Alejandro Larreguy Arbesu 7310, and Kenneth A. Shepsle 1421*

*Full course (indivisible). M., 12–2. EXAM GROUP: Fall: 11; Spring: 7*

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 3008. Research Workshop in Political Theory**

Catalog Number: 1704

*Eric M. Nelson 5345 and Michael Frazer 5886*

*Full course (indivisible). W., 12–2. EXAM GROUP: Fall: 6; Spring: 17*

**\*Government 3009. Research Workshop in Applied Statistics**

Catalog Number: 8142

*Alberto Abadie (Kennedy School) 5277, Matthew Lee Blackwell 7674, Alexandra Achen Killewald 7028, Gary King 1723, Luke Weisman Miratrix 6490, James M. Robins (Public Health) 1492, Donald B. Rubin 7966, Arthur P. Spirling 6062, Tyler J. VanderWeele (Public Health) 6574, and Christopher Winship 3189, Teppei Yamamoto (Political Science, MIT)*

*Full course (indivisible). W., 12–2. EXAM GROUP: 12*

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 the Doctor of Philosophy in Health Policy*

Joseph P. Newhouse, John D. MacArthur Professor of Health Policy and Management, Professor of Health Care Policy (*Kennedy School and Public Health, Medical School*) (*Chair*)

Nava Ashraf, Associate Professor (*Business School*)

Katherine Baicker, Professor of Health Economics (*Public Health*)

Robert J. Blendon, Richard L. Menschel Professor of Public Health, Professor of Health Policy and Political Analysis (*Public Health*)

Barry R. Bloom, Harvard University Distinguished Service Professor and Joan L. and Julius H. Jacobson Professor of Public Health (*Public Health*)

David E. Bloom, Clarence James Gamble Professor of Economics and Demography (*Public Health*)

Allan M. Brandt, Amalie Moses Kass Professor of the History of Medicine in the Faculty of Medicine, and Professor of the History of Science in the Faculty of Arts and Sciences

Daniel P. Carpenter, Allie S. Freed Professor of Government

Amitabh Chandra, Professor of Public Policy (*Kennedy School*)

Michael Chernew, Leonard D. Schaeffer Professor of Health Care Policy (*Medical School*)

I. Glenn Cohen, Professor of Law, and Director of Petrie-Flom Center (*Law School*)

Jessica L. Cohen, Assistant Professor of Global Health (*Public Health*)



- Benjamin Le Cook, Assistant Professor of Psychiatry (*Medical School*)  
David M. Cutler, Otto Eckstein Professor of Applied Economics, Harvard College Professor, Professor in the Department of Global Health and Population (*Public Health*)  
Norman Daniels, Mary B. Saltonstall Professor of Population Ethics and Professor of Ethics and Population Health (*Public Health*)  
Amy C. Edmondson, Novartis Professor of Leadership and Management (*Business School*)  
Julio Jose Frenk, Dean of the School of Public Health, and T & G Angelopoulos Professor of Public Health and International Development (*Kennedy School, Public Health*)  
Atul Atmaram Gawande, Professor in the Department of Health Policy and Management, Professor of Surgery (*Public Health, Medical School*)  
Guy S. Gazelle, Professor of Radiology, Professor in the Department of Health Policy and Management (*Medical School, Public Health*)  
Susanne J. Goldie, Roger Irving Lee Professor of Public Health; Director, Center for Health Decision Science; Director, Harvard Global Health Institute; Professor of Global Health and Social Medicine (*Public Health, Medical School*)  
David C. Grabowski, Professor of Health Care Policy (*Medical School*)  
James K. Hammitt, Professor of Economics and Decision Sciences (*Public Health*)  
David Hemenway, Professor of Health Policy (*Public Health*)  
John Hsu, Associate Professor of Health Care Policy, Associate Professor of Medicine (*Medical School*)  
Robert S. Huckman, Albert J. Weatherhead III Professor of Business Administration (*Business School*)  
Haiden A. Huskamp, Professor of Health Care Policy (*Medical School*)  
Anupam Bapu Jena, Assistant Professor of Health Care Policy, Assistant Professor of Medicine (*Medical School*)  
Ashish Kumar Jha, K.T. Li Professor of Economics (*Public Health*), and Associate Professor of Medicine (*Medical School*)  
Nancy M. Kane, Professor of Management (*Public Health*)  
Jane Jooyun Kim, Associate Professor of Health Decision Science (*Public Health*)  
Gary King, Albert J. Weatherhead III University Professor  
Michael R. Kremer, Gates Professor of Developing Societies (*Affiliate of the Department of African and African American Studies*)  
Bruce E. Landon, Professor of Health Care Policy, and Professor of Medicine (*Medical School*)  
Mary Elizabeth Landrum, Professor of Health Care Policy (*Medical School*)  
Peter V. Marsden, Dean of Social Science, and Edith and Benjamin Geisinger Professor of Sociology  
Marie C. McCormick, Sumner and Esther Feldberg Professor of Maternal and Child Health, Professor of Pediatrics (*Public Health, Medical School*)  
Thomas G. McGuire, Professor of Health Economics in the Department of Health Care Policy (*Medical School*)  
Barbara J. McNeil, Ridley Watts Professor of Health Care Policy, Professor of Radiology (*Medical School*)  
John Michael McWilliams, Associate Professor of Health Care Policy, Associate Professor of Medicine (*Medical School*)  
Carl N. Morris, Professor of Statistics  
Sharon-Lise T. Normand, Professor of Health Care Policy (Biostatistics), Professor in the



Department of Biostatistics (*Medical School, Public Health*)  
Jukka-Pekka Onnela, Assistant Professor of Biostatistics (*Public Health*)  
Meredith B. Rosenthal, Professor of Health Economics and Policy (*Public Health*)  
Donald B. Rubin, John L. Loeb Professor of Statistics  
Joshua A. Salomon, Professor of Global Health (*Public Health*)  
Sara Jean Singer, Associate Professor of Health Care Management and Policy, Assistant Professor of Medicine (*Public Health, Medical School*)  
Benjamin D. Sommers, Assistant Professor of Health Policy and Economics, Assistant Professor of Medicine (*Public Health, Medical School*)  
Stephen B. Soumerai, Professor of Population Medicine (*Medical School*)  
Ariel Dora D. Stern, Assistant Professor (*Business School*)  
B. Katherine Swartz, Professor of Health Policy and Economics (*Public Health*)  
Milton C. Weinstein, Henry J. Kaiser Professor of Health Policy and Management, Professor of Medicine (*Public Health, Medical School*)  
Alan M. Zaslavsky, Professor of Health Care Policy (Statistics) (*Medical School*)  
Richard J. Zeckhauser, Frank Plumpton Ramsey Professor of Political Economy (*Kennedy School*)

### ***Other Faculty Offering Instruction in Health Policy***

#### ***Graduate Program in Health Policy***

The PhD in Health Policy, awarded by the Faculty of Arts and Sciences, draws upon the resources of six Harvard faculties: the Faculty of Arts and Sciences, Harvard School of Public Health, Harvard Medical School, Harvard Kennedy School, Harvard Law School, and Harvard Business School. 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 six disciplines: decision sciences, economics, ethics, evaluative science and statistics, management, or political analysis. In addition to choosing a concentration, students specialize in one of four areas of policy interest: health care services, global 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, risk analysis, cost-benefit and cost-effectiveness analysis, decision modeling, and behavioral decision theory, as well as parts of operations research, microeconomics, statistical inference, management control, cognitive and social psychology, and computer science. 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 international, federal, state, and local governments and actors as their actions affect health and medical care. In addition to examining the literature on health economics, the training emphasizes microeconomic theory,



econometrics, and interactions with other disciplines, including clinical medicine. The 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 underlie, explicitly or implicitly, 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.

Evaluative Science and Statistics (Professor Stephen B. Soumerai and Professor Alan M. Zaslavsky, Co-Chairs). Training in this concentration will enable students to study the effects of a wide range of policies and health services (e.g., health insurance, health-care quality improvement, clinical decision-making, drug policy, cost-containment, and socioeconomic factors) on behaviors, access, processes and quality of health care, health outcomes, or costs. Students in this concentration will develop proficiency in experimental and quasi-experimental research design, statistics, relevant social sciences, and other methodological approaches (e.g., epidemiology, program evaluation, qualitative methods, and survey design).

Management (Professor Robert S. Huckman, and Associate Professor Sara Singer, Co-Chairs). The management concentration prepares students to do research on the managerial, operational, and strategic issues facing a wide range of organizations in the health care industry including: health care providers; pharmaceutical and biotechnology firms; device and technology companies; and private and public insurers. Students in this track 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 - and further developed for understanding - health care organizations.

Political Analysis (Professor Robert J. Blendon, Chair). This concentration is intended for students who wish to do research on the relationship between politics and health policy. Students will study theories of individual opinion formation, voting behavior, legislative organization, and interest group formation. In addition, students will examine the role of public opinion, interest groups, the media, and institutions in 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.

**Applications:** Prospective students should visit the Graduate School of Arts and Sciences website at [www.gfas.harvard.edu](http://www.gfas.harvard.edu) to apply online. Important additional information on financial aid and other aspects of the PhD Program in Health Policy is available from Deborah Whitney, Director, PhD Program in Health Policy ([deborah.whitney@harvard.edu](mailto:deborah.whitney@harvard.edu)) and Jessica Livingston, Assistant Director, PhD Program in Health Policy ([jessica.livingston@harvard.edu](mailto:jessica.livingston@harvard.edu)). Website: [www.healthpolicy.fas.harvard.edu](http://www.healthpolicy.fas.harvard.edu).



## **Health Policy Courses**

### **Health Policy 2000. Core Course in Health Policy**

Catalog Number: 4522

*Joseph P. Newhouse (Kennedy School and Public Health, Medical School) and Alan M. Zaslavsky (Medical School)*

*Full course (indivisible). Tu., Th., 4–6. EXAM GROUP: Fall: 16; Spring: 6*

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 SUP-957 and SUP-958 and with the School of Public Health as HPM 246.

### **\*Health Policy 3000. Doctoral Dissertation Research**

Catalog Number: 8422

*Members of the Committee*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

Dissertation research.

### **\*Health Policy 3002hf. Graduate Reading Course: Mental Health Policy**

Catalog Number: 3528

*Thomas G. McGuire (Medical School) 4723*

*Half course (throughout the year). . EXAM GROUP: Fall: 17; Spring: 13*

Participants discuss research on mental health policy and examine how to apply existing work and methodological approaches to their own work.

*Note:* Offered in alternate years.

### **\*Health Policy 3010. First-Year Graduate Reading Course: Ethics**

Catalog Number: 9241

*Norman Daniels (Public Health) 4722*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

Examines issues in ethics and health policy, including a basic account of justice and health; ethical critique of maximization methodologies, including cost-effectiveness analysis; individual and social responsibility for health; and other topics.

### **\*Health Policy 3015. Second-Year Graduate Reading Course: Ethics**

Catalog Number: 4380

*Norman Daniels (Public Health) 4722*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

Student-led course reviews basic issues in ethics, political philosophy, and their bearing on health policy and is important preparation for the qualifying examinations.

### **\*Health Policy 3020. Graduate Reading Course: Political Analysis**

Catalog Number: 3781

*Robert J. Blendon (Public Health) 2712*



*Half course (spring term). . EXAM GROUP: 4*

Participants present their own ongoing research on the politics surrounding health policy and discuss recent research drawn from various methodological approaches. Graduate students, faculty, and visiting scholars are welcome to present research at all stages.

*Note:* Offered in alternate years.

**\*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. EXAM GROUP: 3*

**\*Health Policy 3050. Federal Research Funding**

Catalog Number: 11537

*John Hsu (Medical School) 7389*

*Half course (fall term). . EXAM GROUP: 1*

This course focuses on federal scientific research grant applications. Students will learn about the most common forms of federal grant applications, basic components of applications, and the scientific review process for NIH / AHRQ. Students will develop a dissertation grant application, and will review actual grant applications as part of the course.

*Note:* Required of AHRQ trainees. For more information, see the [course website](#).

**\*Health Policy 3060hf. Research Seminar in Decision Sciences**

Catalog Number: 2133

*Joshua A. Salomon (Public Health) 5759*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: Fall: 7; Spring: 18*

Explores key conceptual and methodological issues relevant to research in health decision sciences. Faculty members and invited speakers will assign readings and present examples of theoretical and applied work. Students are required to participate in class discussion and to present their own research work in progress.

**\*Health Policy 3070. Graduate Reading Course: Economics**

Catalog Number: 7439

*Joseph P. Newhouse (Kennedy School and Public Health, Medical School) 2425*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Health Policy 3080hf. Graduate Reading Course: Evaluative Science and Statistics**

Catalog Number: 9516

*John Michael McWilliams (Medical School) 1447, Stephen B. Soumerai (Medical School) 1906, and Alan M. Zaslavsky (Medical School) 1927*

*Half course (throughout the year). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Health Policy 3090. Graduate Reading Course: Management**

Catalog Number: 2492

*Robert S. Huckman (Business School) 5234*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*



### *Courses of Interest*

**Economics 2460. Health Economics Workshop**

**Economics 2465. Health Economics**

**\*Economics 3460c. Research in Health Economics**

## History

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### *Faculty of the Department of History*

Daniel L. Smail, Professor of History (*Interim Chair*)

Emmanuel K. Akyeampong, Professor of History and of African and African American Studies

Sunil Amrith, Mehra Family Professor of South Asian Studies (*on leave spring term*)

Dimiter Georgiev Angelov, Visiting Associate Professor of History

David R. Armitage, Lloyd C. Blankfein Professor of History (*on leave 2014-15*)

Bain Munro Attwood, Visiting Professor of Australian Studies

Hagar Barak, College Fellow

Sven Beckert, Laird Bell Professor of History

Ann M. Blair, Henry Charles Lea Professor of History, Harvard College Professor (*on leave 2014-15*)

Sugata Bose, Gardiner Professor of Oceanic History and Affairs (*on leave 2014-15*)

Vincent Brown, Charles Warren Professor of American History and Professor of African and African American Studies

Tomiko Brown-Nagin, Professor of Law (*Law School*)

Joyce E. Chaplin, James Duncan Phillips Professor of Early American History (*on leave 2014-15*)

Genevieve A. Clutario, College Fellow

Lizabeth Cohen, Howard Mumford Jones Professor of American Studies, and Dean of the Radcliffe Institute for Advanced Study (*on leave 2014-15*)

Nancy F. Cott, Jonathan Trumbull Professor of American History (*Director of Graduate Studies*)

Robert Darnton, Carl H. Pforzheimer University Professor

Alejandro de la Fuente, Robert Woods Bliss Professor of Latin-American History and Economics and Professor of African and African American Studies and of History

Philip Deloria, Visiting Professor of History

Emma Dench, Professor of the Classics and of History, Harvard College Professor

Caroline M. Elkins, Professor of History (*on leave 2014-15*)



Mark C. Elliott, Mark Schwartz Professor of Chinese and Inner Asian History  
Drew Gilpin Faust, President of Harvard University, and Lincoln Professor of History  
Niall Ferguson, Laurence A. Tisch Professor of History  
Brett Flehinger, Lecturer on History  
Andrew Gordon, Lee and Juliet Folger Fund Professor of History (*on leave 2014-15*)  
Peter E. Gordon, Amabel B. James Professor of History, Harvard College Professor  
Annette Gordon-Reed, Professor of Law in the Faculty of Law; and Professor of History in the Faculty of Arts and Sciences (*on leave 2014-15*)  
James Hankins, Professor of History  
Tamar Herzog, Monroe Gutman Professor of Latin American Affairs and Professor of History  
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 spring term*)  
Elizabeth Kai Hinton, Assistant Professor of History and of African and African American Studies  
Samantha Iyer, Lecturer on History  
Maya Jasanoff, Professor of History  
Andrew Jewett, Associate Professor of History and of Social Studies  
Alison Frank Johnson, Professor of History (*on leave spring term*)  
Walter Johnson, Winthrop Professor of History and Professor of African and African American Studies (*on leave fall term*)  
William D. Johnston, Professor Edwin Oldfather Reischauer Professor of Japanese Studies  
Daniel Juette, Lecturer on History  
Cemal Kafadar, Vehbi Koc Professor of Turkish Studies  
William C. Kirby, T. M. Chang Professor of China Studies and Spangler Family Professor of Business Administration (*on leave spring term*)  
Mark A. Kishlansky, Frank B. Baird, Jr. Professor of History  
James T. Kloppenberg, Charles Warren Professor of American History  
Stephen Lassonde, Lecturer on History  
Jill M. Lepore, David Woods Kemper '41 Professor of American History, Harvard College Professor  
Mary D. Lewis, Professor of History  
Allan Edward Lumba, Lecturer on History  
Charles S. Maier, Leverett Saltonstall Professor of History (*on leave fall term*)  
Erez Manela, Professor of History (*on leave 2014-15*)  
Terry D. Martin, George F. Baker III Professor of Russian Studies  
Michael McCormick, Francis Goelet Professor of Medieval History (*on leave 2014-15*)  
Lisa M. McGirr, Professor of History  
Ian J. Miller, Professor of History (*Director of Undergraduate Studies*)  
Roy Mottahedeh, Gurney Professor of History (*on leave spring term*)  
Samuel Moyn, Professor of History (*FAS*) and Professor of Law (*Law School*)  
Afsaneh Najmabadi, Francis Lee Higginson Professor of History and Professor of the Studies of Women, Gender, and Sexuality (*on leave 2014-15*)  
Kelly A. O'Neill-Uzgiris, Associate Professor of History (*on leave fall term*)  
Steven Ozment, McLean Professor of Ancient and Modern History  
Gabriel Pizzorno, Lecturer on History



Serhii Plokhii, Mykhailo S. Hrushevs'kyi Professor of Ukrainian History (*on leave spring term*)  
 Steven Michael Press, College Fellow  
 Emma Rothschild, Jeremy and Jane Knowles Professor of History (*on leave 2014-15*)  
 Mary Elise Sarotte, Visiting Professor of Government and of History  
 Theodore E. Stebbins, Lecturer on History  
 Michael A. Szonyi, Professor of Chinese History  
 Hue-Tam Ho Tai, Kenneth T. Young Professor of Sino-Vietnamese History  
 Heidi Jacqueline Tworek, Lecturer on History  
 Laurel Thatcher Ulrich, 300th Anniversary University Professor  
 Kirsten A. Weld, Assistant Professor of History (*on leave spring term*)

### ***Other Faculty Offering Instruction in the Department of History***

Asad A. Ahmed, Associate Professor of Anthropology  
 Bernard Bailyn, Adams University Professor, Emeritus and James Duncan Phillips Professor of Early American History, Emeritus  
 Thomas N. Bisson, Henry Charles Lea Professor of Medieval History, Emeritus  
 David Blackbourn, Coolidge Professor of History, Emeritus  
 Peter K. Bol, Charles H. Carswell Professor of East Asian Languages and Civilizations  
 Janet Browne, Aramont Professor of the History of Science, Harvard College Professor  
 Glenda R. Carpio, Professor of English and of African and African American Studies  
 Steven C. Caton, Khalid Bin Abdullah Bin Abdulrahman Al Saud Professor of Contemporary Arab Studies (*on leave fall term*)  
 John H. Coatsworth, Monroe Gutman Professor of Latin American Affairs, Emeritus  
 Kathleen M. Coleman, James Loeb Professor of the Classics  
 John Comaroff, Hugh K. Foster Professor of African and African American Studies and of Anthropology (*on leave spring term*)  
 Albert M. Craig, Harvard-Yenching Professor of History, Emeritus  
 Carter J. Eckert, Yoon Se Young Professor of Korean History  
 Peter A. Hall, Krupp Foundation Professor of European Studies (*on leave 2014-15*)  
 David Howell, Professor of Japanese History  
 Akira Iriye, Charles Warren Professor of American History, Emeritus  
 Christopher P. Jones, George Martin Lane Professor of the Classics and of History, Emeritus  
 Edward L. Keenan, Andrew W. Mellon Professor of History, Emeritus  
 Sun Joo Kim, Harvard-Yenching Professor of Korean History (*on leave 2014-15*)  
 Elisabeth Koll, Associate Professor of Business Administration (*Business School*)  
 Philip A. Kuhn, Francis Lee Higginson Professor of History and of East Asian Languages and Civilizations, Emeritus  
 Eric M. Nelson, Robert M. Beren Professor of Government  
 E. Roger Owen, A. J. Meyer Professor of Middle East History, Emeritus  
 Katharine Park, Samuel Zemurray, Jr. and Doris Zemurray Stone Radcliffe Professor of the History of Science  
 Richard Pipes, Frank B. Baird, Jr Professor of History, Emeritus  
 Leah Price, Francis Lee Higginson Professor of English Literature  
 Michael J. Puett, Walter C. Klein Professor of Chinese History  
 Ahmed Ragab, Richard T. Watson Assistant Professor of Science and Religion (*Divinity School*)



Carmen M. Reinhart, Minos A. Zombanakis Professor of the International Financial System  
*(Kennedy School)*

Ajantha Subramanian, Professor of Anthropology

Roman Szporluk, Mykhailo S. Hrushevskyi Professor of Ukrainian History, Emeritus

Stephan Thernstrom, Winthrop Professor of History, Emeritus

John Womack, Jr., Robert Woods Bliss Professor of Latin-American History and Economics,  
 Emeritus

### ***Affiliates of the Department of History***

Intisar A. Rabb, Professor of Law (*Law School*)

### ***Undergraduate Seminars***

#### ***Primarily for Undergraduates***

Required for History concentrators; open to non-concentrators as well. Graduate students may enroll with the instructor's permission.

#### **[\*History 13a (formerly \*History 1305). The European Enlightenment]**

Catalog Number: 3702 Enrollment: Limited to 15.

*James Hankins*

*Half course (fall term). Hours to be arranged.*

Reading and discussion of major texts of the European Enlightenment, from the late 17th century to the late 18th century, with particular attention to the promotion of useful knowledge and to the theory of religion. Readings in Spinoza, Locke, Bayle, Montesquieu, La Mettrie, Voltaire, D'Alembert, Diderot, Rousseau, Hume and Kant.

*Note:* Expected to be given in 2016–17.

#### **\*History 13b. The History of International Organizations - (New Course)**

Catalog Number: 68101 Enrollment: Limited to 15.

*Heidi Jacqueline Tworek*

*Half course (fall term). W., 1–3. EXAM GROUP: I*

This seminar will introduce you to the history of international organizations. The course seeks to understand how and why international organizations have come to play such a significant role in the politics, economics, and culture of the modern world. We will consider the historical factors that have determined the structure, ethos, and efficacy of particular organizations and why international organizations arose in the first place. The course will combine that historical awareness with assessments of broader attitudes towards international organizations. That combination will help us to answer questions about the historical role of international organizations and their work. Why do we use the vocabulary of fighting wars when we discuss disease, for example? What do we actually expect of United Nations bodies and why? And why have historians only recently become interested in international organizations? More broadly, we will use the wide-ranging history of international organizations to rethink the role of the modern state as well as questions of peace, development, culture, and environment



*Note:* Each student will write a final paper based on primary sources, which will fulfill the History Department's requirements for a research paper.

**\*History 60h. Good Works: Charity and Philanthropy before the Modern Era - (New Course)**

Catalog Number: 82983 Enrollment: Limited to 15.

*Meredith M. Quinn*

*Half course (fall term). M., 1–3. EXAM GROUP: I*

In a society where material possessions are distributed unequally, what obligations do the well-off have towards everyone else? This undergraduate seminar examines conceptions and practices of charity in early modern Europe and the Middle East. The study of charity reveals not only the forms that giving has taken in the past, but also the complexity of motivations that surround giving, the often gendered nature of charity, and the visions of an ideal social order that are embedded within the acts and institutions of charity. Taking a comparative approach, the course emphasizes how charity and "doing good" mean different things depending on the historical setting.

*Note:* For their final paper, students are encouraged to pursue a topic drawn from any historical time or place (i.e., not limited to early modern Europe and the Middle East).

**\*History 60i. The Crowd in History: From the Hunting Band to the Social Network - (New Course)**

Catalog Number: 41816 Enrollment: Limited to 15.

*Shane Bobrycki*

*Half course (spring term). Tu., 1–3. EXAM GROUP: I*

This seminar treats the crowd as historical subject from prehistory to the present. We examine what it means to talk about "crowds" across various historical settings and collective behaviors. We proceed from hunting bands to social networks, analyzing gladiatorial crowds in Rome, crusader armies in the Middle Ages, revolutionary crowds in America, France, and Britain, twentieth-century mass politics (democratic, fascist, and communist), crowd theorists (Seneca, Machiavelli, Hobbes, Marx, Le Bon, Freud, Canetti), and postwar protesters, shoppers, fun-seekers, and smart mobs. Topics include community formation, ritual, entertainment, crowd psychology, the history of labor, revolution and protest, class, gender, and war.

**\*History 60j. Empire of Dirt: History of the United States West - (New Course)**

Catalog Number: 40815 Enrollment: Limited to 15.

*Rhae Lynn Barnes*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

This seminar will introduce students to the history of the U.S. West. The course will examine the shifting place, process, idea, cultural memory, conquest, legacies, and environments of the U.S. West throughout American history. Drawing on recent historiography and primary sources such as journals, photography, music, film, and material culture, students will explore how individual people who fell under competing empires, nations, and tribes became a part of the United States. Major themes will include the mapping and the scientific cataloging of the West, racial caricature and exclusion, gender, imperialism, and the increasing role of the federal government.



### **\*History 60k. Imperial Encounters and Cultural Transformation in Central Asia, 1865-1991 - (New Course)**

Catalog Number: 86085 Enrollment: Limited to 15.

*Kathryn Amelia Dooley*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

The Russian and Soviet empires acted both as direct agents of transformation and as facilitators of cross-cultural contact in Central Asia, shaping the region in both intended and unintended ways. This course will examine the patterns of cultural change in Central Asia in the late nineteenth and twentieth centuries while investigating possible parallels to other contexts of colonial rule and cultural "globalization" worldwide. What role did factors like violence, the dissemination of new ideas and goods, and the creation of an indigenous elite play in bringing about cultural change? In what ways were imperial rule and cross-cultural contact disruptive to local societies, and in what ways (and for whom) were they productive? What opportunities were there for exercising individual agency and what were the constraints on it? Topics discussed in the course will include Islam, gender, national identities, and clan and tribal relationships.

### **\*History 60l. The European Scramble for Africa: Origins and Debates - (New Course)**

Catalog Number: 18773 Enrollment: Limited to 15.

*Steven Michael Press*

*Half course (spring term). M., 3–5. EXAM GROUP: 17*

This course examines why and how Europeans claimed control of roughly 70% of the African continent in the late nineteenth century. Students will engage with historiographical debates ranging from the national (e.g. British) to the topical (e.g. the role of international law). Equally important, students will interrogate some of the primary sources on which debaters have rested their arguments. Key discussions include: the British occupation of Egypt; the autonomy of French colonial policy; the mystery of Germany's colonial entry; and, not least, the notorious Berlin Conference of 1884-1885.

### **\*History 60m. How to Start Your Own Country: Histories of Sovereignty and State-Formation - (New Course)**

Catalog Number: 82815 Enrollment: Limited to 15.

*Steven Michael Press*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

What does it mean to start a country, or to "acquire" and "possess" sovereignty over a state? This seminar will examine the historical evolution of fundamental concepts in our international system: state formation, statehood, and sovereignty. Simultaneously, the seminar will explore histories in which sovereignty and statehood have appeared greatly confused and hotly contested. These include: the UK-China lease for control of Hong Kong; the legal battles at the US Naval Station in Guantanamo Bay; international responses to the Indonesian invasion of East Timor; and the "corporate state" of the legendary British East India Company.

### **\*History 60n. Dynasties: Medieval Noble Houses and Modern Family Firms - (New Course)**

Catalog Number: 19668 Enrollment: Limited to 15.

*Hagar Barak*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

Takes an in depth look at succession practices and family dynamics in medieval ruling dynasties



over a period of several centuries. This course will integrate scholarship from medieval history, organization theory and family business studies.

### **\*History 60o. American Indian History in Four Acts - (New Course)**

Catalog Number: 88816 Enrollment: Limited to 15.

*Philip Deloria*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

Both scholars and tribal people (not mutually exclusive!) have found it useful to structure American Indian history around four broad chronological categories emerging from the formation of United States Indian policy: *Treatymaking, Indian Removal, Land Allotment, and Self-Determination*. This seminar will use this "four acts" structure to offer a broad overview of American Indian history, while also considering the limitations of such category-making, including the decentering of Indian people and the blunting of historical complexity. Engaged with primary sources and historiography, the course will also allow students to engage in original research in the field of American Indian history.

### **[\*History 70c. Topics in Natural History]**

Catalog Number: 9332 Enrollment: Limited to 15.

*Daniel L. Smail*

*Half course (fall term). Hours to be arranged.*

A reading seminar focused on literature relevant for a natural history of humankind from several million years ago to the present. Topics will include population diasporas; long-distance exchange; coevolution; family, sex, and marriage; food; communication; goods and things; technology; human contact with ecosystems; status; demography and scale; and cognitive studies. The course will introduce students to the rapidly growing field of big history or deep history.

*Note:* Expected to be given in 2016–17.

### **[\*History 70j. Changing Landscapes in the Eastern Mediterranean: Byzantium between the Crusades and the Islamic World, c.1100-c.1450]**

Catalog Number: 93766 Enrollment: Limited to 15.

*Dimiter Angelov*

*Half course (spring term). Tu., 2–4.*

The seminar focuses on the eastern Mediterranean in a period of economic integration and political fragmentation marked by the crusades, the expansion of the Italian maritime republics, western colonization, and the conquests of the Turks. How did the Byzantines react to the new unsettled world around them? What was the role of the newcomers? Special attention will be paid to the crusades, cross-cultural contacts, and the Mediterranean economy.

*Note:* Expected to be given in 2015–16.

### **\*History 74j. Children and Childhood in America, 1640-Present**

Catalog Number: 3174 Enrollment: Limited to 15.

*Stephen Lassonde*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

This course explores the literature in the history of children and childhood in America from the 17th century to the present. It is organized chronologically but is also topical in approach.



Fundamental questions posed by historians in this burgeoning field will be examined. Students will learn how to develop a nuanced critique of works in the field and how to write a professional book review during the course of the seminar.

**[\*History 74l. The New Deal and American Liberalism]**

Catalog Number: 86716 Enrollment: Limited to 15.

*Brett Flehinger*

*Half course (fall term). Hours to be arranged.*

This course studies the responses to the Great Depression that formed the New Deal. Particular attention will be paid to the connection of between policy development and the rise of American Liberalism. Major topics include Social Security, economic redistribution, Keynesianism, social planning, regulatory reform, conservative critiques of the New Deal and others.

*Note:* Expected to be given in 2015–16.

**\*History 74n. U.S. History: Major Themes in the Twentieth Century**

Catalog Number: 26718 Enrollment: Limited to 15.

*Lisa M. McGirr*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

The twentieth-century United States is a vibrant and flourishing field of historical study. The goal of this seminar is to introduce students to the central questions, problems and debates in the history of the "American century." Students will learn how the literature of history has developed through reading both older and newer approaches. Readings focus on questions of politics, political culture, the state and social life. The course is both thematic and chronological (as well as necessarily selective). Students are expected to prepare well for seminar and to participate actively in discussion. Each class will begin with a brief introduction to the readings (no more than five minutes) by a member of the seminar. The idea here is for one student to take special responsibility for leading discussion, raising questions and problems posed by the reading.

**[\*History 75f. Before and After 2012: History of the Maya ]**

Catalog Number: 58679 Enrollment: Limited to 15.

*Kirsten A. Weld*

*Half course (fall term). Hours to be arranged.*

An exploration - beginning with a look at the alleged Mayan prediction of the world's end on December 12, 2012 - of the long history of the Maya past and present. Covers the ancient Maya, Mayan experiences of Spanish colonialism, and Mayan history and politics in modern Mexico and Central America. Critically examines representations and appropriations of indigenous peoples in scholarship, national narratives, and popular culture over time, and highlights examples of Mayan self-representation.

*Note:* Expected to be given in 2015–16.

**\*History 76c. Major Themes in World History: Colonialism, Imperialism, and Post-Colonialism**

Catalog Number: 0119 Enrollment: Limited to 15.

*Hue-Tam Ho Tai*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

A general introduction to theories of imperialism, nationalism, and post-colonialism. Case



studies to include Asia and Africa. Will combine the study of theory with examination of particular anti-colonial and anti-imperialist movements.

### **\*History 76g. Building the Modern Chinese Nation**

Catalog Number: 74178 Enrollment: Limited to 15.

*Elisabeth Koll (Business School)*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

This seminar will explore China's transition from the last decades of the Qing empire to the republic founded in 1911 to the PRC after the 1949 revolution. We will focus on important social, political, economic, and cultural aspects of "building" a nation and creating "modern" citizens, including the introduction of modern educational and economic institutions, legal reforms, public health and infrastructure, dress codes and new gender roles. The course will address the role of nationalism in the Chinese, East Asian and international context and its continuing relevance for our understanding of contemporary China.

### **[\*History 79e. Commodities in International History]**

Catalog Number: 17812 Enrollment: Limited to 15.

*Alison Frank Johnson 5313*

*Half course (spring term). Hours to be arranged.*

Introduces students to international history through the study of commodities ranging from oil, coal, and cotton to potatoes, rum, coffee, and sugar. Showcases historical writings that transcend geographic, cultural, and political boundaries between East and West, North and South, Atlantic and Pacific as well as methodological boundaries between cultural, economic, business, and environmental history, the history of food, of technology, and of ideas.

*Note:* Expected to be given in 2015–16.

### **[\*History 80a. Roman Imperialism]**

Catalog Number: 0336 Enrollment: Limited to 15.

*Emma Dench*

*Half course (spring term). Hours to be arranged.*

Whether regarded as a model for European empires or as a precursor of western colonialism and globalization, Roman imperial expansion has captured both popular and scholarly imaginations. We proceed thematically, analyzing a variety of textual and material evidence for the changing nature of Roman imperialism between the mid-Republican and early imperial periods, and its impact on the politics, culture, religion, and society of Roman and local communities alike.

*Note:* Expected to be given in 2016–17.

### **\*History 80g. Travelers to Byzantium**

Catalog Number: 27137 Enrollment: Limited to 15.

*Dimitter Angelov*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

This seminar is based on the fascinating firsthand accounts of travelers who visited Constantinople and other areas of Byzantine world. The texts will generate questions for discussion and research on a wide range of issues, such as Byzantine civilization, cross-cultural contacts in the Middle Ages, the practice and experience of travel, and the interrelationship of



travel, ethnography, and politics. Sources will be chosen from among the works of western, Islamic, Jewish, and Russian travelers.

**[\*History 81c. The English Revolution]**

Catalog Number: 0296 Enrollment: Limited to 15.

*Mark A. Kishlansky*

*Half course (spring term). Hours to be arranged.*

This course will fulfill the concentration requirement for a research course requiring the completion of an historical essay based on primary materials. It will explore the causes, course, and consequences of the English Revolution by focusing on selected topics covering the range of issues that dominated the period from the convening of the Lord Parliament to the execution of Charles I. Emphasis will be on research techniques and the use of seventeenth century sources.

*Note:* Expected to be given in 2015–16.

**\*History 82b. Fin-de-Siècle Vienna**

Catalog Number: 1471 Enrollment: Limited to 15.

*Alison Frank Johnson 5313*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

Explores the history of the political, social, and cultural center of the largest continental European Empire in modern history, and one of the birthplaces of European modernism. From the 1880s through WWI and into the early years of the Republic of Austria, the course examines not only Vienna's intellectual vitality, but also the social and ideological divisions underlying the human catastrophes of World War and genocide in the twentieth century.

**[\*History 82f. The Origins of the Cold War: The Yalta Conference (1945)]**

Catalog Number: 1959 Enrollment: Limited to 15.

*Serhii Plokhi*

*Half course (fall term). Hours to be arranged.*

The Yalta Conference is analyzed in the context of the long-term geostrategic goals of the United States, the United Kingdom, and the USSR. Special attention is paid to psychological and cultural aspects of the negotiating process.

*Note:* Expected to be given in 2015–16.

**\*History 82l. The French Revolution**

Catalog Number: 1914 Enrollment: Limited to 15.

*Patrice Higonnet*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

The history of Jacobinism during the French Revolution.

**[\*History 82m. The Modern Mediterranean: Connections and Conflicts between Europe and North Africa]**

Catalog Number: 92643 Enrollment: Limited to 15.

*Mary D. Lewis*

*Half course (fall term). Hours to be arranged.*

This course examines relations between European and North African societies, economies, and peoples from the age of "Barbary Piracy" through colonial conquests, anti-colonial nationalism



and decolonization, to post-World War II migrations and reverberations from the "Arab Spring" of 2011. Students will consider crucial turning points in European-North African relations and will write a substantial research paper focusing in on some aspect of Mediterranean history in the modern era.

*Note:* Expected to be given in 2016–17.

**[\*History 83a. Markets and States: The History of Economic Thought Since 1750]**

Catalog Number: 5927 Enrollment: Limited to 15.

*Emma Rothschild*

*Half course (fall term). Hours to be arranged.*

Examines the history of various kinds of economic thought, including 18th century laissez-faire political economy and late 19th century theories of economic and social reform. Will consider writings in different media from scientific theories to economic periodicals. Students will prepare individual research projects.

*Note:* Expected to be given in 2015–16.

**\*History 83c. Care of the Soul**

Catalog Number: 8082 Enrollment: Limited to 15.

*James Hankins 1239*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

The teachings of major philosophers in the Western tradition about how living a philosophical life can cure diseases of the soul and bring tranquility, harmony with nature, and a sense of moral worth.

**[\*History 84c. Confronting Objects/Interpreting Culture: Interdisciplinary Perspectives on North America]**

Catalog Number: 2479 Enrollment: Limited to 15.

*Laurel Thatcher Ulrich*

*Half course (spring term). Hours to be arranged.*

Working with museum collections as well as written documents, students will explore the interplay between particular objects and larger historical themes, such as colonialism, nationalism, scientific and ethnographic exploration, or expanding commerce. Employing a range of scholarly tools, emphasizing visual and material analysis and including archival research, students will help prepare materials for a future exhibit.

*Note:* Expected to be given in 2015–16.

**\*History 84e. How to Read a Book**

Catalog Number: 90475 Enrollment: Limited to 15.

*Jill M. Lepore and Leah Price*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

This hands-on interdisciplinary undergraduate seminar is for students who want to think about what a book is and how to read one. Readings include historical and literary narratives of reading by Cervantes, Richardson, Franklin, Sterne, Ellison, and Bradbury, together with research exercises in Harvard library and museum collections.



**[\*History 84g. Harvard and Slavery]**

Catalog Number: 1778 Enrollment: Limited to 15.

*Sven Beckert 2415*

*Half course (spring term). Hours to be arranged.*

Will explore the links between Harvard and slavery during the first 229 years of the university's history. Students will write original research papers on various aspects of the history of Harvard University and slavery, including how resources extracted from slave labor benefited the university, the ways Harvard administrators and faculty supported or struggled against the institution of slavery, and what kinds of links the university built to slaveholders.

*Note:* Expected to be given in 2015–16.

**[\*History 84h. The Northern Side of the Civil Rights Movement]**

Catalog Number: 8594 Enrollment: Limited to 15.

*Evelyn Brooks Higginbotham*

*Half course (fall term). Hours to be arranged.*

Examines the movement for racial equality outside the South from the 1940s and into the early 1970s, and will examine integrationist efforts, as well as competing ideologies of black power through weekly urban case studies.

*Note:* Expected to be given in 2015–16.

**[\*History 84l. Democracy and Education in Modern America]**

Catalog Number: 9674 Enrollment: Limited to 15.

*James T. Kloppenberg*

*Half course (spring term). Hours to be arranged.*

The birth of contemporary American politics and our current regime of primary, secondary, and university education both date from the 1890-1930 period. Focusing on psychology, philosophy, and political and educational reform, with particular emphasis on the writings of William James and John Dewey, this course examines the shaping of modern American democracy and education.

*Note:* Expected to be given in 2015–16.

**[\*History 84m. The New Deal: The United States during the Roosevelt Years]**

Catalog Number: 4878 Enrollment: Limited to 15.

*Lisa M. McGirr*

*Half course (spring 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 2015–16.

**[\*History 84x. The US and Europe in Twentieth-Century Thought and Culture]**

Catalog Number: 77536 Enrollment: Limited to 15.

*Andrew Jewett*

*Half course (spring term). Hours to be arranged.*

This seminar explores the intellectual and cultural dimensions of the complex relationship



between Europe and the United States in the twentieth century. You will also contribute to telling the story of that relationship, by producing a long research paper based on original sources. Shared readings will provide a common fund of knowledge and a common language for discussion.

*Note:* Expected to be given in 2015–16.

**[\*History 86h. Asia after Europe]**

Catalog Number: 20604 Enrollment: Limited to 15.

*Sugata Bose*

*Half course (fall term). Hours to be arranged.*

The history of the decline and rise of a continent between 1813 and 2013 in the domains of economy, politics and culture.

*Note:* Expected to be given in 2015–16.

**\*History 88b. Medieval History and Cinema**

Catalog Number: 70486 Enrollment: Limited to 15.

*Cemal Kafadar*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

This course deals with the challenges of representing medieval history by focusing on selected films, which will be viewed at two levels at once, as films and as history. What are the uses of cinema as a vehicle for thinking about the past? What qualities, other than accuracy, make for good history in films? What are the advantages, if any, of cinematic representation of the premodern past with its different sense of intimacy with the supernatural?

*Note:* There will be a group viewing of selected films each week and a class meeting to discuss films and related readings.

**\*History 88d. Australia's Black History - (New Course)**

Catalog Number: 53506 Enrollment: Limited to 15.

*Bain Attwood*

*Half course (fall term). Tu., 4–6. EXAM GROUP: 16*

This course surveys the history of the encounter between settlers and indigenous people in Australia from the beginning of British colonization in the late eighteenth century to recent times. Topics include early cross-cultural relations; conflict on frontiers; treaty-making; the imposition of British law; indigenous dispossession, depopulation and removal; religious change and reserves; labor relations; the growth of racial consciousness; government policies and practices; indigenous responses to oppression and marginalization; and political movements for indigenous rights.

**[\*History 89a. British Colonial Violence in the 20th Century]**

Catalog Number: 4626 Enrollment: Limited to 15.

*Caroline M. Elkins*

*Half course (fall term). Hours to be arranged.*

Will explore Britain's deployment of various forms of violence in its 20th-century empire, and how this violence was understood, justified, and represented in the empire and at home. Imperial objectives and policies will be weighed alongside local factors such as race, settler presence, indigenous responses to colonial rule, and economic and strategic interests to assess the



universality and particularity of British colonial violence.

*Note:* Expected to be given in 2015–16.

### **\*History 89h. Henry Kissinger: Statecraft in Theory and Practice**

Catalog Number: 38953 Enrollment: Limited to 15.

*Niall Ferguson*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

As National Security Adviser and Secretary of State, Henry Kissinger was the architect of the policy of détente with the Soviet Union, of the "opening" to China, and of the effort to salvage "peace with honor" in Vietnam. Yet Kissinger should be understood as a scholar as well as a statesman. Using selections from his writings, this seminar will assess Kissinger in his own terms and in the context of modern international history.

### **[\*History 89j. The United States and China: Opium War to the Present]**

Catalog Number: 41121 Enrollment: Limited to 15.

*Erez Manela 4762*

*Half course (spring term). Hours to be arranged.*

This research seminar will focus on the history of Sino-American relations and interactions since the Opium War (1840s). It will examine major episodes such as the Boxer intervention, the first and second world wars, the Korea and Vietnam wars, the Mao-Nixon rapprochement, and the post-Mao transformations, and explore central themes such as immigration, trade, culture, diplomacy, and security.

*Note:* Expected to be given in 2015–16.

### ***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

*Ian J. Miller and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*

Limited to juniors and seniors. Students wishing to enroll must petition the DUS 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.

### **\*History 92r. History Lab**

Catalog Number: 31181

*Gabriel Pizzorno, Dimiter Georgiev Angelov, Genevieve A. Clutario, William D. Johnston, Jill M. Lepore, Daniel L. Smail, and Heidi Jacqueline Tworek*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

History Lab offers History concentrators and other students a chance to spend a semester working with History faculty on faculty research projects. Outcomes will include familiarity with



a range of digital tools for research and data visualization and insights on how to design and execute a major research project. Students will be assessed on the basis of blogs and presentations of research assignments.

### ***Tutorials in History***

The Sophomore Tutorials are an introduction to the ways in which historians formulate historical arguments and research topics. Taught in seminars (capped at 15) and in smaller tutorials, with occasional plenary events in the evening. Required of, and ordinarily limited to, all History concentrators in the spring term of their sophomore year (or at the first opportunity for those joining the concentration late). Not required for a secondary field in History.

#### ***Sophomore Tutorials***

##### **[\*History 97. Sophomore Tutorial]**

Catalog Number: 4469

*Members of the Department*

*Half course (spring term). Hours to be arranged.*

Please select a Sophomore Tutorial from the list below: History 97a through History 97i.

*Note:* Expected to be given in 2015–16. History concentrators should select one of the History 97 tutorials in the spring term of their sophomore year (or at the first opportunity for those joining the concentration late). Not required for a secondary field in History.

##### **[\*History 97a. "What is the History of Medicine?"]**

Catalog Number: 69581 Enrollment: Limited to 15.

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

The emergence of the science of medicine and its professionalization have been integral aspects of human history. The history of medicine allows us to trace the various traditions that have come together to create "modern medicine." In this section, students will examine the human endeavor to be healthy and to cure disease. The practice of medicine draws on changing ideas about the natural world and the body. It also demands interventions in the physical environment so as to maximize public health, and readily incorporates transformative technologies from other sectors of human society. Students will be asked to reflect on the interaction of medicine and culture through questions such as: How did western powers use biomedicine in the context of empire? How do non-western cultures appropriate and indigenize biomedicine?

*Note:* Expected to be given in 2015–16.

##### **\*History 97b. "What is Intellectual History?"**

Catalog Number: 20768 Enrollment: Limited to 15.

*James T. Kloppenberg*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Intellectual historians study almost every period, place, and theme in human history: from classical times to the present, from Asia to the Americas, by examining philosophy and religion, social and political thought, literature and art, and other expressions of human agency and intention that range from ancient epics to graphic novels. This section will draw examples from a



wide range of moments and regions to ask how intellectual history has developed as a field, what methods it uses, and how it can be distinguished from other forms of history even as it informs debates of interest to all historians.

**[\*History 97c. "What is the History of History?"]**

Catalog Number: 38556 Enrollment: Limited to 15.

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

Everything has a history, and the discipline of history has a particularly long and broad one. In this section we'll focus on ideas about how and why to study history and on the practices of historical research and writing as they have varied across different cultural contexts. In selected case studies we will consider who wrote and who read history, and how historians answered questions that we also ask ourselves today. E.g. What features are essential to a good historical account? Does the study of history teach moral lessons? How does history interact with memory?

*Note:* Expected to be given in 2015–16.

**\*History 97d. "What is Environmental History?"**

Catalog Number: 45123 Enrollment: Limited to 15.

*Ian J. Miller*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

This section gives new History concentrators an introduction to environmental history. Most historians leave the natural world out of the story, but environmental historians regard nature as the inescapable context for human history, including the human impact on nature. We will explore how the histories of the environment and of humans can (and perhaps should) be written together. Is there a "natural archive" which historians can consult in parallel with conventional libraries and archives? Do places have "biographies," just as people do? Can natural entities (mountains, dogs, rivers, microbes, climate) have "agency" in the same way human actors can?

**[\*History 97e. "What is Imperial History?"]**

Catalog Number: 31936 Enrollment: Limited to 15.

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

Though empires have recently disappeared from the map, for historians these sprawling multi-ethnic, multi-confessional states remain crucial laboratories for the study of violence, power, ideology, aesthetics, and identity. This section will introduce students to the many ways historians define empires and interpret the experiences of those who inhabited them. How does one write the history of such diverse, expansive entities? How does imperial history incorporate the perspectives of disenfranchised, enslaved, and colonized peoples? What is its scale? How does the work of historians relate to images of empire generated through public commemoration and popular memory?

*Note:* Expected to be given in 2015–16.

**\*History 97f. "What is Material History?"**

Catalog Number: 15967 Enrollment: Limited to 15.

*Daniel L. Smail*

*Half course (spring term). M., 3–5. EXAM GROUP: 17*



This section offers new History concentrators an overview of the history and anthropology of material culture. Our coverage will range widely across both time and space; major themes will include things created in the deep human past as well as the habits of consumption and even addiction that define our relationship with things in the present day. Do we own things? Or do things own us? Does having more stuff necessarily lead to happiness? Readings will offer students a chance to work not just with history and historical sources, but also art history, literary studies, archaeology, environmental history, and cognitive neuroscience.

**\*History 97g. "What is Legal History?" - (New Course)**

Catalog Number: 34221 Enrollment: Limited to 15.

*Tamar Herzog*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Legal history has become a popular pursuit in recent decades, but what does it mean to do legal history? Do lawyers, who routinely review precedent or study the evolution of specific pieces of legislation, do legal history? Do judges, when they reconstruct past events in order to apply the law? Do historians, who use legal documentation? And how is legal history differently done in Europe and in the USA? This section will consider these questions (and others) by analyzing the various ways by which different scholars have approached the relationship between law and history over time, in different locations, and for different ends.

**\*History 97h. "What is Urban History?" - (New Course)**

Catalog Number: 65043 Enrollment: Limited to 15.

*Elizabeth Kai Hinton*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

This section will explore the methods historians have used to understand the political, economic, and social development of cities and urban life over the past four centuries. How have historians approached the study of metropolitan regions and their inhabitants? What methods have they used to examine the ways in which social and spatial forms differ by time and place? How does urban history provide a unique vantage to analyze issues of class, ethnicity, migration, race, and gender? Readings and discussions will give special attention to cities and transformations in the United States, but we will draw comparative examples from the histories of urban centers across the globe.

**\*History 97i. "What is Biography?" - (New Course)**

Catalog Number: 49841 Enrollment: Limited to 15.

*Jill M. Lepore*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

Biographers write histories of lives. Their storytelling is often novelistic but their standards of evidence are those of the historian. They confront distinctive questions: What lives are worth writing? What is the relationship between the individual and society? What rules govern the relationship between biographers and their subjects? How has the art of biography changed over the centuries, and what forces have driven those changes? In this section, we'll read both notable biographies and the critical literature on biography as a genre that is often seen to be at odds with the conventions of other kinds of historical writing.

***Senior Tutorial***



### **\*History 99. Senior Thesis Tutorial**

Catalog Number: 5803

*Heidi Jacqueline Tworek*

*Full course. W., 6–9 p.m. EXAM GROUP: Fall: 17; Spring: 13*

Research and writing the senior thesis in History.

*Note:* Required of, and ordinarily limited to, seniors completing the History concentration's thesis program. Permission must be obtained from the Tutorial Office.

### ***Lecture Courses***

#### ***For Undergraduates and Graduates***

##### **History 1010. History of the Prison - (New Course)**

Catalog Number: 55764

*Elizabeth Kai Hinton*

*Half course (fall term). M., W., (F.), at 1, and a weekly section to be arranged. EXAM GROUP: 1*

This course provides an introduction to theories of social control, prison practices, and experiences of confinement. Our historical comparison of penal regimes from different time periods and different nations will explore fundamental questions about the purpose of government authority and the role of prisons in society. In the spirit of Nelson Mandela's famous observation that "no one truly knows a nation until one has been inside its jails," this course offers a deep and critical analysis of social exclusion, the contours of state power, and the malleability of the law and its function in various societies over time.

##### **History 1011. The World of the Roman Empire**

Catalog Number: 45321

*Emma Dench*

*Half course (fall term). Tu., Th., at 12, and a weekly section to be arranged. EXAM GROUP: 13*  
An introduction to Roman history from the mid third century BCE to the mid third century CE, with emphasis on the multiple cultures of the Roman empire and their diverse involvement in, and perspectives on, Roman conquest and rule. Challenging traditional narratives of Roman political history, we will seek a much more dynamic view of 'Roman' culture and society, based on both literary and archaeological evidence.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Societies of the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

##### **History 1014. Gender, Empire and the Politics of Appearance - (New Course)**

Catalog Number: 66383

*Genevieve A. Clutario*

*Half course (spring term). Tu., Th., 1–2:30, and a weekly section to be arranged. EXAM GROUP: 1*

This course takes a cultural approach to connected histories and more contemporary developments of (post)colonial national identity formations, U.S. empire, and globalization during the nineteenth and twentieth centuries through the lenses of gender, race, and appearance.



We will examine visual and performative cultural arenas such as beauty pageants, advertising, mass media, film, and video and investigate how discourses of racial and gendered aesthetics functioned in structuring and maintaining colonial forces and empire.

**History 1015. From Ghana to Guantanamo: European and American Empires in the Long Nineteenth Century - (New Course)**

Catalog Number: 25449

*Steven Michael Press*

*Half course (fall term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 11*

This course surveys the origins and impact of encounters at several sites of empire: Qing China, British India, Africa, the Pacific, and the Caribbean. The course conducts its inquiry from several angles, focusing on the way American and European imperial systems affected politics, law, economics, and culture. Students will grapple with key concepts, including financial imperialism and neocolonialism; they will also learn about such specialized topics as the laws of imperial expansion. While the course will spend ample time covering the effects of imperialism "at home," it will equally engage with its effects abroad.

**History 1020 (formerly History 1920). A Global History of Modern Times**

Catalog Number: 1925

*Charles S. Maier*

*Half course (spring term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 14*

Think big: A historical survey of world societies since the 16th century "encounters," designed to emphasize their interactions and interdependence. Covers transnational forces such as demographic change and migration, religious revivals, industrial development, and upheavals in class, racial and gender relationships. Also follows comparative political transformation within empires and states and the international hierarchies of power, including the impact of the great revolutions, imperialism and war, trade and investment, and cultural diffusion.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Societies of the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[History 1021 (formerly History 1921). International Financial History, 1700 to the Present]**

Catalog Number: 9661

*Niall Ferguson*

*Half course (fall term). Hours to be arranged.*

An introduction to modern financial history from the first stock market bubbles to the most recent. Topics include money and banking, public debt and bond markets, corporations and stock markets, investment banking, cross-border capital flows, private insurance and welfare systems, mortgages, consumer credit, privatization, emerging markets, derivatives and hedge funds.

Special attention will be paid to the role of financial institutions and financial crises in economic and political development.

*Note:* Expected to be given in 2015–16.



**[History 1030. Studying Twentieth-Century American History: An Introduction] - (New Course)**

Catalog Number: 61221

Brett Flehinger

*Half course (fall term). Hours to be arranged.*

Introduces students to historical study by focusing on selected topics in Twentieth-Century American history. The course teaches students how to use the systematic patterns of thought that historians use to recreate and analyze the past. These are patterns of thought common among all historians and the skills and experiences gained will provide students a way to enter historical study across time and geography. Topics include, the history of race-based disfranchisement, the Dust Bowl, the history of birth control, Thoreau's influence on twentieth-century reform movements, and others.

*Note:* Expected to be given in 2015–16.

**History 1035. Byzantine Civilization**

Catalog Number: 42244

Dimiter Angelov

*Half course (spring term). M., W., at 11, and a weekly section on Thursday at 2:00. EXAM GROUP: 13*

The Byzantine (Eastern Roman) Empire outlived the fall of Rome by a thousand years. In what ways did Byzantium preserve the institutions and politics of imperial Rome? In what ways was it a medieval civilization? How did Byzantium's professional armies, able diplomats, and brilliant intellectuals ensure its survival and renewed expansion? This course traces the story of the Byzantine Empire between c. 600 and 1453, setting it in the context of medieval and world history.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Societies of the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[History 1055. Vengeance, Hatred, and Law in Premodern Europe]**

Catalog Number: 7743

Daniel L. Smail

*Half course (spring term). Hours to be arranged.*

Will explore the great transformation in European legal habits that took place between 500 and 1600, as family-based forms of law, vengeance, and regulation gave way to royal, municipal, and ecclesiastical justice. Topics include the blood feud, the judicial ordeal, and judicial torture. The course is designed to raise ethical and substantive issues that are relevant to an understanding of the function of law and justice in the modern world.

*Note:* Expected to be given in 2015–16.

**History 1060. Europe and Its Borders, 950-1550**

Catalog Number: 0914

Hagar Barak

*Half course (spring term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12*

Surveys an early phase of European expansion and colonial activity in areas including the Iberian



Peninsula, Sicily, the eastern Mediterranean, eastern Europe, the Baltic lands, and central Asia. A major goal of the course is to explore how a European identity emerged in the process of contact and conflict in the new borderlands. Readings will include primary and secondary sources.

### **History 1061. Civilization of the High Middle Ages - (New Course)**

Catalog Number: 87574

*Hagar Barak*

*Half course (fall term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 5*

Surveys the civilization of the high middle ages (~1100-~1500), focusing on cultural and political institutions, such as monasticism, knighthood, kingship and crusade. This class will put an emphasis on the evolution of these medieval ideas and institutions and the contributions they still make to our world and identities today.

### **[History 1063. America and Vietnam: 1945-1975]**

Catalog Number: 3447

*Hue-Tam Ho Tai and Brett Flehinger*

*Half course (spring term). Hours to be arranged.*

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 given in 2015–16.

### **[History 1067 (formerly History 1967). An Introduction to the History of Economic Thought]**

Catalog Number: 64646

*Emma Rothschild*

*Half course (fall term). Hours to be arranged.*

The course provides an introduction to the history of economic thought, from Huan K'uan to Adam Smith, Karl Marx and Paul Samuelson; and to economic concepts in historical perspective, from the state and the market to natural resources and financial crises.

*Note:* Expected to be given in 2015–16.

### **[History 1068 (formerly History 1968). United Nations: A Global History]**

Catalog Number: 59002

*Emma Rothschild*

*Half course (spring term). Hours to be arranged.*

Explores the history of international organizations, including activities concerned with economic crises, economic development, security, and environment. Taught in conjunction with the development of new web-based sources on United Nations history.

*Note:* Expected to be given in 2015–16.



### [History 1079 (formerly \*History 79i). Breaking Headlines: The History of News ]

Catalog Number: 83327

*Heidi Jacqueline Tworek*

*Half course (spring term). Hours to be arranged.*

An untold story lies behind the news that we read, hear or see every day and the media sources that we mine constantly as historians. This lecture course introduces students to the major themes and approaches to the historical study of news from the ‘invention’ of modern newspapers in the seventeenth century to the multiplication of media today. Topics include journalism, propaganda, public opinion, news agencies, radio, television, and Twitter.

*Note:* Expected to be given in 2015–16.

### History 1092. Japan and the Atomic Bomb in Historical Perspective - (New Course)

Catalog Number: 89935

*William Johnston*

*Half course (spring term). M., W., (F.), at 12. EXAM GROUP: 7*

The atomic bombings of Hiroshima and Nagasaki in August 1945 marked the intersection of warfare and science that was more than a century in the making. What motivated scientists to participate in the creation of the bombs? How did civilian populations become justifiable targets in modern warfare? What was it like to experience nuclear attack? Does the historical evidence confirm the popular conception that these bombings ended World War Two in the Pacific? This course examines these and related questions using a broad range of sources, including poetry and fiction, de-classified government documents, and readings in the history of science.

### History 1133. The British Revolutions

Catalog Number: 26014

*Mark A. Kishlansky*

*Half course (fall term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 8*

This course will explore the causes and consequences of the political upheavals that transformed Britain during the seventeenth century. The English Revolution witnessed the first trial and execution of a lawful monarch in European history. The so-called Glorious Revolution of 1688-89 made Britain a great European power. Why was it necessary for Britons to overthrow constituted authority and how did they do it? Readings will include works from among James I, the Levellers, Milton, Hobbes, and Locke as well as writings of modern historians. No prior knowledge expected.

### [History 1144. The Renaissance in Florence]

Catalog Number: 4631

*James Hankins*

*Half course (spring term). Hours to be arranged.*

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 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.



### **History 1155. Early Modern Europe, 1450-1789**

Catalog Number: 56228

*Daniel Juette*

*Half course (spring term). M., W., (F.), at 1. EXAM GROUP: 8*

This survey course explores European history from the end of the Middle Ages to the eighteenth century. Topics include the Renaissance in Southern and Northern Europe, the Reformation and the wars of religion, the rise of Absolutism, the Enlightenment, and the French Revolution. The course will introduce students to key figures (such as Machiavelli, Luther, Montaigne, Bacon, and Kant) as well as to topics in cultural and everyday history.

### **History 1206. Empire, Nation, and Immigration in France since 1870**

Catalog Number: 41522

*Mary D. Lewis*

*Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*

This course explores the history of France from the foundation of the Third Republic to the beginning of the 21st century. Topics include the advent of modern left-wing, right-wing, and anti-Semitic politics; imperial expansion and its consequences; the devastating impact of the First World War; the tumultuous interwar era; the Second World War and the politics of resistance, collaboration, and memory; decolonization; the May 1968 movement; immigration and identity politics since the 1970s.

### **[History 1265. German Empires, 1848-1948]**

Catalog Number: 61673

*Alison Frank Johnson*

*Half course (fall term). Hours to be arranged.*

This course examines the history of Germans in Europe and elsewhere, starting with the revolutions of 1848 and ending with the separation of Austria, West Germany, and East Germany following the Second World War. We will consider multiple different visions of what “Germany” should be, what borders it should have, and who should be considered “German.”  
*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Societies of the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[History 1266. Central Europe, 1789-1918: Empires, Nations, States]**

Catalog Number: 3736

*Alison Frank Johnson*

*Half course (fall term). Hours to be arranged.*

Examines the development of nationalism and socialism as ideologies intended to shape group loyalties, public and private behavior, and political activities of subjects of the continental European empires in the long nineteenth century. Primary focus will be on the Habsburg Empire, with attention paid to other German-speaking lands and to the western territories of the Russian Empire (especially Poland).

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Societies of the World. This course fulfills the requirement that one of the eight General Education courses also engages substantially with Study of the Past.



### **History 1270. Frontiers of Europe: Ukraine since 1500**

Catalog Number: 1910

*Serhii Plokhhii*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

The history of Ukrainian territory and its people within a broad context of political, social and cultural changes in Eastern Europe in the course of the half of a millennium. Special emphasis on the role of Ukraine as a cultural frontier of Europe, positioned on the border between settled areas and Eurasian steppes, Christianity and Islam, Orthodoxy and Catholicism, as well as a battleground of major imperial and national projects of modern era.

### **History 1280. History of the Soviet Union, 1917-1991**

Catalog Number: 4501

*Terry D. Martin*

*Half course (fall term). Tu., Th., at 10, and a weekly section to be arranged. EXAM GROUP: 12*

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 1281. The End of Communism]**

Catalog Number: 84441

*Terry D. Martin*

*Half course (fall term). Hours to be arranged.*

Examines how and why communism collapsed in the Soviet Union and Eastern Europe. Places the events of 1989/1991, usually considered sudden and shocking, within the political, economic, social, and cultural context of the surrounding decades (1970-2000). Considers both international and domestic factors, including the Cold War and the arms race; ideology and dissent; consumption and culture; oil, economics and the environment; nationalism and civil war; gender and health. Investigates the role of structural conditions and contingency in history.

*Note:* Expected to be given in 2016–17. This course, when taken for a letter grade, meets the General Education requirement for Societies of the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **History 1290. The History of the Russian Empire**

Catalog Number: 9566

*Kelly A. O'Neill-Uzgiris*

*Half course (spring term). M., W., (F.), at 10, and a weekly section to be arranged. EXAM GROUP: 5*

The history of Russia from the early days of imperial expansion in the sixteenth century to 1917. Topics include the nature of autocratic authority, Russian Orthodoxy, and the integration of non-Russian peoples and territories. We will explore a wide variety of technologies of imperial rule (mapmaking, censorship, religious policy, ethnographic description), as well as the relationship between subjects of the empire (elites, peasants, and everyone in between) and the built and natural environments they inhabited.



### [History 1300. Western Intellectual History: Greco-Roman Antiquity]

Catalog Number: 6308

*James Hankins*

*Half course (fall term). Hours to be arranged.*

A survey of major themes in the intellectual history of the Greek and Roman World, with special attention to metaphysics, psychology, ethics and the philosophic life. Readings in the Presocratics, Plato, Aristotle, Lucretius, Epictetus, Cicero, Seneca, Marcus Aurelius, Plotinus, Augustine, and Boethius.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [History 1301. Western Intellectual History II: The Prehistory of Modern Thought]

Catalog Number: 7573

*James Hankins*

*Half course (spring term). Hours to be arranged.*

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.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [History 1318. History of the Book and of Reading]

Catalog Number: 7410

*Ann M. Blair*

*Half course (fall 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. The course surveys developments from scroll to web with a special focus on printing and developments in early modern Europe, 16th-18th centuries.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [History 1322. Heidegger and Arendt]

Catalog Number: 1906

*Peter E. Gordon*

*Half course (spring term). Hours to be arranged.*

This course investigates the complex philosophical affiliation between Martin Heidegger and Hannah Arendt. Will address how various themes of Heideggerian philosophy were borrowed, displaced, revised, and challenged in Arendt's political theory. The first half of the course addresses texts by Heidegger, esp. selections from *Being and Time*, and *An Introduction to Metaphysics*. The second half of the course addresses Arendt's major theoretical works, *The Origins of Totalitarianism*, *The Human Condition*, and *On Revolution*.



*Note:* Expected to be given in 2015–16. Open only to students with prior experience in social and political theory, intellectual history, and/or political philosophy.

### [History 1323. German Social Thought, Nietzsche to Habermas](#)

Catalog Number: 78728

*Peter E. Gordon*

*Half course (fall term). Tu., Th., 11:30–1, and a weekly section to be arranged. EXAM GROUP: 15*

A philosophical and historical survey of major debates in modern German social theory over the span of a century, from Nietzsche's anti-foundationalist critique of morality and truth to Habermas's attempt to rebuild a pragmatic-transcendentalist theory for ethical and discursive reason after the collapse of metaphysics. Readings by Nietzsche, Weber, Heidegger, Adorno, Horkheimer, and Habermas.

### [History 1324. French Social Thought, Durkheim to Foucault](#)

Catalog Number: 27206

*Peter E. Gordon*

*Half course (spring term). Tu., Th., 11:30–1, and a weekly section to be arranged. EXAM GROUP: 15*

A survey of major themes and debates in modern French social theory over the span of a century, from Durkheim's neo-Kantian theory of the social symbolic to Foucault's conception of the historical a priori, concluding with the recent emergence of post-Marxist and liberal-democratic conceptions of both history and society. Major readings by Durkheim, Mauss, Sartre, Kojève, Fanon, de Beauvoir, Lévi-Strauss, Lacan, Althusser, Foucault, Lefort, Derrida, and Bourdieu.

### [History 1330. Social Thought in Modern America](#)

Catalog Number: 8440

*James T. Kloppenberg*

*Half course (spring term). Tu., Th., 11:30–1, and a weekly section to be arranged. EXAM GROUP: 15*

An inquiry into American ideas since 1870, 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 hyper-partisanship.

### [\[\\*History 1390. Understanding Democracy through History\]](#)

Catalog Number: 1517 Enrollment: Limited to 40.

*Alexander Keyssar (Kennedy School)*

*Half course (spring term). Hours to be arranged.*

Examines the evolution of democracies in different nations over extended periods of time, and will focus on one fundamental issue: Under what circumstances or conditions have democracies (or political rights) expanded, and under what circumstances of conditions have they contracted? Readings will include historical studies as well as comparative theoretical works.



*Note:* Expected to be given in 2015–16. Offered jointly with the Kennedy School as DPI-703.  
 This course may be lotteried.

**[\*History 1400. Introduction to American Studies]**

Catalog Number: 30373 Enrollment: Limited to 36.

*Jill M. Lepore and Louis Menand*

*Half course (spring term). Hours to be arranged.*

The course is designed primarily for students interested in further study in the field, but all students are welcome. We cover topics, from the seventeenth- to the twenty-first century, in political, social, intellectual, and cultural history. Students read both primary and secondary materials, and receive intensive guidance for their writing.

*Note:* Expected to be given in 2016–17. Ninety-minute lecture-discussion, plus one-hour section led by the instructors.

**[\*History 1405. American Legal History, 1776-1865]**

Catalog Number: 84704 Enrollment: Limited to 15. The enrollment limit for FAS students is 15.

*Annette Gordon-Reed*

*Half course (spring term). Hours to be arranged.*

This course will trace the development of the American legal and political system from 1776 to 1865. We will discuss the formation of state constitutions and the Federal Constitution, slavery and law, the development of American private law, the "Revolution of 1800" and the "Age of Jefferson", the mechanisms of westward expansion, the "Age of Jackson", and the coming of the Civil War.

*Note:* Expected to be given in 2015–16. Offered jointly with the Law School as 2163. This course will meet at the Harvard Law School.

**[History 1410. American Families, 1600-1900]**

Catalog Number: 20517

*Laurel Thatcher Ulrich*

*Half course (spring term). Hours to be arranged.*

Family forms in the United States have varied widely over the centuries. This course will consider the radical innovations of 17th century Puritans, eighteenth-century Moravians, and nineteenth-century Mormons; the role of the family in debates over slavery, immigration, and the status of American Indians; and the impact of legal, economic, and social changes on mainstream ideals and practices. Students will work with a wide variety of family records as well as public documents and will have the option of writing about their own family history.

*Note:* Expected to be given in 2015–16.

**[History 1412. African Diaspora in the Americas]**

Catalog Number: 9564

*Vincent Brown*

*Half course (fall term). Hours to be arranged.*

Africans and their descendants in the Americas have drawn upon their experiences to create enduring cultural forms that seem simultaneously to be thoroughly American and distinctly African. How can we best understand these diverse cultural practices? From where did they derive? How are they related to each other? The course explores how transnational affinities



have been articulated, debated, and put to use from the Transatlantic slave trade to the present.

*Note:* Expected to be given in 2016–17.

### **History 1433. American Populisms: Thomas Jefferson to the Tea Party**

Catalog Number: 86765

*Brett Flehinger*

*Half course (spring term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 14*

This course studies the American Populist tradition that defines the common "people" as the centerpiece of American economic and political life and thrives on opposition between the people and "elite" interests. The class focuses on the formal Populist movement and the People's Party of the late nineteenth century, and places this history in broader context, from Jeffersonian tradition through the rise of anti-elitist and anti-government movements characterized by Rush Limbaugh, Sarah Palin, and the rise of the Tea Party.

### **History 1434. American Public Life in the 20th Century**

Catalog Number: 33407

*Brett Flehinger*

*Half course (fall term). M., W., (F.), at 12, and a weekly section to be arranged. EXAM GROUP: 11*

A course covering the major public and political events in America from the administration of Teddy Roosevelt through Ronald Reagan. Focuses on both rising national unity and power, as well as persistent racial, gender, and economic division that conflicted with this unity. Topics include: the Progressive Era, New Deal, World Wars, and Civil Rights Movement, and Watergate.

### **History 1445. Science and Religion in American History**

Catalog Number: 99245

*Andrew Jewett*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 18*

This lecture course explores the complex interactions of science and religion in the United States, with a particular focus on their roles in democratic politics. Beginning with the Scopes trial of 1925, it looks back to the "pan-Protestant establishment" and the Darwinian controversies of the nineteenth century and then proceeds forward to today's debates over abortion and bioengineering. Students read a wide range of primary sources and examine visual material. No previous coursework is required.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for United States in the World or Culture and Belief, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[History 1457. History of American Capitalism]**

Catalog Number: 75535 Enrollment: Limited to 100.

*Sven Beckert*

*Half course (spring term). Hours to be arranged.*

Examines the development of the American economy from its beginnings to the present. 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 2015–16. This course, when taken for a letter grade, meets the General Education requirement for United States in the World,. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past. Students who have taken Historical Study B-49 may not take this course for credit.

### **History 1462. History of Sexuality in the Modern West**

Catalog Number: 83347

*Nancy F. Cott*

*Half course (spring term). M., W., at 1, and a weekly section to be arranged. EXAM GROUP: 8*  
 This course will examine sexual rules and behavior over four centuries in the U.S. and Europe, probing the making of sexual categories such as 'normal' and 'deviant', and asking how understandings of men and women as sexual beings have changed over time. A premise of the course is that human sexual behavior is malleable, and that understanding a society's values about what is right and wrong in sex sheds light on social relations as a whole. Likewise, modes of sexual regulation reveal a social order's priorities. We will consider how popular beliefs, dominant discourses on sexuality and modes of sexual regulation relate to assumptions about class, gender, race, and age.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[History 1465. The United States in the World since 1900]**

Catalog Number: 4745

*Erez Manela*

*Half course (fall term). Hours to be arranged.*

A wide-ranging overview of American interactions with the world from the Spanish-American War through 9/11 and beyond. We will consider the changing patterns of international politics, the causes and implications of imperialism and decolonization, the pivotal impact of the world wars and the Cold War, the significance of cultural interactions and social movements, the challenges of globalization, the complexities of international development, and the roots of current world (dis)orders.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for The United States in the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[History 1511. Latin America and the United States]**

Catalog Number: 22264

*Kirsten Weld*

*Half course (fall term). Hours to be arranged.*

Surveys the complex, mutually constitutive, and often thorny relationship - characterized by suspicion and antagonism, but also by fascination and desire - between the United States and the diverse republics south of the Rio Grande. Examines public policy, US expansionism and



empire, popular culture and consumption, competing economic development models, migration, tourism, the Cold War, sovereignty, dissent, and contrasting visions of democratic citizenship.

*Note:* Expected to be given in 2016–17. This course, when taken for a letter grade, meets the General Education requirement for United States in the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [History 1513. History of Modern Latin America]

Catalog Number: 52478

*Kirsten A. Weld*

*Half course (fall term). Hours to be arranged.*

This course surveys Latin America from its 19th-century independence movements through the present day. How did the powerful legacies of European colonialism, and the neocolonial economic order that emerged to replace it, shape the Americas' new nations? Themes include nationalism and identity, revolution and counterrevolution, populism, state formation, race and ethnicity, gender and sexuality, social movements, the role of foreign powers, inequality and social class, dictatorship, democratization, and human rights.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Societies of the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [History 1520. Colonial Latin America]

Catalog Number: 20401

*Tamar Herzog*

*Half course (fall term). Hours to be arranged.*

This course is an introductory survey of colonial Latin American history, spanning the sixteenth to the early nineteenth century. Organized chronologically and thematically, it will examine developments in Spanish and Portuguese America by reading both secondary and primary sources (available in English translation).

*Note:* Expected to be given in 2016–17.

### History 1526. European Legal History - (New Course)

Catalog Number: 12271 Enrollment: The enrollment limit for Harvard Law School students is 25.

*Tamar Herzog*

*Half course (fall term). M., W., at 11, and a weekly section to be arranged. EXAM GROUP: 18*

This is a survey course of the history of European law from the fall of the Roman Empire (5th century) to the establishment of the European Union (20th century). Organized chronologically, it engages with the sources and nature of Law, the organization of legal systems and the relationship between law and society, law and law-maker, law and the legal professions. Continental and Common Law, as well as Colonial law would be covered.

*Note:* Offered jointly with the Law School as 2700.

### History 1602. China's Long 20th Century

Catalog Number: 95731 Enrollment: Limited to 30.

*Elisabeth Koll (Business School)*



*Half course (fall term). M., W., (F.), at 12. EXAM GROUP: 11*

This course examines China's modern history from the last decades of the 19th century to the present. It explores the great political, economic, and social transformations with a particular focus on identifying continuities and discontinuities in China's historical development across the 20th century. Lectures, readings, and discussions will also emphasize China's global interconnections and develop a framework for assessing the role of communism, capitalism, and nationalism in the making of modern China.

**History 1619. Premodern Vietnam**

Catalog Number: 4581

*Hue-Tam Ho Tai*

*Half course (fall term). M., W., at 2. EXAM GROUP: 7*

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.

**History 1620. Modern Vietnam**

Catalog Number: 8192

*Hue-Tam Ho Tai*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 18*

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.

**History 1700. The History of Sub-Saharan Africa to 1860**

Catalog Number: 5936

*Emmanuel K. Akyeampong*

*Half course (fall term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*

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.

**History 1701. West Africa from 1800 to the Present**

Catalog Number: 4650

*Emmanuel K. Akyeampong*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*

The course explores the internal dynamics of West African states from 1800, and West Africa's



relations with the wider world. Innovations in science, technology and finance made the 19th century an era of social and economic opportunity and of political experimentation; a phase curtailed by European imperialism. The course examines African perspectives on colonialism, the two world wars, nationalism, and the transfer of political power. We will review post-colonial political economies and the search for workable political and economic models.

**[History 1704 (formerly Societies of the World 39). Slavery and Slave Trade in Africa and the Americas]**

Catalog Number: 3834

*Emmanuel K. Akyeampong*

*Half course (spring term). Hours to be arranged.*

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 given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Societies of the World. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**History 1877 (formerly \*History 1977a). History of Middle East, 600-1055**

Catalog Number: 1770

*Roy Mottahedeh*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

A survey of the history of the Near East and North Africa from the rise of Islam in the 7th century to the Turkish ascendancy in the mid-11th century. Includes Muhammad and his community, Arab conquests, Umayyads and Abbasids, sectarian movements, minority communities, government and religious institutions, and relations with Byzantium and the Latin West.

*Note:* Offered jointly with the Divinity School as 3594.

**History 1878a. Ottoman State and Society I (1300–1550)**

Catalog Number: 5471

*Cemal Kafadar*

*Half course (spring term). Tu., Th., at 11, and a weekly section to be arranged. EXAM GROUP: 15*

Surveys the emergence of the Ottoman state from a frontier principality into a world empire in its social, political and cultural dimensions. Topics include pre-Ottoman Anatolia; frontier society; methods of conquest; centralization and institutionalization of power; land regime and peasantry; urbanization; intercommunal relations; religion and learning; architecture and literature.

Relations with Byzantium as well as Islamic and European states are examined.

*Note:*



### [History 1878b. Ottoman State and Society II (1550-1920)]

Catalog Number: 6470

*Cemal Kafadar*

*Half course (spring term). Hours to be arranged.*

Surveys the transformations of the Ottoman order in the Middle East and southeastern Europe in the early modern era and in the long nineteenth century until the demise of the state. Topics include changes in the conduct of state; social and religious movements; the impact of the new world economy and new trade routes; relations with Europe; emergence of nationalism; the 'Eastern Question.' Ethnic and religious diversity, rural society, urban popular culture, guilds, gender 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 2015–16.

### *Conference Courses*

#### *For Undergraduates and Graduates*

##### [\*History 1911. Pacific History]

Catalog Number: 72126 Enrollment: Limited to 15.

*David R. Armitage*

*Half course (fall term). Hours to be arranged.*

The Pacific Ocean covers a third of the Earth's surface and one-third of humanity lives on its shores and islands, from Russia to New Zealand and from Southeast Asia to South America. This seminar introduces students to oceanic and global history via works in Pacific history by scholars of the Pacific Islands, Asia, Australasia, Europe, and the Americas. Themes covered include cultural encounters, exploration, migration, history of science, geopolitics, and economic history.

*Note:* Expected to be given in 2015–16. Students can count the course towards the fulfillment of an Ethnic Studies Secondary Field.

##### [\*History 1912. History Design Studio]

Catalog Number: 48018 Enrollment: Limited to 10.

*Vincent Brown*

*Half course (fall term). Hours to be arranged.*

Weekly seminar and studio for multimedia history. The course encourages students to design new modes of historical storytelling by embedding historians' core values and methods in the innovative products of artisanship and craft. Extensive use of primary sources, attention to processes of change over time, keen historiographical awareness, and an overarching respect for evidence will guide a range of multimedia historical projects.

*Note:* Expected to be given in 2016–17.

##### [\*History 1913 (formerly \*History 1512). Dirty Wars, Peace Processes, and the Politics of History in Latin America]

Catalog Number: 88893 Enrollment: Limited to 15.

*Kirsten A. Weld*

*Half course (fall term). Hours to be arranged.*

Latin America's "dirty wars" generated intense struggles over historical memory. Course focuses



on Chile, Argentina, El Salvador, and Guatemala, and comparatively examines how societies reckon with bloody recent pasts that are anything but settled. Looks at both these countries' dictatorships and their fraught peace processes (including truth commissions, transitional justice, artistic representations, human rights activism, international law, foreign involvement, backlash) in order to probe the stakes and politics of historical interpretation.

*Note:* Expected to be given in 2015–16.

**[\*History 1915. The Nine Lives of Benjamin Franklin]**

Catalog Number: 6296 Enrollment: Limited to 15.

*Joyce E. Chaplin*

*Half course (fall term). Hours to be arranged.*

Examines the eighteenth century through some of the many lives of Benjamin Franklin. Students analyze 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, social reform, personal improvement, and many others.

*Note:* Expected to be given in 2015–16.

**\*History 1916. The History of Evidence - (New Course)**

Catalog Number: 92853 Enrollment: Limited to 22. This course will meet at the Harvard Law School. The enrollment limit for FAS students is 6.

*Jill M. Lepore*

*Half course (fall term). M., 5–7 p.m. EXAM GROUP: 17*

This course will examine the rules and standards of evidence in law, history, science, and journalism. What counts as proof in these fields varies and has changed over time, often wildly. Emphasis will be on the histories of Western Europe and the United States, from the middle ages to the present, with an eye toward understanding how ideas about evidence shape criminal law and with special attention to the rise of empiricism in the nineteenth century, the questioning of truth in the twentieth, and the consequences of the digital revolution in the twenty-first. Topics will include the histories of trial by ordeal, trial by jury, "spectral evidence," "negro evidence," case law, scientific testimony, footnotes, the polygraph, statistics, anonymous sources, fact checking, and big data.

*Note:* Offered jointly with the Law School as 2694. Open to advanced undergraduates.

**[\*History 1918 (formerly History 1618). Telling Lives in Asia]**

Catalog Number: 9771 Enrollment: Limited to 15.

*Hue-Tam Ho Tai*

*Half course (spring term). Hours to be arranged.*

Using sources ranging from diaries and memoirs to biographies, autobiographies, records of interrogations, resumes and self-criticisms, we will explore the ways in which individuals, both famous and ordinary, make sense of their lives in Asia. The focus will be on the upheavals of the twentieth century were experienced and how individual biographies and national histories enrich one another.

*Note:* Expected to be given in 2015–16.



### [\*History 1922. Habermas: Social Theory in Postwar Germany]

Catalog Number: 32473 Enrollment: Limited to 15. Open only to juniors and seniors and graduate students with prior experience in social and political theory, intellectual history, and/or political philosophy.

*Peter E. Gordon*

*Half course (fall term). Hours to be arranged.*

This conference course explores the thought of Jürgen Habermas, the foremost social theorist of Germany in the post-1945 era. The course combines philosophical methods of rational reconstruction with an historical sensitivity to context. While devoting primary attention to his major contributions to philosophy and social theory, we will also consider Habermas' role as a public intellectual, in, e.g., the 'historians' controversy' and the debates surrounding German unification. Major readings include: *Knowledge and Human Interests*, *The Structural Transformation of the Bourgeois Public Sphere*, *The Theory of Communicative Action* (Volumes I and II), and *Between Facts and Norms*.

*Note:* Expected to be given in 2015–16.

### [\*History 1923. Japan's 2011 Disasters and Their Aftermath: A Workshop on Digital Research]

Catalog Number: 84534 Enrollment: Limited to 15.

*Andrew Gordon and Theodore C. Bestor*

*Half course (fall term). Hours to be arranged.*

The course explores the historical and ethnographic contexts of Japan's compound disasters of March 2011. As people sought to survive and make sense of the disasters, social media as well as photos, videos and websites played critical roles. We examine the role of these records, using a participatory digital archive developed at Harvard. Student teams will develop research questions, collect digital material, and create multimedia narratives. Students will complement their research with study of responses to similar global events as well as critical reflection on digital scholarship and the emerging practice of "crisis archiving."

*Note:* Expected to be given in 2015–16. This course is also offered through the Anthropology Department as Anthropology 1923. Credit may be earned for either History 1923 or Anthropology 1923, but not both.

### [\*History 1925. Europe and its Other(s)]

Catalog Number: 73331 Enrollment: Limited to 15.

*Tamar Herzog*

*Half course (spring term). Hours to be arranged.*

This course examines how Europeans interacted with those they considered different inside and outside Europe during the Medieval and the Early Modern periods. Reading will alternate between primary and secondary sources.

*Note:* Expected to be given in 2016–17.

### \*History 1926. How Historians Imagine Latin American Pasts - (New Course)

Catalog Number: 22477 Enrollment: Limited to 15.

*Tamar Herzog*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

This course examines how our image of Latin American past(s) changed in last decades in order



to introduce students to some of the major debates and recent developments in history and the art of history making. Among other things, it examines issues of periodization, comparative and Atlantic history, the nature of the sources and their interpretation, the use of notions such as "crisis," "decline," and "corruption," the object historians reconstruct, and the contribution of subaltern studies and postcolonialism to the study of Latin America.

**\*History 1935. Byzantine Imperialism - (New Course)**

Catalog Number: 77784 Enrollment: Limited to 15.

*Dimiter Angelov*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

The Byzantine Empire is perhaps best known today as the medieval successor to imperial Rome and as a model for later empires in the Eastern Mediterranean and Eastern Europe. The course investigates imperialism both as an idea and as a practice in Byzantium. We will focus on a variety of themes, such as the role of Constantinople, the methods of governance, the role of coercive and soft power, the integration of diverse communities, the views of empire among the inhabitants of the capital, provincials, and frontiersmen. Primary sources and important secondary works will enable us to examine the specificity of Byzantine imperialism and gain deeper insight into empire as a historical phenomenon.

**[History 1940. Science and the Global Human Past: Case Studies at the Cutting Edge]**

Catalog Number: 77077

*Michael McCormick*

*Half course (spring term). Hours to be arranged.*

Examines recent and ongoing discoveries that show how the natural sciences are revolutionizing understanding of the human past across temporal and geographic boundaries. Topics include how archaeology, history and science illuminate and are illuminated by Jomon Pottery, ancient and medieval coins, silk, climate change, and genomics. Mixes classic classroom, seminar-style teaching with classes held as field-trips to New England museums, landscapes and laboratories.

*Note:* Expected to be given in 2015–16.

**[\*History 1965. International History: States, Markets, and the Global Economy]**

Catalog Number: 7148 Enrollment: Limited to 25.

*Niall Ferguson and Charles S. Maier*

*Half course (spring term). Hours to be arranged.*

International economic history and political economy, including strategies of economic development, international trade, migration, finance and monetary relations, based on both theoretical works and specific case studies, and focusing on the period from around 1700 to the present.

*Note:* Expected to be given in 2015–16. History 1964 and 1965 are designed particularly for advanced undergraduates in the international history track of the concentration and graduate students preparing a general examination field in the history of international relations.

**\*History 1976 (formerly History 2620). Visible and Invisible Hands in China: State and Economy since 1800**

Catalog Number: 84147 Enrollment: Limited to 15. Preference will be given to graduate students; upper-level undergraduates with permission of the instructor.



*Elisabeth Koll (Business School)*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

How can we explain the role of the state in China's economy past and present? Why did China never experience an industrial revolution in the 19th century? What about China's encounter with capitalism? The relationship between visible and invisible hands, i.e. state and market, frames our discussion of entrepreneurs, firms, business associations, laws and practices in the evolution of China's modern economy and society, including Taiwan, Hong Kong, and Chinese overseas communities across Asia. Readings address important debates in the field of Chinese business, economic, and social history from the early 19th to the 21st century but also offer a comparative perspective on China's economic and political modernization in a global setting.

*Note:* Offered jointly with Business School as 1671.

**[\*History 1977b. History of the Near East, 1055-1517]**

Catalog Number: 3026 Enrollment: Limited to 20.

*Roy Mottahedeh*

*Half course (fall term). Hours to be arranged.*

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.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3595.

*Prerequisite:* History 1877a helpful, but not required.

**\*History 1988. Indigenous Histories and Settler Societies - (New Course)**

Catalog Number: 80263 Enrollment: Limited to 15.

*Bain Attwood*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

This course will examine a range of epistemological and methodological questions about the nature of historical knowledge and practice that have been prompted by the rise of indigenous histories or pasts in settler societies. Focusing on Australia, topics will include history, place and time; the demand for indigenous histories; memory, myth and oral tradition; history and the construction of Aboriginality; and role of representations of the past in making and settling legal claims.

**\*History 1990. Work and Working in Global Perspective - (New Course)**

Catalog Number: 23425 Enrollment: Limited to 15.

*Samantha Iyer*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

What does it mean to do work, and what is labor? This seminar considers how the answers to these questions have changed over time and varied across place. In particular, we situate the work of ordinary people in the context of the changing global institutions of empire and trade. In addition to analyzing classic texts of political economy, we examine such topics as the history of slavery, factory labor, migrant labor, call-center work, the digital distribution of work, work and debt, and labor under fossil-fuel economies.



### **\*History 1991. Asian America in the World - (New Course)**

Catalog Number: 25348 Enrollment: Limited to 15.

*Allan Edward Lumba*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

This course asks us to rethink the time and place of Asian America, especially in relation to the United States and the broader world. By beginning in the late eighteenth century and looking beyond the official national borders of the United States, we will trouble the traditional American immigrant narrative and the model minority myth. Through reading primary sources and historical scholarship we will explore how Asian America constituted, and was constituted by, histories of global capitalism and labor, imperial rivalries, U.S. foreign policy, struggles over decolonization and self-determination, transnational social movements, and cross-racial politics. Finally, this course draws from interdisciplinary approaches, especially critical ethnic studies, postcolonial studies, and queer theory, to seek subaltern and non-normative histories of Asian America in the world.

### **\*History 1992. Disease and Public Health in Modern East Asian History - (New Course)**

Catalog Number: 11072 Enrollment: Limited to 15.

*William D. Johnston*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

Disease and epidemics are important agents of historical change. With the formation of the modern state, the control of infectious disease became both a means and a goal in the exercise of power. Simultaneously, individual experiences of disease and the place of the body in society also were transformed. This course examines responses to infectious disease in modern China, Japan, and Korea, focusing the nineteenth and early twentieth centuries. We will explore the history of disease and public health using methodological approaches ranging from biology to anthropology and iconology, with a focus on cholera, plague, tuberculosis, and AIDS.

### **\*History 1993. Introduction to Digital History - (New Course)**

Catalog Number: 63974 Enrollment: Limited to 15.

*Gabriel Pizzorno*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

This course will introduce students to the use of digital tools in historical research. We will explore the emerging fields of digital history and public history and the current and potential impact of digital technologies on the theory and practice of history. The course will train students in the acquisition, management, analysis, visualization, and sharing of historical data, documents, and texts.

### **\*History 1995. Strategy and Crisis - (New Course)**

Catalog Number: 90625 Enrollment: Limited to 15.

*Niall Ferguson*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

The moment of crisis is the moment of discrimination: it forces decisions of obvious consequence, pitting rival theories and their proponents against one another. The crisis is perhaps excellence the moment at which theory and practice meet. This course offers two analytical perspectives based on the study of twelve crises that are frequently seen as turning points in the modern era. To contextualize each crisis, be it political, economic, military, or a combination, we



explore what the dominant theories were at the time and how they were deployed in practice in the heat of the crisis. (We may think of this a vertical, historically oriented axis of understanding.) Then we examine the linkages between crises. Are there modes of behavior or thought that are of general utility in such moments? Can strategic thought ever truly claim to be universally applicable. (We may think of this as a horizontal, thematic axis of understanding.) The course at its core is an argument for bringing history back into the core of strategic thought.

**\*History 1996. An Introduction to Issues in American Indian Studies: Black Elk Speaks - (New Course)**

Catalog Number: 48812 Enrollment: Limited to 15.

*Philip Deloria*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

First published in 1932, Black Elk Speaks is a defining text through which non-Indian people have made sense of American Indians-and through which Indian people have imagined a collective self. At once epic spiritual account, editorial curiosity, political text, war story, nineteenth century memoire, and travel narrative, the book opens a range of questions and themes critical to American Indian Studies. This course will use Black Elk Speaks to consider issues of authorship, historical consciousness, religion and spirituality, colonialism, modernity, and the complexities of cultural production, while allowing students to engage in original research in the field.

**\*History 1997. The Political History of the Arab States Since Independence - (New Course)**

Catalog Number: 89649 Enrollment: Limited to 25.

*E. Roger Owen*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

The course will examine the troubled post-independence history of the Arab World divided into three parts: North Africa, the Arab East, and the Arab Gulf. Its main focus will be on state-formation under increasingly authoritarian regimes, the challenge to those regimes by global and regional forces and the political and social repercussions of the Arab Spring. Topics to be discussed in depth will include presidential rule, the role of the military and the establishment of crony-capitalist forms of government and political Islam.

***Graduate Proseminars***

***Primarily for Graduates***

Undergraduates with the appropriate preparation may enroll with the instructor's permission.

**\*History 2050. Medieval Societies and Cultures: Proseminar**

Catalog Number: 6693

*Daniel L. Smail*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

Introduction to the study of medieval history and to the literature basic to the examination field. Readings include both canonical works as well as recent studies. Though designed for specialists in medieval European history, the course welcomes all non-specialists interested in exploring large issues of comparative history and chronological depth.



*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 2133. Studies in Tudor and Stuart History: Proseminar]**

Catalog Number: 1428

*Mark A. Kishlansky*

*Half course (spring 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:* Expected to be given in 2015–16. Open to undergraduates with consent of the instructor.

**[\*History 2259. Readings in Central European History: Proseminar]**

Catalog Number: 73454

*Alison Frank Johnson*

*Half course (spring term). Hours to be arranged.*

Introduces students to recent and classic literature on German-speaking Europe as well as the Habsburg Empire, the Polish-Lithuanian Commonwealth, and their successor states. Some discussion of Southeastern Europe. Reading knowledge of German or another approved Central/Eastern European language advisable, but not required. Open to graduate students and qualified undergraduates with permission of the instructor.

*Note:* Expected to be given in 2015–16.

**[\*History 2277. Eastern Europe: Peoples and Empires: Proseminar]**

Catalog Number: 76331 Enrollment: Limited to 10.

*Serhii Plokhi*

*Half course (spring term). Hours to be arranged.*

This course is an introduction to major themes and debates in the early modern and modern history of the "other Europe." Its main focus is on the histories of European Russia, Ukraine, Belarus, Lithuania, and Poland. Readings discuss international and political developments in the region and their impact on the formation of imperial, national, religious and cultural identities from the rise of Reformation to the collapse of Communism. The course is designed to prepare students for a general exam field in East European history. It is open to graduate and advanced undergraduate students working on a senior thesis.

*Note:* Expected to be given in 2015–16.

**[\*History 2300. Methods in Intellectual History: Proseminar]**

Catalog Number: 7779 Enrollment: Limited to 15.

*David R. Armitage and Peter K. Bol*

*Half course (fall term). Hours to be arranged.*

Introduction to advanced research in intellectual history with special reference to philosophy and political thought. Readings will include primary and secondary materials drawn from East-Asian and Euro-American traditions.

*Note:* Expected to be given in 2015–16.



### **History 2400. Readings in Colonial and Revolutionary America: Proseminar**

Catalog Number: 9176

*Laurel Thatcher Ulrich*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

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 or programs.

### **History 2442. Readings in the History of the U.S. in the 19th Century: Proseminar**

Catalog Number: 2383

*Sven Beckert*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

The second in the sequence of three prosemantics required of all graduate students in American history and open to graduate students in other history fields and other departments as space permits.

### **[History 2462. Readings in the U.S. in the 20th Century: Proseminar]**

Catalog Number: 2931

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

Readings in recent monographs as well as older historiography, covering a wide range of 20th-century topics. This proseminal is required of all History graduate students focusing on the United States.

*Note:* Expected to be given in 2015–16.

### **[\*History 2511. Rethinking the Archive: Proseminar]**

Catalog Number: 75031 Enrollment: Limited to 15.

*Kirsten A. Weld*

*Half course (fall term). Hours to be arranged.*

This seminar provides a critical examination of the documentary and archival forms that lie at the heart of historical knowledge production. Readings span disciplinary boundaries, geographic regions, and time periods.

*Note:* Expected to be given in 2016–17.

### **[History 2653. Historiography of Modern Japan: Proseminar]**

Catalog Number: 4442

*Andrew Gordon*

*Half course (fall term). Hours to be arranged.*

A critical introduction to the historiography of modern Japan, with emphasis on English-language scholarship.

*Note:* Expected to be given in 2015–16.

### **History 2926. Empires Compared: Proseminar**

Catalog Number: 62429

*Maya Jasanoff and Mary D. Lewis*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*



What do empires have in common, and what makes each distinct? Course undertakes thematic approach to imperial history via culture, economics, governance, and more. Open to students across subfields; emphasis on teaching and exam preparation.

**[\*History 2968. History and Economics: Proseminar]**

Catalog Number: 1557

*Emma Rothschild*

*Half course (fall term). Hours to be arranged.*

Examines approaches to the history of economic thought and economic history by the exploration of particular topics, including the political economy of empire, energy, and information.

*Note:* Expected to be given in 2015–16.

**Graduate Seminars**

**Primarily for Graduates**

Undergraduates with the appropriate preparation may enroll with the instructor's permission.

**[History 2055. Early Medieval History, Archaeology and Archaeoscience: Seminar]**

Catalog Number: 5011

*Michael McCormick*

*Half course (spring term). Hours to be arranged.*

Joint philological analysis of Latin texts, archaeological and scientific evidence illuminating the fall of Rome and the origins of medieval Europe, culminating in a research paper.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Latin, with either German or French, is required. Normally History 2050 and or MS 101.

**[History 2061hf. Law and Violence: Seminar]**

Catalog Number: 79711

*Daniel L. Smail*

*Half course (throughout the year). Hours to be arranged.*

Explores law and violence across the global human past. Readings will range from studies of violence and vengeance in historical and anthropological settings to the methodological insights provided by sociology, cognitive neuroscience, and criminal justice.

*Note:* Expected to be given in 2015–16.

**History 2080. Medieval Law**

Catalog Number: 3140

*Charles Donahue, Jr. (Law School)*

*Half course (spring term). Tu., 5–7 p.m. EXAM GROUP: 6*

Readings focused alternately on the English legal tradition and on the Roman-canonical tradition. The topic for 2014-15 will be the English legal tradition. Short papers analyzing texts will be required but not a research paper.



*Note:* Offered jointly with the Law School as Law 2371.

*Prerequisite:* Some Latin required.

### **History 2113. Dante in Contexts: Seminar - (New Course)**

Catalog Number: 55016

*James Hankins and Eric M. Nelson*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

The greatest poet of the Middle Ages, Dante was also a philosopher and theologian, a theorist of language, and a political thinker. In this course we will read through the entire corpus of Dante's works, examining each in a different context. The contexts will include the literary traditions of courtly love and true nobility, scholastic philosophy and theology, contemporary history and political theory. The reception of Dante's works in the Renaissance and later times will also be considered.

*Note:* Knowledge of Italian is helpful but not required. Open to qualified undergraduates with consent of the instructors.

### **\*History 2132. Early Modern England: Seminar**

Catalog Number: 7105 Enrollment: Limited to 10.

*Mark A. Kishlansky*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 2*

Students will conduct primary research on topics of significance in the history of England, ca. 1563–1714.

*Note:* Consent of instructor required.

### **[\*History 2222. The Cold War and Its Collapse: Seminar]**

Catalog Number: 87867 Enrollment: Limited to 10.

*Mary Elise Sarotte*

*Half course (spring term). Hours to be arranged.*

Examines the international history and historiography of the Cold War; investigates Cold War origins, narratives, sources, collapses, and legacies; assesses their usefulness as a means of understanding the second half of the twentieth century.

*Note:* Expected to be given in 2015–16.

### **History 2250. Interpreting Europe's Twentieth Century: Seminar**

Catalog Number: 62761

*Charles S. Maier*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

Historical and theoretical analyses of crises and transformation: critiques of liberalism; fascism and communism; legacies of world war and empire; postwar institutional constructions including the EU; ideological revival from the 1960s to the collapse of communism; the rise and attrition of a European civil society.

*Note:* Requirements: preparation for discussion and a research paper on an agreed topic.

### **\*History 2258. Histories of the Future (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 52767



*Alison Frank Johnson*

*Half course (fall term). W., 10–12. EXAM GROUP: 5*

The seminar will consider how individual people and groups in the past thought about and planned for the future. Specific topics can include the history of: insurance; speculation; engineering and unintended environmental consequences; climate change; population growth (or decline) and social planning; education and "disruption." Our object will be to design an undergraduate course that encourages students to look critically at how we think we can plan for the future in the present.

*Note:* Consent of instructor required. The seminar will design and develop a General Education course on these themes for undergraduates.

**[\*History 2260. Central Europe: Seminar]**

Catalog Number: 6464 Enrollment: Limited to 12.

*Alison Frank Johnson*

*Half course (spring term). Hours to be arranged.*

Major themes include nationalism, communism, the 'Polish question,' the 'Jewish question,' the political and economic viability of the Habsburg Empire, cultural exchange and diplomatic relations between Austria, Germany and the Russian Empire/Soviet Union.

*Note:* Expected to be given in 2016–17.

*Prerequisite:* Reading Knowledge of either German, Polish, Czech, or another Central European language.

**History 2272. The Soviet Union: Seminar**

Catalog Number: 7969

*Terry D. Martin*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Introduction to archival and primary sources, as well as major historiographical debates. Primary focus on major research paper.

*Prerequisite:* Reading knowledge of Russian.

**[History 2275hf. Subjectivities and Identities in Russia and Eurasia: Seminar]**

Catalog Number: 69728

*Terry D. Martin and Stephanie Sandler*

*Half course (throughout the year). Hours to be arranged.*

Year-long bi-weekly seminar on collective and personal identities in the history, culture, and politics of Russia, Eastern Europe and Central Asia. Key questions: where and how are identities formed (in domestic, public, textual, and virtual spaces)? What factors constrain, promote, and shape identity formation? What theories of self-expression help us understand the region? How are identities and subjectivities similar? How are they different?

*Note:* Expected to be given in 2016–17. Open to qualified undergraduates with consent of the instructors.

**[\*History 2284. Digital History Seminar: from 101 to 3.0 ]**

Catalog Number: 10733 Enrollment: Limited to 15.

*Kelly A. O'Neill-Uzgiris*

*Half course (fall term). Hours to be arranged.*



Exploration of the landscape of digital history from the perspectives of both theory and practice. Students will examine major debates in the field, assess groundbreaking projects, and apply digital history methods to their own research.

*Note:* Expected to be given in 2016–17. Open to undergraduates with consent of the instructor.

**[\*History 2315. Censorship: Seminar]**

Catalog Number: 71765 Enrollment: Limited to 15.

*Peter E. Gordon*

*Half course (spring term). Hours to be arranged.*

A graduate seminar on the nature of censorship and the way it actually operated in Stuart England, Bourbon France, the British Raj, Communist East Germany, and regimes vulnerable to the Internet.

*Note:* Expected to be given in 2015–16.

**\*History 2320hf. Foundations of Modern European Intellectual History: Seminar**

Catalog Number: 16747 Enrollment: Limited to 15.

*Peter E. Gordon*

*Half course (throughout the year). Tu., 2–4. EXAM GROUP: Fall: 14; Spring: 11*

This graduate seminar provides a survey of major themes and controversies in modern European intellectual history from the Enlightenment to the post-war era. The seminar is intended primarily for graduate students who are preparing for the qualifying examination. The course is offered on a yearly basis, and it meets every other week throughout the academic year. Please consult with the instructor for further details.

**[\*History 2321. Methods in Book History: Seminar]**

Catalog Number: 5169 Enrollment: Limited to 15.

*Ann M. Blair and Leah Price*

*Half course (fall term). Hours to be arranged.*

Will introduce students to methods and debates in the history of the book and of reading. Students from all humanities and social science disciplines are welcome. Primarily for graduates; open to advanced undergraduates by consent of the instructors.

*Note:* Expected to be given in 2015–16.

**[History 2322. Adorno: Philosophy, Sociology, Aesthetics: Seminar]**

Catalog Number: 74151

*Peter E. Gordon*

*Half course (spring term). Hours to be arranged.*

This seminar explores the work of the philosopher and social theorist Theodor W. Adorno, a leading member of the Institute for Social Research. Moving chronologically and thematically through his major works, we will discover how Adorno applied his inimitable manner of critical reflection to issues such as the dialectic of enlightenment, the social implications of psychoanalysis, the cultural reification of consciousness, and the redemptive promise of autonomous art in a capitalist age. Readings include selections from: Dialectic of Enlightenment, Minima Moralia, Negative Dialectics, and Aesthetic Theory. Open only to graduate students, advanced undergraduates at instructor's discretion.

*Note:* Expected to be given in 2015–16.



### **History 2324. Contesting Political Theology and Secularization: Schmitt, Löwith, Blumenberg: Seminar - (New Course)**

Catalog Number: 59961

*Peter E. Gordon*

*Half course (spring term). W., 5:30–8 p.m. EXAM GROUP: 13*

The political and legal theorist Carl Schmitt famously observed that "All significant concepts of the modern theory of the state are secularized theological concepts." But what does it mean to secularize a concept? This graduate-level seminar will explore the controversy and aftermath of this political-theological dictum by considering the broader history of theoretical debate concerning the place of religion in the modern world. We will focus on works by Carl Schmitt together with his many interlocutors, including Walter Benjamin, Jacob Taubes, and Erik Peterson, with special attention to the postwar debate over secularization between Karl Löwith and Hans Blumenberg.

*Note:* The seminar involves intensive reading of theoretical and philosophical texts, and it is open to advanced undergraduates only at the discretion of the instructor.

### **[\*History 2330. Ideas in Europe in the 18th Century: Seminar]**

Catalog Number: 1077 Enrollment: Limited to 15.

*Emma Rothschild*

*Half course (fall term). Hours to be arranged.*

A graduate seminar which examines a number of 18th century writings (by Hume, Smith, Wollstonecraft, and Condorcet) and ideas (enlightenment, religion, empire), and explores different ways of writing about the history of ideas.

*Note:* Expected to be given in 2015–16.

### **[\*History 2340hf. Readings in American Intellectual History]**

Catalog Number: 8845 Enrollment: Limited to 20.

*James T. Kloppenberg*

*Half course (throughout the year). Hours to be arranged.*

This course examines classic texts in American intellectual history from 1630 to the present, both primary and secondary, and surveys recent developments in the field. It is intended for first- and second-year graduate students preparing for general exams in history and for other graduate students in fields such as American Civilization, Government, Law, Literature, Religion, and Education.

*Note:* Expected to be given in 2015–16.

### **[\*History 2341hf. American Intellectual History: Seminar]**

Catalog Number: 57986 Enrollment: Limited to 20.

*James T. Kloppenberg*

*Half course (throughout the year). Hours to be arranged.*

This course is intended for graduate students who wish to supplement the reading of primary and secondary sources in American intellectual history with the preparation of a research paper.

*Note:* Expected to be given in 2015–16.

### **History 2350. Research Seminar in the History of Education: Seminar**

Catalog Number: 77605



*Julie A. Reuben (Faculty of Education)*

*Half course (fall term). Tu., 1–4. EXAM GROUP: 8*

This course offers students the opportunity to conduct original research in the history of education.

*Note:* Offered jointly with the Graduate School of Education as S-508.

**[History 2401. Early American Social History: Seminar]**

Catalog Number: 6049

*Laurel Thatcher Ulrich*

*Half course (spring term). Hours to be arranged.*

Research culminating in the production of a scholarly essay. Some prior knowledge of the period assumed.

*Note:* Expected to be given in 2015–16.

**[\*History 2403. Working with Harvard Collections: Research Seminar]**

Catalog Number: 72039 Enrollment: Limited to 15.

*Laurel Thatcher Ulrich*

*Half course (spring term). Hours to be arranged.*

Participants in the seminar will explore Harvard's vast collections of tangible things, from rocks to medical specimens to works of art, as sources for the writing and teaching of history.

Although the emphasis will be on American history, students from other fields are welcome.

*Note:* Expected to be given in 2015–16.

**[\*History 2404. Themes in Mormon History: Seminar]**

Catalog Number: 19813 Enrollment: Limited to 12.

*Laurel Thatcher Ulrich*

*Half course (fall term). Hours to be arranged.*

This seminar will explore recent scholarship on nineteenth and early twentieth century Mormonism and guide students in developing independent research projects on selected topics of their choice

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2206.

**[\*History 2414. The American Attic (Graduate Seminar in General Education)]**

Catalog Number: 44981 Enrollment: Limited to 12.

*Jill M. Lepore and Robin E. Kelsey*

*Half course (fall term). Hours to be arranged.*

This interdisciplinary graduate seminar is dedicated to developing an undergraduate course on the attic as both a place and a realm of the imagination. Students will explore the historical and aesthetic richness of archives.

*Note:* Expected to be given in 2016–17. The seminar will design and develop a General Education course on these themes for undergraduates.

**\*History 2426. Topics in the History of Gender and Sexuality: Research Seminar - (New Course)**

Catalog Number: 53894 Enrollment: Limited to 10.

*Nancy F. Cott*



*Half course (fall term). Tu., 11–1. EXAM GROUP: 15*

This seminar is open to graduate students who are acquainted with using gender and/or sexuality as categories of historical analysis and are ready to undertake relevant historical research. The bulk of the term will be devoted to individual (or collaborative) research projects, with the completion of a 25- to 30-page paper required. Topics for research are open. The seminar is centered around U.S. historiography, but participants working in non-U.S. and/or comparative/international history are welcome to apply.

*Note:* Consent of the instructor is required.

**History 2450. History of Schooling in America: Seminar**

Catalog Number: 91462

*Julie A. Reuben (Faculty of Education)*

*Half course (spring term). Tu., 1–4. EXAM GROUP: 1*

This course examines major issues in the development of schooling from the Colonial period to the present.

*Note:* Offered jointly with the Graduate School of Education as A-418.

**\*History 2463. Graduate Readings in 20th-Century African-American History: Seminar**

Catalog Number: 9004 Enrollment: Limited to 10.

*Evelyn Brooks Higginbotham*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

In this graduate seminar we will read books and articles on topics that reflect the diverse experiences and ideologies of African Americans in the twentieth century. We will discuss and analyze differing historical interpretations and methodologies. We will also explore a variety of historical writings, e.g., biography, intellectual history, race and gender studies, labor history, transnational history, etc. Students are required to write a short report on a recommended reading each week, in addition to being prepared to discuss the required reading. A historiographic paper will be due at the end of the term.

**History 2469hf. Multimedia History and Literature: New Directions in Scholarly Design:**

**Seminar - (New Course)**

Catalog Number: 72066

*Vincent Brown and Glenda R. Carpio*

*Half course (throughout the year). Th., 4–6. EXAM GROUP: Fall: 16; Spring: 6*

Associated with the Warren Center visiting scholars' workshop on the same topic, this research seminar explores new models for the design and presentation of historical and literary scholarship.

**\*History 2474. Law and Social Reform in 20th Century U.S. History: Seminar**

Catalog Number: 71302 Enrollment: Limited to 15.

*Tomiko Brown-Nagin (Law School)*

*Half course (fall term). Tu., 1:10–3:10. EXAM GROUP: 8*

This seminar considers issues in 20th-century movement for social reform from the perspective of legal history and the legal profession. It emphasizes matters of race, class and gender inequality and readings cover the black freedom struggle, women's rights, the labor movement and anti-poverty struggles. Students read legal cases and works of historical and legal



scholarship.

*Note:* Offered jointly with the Law School as 2586.

### **\*History 2475. Legal History Workshop**

Catalog Number: 21693 Enrollment: Limited to 5. The enrollment limit for FAS students is 5.

*Tomiko Brown-Nagin (Law School)*

*Half course (fall term). Tu., 5–7 p.m. EXAM GROUP: 16*

This workshop will examine major works in the field of legal history, important historiographical debates and critical methodologies. Students will participate in workshop presentations by leading scholars.

*Note:* Offered jointly with the Law School as 2596. Open to undergraduates with the permission of the Instructor. This course will meet at the Harvard Law School. Law students have a choice of enrolling in the workshop for two or three credits. Law students who choose to write a substantial paper will receive three credits upon successful completion of the course; law students who do not complete substantial papers will receive two credits. All FAS graduate students who enroll in the workshop must complete a substantial paper; all FAS students will receive three credits upon successful completion of the course.

### **History 2477. History of American Economic Regulation: Seminar - (New Course)**

Catalog Number: 76568 Enrollment: Limited to 8. The enrollment limit for FAS students is 8.

*Kenneth W. Mack (Law School)*

*Half course (spring term). M., Tu., 1:30–3. EXAM GROUP: 8*

This course examines the history of capitalism in America, viewed through the lens of debates over regulation of economic activity. Beginning in the early days of the republic, it will examine the role of law in capitalist development, focusing on debates over the regulation of corporations, banking and the financial system, antitrust, and administrative law, continuing through the regulatory reforms of the New Deal. It will then examine movements for deregulation, the roots of the financial crisis, and recent proposals to regulate banks and other financial institutions. The course will examine the social, institutional and intellectual history of economic regulation.

*Note:* Offered jointly with the Law School at 2167.

### **History 2480hf. The Political Economy of Modern Capitalism: Seminar**

Catalog Number: 3719

*Sven Beckert and Christine Desan (Law School)*

*Half course (throughout the year). M., 4–6. EXAM GROUP: Fall: 17; Spring: 13*

A year-long research and reading course on the history of capitalism during the past 300 years.

*Note:* Offered jointly with the Law School as 2168.

### **History 2495. Politics and Social Movement in the 20th Century United States: Research Seminar**

Catalog Number: 46932

*Lisa M. McGirr*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

Seminar culminating in the production of an article length essay based on primary research. Students will conduct research into significant topics at the intersection of the state and civil society in the twentieth-century United States.



**[\*History 2651. Japanese History: Seminar]**

Catalog Number: 5146 Enrollment: Limited to 15.

*Andrew Gordon and Ian J. Miller*

*Half course (spring term). Hours to be arranged.*

Students write research papers on topics of their own choosing drawing on sources in Japanese, and other languages as appropriate.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Reading knowledge of Japanese.

**[History 2692. Colonial and Post-Colonial Histories of South Asia: Seminar]**

Catalog Number: 8502

*Sugata Bose*

*Half course (fall 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 2015–16.

**\*History 2708. Sources, Methodology, and Themes in African History: Seminar**

Catalog Number: 5861 Enrollment: Limited to 12.

*Emmanuel K. Akyeampong*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

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.

*Prerequisite:* A graduate field on Africa.

**History 2725. History and Anthropology: Seminar**

Catalog Number: 26038 Enrollment: Limited to 20.

*Vincent Brown and Ajantha Subramanian*

*Half course (spring term). Tu., 10–12. EXAM GROUP: 12*

Explores exchanges between the disciplines of History and Anthropology, emphasizing overlaps and distinctions in the treatment of mutual concerns such as the representation of time and space, the conceptualization of power, and the making of the subject.

*Note:* This course is also offered through the Anthropology Department as Anthropology 2725. Credit may be earned for either History 2725 or Anthropology 2725, but not both.

**[History 2805. Gender and Sexuality: Comparative Historical Studies of Islamic Middle East, North Africa, South, and East Asia: Seminar]**

Catalog Number: 8070

*Afsaneh Najmabadi*

*Half course (spring term). Hours to be arranged.*

Informed by theories of gender and sexuality, this seminar investigates how historically notions of desire, body, sex, masculinity, femininity, gender and sexual subjectivities have formed and reformed in Islamicate cultures of the Middle East, North Africa, and South and East Asia.

*Note:* Expected to be given in 2015–16.



### **History 2884. Topics in Ottoman Social and Cultural History: Seminar**

Catalog Number: 3762

*Cemal Kafadar*

*Half course (spring term). Th., 2–5. EXAM GROUP: 11*

Topic to be announced.

*Prerequisite:* Reading knowledge of Turkish.

### **History 2886. Islamic Law and Society**

Catalog Number: 3470 Enrollment: Limited to 20. The enrollment limit for FAS students is 10.

The enrollment limit for Law students is also 10.

*Roy Mottahedeh and Intisar A. Rabb (Law School)*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Topic to be announced.

*Note:* Offered jointly with the Law School as 2743.

### **[\*History 2906. International History: Seminar]**

Catalog Number: 0453 Enrollment: Limited to 12.

*Erez Manela*

*Half course (fall term). Hours to be arranged.*

This course explores new approaches to the international history of the twentieth century. We probe problems of scope, theme, narrative strategy, research method, and sources, among others.

*Note:* Expected to be given in 2015–16.

### **[History 2911. Theories of International Relations: Seminar]**

Catalog Number: 6430

*David R. Armitage*

*Half course (spring term). Hours to be arranged.*

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.

*Note:* Expected to be given in 2015–16. Open to undergraduates with the permission of the Instructor.

### **[\*History 2921. Western Ascendancy: Historiography and Pedagogy: Seminar]**

Catalog Number: 89802 Enrollment: Limited to 15.

*Niall Ferguson*

*Half course (fall term). Hours to be arranged.*

The purpose of this graduate seminar is to get Teaching Fellows and other graduates to engage with the historiographical and pedagogical challenges of the General Education course, Societies of the World 19: Western Ascendancy. Courses in Western Civilization are nowadays widely seen as outmoded and excessively Eurocentric. The aim of SW 19 is to address questions of global economic and political divergence in a fresh way, taking advantage of more recent literature on economic history, for example.

*Note:* Expected to be given in 2016–17.



### **History 2950hf. Approaches to Global History: Seminar**

Catalog Number: 87072

*Sven Beckert and Charles S. Maier*

*Half course (throughout the year). M., 4–6. EXAM GROUP: Fall: 17; Spring: 13*

Approaches to global history, including economic and labor systems, cultural transfer, imperial frameworks, migration, and environmental challenges. Students will prepare and present a research paper as well cover common readings.

### **\*History 2951. The Environmental Turn in History: Seminar**

Catalog Number: 20985 Enrollment: Limited to 12.

*Ian J. Miller*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

A critical exploration of history's "environmental turn." This course tracks the movement of environmental themes to the center of the discipline and the emergence of environmental history as an important new subfield. Readings will range from classics to cutting-edge new work.

### **[\*History 2965. The Scope of History: Seminar]**

Catalog Number: 4804 Enrollment: Limited to 15.

*Mary D. Lewis*

*Half course (spring term). Hours to be arranged.*

Explores the historical method by considering the wide array of "levels" of analysis or foci that historians adopt, from local and national to transnational, comparative and global; considers the relationship between scope and problematic.

*Note:* Expected to be given in 2016–17.

*Prerequisite:* Graduate standing or consent of instructor.

### ***Methodology***

### **\*History 3900. Writing History: Approaches and Practices**

Catalog Number: 1358

*James T. Kloppenberg 3157 and Mark C. Elliott 3329*

*Half course (fall term). M., 1–3. EXAM GROUP: 15*

Required of and limited to first-year doctoral students in History, HMES, and HEAL.

*Prerequisite:* First year graduate students only.

### ***Teaching Practicum***

### **\*History 3920hf. Colloquium on Teaching Practices**

Catalog Number: 5222

*Daniel L. Smail 5343*

*Half course (throughout the year). M., 1–3. EXAM GROUP: Fall: 13; Spring: 9*

Required of and open only to all third-year history department graduate students.

### ***Directed Reading and Research***



### **\*History 3000. Direction of Doctoral Dissertations**

Catalog Number: 4630

*Emmanuel K. Akyeampong 3421, David R. Armitage 5023 (on leave 2014-15), Sven Beckert 2415, Thomas N. Bisson 1451, David Blackbourn 3203, Ann M. Blair 2467 (on leave 2014-15), Peter K. Bol 8014, Sugata Bose 3960 (on leave 2014-15), Vincent Brown 4638, Tomiko Brown-Nagin (Law School) 7255, Joyce E. Chaplin 1058 (on leave 2014-15), John H. Coatsworth 3248, Lizabeth Cohen 3627 (on leave 2014-15), Nancy F. Cott 4261, Albert M. Craig 1847, Robert Darnton 5980, Emma Dench 5243, Caroline M. Elkins 3961 (on leave 2014-15), Drew Gilpin Faust 3857, Niall Ferguson 4938, Andrew Gordon 1891 (on leave 2014-15), Peter E. Gordon 3907, Annette Gordon-Reed 6394 (on leave 2014-15), James Hankins 1239, Tamar Herzog 7281, Evelyn Brooks Higginbotham 3517, Patrice Higonnet 2730 (on leave spring term), Elizabeth Kai Hinton 7591, Morton J. Horwitz (Law School) 6272, Akira Iriye 1968, Maya Jasanoff 5877, Andrew Jewett 5878, Alison Frank Johnson 5313 (on leave spring term), Walter Johnson 5616 (on leave fall term), Christopher P. Jones 3204, Cemal Kafadar 2459, Alexander Keyssar (Kennedy School) 4323, William C. Kirby 3128 (on leave spring term), Mark A. Kishlansky 2895, James T. Kloppenberg 3157, Philip A. Kuhn 8051, Jill M. Lepore 4830, Mary D. Lewis 4369, Charles S. Maier 7227 (on leave fall term), Erez Manela 4762 (on leave 2014-15), Terry D. Martin 2966, Michael McCormick 2849 (on leave 2014-15), Lisa M. McGirr 2543, Ian J. Miller 5880, Roy Mottahedeh 1454 (on leave spring term), Afsaneh Najmabadi 4052 (on leave 2014-15), Kelly A. O'Neill-Uzgiris 5881 (on leave fall term), E. Roger Owen 1028, Steven Ozment 6197, Serhii Plokhi 4454 (on leave spring term), Michael J. Puett 1227, Julie A. Reuben (Faculty of Education) 4428, Emma Rothschild 5001 (on leave 2014-15), Daniel L. Smail 5343, Michael A. Szonyi 4842, Roman Szporluk 3033, Hue-Tam Ho Tai 6079, Stephan Thernstrom 4141, Laurel Thatcher Ulrich 1886, Kirsten A. Weld 6494 (on leave spring term), John Womack, Jr. 1863, and Alejandro de la Fuente 7369*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

### **\*History 3010. Reading and Research**

Catalog Number: 3424

*Asad A. Ahmed 5567, Emmanuel K. Akyeampong 3421, William P. Alford (Law School) 2731, Dimitar Georgiev Angelov 7002, David R. Armitage 5023 (on leave 2014-15), Bain Munro Attwood 7772, Bernard Bailyn 1841, Sven Beckert 2415, Thomas N. Bisson 1451, David Blackbourn 3203, Ann M. Blair 2467 (on leave 2014-15), Peter K. Bol 8014, Sugata Bose 3960 (on leave 2014-15), Vincent Brown 4638, Tomiko Brown-Nagin (Law School) 7255, Janet Browne 5511, Steven C. Caton 2307 (on leave fall term), Joyce E. Chaplin 1058 (on leave 2014-15), John H. Coatsworth 3248, Lizabeth Cohen 3627 (on leave 2014-15), Kathleen M. Coleman 2289, John Comaroff 6485 (on leave spring term), Nancy F. Cott 4261, Robert Darnton 5980, Philip Deloria 7862 (spring term only), Emma Dench 5243, Christine Desan (Law School) 5245, Jorge I. Domínguez 3823, Charles Donahue, Jr. (Law School) 2650, Carter J. Eckert 1178, Caroline M. Elkins 3961 (on leave 2014-15), Mark C. Elliott 3329, Drew Gilpin Faust 3857, Noah R. Feldman (Law School) 6206, Niall Ferguson 4938, Francis Fiorenza (Divinity School) 2735, Andrew Gordon 1891 (on leave 2014-15), Peter E. Gordon 3907, Annette Gordon-Reed 6394 (on leave 2014-15), Peter A. Hall 7272 (on leave 2014-15), James Hankins 1239, Tamar Herzog 7281, Evelyn Brooks Higginbotham 3517, Patrice Higonnet 2730 (on leave spring term), Elizabeth Kai Hinton 7591, Morton J. Horwitz (Law School) 6272, David Howell 6747, Akira Iriye 1968, Maya Jasanoff 5877, Andrew Jewett 5878, Alison Frank Johnson 5313 (on leave*



spring term), Walter Johnson 5616 (on leave fall term), Christopher P. Jones 3204, Cemal Kafadar 2459, Alexander Keyssar (Kennedy School) 4323, Sun Joo Kim 3821 (on leave 2014-15), William C. Kirby 3128 (on leave spring term), Mark A. Kishlansky 2895, James T. Kloppenberg 3157, Elisabeth Koll (Business School) 6495, Philip A. Kuhn 8051, Jill M. Lepore 4830, Mary D. Lewis 4369, Charles S. Maier 7227 (on leave fall term), Erez Manela 4762 (on leave 2014-15), Bruce H. Mann (Law School) 7190, Terry D. Martin 2966, Michael McCormick 2849 (on leave 2014-15), Lisa M. McGirr 2543, Ian J. Miller 5880, Roy Mottahedeh 1454 (on leave spring term), Afsaneh Najmabadi 4052 (on leave 2014-15), Kelly A. O'Neill-Uzgiris 5881 (on leave fall term), E. Roger Owen 1028, Steven Ozment 6197, Katharine Park 2974, Richard Pipes 1827, Serhii Plokhii 4454 (on leave spring term), Michael J. Puett 1227, Ahmed Ragab (Divinity School) 6263, Carmen M. Reinhart (Kennedy School) 7897, Julie A. Reuben (Faculty of Education) 4428, Emma Rothschild 5001 (on leave 2014-15), Steven Shapin 3984, Daniel L. Smail 5343, Michael A. Szonyi 4842, Roman Szporluk 3033, Hue-Tam Ho Tai 6079, Stephan Thernstrom 4141, Laurel Thatcher Ulrich 1886, Kirsten A. Weld 6494 (on leave spring term), John Womack, Jr. 1863, and Alejandro de la Fuente 7369

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13

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.

### ***Cross-listed Courses Primarily for Undergraduates***

[Aesthetic and Interpretive Understanding 49. The Medieval Imagination: Visions, Dreams, and Prophecies]

[\*\*African and African American Studies 11. Introduction to African Studies\*\*](#)

[Culture and Belief 20. Reason and Faith in the West]

[Culture and Belief 41. Gender, Islam, and Nation in the Middle East and North Africa]

[Culture and Belief 50. The European Postwar: Literature, Film, Politics]

[\*\*Culture and Belief 51. Making the Middle Ages\*\*](#)

[Culture and Belief 52 (formerly History 1213). The American Evangelical Tradition from Jonathan Edwards to Jerry Falwell]

[Culture and Belief 59. Athens, Rome, and Us: Questions of Identity]

[Ethical Reasoning 12. Political Justice and Political Trials]

[\*\*Ethical Reasoning 34. Liberty\*\*](#)

[Ethical Reasoning 35. Nature]

[\*\*\\*History and Literature 90ak. The Vietnam War in American Culture\*\*](#)

[\*\*\\*History and Literature 90ay. Youth Protest in Europe\*\*](#)

[\*\*\\*History and Literature 90az. The African American Great Migration\*\*](#)

[\*\*\\*History and Literature 90ba. England After Empire\*\*](#)

[\*\*\\*History and Literature 90bc. We the Readers: Reading Communities in Early America - \(New Course\)\*\*](#)

[\*\*\\*History and Literature 90bd. Disability in America from the Civil War to the Present - \(New Course\)\*\*](#)



[\*\*\\*History and Literature 90be. Tropical Fantasies: The Hispanic Caribbean and Haiti in the Global Imaginary - \(New Course\)\*\*](#)

[\*\*\\*History and Literature 90bg. Colonialism, Globalization, and Culture in Asian Diaspora\(s\) - \(New Course\)\*\*](#)

[\*\*\\*History and Literature 90bh. Postcolonial Ireland - \(New Course\)\*\*](#)

[\*\*\\*History and Literature 90g. Charlemagne in History, Story, and Myth\*\*](#)

[\*\*\\*History and Literature 90l. Stories of Slavery and Freedom\*\*](#)

[\*\*Humanities: Essential Questions 52. Human History - \(New Course\)\*\*](#)

[\*\*Medieval Studies 110. Mapping the Slavlands: Central Europe in the Middle Ages - \(New Course\)\*\*](#)

[\*\*Societies of the World 12. China\*\*](#)

[Societies of the World 13. Japan in Asia and the World]

[\*\*Societies of the World 14. The British Empire\*\*](#)

[Societies of the World 15. The Cuban Revolution, 1956-1971: A Self-Debate]

[\*\*Societies of the World 18. Europe on Trial: Retribution, Renewal and Reconciliation Since 1945\*\*](#)

[Societies of the World 19. Western Ascendancy: The Mainsprings of Global Power from 1400 to the Present]

[Societies of the World 22. Asia in the Making of the Modern World]

[Societies of the World 26. Africa and Africans: The Making of a Continent in the Modern World]

[Societies of the World 28. Exploration and Empire Building]

[\*\*Societies of the World 30. Moctezuma's Mexico: Then and Now \(2012\)!\*\*](#)

[\*\*Societies of the World 34. The Caribbean: Globalization, Socio-Economic Development & Cultural Adaptation\*\*](#)

[Societies of the World 36. Modern India and South Asia]

[\*\*Societies of the World 38. Pyramid Schemes: The Archaeological History of Ancient Egypt\*\*](#)

[Societies of the World 41. Medieval Europe]

[Societies of the World 42. The World Wars in Global Context, 1905-1950]

[\*\*Societies of the World 43. Japan's Samurai Revolution\*\*](#)

[\*\*Societies of the World 45. Beyond the Great Wall: China and the Nomadic Frontier\*\*](#)

[Societies of the World 49. The Worlds of Business in Modern China]

[Societies of the World 52 (formerly Slavic 144). The Phoenix and the Firebird: Russia in Global Perspective]

[Societies of the World 53 (formerly History 1040). The Fall of the Roman Empire]

[United States in the World 16. Men and Women in Public and Private: the US in the 20th Century]

[United States in the World 19. American Food: A Global History]

[United States in the World 28. Slavery/Capitalism/Imperialism: The US in the Nineteenth Century]

[\*\*United States in the World 30. Tangible Things: Harvard Collections in World History\*\*](#)

[United States in the World 38. Forced to be Free: Americans as Occupiers and Nation-Builders]

[\*\*United States in the World 39. History of American Democracy\*\*](#)

[\*\*United States in the World 40 \(formerly History 1989\). New World Orders? From the Cold War to Contemporary International Relations\*\*](#)



**United States in the World 41 (formerly History 1495). Power and Protest: The United States in the World of the 1960s**

*Cross-listed Courses for Undergraduates and Graduates*

**African and African American Studies 118. The History of African Americans From the Slave Trade to the Civil War**

**African and African American Studies 122x. The History of African Americans from the Civil War to the Present - (New Course)**

[African and African American Studies 123x. Mass Incarceration in Historical Perspective] - (New Course)

[African and African American Studies 124x. Afro-Latino Letters] - (New Course)

[African and African American Studies 125x. Urban Inequality after Civil Rights] - (New Course)

**African and African American Studies 191x. African American Lives in the Law**

[African and African American Studies 198x. Scientific Racism: A History] - (New Course)

[African and African American Studies 199x. Social Revolutions in Latin America] - (New Course)

[Arabic 160r. Readings in Arabic Historians, Geographers, and Biographers]

**Celtic 107. History of Ireland: Saint Patrick to the Flight of the Earls**

**Celtic 118. The Gaelic World: 1100 - 1700**

[Celtic 119. The Gaelic World: 17th Century to the Present]

**Chinese History 113. Society and Culture of Late Imperial China**

**Chinese History 170. Chinese History in the Digital Age - (New Course)**

**\*Classical Studies 112. Regional Study: Sicily - (New Course)**

[East Asian Studies 191. Zen: History, Culture, and Critique]

**Economics 1776. Religion and the Rise of Capitalism**

**History of Science 180. Science, Technology, and Society in Modern East Asia**

[Islamic Civilizations 145a. Introduction to Islamic Philosophy and Theology: Formative and Classical Periods (8th to 17th C.)]

[Japanese History 115. Religion and Society in Edo and Meiji Japan]

[Japanese History 120. Religion and Society in Twentieth-Century Japan]

[Japanese History 126. Shinto: Conference Course]

**Japanese History 133. Discourses of Ainu Identity (1868-2008) - (New Course)**

[Korean History 111. Traditional Korea]

[Korean History 115. Korean History Through Film]

**Medieval Studies 107. Authority and Invention: Medieval Art and Architecture**

**Medieval Studies 117. Constitutional and Legal History of Medieval England**

[Medieval Studies 119. Constitutional and Legal History of Medieval Continental Europe]

[Persian 150r. Readings in Persian Historians, Geographers and Biographers]

**Religion 1447. From Saint to Witch: Female Spirituality in the European Middle Ages - (New Course)**

[Societies of the World 52 (formerly Slavic 144). The Phoenix and the Firebird: Russia in Global Perspective]

**\*Studies of Women, Gender, and Sexuality 1249. Gender in African History**

[Studies of Women, Gender, and Sexuality 1258. Friends with Benefits?]



[\*\*The Modern Middle East 100 \(formerly Near Eastern Civilizations 100\). Approaches to Middle Eastern Studies\*\*](#)

[\*\*The Modern Middle East 111 \(formerly Islamic Civilizations 105\). Culture and Society in Contemporary Iran\*\*](#)

[\*\*The Modern Middle East 125. Culture and Society in Contemporary Israel - \(New Course\)\*\*](#)

[\*\*The Modern Middle East 128. The Arab-Israeli Conflict - \(New Course\)\*\*](#)

[\*\*Tibetan 190. Understanding Histories of Tibet - \(New Course\)\*\*](#)

*Cross-listed Courses Primarily for Graduates*

[African and African American Studies 216. Mau Mau on Trial: History, Law and the High Court of Justice]

[African and African American Studies 217. Graduate Seminar: Themes in Modern African History]

[\*\*African and African American Studies 218. Topics in African American History\*\*](#)

[\*\*African and African American Studies 219. Proseminar: Race and Ethnicity in Latin America - \(New Course\)\*\*](#)

[\*\*African and African American Studies 220. Seminar: New Themes in the Study of the African Diaspora: Editorial Internship with Transition - \(New Course\)\*\*](#)

[African and African American Studies 221. Proseminar: Afro-Americas I: Comparative Slavery and the Law in the Americas] - (New Course)

[African and African American Studies 222. Proseminar: Afro-Americas II: Comparative Race Relations in the US and Latin America] - (New Course)

[\*\*\\*American Studies 200 \(formerly \\*American Civilization 200\). Major Works in American Studies\*\*](#)

[\*American Studies 201 (formerly \*American Civilization 201). Themes in American Studies]

[\*\*Anthropology 2725. Anthropology and History\*\*](#)

[\*\*Celtic 208. Irish Ethnogenesis: The Origins and Evolution of Irish Identity in the Early Middle Ages\*\*](#)

[Chinese History 200r. Computational Methods for Historical Analysis]

[Chinese History 224. Introduction to T'ang and Sung Historical Sources]

[Chinese History 228. Introduction to Neo-Confucianism]

[\*\*Chinese History 229r. Topics in Ming History: Seminar\*\*](#)

[Chinese History 232r. Topics in Han History: Seminar]

[\*\*Chinese History 253. Topics in Late Imperial History\*\*](#)

[\*\*Chinese History 262. Local Society and Culture in Middle-Period China: Seminar - \(New Course\)\*\*](#)

[Chinese History 270a. Research Methods in Late Imperial Chinese History I: Seminar]

[Chinese History 270b (formerly Chinese History 264b). Research Methods in Late Imperial Chinese History II: Seminar]

[Economics 2328. The Emergence of Modern Economic Growth: A Comparative and Historical Analysis]

[\*\*Economics 2330. History and Human Capital\*\*](#)

[\*\*\\*Economics 2339r. Economic History Lunch\*\*](#)

[Japanese History 260r. Topics in Japanese Cultural History]



[\*\*Japanese History 270. Early Modern Japanese History: Proseminar\*\*](#)

[\*\*Japanese History 271r \(formerly Japanese History 271\). Research in Early Modern\*\*](#)

[\*\*Japanese History: Seminar\*\*](#)

**\*Korean 300. Reading and Research**

[Korean History 230r. Readings in Premodern Korean History]

[Korean History 231ar. Documents and Research Methods for the Study of Premodern Korea I: Seminar]

[Korean History 231b. Documents and Research Methods for the Study of Premodern Korea II: Seminar]

[\*\*Korean History 253. Modern Korean History: Proseminar\*\*](#)

[\*Korean History 255r. Modern Korean History: Seminar]

[Korean History 260. Readings in Modern Korean History I]

[Korean History 261. Readings in Modern Korean History II]

[Medieval Studies 201. The Auxiliary Disciplines of Medieval History: Proseminar]

[\*\*\\*Medieval Studies 202. Latin Palaeography and Manuscript Culture: Seminar\*\*](#)

[Medieval Studies 223. Preaching and the Sermon in the Middle Ages]

[\*\*Medieval Studies 227. Hildegard of Bingen and the Gospels: Seminar\*\*](#)

[\*\*Slavic 270hf. Mapping Cultural Space: Sites, Systems & Practices across Eurasia - \(New Course\)\*\*](#)

## History and Literature

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

*Members of the Committee on Degrees in History and Literature*

Amanda Claybaugh, Professor of English (*Chair*)

David J. Alworth, Assistant Professor of English and of History and Literature (*on leave 2014-15*)

Steven Biel, Senior Lecturer on History and Literature

Ann M. Blair, Henry Charles Lea Professor of History, Harvard College Professor (*on leave 2014-15*)

Jonathan H. Bolton, Professor of Slavic Languages and Literatures (*on leave fall term*)

Janet Browne, Aramont Professor of the History of Science, Harvard College Professor

Glenda R. Carpio, Professor of English and of African and African American Studies

James Engell, Gurney Professor of English Literature and Professor of Comparative Literature (*on leave fall term*)

Lorgia H. García Peña, Assistant Professor of Romance Languages and Literatures and of



### History and Literature

Virginie Greene, Professor of Romance Languages and Literatures (*on leave fall term*)  
 Maya Jasanoff, Professor of History  
 Lauren Kaminsky, Lecturer on History and Literature (*Director of Studies*)  
 James T. Kloppenberg, Charles Warren Professor of American History  
 Deidre Lynch, Professor of English  
 Louis Menand, Anne T. and Robert M. Bass Professor of English  
 Doris Sommer, Ira Jewell Williams, Jr. Professor of Romance Languages and Literatures and of African and African American Studies  
 William Mills Todd III, Harry Tuchman Levin Professor of Literature and Professor of Comparative Literature  
 Kirsten A. Weld, Assistant Professor of History (*on leave spring term*)

### ***Other Faculty Offering Instruction in the History and Literature Program***

Erin Royston Battat, Lecturer on History and Literature  
 Jennifer L. Brady, Lecturer on History and Literature, Associate Director of Studies and Lecturer on History and Literature  
 Todd Carmody, Lecturer on History and Literature  
 Genevieve A. Clutario, College Fellow  
 Rachel A. Gillett, Lecturer on History and Literature  
 Sean J. Gilsdorf, Lecturer on History and Literature  
 Elizabeth Maynes-aminzade, Lecturer on History and Literature  
 Mo Moulton, Associate Director of Studies and Lecturer on History and Literature, Lecturer on History and Literature  
 Timothy M. Wientzen, Lecturer on History and Literature

### ***Undergraduate Seminars***

These seminars exploring the interdisciplinary study of History and Literature are restricted to undergraduates and have enrollments limited to 15. There are no prerequisites, and non-concentrators are welcome. Preference is given to History and Literature concentrators if space is limited.

#### **\*History and Literature 90ak. The Vietnam War in American Culture**

Catalog Number: 76384 Enrollment: Limited to 15.

*Steven Biel*

*Half course (fall term). F., 10–12. EXAM GROUP: 5*

Considering a range of texts by and about soldiers and veterans, policy makers and protesters, reporters and refugees, the course explores Americans' contested and changing understandings of the experiences and meanings of the U.S. war in Vietnam. Texts include popular films, documentaries, journalism, fiction, letters, diaries, government documents, and war memorials.

#### **\*History and Literature 90ay. Youth Protest in Europe**

Catalog Number: 99226 Enrollment: Limited to 15.

*Rachel A. Gillett*



*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

This seminar examines the "spirit of 1968" in Prague, Paris, and Berlin. It examines specific protests in these cities in the context of widespread challenges to state control, capitalism and racism. The seminar shows how political critiques were expressed through nonconformity in dress, sexuality, and gender. It explores the anger and passion of '68 through an analysis of films, music, manifestos, and memoirs. The course reflects briefly on the legacy of the protest mentality of 1968.

#### **\*History and Literature 90az. The African American Great Migration**

Catalog Number: 26514 Enrollment: Limited to 15.

*Erin Royston Battat*

*Half course (fall term). F., 10–12. EXAM GROUP: 5*

The "Great Migration" of millions of African Americans out of the U.S. South in the twentieth century radically transformed both migrants themselves and the broader American culture. Examining letters, novels, poetry, oral histories, music, visual culture, and scholarship, we will ask: How did migrants negotiate the promises and perils of the urban North? How did migrants shape modern culture? How did they reformulate African American identity amidst this process of urbanization?

#### **\*History and Literature 90ba. England After Empire**

Catalog Number: 84657 Enrollment: Limited to 15.

*Timothy M. Wientzen*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

This course examines the cultural and political movements that defined post-imperial English culture. Reading literary texts by Salman Rushdie, Jean Rhys, and Sam Selvon, as well as movements in feminism and youth culture (such as punk rock), this course asks how England redefined itself amid the demographic, cultural and political shifts that marked the demise of the largest empire in human history.

#### **\*History and Literature 90bc. We the Readers: Reading Communities in Early America - (New Course)**

Catalog Number: 55761 Enrollment: Limited to 15.

*Jennifer L. Brady*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

This seminar asks who was reading, what was read, and how reading was practiced, imagined, and used in early America. Focusing on moments when reading's potential to create or divide communities was under question, "We the Readers" considers how the mundane acts of reading printed sermons, daily newspapers, bestselling novels, political pamphlets, and urban signs were understood to have varying consequences for women, Native Americans, subjects, citizens, and slaves—and through them, a nation.

#### **\*History and Literature 90bd. Disability in America from the Civil War to the Present - (New Course)**

Catalog Number: 13586 Enrollment: Limited to 15.

*Todd Carmody*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*



While often cast as a marginal concern or stigmatized as antithetical to national ideals of rugged individualism and autonomy, disability has in fact played a decisive role in shaping American culture. This seminar will examine how the historical development of disability as a social category - from the Civil War through the Disability Rights Movement - reflects changing attitudes toward citizenship, race, democratic participation, and labor.

**\*History and Literature 90be. Tropical Fantasies: The Hispanic Caribbean and Haiti in the Global Imaginary - (New Course)**

Catalog Number: 77519 Enrollment: Limited to 15.

*Lorgia H. García Peña*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

This course proposes an analysis of the different myths and fantasies that have been created about the Caribbean and of the historical and cultural realities surrounding these myths. Through a close reading of literary, artistic, critical, and historical texts we will examine topics such as: race, ethnic, and gender identity constructions; the rise of the plantation economy; and the imagining of a pan-Caribbean solidarity.

**\*History and Literature 90bg. Colonialism, Globalization, and Culture in Asian Diaspora(s) - (New Course)**

Catalog Number: 96219 Enrollment: Limited to 15.

*Genevieve A. Clutario*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

This course takes a cultural approach to historical developments of Asian diaspora, colonialism, and globalization through the lenses of appearance and performance. We examine performative and cultural arenas including literary fiction, spectacles, and visual texts to examine efforts to strategically use discourses of race, gender, class, ethnicity, sexuality, and (trans)nationalism to structure and maintain colonial forces. This class pushes us to consider how marginalized individuals and communities also used the same arenas to resist and critique colonial subjugation.

**\*History and Literature 90bh. Postcolonial Ireland - (New Course)**

Catalog Number: 16626 Enrollment: Limited to 15.

*Mo Moulton*

*Half course (fall term). M., 1–3. EXAM GROUP: 1*

Southern Ireland charted a unique course through the twentieth century. It began the century as a quasi-colonial part of the United Kingdom, and ended it the "Celtic Tiger," the success story of the European Union. This course explores that history through literature, historical documents, and scholarship. In particular, it asks: how can we make use of the insights of postcolonial theory to understand the Irish twentieth century? We'll consider the core themes of language, violence, sexuality, and economics.

**\*History and Literature 90bi. Whodunit: Detective Fiction in Victorian England - (New Course)**

Catalog Number: 44123 Enrollment: Limited to 15.

*Elizabeth Maynes-aminzade*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*



This seminar will trace the history of detective fiction, from the emergence of the detective as a literary hero (Poe, Dickens, Collins) through the popularization of the genre (Doyle) and its twentieth-century reinventions (film noir, the police procedural). Along the way, we will examine the relationship between genre and history: why did detective fiction rise to popularity in Victorian England, and why has its legacy so endured?

**History and Literature 90bj. Staging the Civil War-From the Archive to the A.R.T. - (New Course)**

Catalog Number: 46952 Enrollment: Limited to 20.

*Timothy P. McCarthy*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

Part of the A.R.T.'s National Civil War Project, this new course explores how a diverse cohort of contemporary playwrights and composers (Suzan-Lori Parks, Ruth and Jim Bauer, Timothy Patrick McCarthy, Matthew Aucoin) are using history to find creative ways to tell the story of the American Civil War on stage. It brings together several parts of Harvard—the classroom, the library, and the theater—to explore the dynamic relationship between archival discovery and artistic creation.

**\*History and Literature 90g. Charlemagne in History, Story, and Myth**

Catalog Number: 4105 Enrollment: Limited to 15.

*Sean J. Gilsdorf*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

Charlemagne long has been seen as the mythic father of nation-states and precursor of a united Europe. We will approach Charlemagne not simply as a legend, however, but as a compelling historical figure. Beginning with the rise of the Frankish monarchy and the emergence of the Carolingian dynasty, we will turn to consider the figure of Charlemagne himself and the kingdom that he controlled, before exploring Charlemagne's historical, political, and symbolic legacy.

**\*History and Literature 90l. Stories of Slavery and Freedom**

Catalog Number: 5335 Enrollment: Limited to 15.

*Timothy P. McCarthy*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

In the last generation, scholars have revolutionized our understanding of slavery and freedom in the modern Atlantic world. This sea-change has been the result of a major methodological shift: to view this history through the eyes of slaves rather than the eyes of masters. This course will examine the history of the "black Atlantic" through a diverse range of cultural texts--poetry, pamphlets, court cases, petitions, autobiographies, novels, speeches, and sermons--produced by slaves, free blacks, and abolitionists from the Age of Revolution to emancipation.

***Tutorials, for Undergraduates Only***

**\*History and Literature 91r. Supervised Reading and Research**

Catalog Number: 0334

*Lauren Kaminsky and members of the Committee*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 9;*



*Spring: 2*

*Note:* History and Literature concentrators may arrange individually supervised reading and research courses; the permission of the Director of Studies is required for these courses.

**\*History and Literature 97. Tutorial — Sophomore Year**

Catalog Number: 1148

*Lauren Kaminsky and members of the Committee*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 9*

Introduction to interdisciplinary methods and to topics in students' chosen fields. Required of all concentrators. Open only to concentrators.

**\*History and Literature 98r. Tutorial — Junior Year**

Catalog Number: 2766

*Lauren Kaminsky and members of the Committee*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 12*

An individually supervised study of selected topics in the student's chosen field in History and Literature.

*Note:* Ordinarily taken as two half courses by juniors. Required of all concentrators.

**\*History and Literature 99. Tutorial — Senior Year**

Catalog Number: 5362

*Lauren Kaminsky and members of the Committee*

*Full course. Hours to be arranged. EXAM GROUP: 10*

Research and writing of the senior thesis; preparation for the oral exam.

*Note:* Ordinarily taken by seniors as a full course. Required of all concentrators.

***Cross-listed Courses***

**\*History 84e. How to Read a Book**

[\*History 84l. Democracy and Education in Modern America]

**History 1014. Gender, Empire and the Politics of Appearance - (New Course)**

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](http://www.fas.harvard.edu/~histlit).

# History of American Civilization

**AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**



The name of the Standing Committee on Higher Degrees in the History of American Civilization has been changed to the Standing Committee on Higher Degrees in American Studies. Please see the Standing Committee on Higher Degrees in American Studies for course listings.

## History of Art and Architecture

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

#### *Faculty of the Department of History of Art and Architecture*

Maria Elizabeth Gough, Joseph Pulitzer, Jr. Professor of Modern Art (*Acting Chair*)

Ruth Bielfeldt, Associate Professor of History of Art and Architecture

David Bindman, Visiting Professor of History of Art and Architecture

Suzanne P. Blier, Allen Whitehill Clowes Professor of Fine Arts and Professor of African and African American Studies

Benjamin Buchloh, Andrew W. Mellon Professor of Modern Art (*on leave spring term*)

Joseph Connors, Professor of History of Art and Architecture

Thomas B. F. Cummins, Dumbarton Oaks Professor of the History of Pre-Columbian and Colonial Art

Jeffrey F. Hamburger, Kuno Francke Professor of German Art and Culture

Zaneta H. Hong, Lecturer in Landscape Architecture (*Design School*)

Ioli Kalavrezou, Dumbarton Oaks Professor of Byzantine Art

Robin E. Kelsey, Shirley Carter Burden Professor of Photography (*on leave 2014-15*)

Jinah Kim, Assistant Professor of History of Art and Architecture

Joseph Koerner, Victor S. Thomas Professor of History of Art and Architecture (*Director of Undergraduate Studies*)

Margaret K. Koerner, Lecturer on History of Art and Architecture

Ewa Lajer-Burcharth, William Dorr Boardman Professor of Fine Arts

Carrie Lambert-Beatty, Professor of History of Art and Architecture and of Visual and Environmental Studies (*on leave 2014-15*)

Yukio Lippit, Professor of History of Art and Architecture

Gülru Necipoglu-Kafadar, Aga Khan Professor of Islamic Art

Megan Forney Panzano, Design Critic in Architecture (*Design School*)

Alina A. Payne, Alexander P. Misheff Professor of History of Art and Architecture

Jennifer L. Roberts, Elizabeth Cary Agassiz Professor of the Humanities

David J. Roxburgh, Prince Alwaleed bin Talal Professor of Islamic Art History (*Director of Graduate Studies*)

Hugo van der Velden, Professor of History of Art and Architecture (*on leave spring term*)



Eugene Wang, Abby Aldrich Rockefeller Professor of Asian Art  
 Henri Zerner, Professor of History of Art and Architecture (*on leave spring term*)

### ***Other Faculty Offering Instruction in the History of Art and Architecture***

Zaneta H. Hong, Lecturer in Landscape Architecture (*Design School*)  
 Neil Levine, Emmet Blakeney Gleason Professor of History of Art and Architecture, Emeritus  
 David G. Mitten, James Loeb Professor of Classical Art and Archaeology, Emeritus  
 Mark Mulligan, Associate Professor of Architecture (*Design School*)  
 Gloria Ferrari Pinney, Professor of Classical Archaeology and Art, Emeritus  
 Irene J. Winter, William Dorr Boardman Professor of Fine Arts, Emerita

### ***Affiliates of the Department of the History of Art and Architecture***

Melissa M. McCormick, Professor of Japanese Art and Culture, Harvard College Professor  
 Adrian Staehli, Professor of Classical Archaeology

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.

History of Art and Architecture (HAA) 1, HAA 10, HAA 11 are general, conceptual introductions to World Art from pre-history to the present, 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 10. The Western Tradition: Art Since the Renaissance**

Catalog Number: 4988

*Henri Zerner*

*Half course (spring term). Tu., Th., at 12 . EXAM GROUP: 9*

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:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [History of Art and Architecture 11. Landmarks of World Architecture]

Catalog Number: 3675

*----- and members of the Department and the GSD faculty*

*Half course (spring term). Tu., Th., at 12.*

Examines major works of world architecture and the unique aesthetic, cultural, and historical issues that frame them. Faculty members will each lecture on an outstanding example in their area of expertise, drawing from various periods and such diverse cultures as modern and contemporary Europe and America, early modern Japan, Mughal India, Renaissance and medieval Europe, and ancient Rome. Sections will develop thematically and focus on significant issues in the analysis and interpretation of architecture.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meet the General Education requirement for Aesthetic and Interpretive Understanding. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### [History of Art and Architecture 18j. Introduction to Japanese Architecture]

Catalog Number: 95066

*Yukio Lippit*

*Half course (spring term). Hours to be arranged.*

A survey of the diverse architectural traditions of the Japanese archipelago from the prehistoric era through the twentieth century. Various building types—including the Shinto shrine, Buddhist temple, castle, teahouse, palace and farmhouse—will be studied through representative surviving examples. Issues to be explored include the basic principles of timber-frame engineering, the artisanal culture of master carpenters, and the mixed legacy of the functionalist interpretation of Japanese architecture.

*Note:* Expected to be given in 2015–16.

### History of Art and Architecture 18k. Introduction to Japanese Art

Catalog Number: 25638

*Melissa M. McCormick*

*Half course (fall term). M., W., at 11. EXAM GROUP: 18*

Surveys the arts of Japan from the prehistoric period to the nineteenth century. Includes Japanese painting, sculpture, and architecture, as well as calligraphy, garden design, ceramics, and prints. Essential themes include the relationship between artistic production and Japanese sociopolitical development, Sino-Japanese cultural exchange, and the impact of religion, region, gender, and class on Japanese artistic practice.

### History of Art and Architecture 18p. The Japanese Woodblock Print

Catalog Number: 78376

*Yukio Lippit*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 15*

This course provides an introduction to Japanese art and cultural history through a survey of the



Japanese woodblock print from its emergence in the mid-17th century to the modern era. Technical developments, major genres, and master designers are explored within the context of Japan's pictorial traditions and evolving urban culture. Topics for consideration include aesthetic discourse, censorship, erotica, Japonisme, the construction of social identity, print culture, and the representation of war.

#### **[History of Art and Architecture 18s. Arts of South and Southeast Asia]**

Catalog Number: 61538

*Jinah Kim*

*Half course (fall term). Hours to be arranged.*

This is an introduction to the arts of South and Southeast Asia from the second millennium BCE to the present. Each lecture will examine selective artifacts and sites to understand the history of major artistic traditions developed in response to cultural exchanges and political dynamics within and beyond the region. By examining a wide range of material, such as Buddhist sculptures, Hindu temples, Jain manuscript paintings, Islamic tombs, calendar art, and so on, with fundamental art historical questions, we will consider what makes the arts of South and Southeast Asia unique as well as universal in the twenty-first century context.

*Note:* Expected to be given in 2015–16.

#### **History of Art and Architecture 22. The Architectural Imagination - (New Course)**

Catalog Number: 26691

*K. Michael Hays (Design School) and Erika Naginski (Design School)*

*Half course (fall term). Tu., Th., 10:30–12. EXAM GROUP: 12*

This course is structured as a dialogue between the historical and theoretical frameworks that have shaped the formulation of architectural principles - what the architectural historian Rudolf Wittkower called the "apparatus of forms" - by means of selected case studies. The organizing principle here is thematic as opposed to chronological, and synoptic rather than merely factual. We treat a selected range of concepts developed by philosophers and historians to explain the Classical and the Baroque as dialectical systems of thought that arise in history but transcend this history to mark modern and postmodern practices.

*Note:* Note: Offered jointly with the Design School as 4121.

#### **History of Art and Architecture 51p. Renaissance Architecture: The Global View**

Catalog Number: 6427

*Alina A. Payne*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

Charts the rise and dissemination of a classical architectural vocabulary in Renaissance Europe and its colonial empire. Lectures focus on the development of the style, its origin in the fascination with antiquity, its response to shifts in social and political life, its mechanisms of transmission (travel, book and print culture, objects) as well as phenomena of exchange, export, and resistance to this pan-European trend in the Mediterranean, Latin America and Asia.

#### **History of Art and Architecture 65. Baroque Art**

Catalog Number: 88688

*Joseph Connors*

*Half course (fall term). Tu., Th., at 12. EXAM GROUP: 13*



Art of the seventeenth century in Europe, including genial works by Caravaggio (and his followers), Annibale Carracci, Bernini, Cortona, Poussin, Claude Lorrain, Ribera, Velazquez, Rubens, Van Dyck, Le Brun, Rembrandt, and Vermeer, as well as the global diffusion of the Baroque Style.

### **\*History of Art and Architecture 91r. Directed Study in History of Art and Architecture**

Catalog Number: 1028

*Joseph Koerner and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*

*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 96a. Architecture Studio 1: Transformations**

Catalog Number: 60638 Enrollment: Limited to 12. Limited to concentrators enrolled in Architecture Studies Track

*Megan Panzano (Design School)*

*Half course (spring term). W., F., 1–4. EXAM GROUP: 8*

This course introduces basic architectural concepts and techniques used to address issues of form, function, ornament and material. This course provides instruction in project analysis, visualization, communication, and fabrication using both physical and digital modeling. Students proceed through a series of progressively complex investigations of transformational processes, context, program and material assemblage. As an introduction to architectural design, we will explore comprehensive and foundational design principles, skill sets and critical thinking and making. The course material will be presented through a series of presentations, exercises, workshops, reviews and discussions. This course fosters the development of a design methodology founded on thoughtful, creative and rigorous work practices in service of exploring meaningful expressions of the constructed environment.

### **History of Art and Architecture 96b. Connections - Studio II**

Catalog Number: 35764 Enrollment: Limited to 12. Enrollment limited to Concentrators in the HAA Architecture Studies Track

*Zaneta H. Hong (Design School)*

*Half course (spring term). Tu., Th., 1–4. EXAM GROUP: 1*

Over half the world's inhabitants live in urban environments. Understanding, engaging, and re-imaging the urban condition, with all its complexities, structures, processes, and idiosyncrasies has become a pressing issue for architects, landscape architects, and urban designers alike. This studio will focus on the urban condition as a byproduct of the connections between both human and nonhuman frameworks (systems + environments). Using diagramming and mapping processes, both iteratively and speculatively, students will investigate system-environment relationships through the examination of qualities, behaviors, and territories for a select set of urban agents. Each investigation will reveal latent, suppressed, emerging, provisional, and otherwise unmapped connections, which influence the formation of urban spaces, infrastructures, and technologies. Course material is presented through a series of exercises, lectures, workshops, and reviews, which introduce students to the application of foundational design principles and critical design strategies. This course fosters the development of a design methodology founded



on thoughtful, creative, ethical and sustainable practices, and explores meaningful expressions for the built environment.

*Prerequisite:* History of Art and Architecture 96a.

#### **\*History of Art and Architecture 97r. Sophomore Tutorial**

Catalog Number: 0935

*Joseph Koerner and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 17*

Group tutorial, offers concentrators the choice of several study groups investigating a particular field of art or architectural history.

*Note:* Required of concentrators.

#### **\*History of Art and Architecture 98ar. Faculty Tutorial**

Catalog Number: 1328

*Joseph Koerner and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

Tutorial consisting of weekly meetings with designated faculty, where regular reading and writing assignments are focused on a topic of mutual interest.

*Note:* Required of concentrators, generally in the Junior year.

#### **\*History of Art and Architecture 98br. Methods Tutorial**

Catalog Number: 3507

*Joseph Koerner and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*

An introduction to the methods and research skills of art and architectural history.

*Note:* Required of concentrators, generally in the Junior year.

#### **\*History of Art and Architecture 99. Tutorial - Senior Year**

Catalog Number: 3118

*Thomas B. F. Cummins and members of the Department*

*Full course. Hours to be arranged. . EXAM GROUP: Fall: 6; Spring: 15*

In the fall term, HAA 99 includes several group tutorial meetings with the senior honors adviser, where assignments are aimed at facilitating the writing of a senior honors thesis; spring term consists of independent writing, under the direction of the individual thesis adviser.

*Note:* Required of honors candidates in History of Art and Architecture. Permission of the Head Tutor required.

#### ***For Undergraduates and Graduates***

#### **\*History of Art and Architecture 100r. Sophomore Excursion Course**

Catalog Number: 9414 Enrollment: Limited to 20. Open only to sophomore concentrators in HAA.

*Ioli Kalavrezou, Gülrü Necipoglu-Kafadar, and Alina A. Payne*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*



This course introduces sophomore concentrators to on-site study of art and architecture through the case study of a particular geographic and cultural area. This year: Sicily.

*Note:* Excursion is optional; not a requirement.

### **History of Art and Architecture 120n. Art of the Timurids in Greater Iran and Central Asia**

Catalog Number: 9252 Enrollment: Limited to 15.

*David J. Roxburgh*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

Critical examination of the arts of the book, portable arts, and architecture sponsored by the Timurids (1370-1507), a dynasty founded by Timur (Tamerlane). Emphasis will also be given to primary written sources in translation.

### **[History of Art and Architecture 122n. Architecture of Empire: The Ottomans, Safavids and Mughals in a Comparative Perspective]**

Catalog Number: 63514 Enrollment: Limited to 15.

*Gülru Necipoglu-Kafadar*

*Half course (fall term). Hours to be arranged.*

Between the 16th and 18th centuries, three empires – the Mediterranean-based Ottomans, Safavids in Iran, and Mughals in India – developed interconnected yet distinctive architectural cultures with individualized ornamental idioms by fusing their common Timurid heritage with cosmopolitan regional traditions. Explores connections between empire building and architecture, with respect to aesthetics, religion, imperial ideology, and theories of dynastic legitimacy.

*Note:* Expected to be given in 2015–16.

### **History of Art and Architecture 127s. An Album of Sketches, Designs, and Drawings from Nineteenth-Century Qajar Iran - (New Course)**

Catalog Number: 28863 Enrollment: Limited to 12.

*David J. Roxburgh*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

In 1960 the Harvard Art Museums acquired an album composed of sketches, designs, and finished drawings (no. 1960.161). The 57 album folios preserve these valuable resources, with the artworks arranged singly or in groups on each page. The corpus constitutes the *materia technica* used by artists to make objects in different media, principally lacquered pen boxes and mirror cases, which were purchased from the bazaar by members of Qajar society and Europeans who visited Iran between the early 1800s and 1900s. The album has not yet been the subject of close study, despite the fact that it is the richest resource of its kind known today. The goal of the seminar is to examine the album and its contents from different perspectives, the period in which it was made, to prepare for the album's exhibition and publication as a monograph in 2017.

### **[History of Art and Architecture 128. Topics in Arabic Art and Culture: The Medieval Mediterranean]**

Catalog Number: 6008 Enrollment: Limited to 12.

*David J. Roxburgh*

*Half course (fall term). Hours to be arranged.*



A problem oriented inquiry into the art and architecture (ca. 750 to 1300) of the Arab lands, focusing on regions circling the Mediterranean, from the Iberian Peninsula to Iraq. Materials (art of book, portable arts, epigraphy, architecture) and geographic focus vary. Themes also change, but include relations between art and literature, aesthetics, vision and perception, courtly culture, mercantile patronage, cultural continuities and resurgences. Al-Andalus and the Maghrib are the focus in 2012.

*Note:* Expected to be given in 2015–16.

### **History of Art and Architecture 137p. The Roman Dinner Party: Proseminar**

Catalog Number: 38895

*Ruth Bielfeldt*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

The banquet is the key event of Roman elite society. It involved not only luxurious and well-staged food and wine, but proper behavior, a decent setting, luxury furniture, entertainment and enchantment. The seminar discusses visual, archaeological and literary evidence to explore the sensual culture of the Roman dinner party - oscillating between strict social rules, intellectual table talks, the theatrical orchestration of high cuisine, revelry, eroticism and bodily excess.

### **History of Art and Architecture 138s. Hellenistic Sculpture - (New Course)**

Catalog Number: 23764 Enrollment: Limited to 30.

*Ruth Bielfeldt*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

Hellenistic sculpture manifests a revolution in Greek aesthetics. In the late 4th century BCE, with the emergence of royal patronage, we see radical shifts in art theory and in the artworks themselves. The aesthetic newness of Hellenistic sculpture lies in the choice of themes and represented moments, the modes of contextual display, as well as in the treatment of sculptural three-dimensionality and surface sensuality; its cultural 'modernity' lies in its almost boundless geographic scope. Based on a series of case studies, the seminar will discuss the socio-political implications of Hellenistic sculpture, as well as central hermeneutic issues at stake, such as concepts of involved spectatorship, lifelikeness, style and meaning, space and nature, theatricality, emotion in the arts, notions of otherness (barbarians, peasants, and cripples) and the divine.

### **[History of Art and Architecture 139j. Greek Myths on Roman Sarcophagi]**

Catalog Number: 1094 Enrollment: Limited to 12.

*Ruth Bielfeldt*

*Half course (spring term). Hours to be arranged.*

In second-century Rome, Greek Myths enter a new sphere: tombs. But the mythological narratives adorning the imperial relief sarcophagi are more than traditional tales being retold. Their original visual language, combining Greek and Roman motifs, turns the caskets into powerful mediators that help express central experiences of life and death. In this seminar we will examine the complex imagery of Roman sarcophagi and interpret the mythological narratives from different perspectives – contextual, cultural, social, and philosophical.

*Note:* Expected to be given in 2015–16.



### **History of Art and Architecture 143r. The Art of the Court of Constantinople : Proseminar**

Catalog Number: 4412 Enrollment: Limited to 15.

*Ioli Kalavrezou*

*Half course (fall term). W., 1–3. EXAM GROUP: I*

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.

### **[History of Art and Architecture 145p. Court and Cloister in the Late Middle Ages]**

Catalog Number: 82487

*Jeffrey F. Hamburger*

*Half course (spring term). W., 3–5.*

Courtly culture and patronage in Paris, Prague, and Burgundy, with an emphasis on issues of artistic exchange, dynastic commemoration, princely piety, the development of secular genres, and the emergence of the court artist.

*Note:* Expected to be given in 2015–16.

### **[History of Art and Architecture 146s. Bible Stories : Narrative Strategies in High Medieval Art]**

Catalog Number: 81522

*Jeffrey F. Hamburger*

*Half course (fall term). Hours to be arranged.*

The bible provided the underpinning of most medieval art. Images, however, involved more than translating texts into visual form. Focusing on England, France and Germany in the High Middle Ages, the course will compare narrative cycles in wall painting, manuscript illumination, sculpture and stained glass against the foil of oral storytelling and bible commentary.

*Note:* Expected to be given in 2015–16.

### **[History of Art and Architecture 147m. The Book of Hours : Pictures and Prayer in the Middle Ages]**

Catalog Number: 54362 Enrollment: Limited to 15.

*Jeffrey F. Hamburger*

*Half course (fall term). Hours to be arranged.*

Taught from the collection of Books of Hours in the Houghton Library, the course will teach students how to describe and study medieval manuscripts and introduce various aspects of these richly illuminated prayer books. Special attention to the texts and images in the context of later medieval painting and piety within longer traditions of picturing prayer extending back deep into the Middle Ages.

*Note:* Expected to be given in 2015–16.

### **[History of Art and Architecture 147p. Popular Cults and the Formation of Pilgrimage Sites]**

Catalog Number: 31365 Enrollment: Limited to 15.

*Ioli Kalavrezou*

*Half course (fall term). Hours to be arranged.*

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.

*Note:* Expected to be given in 2015–16.

**[\*History of Art and Architecture 149g. Casts, Construction and Commemoration:  
 German Gothic in America and Abroad]**

Catalog Number: 9633 Enrollment: Limited to 12.

*Jeffrey F. Hamburger*

*Half course (spring term). Hours to be arranged.*

German monumental sculpture from the 11th through 13th centuries in its broader European context using the cast collection in Adolphus Busch Hall.

*Note:* Expected to be given in 2015–16.

**[History of Art and Architecture 156m. Renaissance and Modernity]**

Catalog Number: 82417 Enrollment: Limited to 15.

*Alina A. Payne*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

**History of Art and Architecture 161v. Rome: Eternal City**

Catalog Number: 86032

*Joseph Connors*

*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 1*

An architectural history of Rome from the empire through the early Christian and medieval city, the Renaissance revival of antiquity, Baroque planning, and early archeology to Fascism and modernism, including the imperial fora, aqueducts, fountains, medieval basilicas, the piazza, villas, gardens, St. Peter's and the Vatican complex.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**[History of Art and Architecture 165x. Baroque Architecture]**

Catalog Number: 37166

*Joseph Connors*

*Half course (spring term). Hours to be arranged.*

Genial architecture, gardens, and urban planning from 1600 to 1750 in Rome (Maderno, Borromini, Bernini, Cortona, Piranesi), Naples (Fanzago), Sicily, Turin (Guarini), Venice (Longhena), Paris and Versailles (Le Vau, Le Nôtre, François & Jules Hardouin-Mansart, Perrault), London (Jones, Wren, Hawksmoor, Vanbrugh), Vienna (Fischer von Erlach), Prague (Santini Aichel), Madrid, Salamanca, Lisbon, Mafra, Goa, Vilnius, Warsaw, and St. Petersburg. Issues to be treated include urban planning, landscape, water and fountains, earthquake reconstruction, the influence of mathematics and the sciences, architectural drawing and the illustrated architectural book.

*Note:* Expected to be given in 2015–16. Offered jointly with the Design School as GSD HIS 004361.



### **History of Art and Architecture 168v. The Vatican - (New Course)**

Catalog Number: 98318

*Joseph Connors*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

Colloquium aimed at undergraduates on the Vatican palace including the Fran Angelico's chapel for Nicholas V, the Raphael stanze, the Loggia of Raphael, the Sistine Chapel including the Michelangelo frescoes and the Raphael tapestries, the Cortile del Belvedere, Julius II's statue court and collections, the Tower of the Winds and Gallery of Maps, the Vatican Library, the Vatican Museums, as well as an overview of old and new St. Peters under Bramante, Michelangelo, Maderno and Bernini

### **[History of Art and Architecture 170m. Manet to Man Ray]**

Catalog Number: 50033 Enrollment: Limited to 30.

*Maria Elizabeth Gough*

*Half course (fall term). Hours to be arranged.*

What was modern art? To find out, we examine the aesthetic and social underpinnings of twelve defining episodes in the history of modernism, beginning with the radical reinvention of painting led by the French artist Edouard Manet in the 1860s, and concluding with the photographic practices and object-sculpture of the Paris-based American surrealist Man Ray in the 1930s. Though Paris is the art world's cosmopolitan center through the nineteenth and early-twentieth centuries, we analyze also key modernist developments in Italy, Russia, Germany, and the Netherlands. Particular attention to pictorial invention, embrace of new media, and the refashioning of artistic identity.

*Note:* Expected to be given in 2015–16.

### **[History of Art and Architecture 171p. From Mother Earth to Planet Mars: Designed Landscapes, 1850-2013]**

Catalog Number: 36155

*Sonja Duempelmann (Design School)*

*Half course (fall term). Hours to be arranged.*

This course is an introduction to designed landscapes, and landscape architecture since 1850. Thematic lectures will focus on the history and theory of designed landscapes in the Western world. They will also address landscape creations of the Eastern civilizations and of other time periods as they become relevant for the topics and objects discussed in this class. Students will be able to develop critical and formal analytical skills that facilitate the reading and interpretation of designed landscapes as both physical spaces and as cultural media that sit at the nexus between art and science.

*Note:* Expected to be given in 2015–16.

### **History of Art and Architecture 171w. Prints and the Circulation of Art and Images, 1700-1900 - (New Course)**

Catalog Number: 67012 Enrollment: Limited to 12.

*Henri Zerner*

*Half course (spring term). M., 3–5. EXAM GROUP: 17*

This course will examine the role of printmaking, principally during the 18th and 19th centuries. Attention will be given to prints as an independent medium for artists (the production of what is



commonly called "original prints"). But we will also be attentive to the role of "reproductive prints" as a mode of communication. In particular, the 18th century developing taste for drawings as collectibles gave rise to technical innovations in order to transmit the distinctive characteristics of drawings. The invention of lithography at the end of the century, and the development of a new kind of wood engraving, made possible an explosion of image production and creation of the illustrated press. Finally, the invention of photography in the central years of the 19th century caused what can be described as, a visual revolution, which deeply affected art and its reception.

*Note:* Open to qualified undergraduates.

**[History of Art and Architecture 172x. Vienna Interior]**

Catalog Number: 89477 Enrollment: Limited to 12.

*Joseph Koerner*

*Half course (fall term). Hours to be arranged.*

This course explores Vienna in its golden age (1890-1938) through attempts by its leading lights—including Klimt, Schiele, Freud, Wittgenstein and Schönberg—to imagine a new architecture of home. At once a built environment and a subjective inwardness, the Viennese interior was a blueprint of dwelling and of exile for our modern world.

*Note:* Expected to be given in 2015–16.

**[\*History of Art and Architecture 173m. The Early Modern Artist]**

Catalog Number: 7574 Enrollment: Limited to 12.

*Ewa Lajer-Burcharth*

*Half course (fall term). Hours to be arranged.*

Explores the emergence of artistic individuality in French 18th-century art and culture. What was modern about the 18th-century artist? What were the criteria of artistic self-definition? Among the issues addressed: the cultural myth of the artist; artist vs. critic; artistic identity and the philosophical notions of the self; subjectivity, sexuality, and gender; the artist's touch; authorship; melancholia; eccentricity; the artist's body; fashion. Artists include: Watteau, Chardin, Fragonard, Vigée-Lebrun, David, Girodet. Museum trip(s).

*Note:* Expected to be given in 2015–16.

**[History of Art and Architecture 175k. American and European Art, 1945–1975]**

Catalog Number: 6910

*Benjamin Buchloh*

*Half course (spring term). Hours to be arranged.*

This course will examine artistic production in the US and Europe between 1945 and 1975 to clarify some of the most crucial questions of this thirty year period: How did post war visual culture repress or acknowledge the recent 'caesura of civilization' brought about by World War II?; how did the neo-avantgarde position itself with regard to the legacies of the avantgardes of the 1920s?; how did artistic production situate itself in relation to the newly emerging apparatus of Mass Media culture?

*Note:* Expected to be given in 2015–16.

**History of Art and Architecture 179x. Construction Lab : Conference Course**

Catalog Number: 30908 Enrollment: Limited to 15. Permission of the DUS required.



*Mark Mulligan (Design School)*

*Half course (fall term). M., at 10, F., 2–5. EXAM GROUP: 5*

An introduction to fundamental properties and behaviors of buildings and structures through a combination of lectures, workshops, and design-build assignments.

*Note:* Limited to concentrators in the Architecture Studies Track; permission of the Director of Undergraduate Studies required.

*Prerequisite:* HAA 96a

**History of Art and Architecture 182w. China in Twelve Artworks - (New Course)**

Catalog Number: 20356

*Eugene Wang*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

The course revolves around close looking at twelve Chinese artworks from Harvard Art Museums. The objects to be examined range from the Neolithic period to the twentieth century. They anchor larger horizons, opening up hidden historical dimensions. Students learn to interrogate artworks by forming fruitful questions and identifying leads that take them to deeper cultural historical contexts. It will be demonstrated that artworks yield insights into a culture in a palpable way unobtainable from texts.

**[History of Art and Architecture 183k. Himalayan Art]**

Catalog Number: 65219 Enrollment: Limited to 12.

*Jinah Kim*

*Half course (spring term). Hours to be arranged.*

Understood as a divine abode in Indic mythology and envisioned as the immortal realm of "Shangri-la" by later western interpreters, the Himalayas abound with Hindu and Buddhist holy sites. This course explores the vibrant visual culture of the Himalayan region. Two learning goals are: 1) Understanding the historical development of distinctive artistic forms in paintings and sculptures of Nepal and Tibet during major moments of artistic innovations in the region, including the artistic responses to the current political situation; 2) Locating this knowledge in the context of the history of reception and collecting of Himalayan art in the west.

*Note:* Expected to be given in 2015–16.

**\*History of Art and Architecture 184x. Painting of India - (New Course)**

Catalog Number: 26059 Enrollment: Limited to 15.

*Jinah Kim*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

The course explores the history of Indian painting based on the collections of the Harvard Art Museums and the Museum of Fine Arts, Boston. We will investigate the theory of pictorial form in India and its relationship to the society at large against the historical currents by probing the development and changes in artistic styles and material culture of painting production. We will pay particular attention to the role of media, such as palm-leaf, birch bark, paper, and pigments, along with consideration of changing symbolic and material meanings of color. Regular visits (sections) to the museums and conservations labs to examine the paintings in person are to be scheduled throughout the semester.



### **[History of Art and Architecture 187w. Art and Mind: Buddhist Visualization]**

Catalog Number: 12256

*Eugene Wang*

*Half course (spring term). Hours to be arranged.*

The course explores a central paradox. Meditative visualization, a key aspect of Buddhist practice, involves introspection. It does not require looking at pictures. Why, then, were pictures nevertheless made to externalize interiority in medieval China? The course looks at murals in Buddhist caves, relief sculptures on stupa-towers, woodblock prints uncovered from hidden crypts, and other artifacts related to meditative visualization. Readings include some key Buddhist sutras. Among the core issues driving the course is the current debate about the modeling of mind and intelligence and narratives of "consciousness."

*Note:* Expected to be given in 2015–16. No Chinese language requirement.

### **History of Art and Architecture 191w. Image of the Black in Western Art**

Catalog Number: 54304 Enrollment: Limited to 15.

*Suzanne P. Blier and David Bindman*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

This seminar will critically examine the depiction and contextualization of individuals of African descent in European and American art. Among the various issues raised are historic changes in the idea of and construction of race, the impact of early internationalism, notions of difference in the age of exploration, slavery and notions of selfhood, and representation as part of the larger colonial project.

### **History of Art and Architecture 191x. Books and Things in the Colonial World - (New Course)**

Catalog Number: 48085

*Thomas B. F. Cummins*

*Half course (fall term). M., W., at 10. EXAM GROUP: 5*

We study the few remaining Mesoamerican Pre-Columbian, as well as the much more numerous sixteenth and seventeenth-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.

### **History of Art and Architecture 194w. Worlds Fairs**

Catalog Number: 24735

*Suzanne P. Blier*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

This seminar addresses questions of cultural display through the art and architecture of world fairs, mid-nineteenth century to present. Students are introduced to the seminal fair events beginning with the Crystal Palace in London, and extending to fairs in the U.S., France, Belgium, Spain, Japan and China. the history of fairs as artistic and social phenomenon is explored along with how these events shaped national identity, ethnicity, social class, race, imperialism, colonialism, and gender.



**[History of Art and Architecture 197. The Imperial Arts of the Inca and the Aztec]**

Catalog Number: 9976

*Thomas B. F. Cummins*

*Half course (fall term). Hours to be arranged.*

This course concentrates on the art and architecture of the two ancient American civilizations, surveying the forms of representation used to establish imperial presence within the accepted vernacular of Mesoamerican and Andean artistic traditions. Special attention is given to the role of art as a means of expressing imperial claims to mythic and historic precedents, upon which political and economic expansion could be realized.

*Note:* Expected to be given in 2015–16.

*Primarily for Graduates*

**[History of Art and Architecture 222m. Architecture in the Early Modern Mediterranean World: A Cross-Cultural Perspective]**

Catalog Number: 20595 Enrollment: Limited to 12.

*Alina A. Payne and Gülrü Necipoglu-Kafadar*

*Half course (spring term). Hours to be arranged.*

Architecture of the eastern Mediterranean basin (at Italian, Ottoman, and Mamluk courts) with emphasis on cross-cultural encounters and transmission of the Romano-Byzantine heritage, science and technology, architectural practice, ornament, urban design, military, religious and domestic architecture.

*Note:* Expected to be given in 2015–16.

**History of Art and Architecture 224k. Islamic Art Historiography: Concepts and Controversies - (New Course)**

Catalog Number: 46511 Enrollment: Limited to 12.

*Gülrü Necipoglu-Kafadar*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

A critical examination of controversial concepts that have shaped the Islamic field since its 19th-century construction to the present. Topics include orientalism, late antiquity and the Islamic city, archaeology and museums, ornamentality and abstraction, the arabesque and calligraphy, non-perspectival visuality, collectors and exhibitions

**[\*History of Art and Architecture 229p. Word and Image in Persian Painting : Seminar]**

Catalog Number: 2342 Enrollment: Limited to 12.

*David J. Roxburgh*

*Half course (spring term). Th., 1–3.*

Texts of the Persian literary tradition that were illustrated constitute our focus, including Firdawsi's Shahnama and Nizami's Khamsa. Study of word and image is staged through key examples to open new lines of inquiry.

*Note:* Expected to be given in 2015–16.

**History of Art and Architecture 232k. Alexander the Great and his Legacy - (New Course)**

Catalog Number: 28421 Enrollment: Limited to 15.

*Ruth Bielfeldt*



*Half course (spring term). M., 3–5. EXAM GROUP: 17*

*Note:* The seminar will design and develop a General Education course on this theme for undergraduates

**History of Art and Architecture 240. Daily Life in Byzantium - (New Course)**

Catalog Number: 70208 Enrollment: Limited to 12.

*Ioli Kalavrezou*

*Half course (spring term). W., 12:30–2:30. EXAM GROUP: 7*

The course will focus on domestic life and environment in everyday Byzantine society. Course topics will examine the private as well as public life of the individual from childhood to adult life, through artifacts from the household, as well as education, work, and other social contexts.

**[\*History of Art and Architecture 240r. Topics in Byzantine Art : Illustrating the Word: manuscripts and their images from the Byzantine religious and secular world]**

Catalog Number: 4109 Enrollment: Limited to 12.

*Ioli Kalavrezou*

*Half course (spring term). Hours to be arranged.*

The course will concentrate on manuscripts produced after the period of Iconoclasm beginning in the second half of the 9th century. A variety of texts will be examined from courtly as well as monastic environments.

*Note:* Expected to be given in 2015–16. Open to interested undergraduates.

**\*History of Art and Architecture 242. Issues of Interpretation in Medieval Art : Seminar**

Catalog Number: 7561 Enrollment: Limited to 12.

*Jeffrey F. Hamburger*

*Half course (fall term). M., 1–3. EXAM GROUP: 1*

A wide-ranging introduction to critical approaches to the study of medieval art, with emphasis on systems of signification, mixing historiography and methodology in a workshop format in which students help set the agenda.

**[History of Art and Architecture 255. Giorgio Vasari: Seminar]**

Catalog Number: 57654 Enrollment: Limited to 15.

*Alina A. Payne*

*Half course (fall 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 2015–16.

**History of Art and Architecture 268x. Looking Back: Re-imagining an Introduction to the History of Western Art (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 65666 Enrollment: Limited to 12.

*Jeffrey F. Hamburger and Joseph Koerner*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

Since its beginnings, the history of art has been conceived of as a teleological process defined largely in terms of progress, culminating in the triumph of modernism. As a counter-heuristic,



we will teach the history of art from the present and looking back to the past. After an historiographical introduction, focused on Vasari, Winckelmann, Hegel and historicism, also in reverse, each section will consist of a critical chain of appropriations made by modern artists who constructed their own understanding of tradition, ending in Antiquity. Each section will focus on a major artist.

*Note:* The seminar will design and develop a General Education course on this theme for undergraduates.

**History of Art and Architecture 270y. From the Philosophy Chamber : Harvard and the Arts in the Early Republic - (New Course)**

Catalog Number: 95718 Enrollment: Limited to 12.

*Jennifer L. Roberts and Ethan W. Lasser*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

This seminar will take up questions of patronage, pedagogical practice and cultural memory to assess the extraordinary collection of natural specimens, scientific instruments and works of art that Harvard College amassed in the late eighteenth century.

**History of Art and Architecture 271p. Reading, Drawing, Printing Architecture : Seminar**

Catalog Number: 71355 Enrollment: Limited to 12.

*Alina A. Payne*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

The architectural book and its readers, authors, circulation and manufacture in the early modern period.

**[\*History of Art and Architecture 271x. The Origins of Modernity: The “New” 18th Century]**

Catalog Number: 1598 Enrollment: Limited to 12.

*Ewa Lajer-Burcharth*

*Half course (spring term). Hours to be arranged.*

Issues include: art and the public sphere; the birth of the critic; high & low; interiors and interiority; intimacy; artistic identity; sexuality, sexual difference, and gender; the discourse of race. Emphasis on new research and methodologies.

*Note:* Expected to be given in 2015–16.

**History of Art and Architecture 272e. Painting and Its Discontents: Seminar**

Catalog Number: 78962 Enrollment: Limited to 12.

*Ewa Lajer-Burcharth*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

Explores painting as the privileged medium and institution of artistic modernity (from the late 17th c to the present). Issues: Color; Liveliness; Truth; Autonomy; Subjectivity; Touch; Blindness; the Ready-Made; the Post-Medium Condition.

**[History of Art and Architecture 272k. Visual Culture of Weimar Germany]**

Catalog Number: 41199 Enrollment: Limited to 12.

*Benjamin Buchloh*

*Half course (fall term). Hours to be arranged.*



Tracing visual culture from Germany's imperial provincialism to the avantgarde practices from 1919 - 1937, from the Expressionism debates, to the critiques of DADA artists and Marxist theoreticians, from photomontage to the photography of New Objectivity, from the BAUHAUS' projects of collectivized production to painting's return to order, signaling Fascism's destruction of avantgarde culture in 1937.

*Note:* Expected to be given in 2015–16.

**[\*History of Art and Architecture 272v. Cubism and its Others: Art in Paris, 1907-1937]**

Catalog Number: 94163 Enrollment: Limited to 12.

*Maria Elizabeth Gough*

*Half course (fall term). Hours to be arranged.*

Emergence, development, reception, and legacy of Cubism in Paris between 1907 and 1937, focusing on Picasso, Braque, Léger, and Gris, the four major artists of the pioneering Galerie Kahnweiler. Having analyzed the fundamental role of primitivism, tradition, mass culture, and the commodity form in Cubism's genesis, our major endeavor is to unpack its ever-shifting relation to its aesthetic Others, namely, abstraction, decoration, the ready-made, realism, and monumentalism. Crucial to this endeavor is a thorough examination of the problem of medium in Cubism, considering not only drawing, easel painting, collage, and constructed sculpture, but also mural painting, architecture, photography, and film.

*Note:* Expected to be given in 2015–16.

**[\*History of Art and Architecture 272w. Post WW II European Art: France, Italy, Germany]**

Catalog Number: 6119 Enrollment: Limited to 15.

*Benjamin Buchloh*

*Half course (spring term). Hours to be arranged.*

Addresses the work of key figures of post-war European art, under the perspective of different, yet complementary conflicts: avantgarde and neo-avantgarde, artistic practices and spectacle culture, aesthetics of repression, trauma and commemoration.

*Note:* Expected to be given in 2015–16.

**\*History of Art and Architecture 272z. Post WW II European Art (Part II) : Seminar**

Catalog Number: 6513 Enrollment: Limited to 12.

*Benjamin Buchloh*

*Half course (fall term). W., 1–3. EXAM GROUP: I*

This term: Great Britain, Scandinavia , Austria, and the Benelux countries. Addresses the artistic responses to the legacies of Surrealism, to American mass culture, and to the impact of Fascist domination.

**History of Art and Architecture 273m. Drawing Operations from Fauvism to the Cut-Outs: Henri Matisse - (New Course)**

Catalog Number: 32283 Enrollment: Limited to 12.

*Maria Elizabeth Gough*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*



**[History of Art and Architecture 274k. Russian and Soviet Avant-Garde]**

Catalog Number: 98835 Enrollment: Limited to 12.

*Maria Elizabeth Gough*

*Half course (fall term). Hours to be arranged.*

A central preoccupation of later aesthetic theory and the history of art has been the precise nature of the relationship between the work of art and everyday life. This seminar focuses on the initial embrace of, and later assault on, orthodox modernism's faith of art as an autonomous institution by the constellation of movements known collectively as the Russian and Soviet Avant-Gardes

*Note:* Expected to be given in 2015–16.

**\*History of Art and Architecture 275w. The Thing**

Catalog Number: 8955 Enrollment: Limited to 12.

*Jennifer L. Roberts*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

Investigates the conundrum of "thingness" in art history, introducing theoretical frameworks for interpreting everything from teapots to minimal sculpture. Interrogates forms of exchange - economic, libidinal, aesthetic, historical- that objects invite (or refuse).

**[History of Art and Architecture 275x. Aesthetic Theories from Weimar to Adorno]**

Catalog Number: 71413 Enrollment: Limited to 12.

*Benjamin Buchloh*

*Half course (spring term). Hours to be arranged.*

The seminar addresses the changing aesthetic theories that emerged during the Weimar Republic and its aftermath in exile, in the work of some of the key philosophers and art historians, from Georg Lukacs, to Siegfried Kracauer, from Carl Einstein to T.W. Adorno and Aby Warburg.

*Note:* Expected to be given in 2015–16.

**[History of Art and Architecture 276g. Deception]**

Catalog Number: 65946 Enrollment: Limited to 12.

*Carrie Lambert-Beatty*

*Half course (spring term). Hours to be arranged.*

This course will treat questions of trickery, deceit, and duplicity as characteristics of art, and attempt to theorize the aesthetics of deception. The approach will be through contemporary art, where artists have reinvented the old association between art and illusion, but students of any period or culture will be able to pursue their interests as the class treats the long history, and complicated theory, of art's association with trickery.

*Note:* Expected to be given in 2015–16. Primarily for graduate students.

**[\*History of Art and Architecture 277k. The Contemporary]**

Catalog Number: 29579 Enrollment: Limited to 14.

*Carrie Lambert-Beatty*

*Half course (spring term). Hours to be arranged.*

Graduate seminar exploring the intersection of the field of art history with the globalized art world. What is "contemporary art" - in theory, in practice, and in history?

*Note:* Expected to be given in 2015–16.



### **History of Art and Architecture 278g. Drawing: Object, Medium, Discourse - (New Course)**

Catalog Number: 41864 Enrollment: Limited to 12.

*Ewa Lajer-Burcharth*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

Explores the invention of drawing as a modern medium. Examines practices, theories, and debates on drawing focusing especially in the 18th & 19th centuries. Hands-on experience of works of art, honing of curatorial skills with practice in exhibition design, and extensive discussions of recent readings and methodologies. Materiality, technique, the aesthetic, philosophical, and institutional parameters of practice, including the notions of trace, touch, stain, speed, surface, sight, time, reproduction, generation, the mechanical, value, curiosity, etc. Course designed as preparation for a curricular exhibition on the subject to take place at Harvard Art Museums involving students

### **\*History of Art and Architecture 279k. William Kentridge - (New Course)**

Catalog Number: 49735 Enrollment: Limited to 12.

*Joseph Koerner and Margaret K. Koerner*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

Utilizes a critical consideration of William Kentridge's work for the purpose of imagining new paradigms for writing about art. Explores Kentridge's range and understanding of media, his primary sources (visual, musical, and literary), his links to European modernism and Renaissance traditions, and his self-presentation in performances, lectures, and writings.

### **[History of Art and Architecture 280p. Voices in Chinese Painting]**

Catalog Number: 33617 Enrollment: Limited to 12.

*Eugene Wang*

*Half course (spring term). Hours to be arranged.*

Seminar explores the "voice" in Chinese paintings from the eleventh- through eighteenth centuries. The goal is to 1) test the validity of transposing "lyrical voice" to the study of painting and 2) formulate a methodology of historicizing pictorial rhetoric by considering both textual cues and material medium while favoring neither.

*Note:* Expected to be given in 2015–16.

### **History of Art and Architecture 280r. Topics in Chinese Art: The Design that Ruled China - (New Course)**

Catalog Number: 83178 Enrollment: Limited to 12.

*Eugene Wang*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

The seminar explores the idea of playing by the "book" in design. The "book" is a set of rules embedded in classical Chinese texts. It will be demonstrated that the principle extrapolated from the "book" informs various designs in traditional China. The instructor and students work together to identify new leads in the core readings and visual materials, devise and revise the master plan and narratives, and push the central storyline to new horizons.

### **[History of Art and Architecture 281p. Visual Programs in Early Chinese Art]**

Catalog Number: 41097 Enrollment: Limited to 12.

*Eugene Wang*



*Half course (fall term). Hours to be arranged.*

The course explores the mechanism of early Chinese design and visual programming. Early visual and textual blueprints and the First Emperor's tomb serve as starting point. A variety of designs-bronze decorations and tomb furnishings-from Shang through Han will be examined in this framework. Bio-technology is the central concern.

*Note:* Expected to be given in 2015–16.

### **History of Art and Architecture 282k. Art of Indian Esoteric Buddhism - (New Course)**

Catalog Number: 50697 Enrollment: Limited to 12.

*Jinah Kim*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

This seminar explores the art of Indian Esoteric Buddhism from various interpretive vantage points. After a brief survey of the earliest phase of its development, the discussion will focus on unpacking the recent scholarly discourses on Esoteric or Tantric Buddhism in relation to the artistic productions in medieval South Asia (ca. 800-1200CE). The two main topics for the semester will be the Saiva-Buddhist interactions as manifested in iconographic (and artistic) articulations, and the validity of semiotic and historical interpretations of iconography and ritual of Indian Esoteric Buddhism.

### **History of Art and Architecture 283s. Chinese Art: Han through Tang - (New Course)**

Catalog Number: 48847 Enrollment: Limited to 12.

*Eugene Wang*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

The course scrutinizes cases of early and medieval Chinese art. The issues that drive the course include programmatic thinking behind artworks, the temporal-spatial configurations, etc. Isolated artworks are treated as bases to reconstruct larger programs. The course draws on objects in American museums (e.g., sarcophagi, epitaph tablets, shrines) wherever applicable

### **[History of Art and Architecture 284. Visual Programs in Medieval Chinese Art]**

Catalog Number: 45504 Enrollment: Limited to 12.

*Eugene Wang*

*Half course (spring term). Hours to be arranged.*

Explores relic-inspired medieval Chinese visual programs from the seventh to tenth century. The scope encompasses Japan and Korea wherever applicable. Key issues include the making of algorithm behind the artistic programming derived from relic lore and the elaborate regimens that enable the "body" to evolve into new states of being.

*Note:* Expected to be given in 2015–16.

### **[History of Art and Architecture 285m. South Asian Temple : Theory and Practice]**

Catalog Number: 12376 Enrollment: Limited to 12.

*Jinah Kim*

*Half course (fall term). Hours to be arranged.*

The main mode of production in Indian temple architecture is often explained through a strict diagram or vastupurusamandala, an idea extracted from Sanskrit artistic treaties (silpasastra or vastusastra) of varying dates. Going beyond this essentialist tendency, the seminar will explore design strategies adopted to create the most powerful sacred space for each religious and political



community and examine the historical relationship between the circulation of such architectural (and artistic) knowledge and the production and use of an actual temple (and other sacred objects). Focus will be on the development of regionalism in temple architecture during the millennium before 1500CE. Note: Most Sanskrit texts are available in English translation.  
*Note:* Expected to be given in 2015–16.

**History of Art and Architecture 286x. Modern Japanese Art - (New Course)**

Catalog Number: 80845 Enrollment: Limited to 12.

*Melissa M. McCormick*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

This seminar examines art in Japan from the mid nineteenth century to the present, focusing on the visual arts, performance art, commercial design, and new media. Topics to be addressed include the reception of European beaux-arts institutions and artistic practices, international expositions, the role of art in the formation of the nation-state, the rise of the avant-garde, art and mass culture, and Japanese exhibition culture.

**[History of Art and Architecture 288y. Tohaku on Painting]**

Catalog Number: 35197 Enrollment: Limited to 12.

*Yukio Lippit*

*Half course (fall term). Hours to be arranged.*

This graduate seminar explores the world of Japanese painting circa 1600 through Tohaku on Painting, the earliest text to record the words of a Japanese painter. Wherever possible surviving works will be discussed in relation to the text's 93 entries. Themes to be explored include the life and work of Hasegawa Tohaku, the culture of tea display, the reception of Chinese painting in Japan, the Ashikaga shogunal collection, East Asian artistic legend, mounting and viewing practice, the legacy of medieval Zen monk-painters, and the competition among professional painting houses in the early modern era.

*Note:* Expected to be given in 2015–16.

**\*History of Art and Architecture 289p. Sotatsu - (New Course)**

Catalog Number: 45089 Enrollment: Limited to 12.

*Yukio Lippit*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

This seminar explores the work of the Japanese artist Tawaraya Sotatsu (active ca. 1600–1640). Emphasis will be placed on an intermedia approach that examines his paintings vis-as-vis other kinds of artistic surfaces.

**\*History of Art and Architecture 291r. Topics in Pre-Columbian and Colonial Art**

Catalog Number: 2306 Enrollment: Limited to 12.

*Thomas B. F. Cummins*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

Topics to be determined in consideration of interests of students.

***Cross-listed Courses***



### [\*\*Aesthetic and Interpretive Understanding 40. Monuments of Islamic Architecture\*\*](#)

[Aesthetic and Interpretive Understanding 43. Visual Culture of the Ottoman Empire Between East and West (15th - 17th Centuries)]

[African and African American Studies 174. The African City]

[\*\*Anthropology 2110r. Issues in Mesoamerican Archaeology: Ritual and Power in Mesoamerica\*\*](#)

[\*\*Culture and Belief 21. Pathways through the Andes—Culture, History, and Beliefs in Andean South America\*\*](#)

[Culture and Belief 30. Seeing is Believing: A History of Photography]

[\*\*Ethical Reasoning 37 \(formerly History of Art and Architecture 50g\). Adam & Eve\*\*](#)

[\*History 84c. Confronting Objects/Interpreting Culture: Interdisciplinary Perspectives on North America]

[\*\*Humanities: Frameworks 11a. Frameworks: The Art of Looking\*\*](#)

[Japanese History 256. The Ise Shrines: Seminar]

[Japanese Literature 124. *The Tale of Genji* in Word and Image ]

[Japanese Literature 133. Gender and Japanese Art]

[United States in the World 12. American Encounters: Art, Contact, and Conflict, 1560-1860]

[Visual and Environmental Studies 172b. Contemporary Film Theory]

[Visual and Environmental Studies 181. Film Theory, Visual Thinking]

[\*Visual and Environmental Studies 182. Film Architectures: Seminar]

[Visual and Environmental Studies 184. Imagining the City: Literature, Film, and the Arts]

[\*Visual and Environmental Studies 185x. Visual Fabrics: Art, Media, Materiality Seminar]

[\*\*\\*Visual and Environmental Studies 271. Proseminar in Film and Visual Studies: Theory\*\*](#)

[\*Visual and Environmental Studies 283. Screens: Media Archaeology and Visual Arts Seminar]

### *Graduate Courses of Reading and Research*

#### **\*History of Art and Architecture 300. Reading and Research**

Catalog Number: 5716

*Ruth Bielfeldt 5682, Suzanne P. Blier 3472, Benjamin Buchloh 5325 (on leave spring term), Joseph Connors 1080, Thomas B. F. Cummins 3568, Maria Elizabeth Gough 6716, Jeffrey F. Hamburger 3800, Ioli Kalavrezou 2242, Deborah Martin Kao 3345, Robin E. Kelsey 4132 (on leave 2014-15), Jinah Kim 7284, Joseph Koerner 1954, Ewa Lajer-Burcharth 3373, Carrie Lambert-Beatty 5283 (on leave 2014-15), Neil Levine 4178, Yukio Lippit 4713, David G. Mitten 1290, Robert D. Mowry (Sackler Museum) 1958, Gülru Necipoglu-Kafadar 1688, Alina A. Payne 4605, Gloria Ferrari Pinney 1384, Jennifer L. Roberts 4407, David J. Roxburgh 2138, Victor Stoichita (University of Fribourg) 5014, Eugene Wang 3600, Irene J. Winter 1955, Stephan S. Wolohojian 2756, Henri Zerner 3792 (on leave spring term), and Hugo van der Velden 4767 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

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 310a. Methods and Theory of Art History**

Catalog Number: 7879 Enrollment: Limited to 14.

*David J. Roxburgh 2138*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 9*

*Note:* Limited to incoming graduate students.

**\*History of Art and Architecture 310b. Works of Art: Materials, Forms, Histories**

Catalog Number: 47391 Enrollment: Limited to 14. Limited to first-year graduate students.

*David J. Roxburgh 2138*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 17*

A series of team-taught workshops designed to sharpen skills in the observation, analysis, and historical interpretation of works of art and architecture.

**\*History of Art and Architecture 399. Direction of Doctoral Dissertations**

Catalog Number: 6575

*Ruth Bielfeldt 5682, Suzanne P. Blier 3472, Benjamin Buchloh 5325 (on leave spring term), Thomas B. F. Cummins 3568, Maria Elizabeth Gough 6716, Jeffrey F. Hamburger 3800, Ioli Kalavrezou 2242, Robin E. Kelsey 4132 (on leave 2014-15), Jinah Kim 7284, Joseph Koerner 1954, Ewa Lajer-Burcharth 3373, Carrie Lambert-Beatty 5283 (on leave 2014-15), Neil Levine 4178, Yukio Lippit 4713, David G. Mitten 1290, Gülrü Necipoglu-Kafadar 1688, Alina A. Payne 4605, Gloria Ferrari Pinney 1384, Jennifer L. Roberts 4407, David J. Roxburgh 2138, Eugene Wang 3600, Irene J. Winter 1955, Henri Zerner 3792 (on leave spring term), and Hugo van der Velden 4767 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

*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***

Janet Browne, Aramont Professor of the History of Science, Harvard College Professor (*Chair*)

Soha Hassan Bayoumi, Lecturer on the History of Science

Jeremy Todd Blatter, Lecturer on the History of Science

Allan M. Brandt, Amalie Moses Kass Professor of the History of Medicine in the Faculty of Medicine, and Professor of the History of Science in the Faculty of Arts and Sciences

Alex Csiszar, Assistant Professor of the History of Science

Samuel Ashley Evans, Lecturer on the History of Science



Melinda Clare Baldwin Fulford, Lecturer on the History of Science  
 Peter L. Galison, Joseph Pellegrino University Professor (*on leave fall term*)  
 Jean-francois Gauvin, Lecturer on the History of Science  
 Jeanne Marie Haffner, Lecturer on the History of Science  
 Evelynn M. Hammonds, Barbara Gutmann Rosenkrantz Professor of the History of Science and of African and African American Studies  
 Anne Harrington, Franklin L. Ford Professor of the History of Science (*Director of Undergraduate Studies*)  
 David Shumway Jones, A. Bernard Ackerman Professor of the Culture of Medicine (*on leave spring term*)  
 Dong Won Kim, Visiting Professor of the History of Science  
 Shigehisa Kuriyama, Reischauer Institute Professor of Cultural History (*on leave 2014-15*)  
 Rebecca M. Lemov, Associate Professor of the History of Science  
 Elizabeth Lunbeck, Visiting Professor of the History of Science  
 Aaron Pascal Mauck, Lecturer on the History of Science  
 Naomi Oreskes, Professor of the History of Science (*Director of Graduate Studies*)  
 Katharine Park, Samuel Zemurray, Jr. and Doris Zemurray Stone Radcliffe Professor of the History of Science  
 Sarah S. Richardson, John L. Loeb Associate Professor of the Social Sciences  
 Sophia Roosth, Assistant Professor of the History of Science  
 Mark Schiefsky, Professor of the Classics (*on leave spring term*)  
 Matthew Benjamin Shindell, Lecturer on the History of Science  
 Nadine Michele Weidman, Lecturer on the History of Science

### ***Other Faculty Offering Instruction in the Department of the History of Science***

Joyce E. Chaplin, James Duncan Phillips Professor of Early American History (*on leave 2014-15*)  
 Sheila Jasanoff, Pforzheimer Professor of Science and Technology Studies, Professor of Environmental Science and Public Policy (*Kennedy School*)  
 Barry C. Mazur, Gerhard Gade University Professor  
 Everett I. Mendelsohn, Professor of the History of Science, Emeritus  
 Robb Moss, Professor of Visual and Environmental Studies

### ***Affiliates of the Department of the History of Science***

Steven E. Hyman, Harvard University Distinguished Service Professor, Professor of Stem Cell and Regenerative Biology, Affiliate of the Department of History of Science, and Professor of Neurobiology (*Medical School*)  
 Ahmed Ragab, Richard T. Watson Assistant Professor of Science and Religion (*Divinity School*)

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.

### ***Primarily for Undergraduates***



### **\*History of Science 91r. Supervised Reading and Research**

Catalog Number: 1238

*Anne Harrington and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 13; Spring: 9*

Programs of directed reading and research to be conducted by a person approved by the Department.

### **\*History of Science 97. Tutorial — Sophomore Year**

Catalog Number: 5235

*Anne Harrington*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 11*

Sophomore tutorial is a hands-on course that introduces students to some of the most exciting and productive questions in the history of science, technology and medicine, while developing critical reading, presentation and discussion skills. Small groups of students will tackle different aspects of a larger theme each week and share discoveries in sessions led by the faculty instructor. The course will be further enhanced by a series of supervised individual projects.

*Note:* Required for undergraduate concentration in History and Science. Students must register for one plenary class session that meets on Mondays from 12:00-1:30 or 3:00-4:30, as well as a weekly section to be arranged.

### **\*History of Science 98. Tutorial — Junior Year**

Catalog Number: 1120

*Melinda Baldwin*

*Half course (fall term; repeated spring term). Fall: M., at 12. EXAM GROUP: Fall: 11; Spring: 15*

This one-semester junior tutorial is a research-oriented tutorial taken in small groups. Focuses on enhancing research and writing skills through the completion of a directed research paper on subject matter of the student's interest. Must be taken during the fall semester (except for students not in residence).

### **\*History of Science 99a. Tutorial — Senior Year**

Catalog Number: 6619

*Nadine Weidman*

*Half course (fall term). F., at 12. EXAM GROUP: 11*

Faculty-led seminar and intensive work with an individual advisor, directed towards production of the senior honors thesis.

*Note:* Students are expected to complete a thesis or submit a research paper or other approved project in order to receive course credit. This course must be taken Sat/Unsat.

### **\*History of Science 99b. Tutorial — Senior Year**

Catalog Number: 22497

*Nadine Weidman*

*Half course (spring term). F., at 12. EXAM GROUP: 7*

Faculty-led seminar and intensive work with an individual advisor, directed towards production of the senior honors thesis.



*Note:* Students are expected to complete a thesis or submit a research paper or other approved project in order to receive course credit. This course must be taken Sat/Unsat.

### **Cross-listed Courses**

[Culture and Belief 11. Medicine and the Body in East Asia and in Europe]

[Culture and Belief 20. Reason and Faith in the West]

[\*\*Culture and Belief 34. Madness and Medicine: Themes in the History of Psychiatry\*\*](#)

[Culture and Belief 47. The Darwinian Revolution]

[Culture and Belief 58. Case Studies in the Medical Humanities: Interdisciplinary Perspectives on the Experience of Illness and Healing]

[Environmental Science and Public Policy 77. Technology, Environment, and Society]

[\*\*Environmental Science and Public Policy 78. Environmental Politics\*\*](#)

[\*\*Ethical Reasoning 33. Medical Ethics and History\*\*](#)

[\*\*\\*Freshman Seminar 22I. Justice in Health: Ethics of Public Health in the Contemporary World - \(New Course\)\*\*](#)

[\*\*\\*Freshman Seminar 44t. The Atomic Bomb in History and Culture\*\*](#)

[\*\*\\*Freshman Seminar 44w. The Masquerade of Common Scents: An Exploration of Ephemeral Knowledge\*\*](#)

[\*\*Science of Living Systems 12. Understanding Darwinism\*\*](#)

[\*\*Science of the Physical Universe 17. The Einstein Revolution\*\*](#)

[United States in the World 13. Medicine and Society in America]

[\*\*United States in the World 30. Tangible Things: Harvard Collections in World History\*\*](#)

### **For Undergraduates and Graduates**

[\*\*History of Science 100. Knowing the World: An Introduction to the History of Science\*\*](#)

Catalog Number: 0905

Alex Csiszar

*Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12*

What are the origins of modern science and of the scientific method? Have the ways of knowing the world of different cultures and societies changed over time? How has scientific knowledge been related to other enterprises such as art, religion, literature, and commerce? We will ask these questions and more through a broad survey of many of the crucial moments in the development of science from the Scientific Revolution of the 17th century to the present day. Topics and figures will include Galileo, evolution, eugenics, the atomic bomb, and the human genome project.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

[\*\*History of Science 101. Communities of Knowledge: Science, Religion, and Culture in Medieval Europe and the Lands of Islam\*\*](#)

Catalog Number: 54617

Katharine Park and Ahmed Ragab (Divinity School)

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 15*



Explores the development of scientific ideas and practices in Europe, North Africa, and the Middle East, focusing on the circulation of texts, people, and objects. Special attention to intellectual, social, and institutional contexts.

*Note:* Offered jointly with the Divinity School as 3340.

**[History of Science 106. History of Ancient Science]**

Catalog Number: 3958

*Mark Schiefsky*

*Half course (fall term). Hours to be arranged.*

An examination of key aspects and issues in the development of ancient science, focusing on natural philosophy from the Presocratics to Aristotle as well as its relation to early Greek medicine and mathematics. Some consideration will also be given to the historiography of natural philosophy within this period.

*Note:* Expected to be given in 2015–16.

**History of Science 108. Bodies, Sexualities, and Medicine in the Medieval Middle East**

Catalog Number: 81052

*Ahmed Ragab (Divinity School)*

*Half course (fall term). M., W., (F.), at 11. EXAM GROUP: 18*

This course will examine the ways in which medical, religious, cultural, and political discourses and practices interacted in the medieval and early modern Middle East to create and reflect multiple understandings of human bodies and sexualities. Special attention to debates on health, sexuality, and gender and racial identities.

*Note:* Offered jointly with the Divinity School as 3587. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

**History of Science 109. Science and Islam: Agents, Places, and Controversies - (New Course)**

Catalog Number: 12639

*Ahmed Ragab (Divinity School)*

*Half course (spring term). Th., 4–6. EXAM GROUP: 6*

The course addresses the history of questions of science and religion in the Middle East from the medieval to the modern period, looking at how different scientific and religious views and discourses interacted through history. From translation of Greek science and philosophy in the ninth century, to educational reform, legalizing dissection, and organ transplantation, the course surveys important discussions on science and religion in the Middle East and Islamic world, and sees how scientific and religious views and discourses developed over time. The course pays special attention to questions of colonialism, translation, and the development of different institutions of learning in the Middle East.

**[History of Science 111. Two Scientific Revolutions: From the Classical Age of Islamic Sciences to the Scientific World of Early Modern Europe]**

Catalog Number: 96159

*Ahmed Ragab (Divinity School)*



*Half course (fall term). M., W., (F.), at 11.*

Explores the emergence and consolidation in the Islamic Middle East of a new science and philosophy constructed in part out of Persian and Greek materials; the consolidation and development of this science in an Islamic context; and its connections with novel developments in sixteenth- and early seventeenth-century European science. Attention to cultural context, including imperial projects, societal transformation, and religious worldviews.

**[History of Science 112. Magic, Medicine and Miracles: Health and Healing in the Middle Ages and Renaissance]**

Catalog Number: 8576

*Katharine Park*

*Half course (spring term). Tu., Th., at 11.*

An introduction to theories and practices of healing in the medical, religious, and magical realms. Topics include the construction of medical authority and expertise, potions and incantations, saints' cults, the play of sex and gender among healers and patients, the multiple social and cultural roles played by early hospitals, and responses to "new" diseases such as syphilis and plague.

**[History of Science 113. Crusades, Plagues and Hospitals: Medicine and Society in the Islamic Middle Ages]**

Catalog Number: 59744

*Ahmed Ragab (Divinity School)*

*Half course (spring term). M., W., (F.), at 11.*

Surveys the recasting of Islamic medical practices, traditions, and institutions in response to the many health challenges of the turbulent Middle Ages, from the eleventh through the thirteenth centuries, including wars, invasions, and epidemics.

**History of Science 115. Instruments & Mechanical Marvels: The Material Culture of Science According to Simon Schaffer - (New Course)**

Catalog Number: 56254

*Jean-francois Gauvin*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

This is the first of what I hope will be a series of courses dedicated to the work of historians of science who have considerably influenced our methods of studying and thinking about material culture. This Fall, we will focus our attention on Simon Schaffer, the 2013 Sarton medal recipient. His extensive scholarly, grand public, and media productions span the period between the 17th and the 19th century, offering a comprehensive look at things from a variety of perspectives: theoretical, technological, sociological, cultural, experimental, and museum studies. The classes will consist of half lecture, half discussion. We will try to answer this simple, yet loaded question: What is an instrument? There will be two short assignments and one final study of an instrument coming from the Collection of Historical Scientific Instruments.

**[\*History of Science 118. Instruments and the Material Culture of Science in Early Modern Europe, 1500-1800]**

Catalog Number: 79069 Enrollment: Limited to 15.

*Jean-francois Gauvin*



*Half course (fall term). W., 4–6.*

What is an instrument? Can there be more than one definition? What, if any, is the epistemological difference between Galileo's telescope and rolling balls? Between Newton's prisms, Hooke's microscope, and Réaumur's thermometer? This course looks at three centuries of science and particularly at its material culture. What makes an "instrument" a "scientific" instrument? Are all instruments "scientific"? How does an object become a scientific instrument? What are the relationships between theory and instruments? Readings and discussion, though at the core of the course, will be supplemented with visits in other Harvard museums and hands-on classes using the Collection of Historical Scientific Instruments.

### **History of Science 122v. Science and the Cold War**

Catalog Number: 80044

*Melinda Baldwin*

*Half course (spring term). M., W., at 10. EXAM GROUP: 5*

The Cold War was an era of unprecedented growth in the sciences -- and unprecedented political stakes for scientific research. This course will cover the history of the physical, biological, and human sciences during the Cold War. We will look at science on both sides of the Berlin Wall, paying particular attention to intersections between science, politics, and governments. Topics will include the Manhattan Project, the development of "big science," genetics and Lysenkoism, the nuclear arms race and the space race, scientific espionage, and communication between scientists in the West and in the Soviet world.

### **[History of Science 124v. Radioactive Culture]**

Catalog Number: 53165

*Melinda Baldwin*

*Half course (spring term). Th., 12–2.*

Do your parents tell you stories about nuclear bomb drills in their elementary schools? Would you want to live in the same neighborhood as a nuclear power plant? Why did Stan Lee choose a radioactive spider to turn Peter Parker into Spider-Man? Our culture has strong ideas about radioactivity. How have those ideas changed over time? And how do they relate to the science of radioactivity? This seminar will explore the cultural history of radioactivity. Sample topics include newspaper coverage of nuclear science, ways people have prepared for possible nuclear catastrophes, and literature and films with nuclear themes.

### **History of Science 129v. Ether, Atoms, Particles, and Politics: The Physical Sciences in Modern Society - (New Course)**

Catalog Number: 76939

*Melinda Baldwin*

*Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12*

This course surveys the history of the physical sciences from the late eighteenth century to the present. The course will cover major events and themes in the history of the physical sciences, placing particular emphasis on the interaction between the physical sciences and social and political changes. Students will work with primary sources and will also gain familiarity with some of the most important secondary sources in the history of physics, chemistry, and the earth sciences. Topics include the Chemical Revolution, thermodynamics, the Industrial Revolution, quantum mechanics, the atomic and hydrogen bombs, plate tectonics, and cold fusion.



### **\*History of Science 130. Heredity and Reproduction - (New Course)**

Catalog Number: 17927 Enrollment: Limited to 15.

*Sarah S. Richardson*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

The sciences of human heredity and reproduction from Aristotle to Margaret Atwood. Readings include classic philosophical, scientific, and literary sources. The course takes up themes of technology and control; gender, race, class, and sexuality; scientific ethics; and interactions between biology and society.

### **History of Science 132v. History of the Earth and the Environment - (New Course)**

Catalog Number: 51253

*Matthew Shindell*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

This course examines our changing view of the Earth and the environment from the 19th century to the present, highlighting the interrelatedness of science, society, and culture. Our changing understanding of the Earth - as our home planet has become older, more dynamic, and more vulnerable to human activity - has accompanied changes in our relationship to Earth's environment, the nature of global problems, their causes, their impacts, and our ability to mediate them. These changes have led to some very heated and persistent political debates. Topics include the age of the earth, plate tectonics, planetary science, environmentalism, pesticides, and climate change.

### **\*History of Science 134. Nature on Display**

Catalog Number: 4987 Enrollment: Limited to 15.

*Janet Browne*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

Advanced seminar for undergraduates. We concentrate on the history of animal and plant collecting, exploration, and the way that "nature" is put on display in museums, zoos, botanic gardens, etc. ranging from the 17th century to the present. We also think about media and imagery including illustrations in books to early wildlife film. The course hopes to enlarge your understanding of the complex relations between display, entertainment, and scientific knowledge-as well as the natural history tradition in North America. Visits will be made to museums and archives at Harvard.

### **[History of Science 135. From Darwin to Dolly: A History of the Modern Life Sciences]**

Catalog Number: 58347

*Sophia Rooth*

*Half course (fall term). Tu., Th., at 11.*

This course surveys the history of modern biology, from the nineteenth century to now. Drawing on primary sources in biology, as well as readings from historians and anthropologists of science, students will be introduced to major themes and questions in the history of the modern life sciences. Topics include theories of natural selection, genetics, eugenics, genomics, ecology, molecular biology, artificial life, and biotechnology. Students will explore questions such as: what has "life" meant at different historical moments? What approaches have life scientists taken to investigating life — from cataloging to experimenting to making new living things? How have



notions of “diversity” shaped biology, from Enlightenment taxonomies of nature to modern-day efforts at conserving biodiversity?

### **History of Science 136. History of Biotechnology**

Catalog Number: 58601

*Sophia Roosth*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

What becomes of life when researchers can materially manipulate and technically transform living things? In this course, we will historically investigate biotechnology in the twentieth and twenty-first centuries, paying attention to how efforts to engineer life are grounded in social, cultural, and political contexts. Topics include reproductive technologies, genetic engineering and cloning, genetically modified foods, genomics, stem cells, intellectual property, and biosafety and biosecurity. The course is organized around five crosscutting domains in which we will explore the ethical, legal, and social impacts of biotechnology: (1) food, (2) property and law, (3) sex and reproduction, (4) disease and drugs, and (5) genomic identities. We will read and discuss historical accounts of biotechnology, primary scientific publications, and legal cases. We will learn to evaluate the social constitution and impact of biotechnology on daily life, as well as how to place contemporary issues and debates in biotechnology in historical context.

### **[History of Science 138. Sex, Gender, and Evolution]**

Catalog Number: 30321

*Sarah S. Richardson*

*Half course (spring term). Tu., Th., at 10.*

Evolutionary theories of sex and gender and central controversies in human evolutionary biology from Darwin to the present. Topics include debates over the theory of sexual selection and the evolutionary basis of monogamy, sexual preference, physical attraction, rape, maternal instinct, and sex differences in cognition. Readings: primary texts and historical, philosophical, and feminist analyses.

*Note:* Expected to be given in 2015–16.

### **[History of Science 139. The Postgenomic Moment]**

Catalog Number: 81843

*Sarah S. Richardson*

*Half course (fall term). W., 2–4.*

Joining "postgenomic" assessments of the genome projects, this seminar examines the history and contemporary practice of genomics from a multidisciplinary perspective. Topics include the role of technology, government funding, private industry, and race, gender, and nationality in the historical development of genomics, the ways in which genomic research challenges traditional conceptions of biology and science, and the implications of emerging trends such as direct-to-consumer genomics and whole-genome sequencing.

### **History of Science 146v. Bodies in Flux: Medicine, Gender, and Sexuality in the Modern Middle East - (New Course)**

Catalog Number: 20134

*Soha Bayoumi*

*Half course (spring term). M., W., at 10. EXAM GROUP: 5*



This course examines how bodies, genders and sexualities in the modern Middle East, from the nineteenth century to the Arab revolts, have been shaped and represented via changing and competing discourses. Through a variety of historical, ethnographic, media and literary readings, the course studies multiple and dynamic representations of bodies in flux: medicalized bodies, gendered bodies, sexualized bodies, (re)productive bodies, aging bodies and bodies in revolt. The course pays special attention to medicine and science in their interaction with laws, traditions and religious practices. Some of the topics covered include analyzing histories of and discourses on slavery, femininity and masculinity, homosexuality, health, reproduction, disabilities, circumcision and genital cutting/mutilation and gender-based violence.

### **[History of Science 149. The History and Culture of Stigma]**

Catalog Number: 78747 Enrollment: Limited to 20.

*Allan M. Brandt*

*Half course (spring term). M., 4–6.*

This course will investigate the history of a number of stigmatized conditions and diseases including, for example, cancer, mental illness, addiction, obesity, AIDS, and disability. A central goal will be to understand the stigmatization of disease and its effects in diverse historical and cultural contexts. The course will evaluate both the impact of stigmatization on health disparities and outcomes, as well as attempts to de-stigmatize conditions that are subject to discrimination, prejudice, and isolation.

*Note:* Expected to be given in 2015–16.

### **History of Science 149v. Explaining Epidemics**

Catalog Number: 68182

*Aaron Pascal Mauck*

*Half course (spring term). M., W., at 11. EXAM GROUP: 14*

Outbreaks of epidemic disease have played a role in shaping human societies from the beginning of recorded history, transforming demographic patterns, social practices, and cultural expectations. Although they take fewer lives than the diseases we encounter every day, epidemics possess an extraordinary hold over our collective imagination. This course seeks to understand why. Through an analysis of outbreaks ranging from the Black Death to Avian Flu, we will explore the place of epidemic disease in human history, taking into account how those living in different times and places have responded when epidemics have appeared.

### **[History of Science 150. History of the Human Sciences]**

Catalog Number: 0135

*Rebecca M. Lemov*

*Half course (fall term). Tu., Th., at 11.*

Examination of the growth and development of social sciences such as sociology, anthropology, psychoanalysis, psychology, political science, and economics from the Enlightenment to the present. Innovators devised these fields to provide new, scientific ways to gain insight into age-old philosophical and religious questions, such as, What is the nature of the "self" or the "soul"? What binds human beings to one another? What is free will? What are the limits of social control, behavioral engineering, and the possible reach of techniques for adjustment and manipulation?



### **[\*History of Science 152. Filming Science]**

Catalog Number: 8254 Enrollment: Limited to 12.

*Peter L. Galison and Robb Moss*

*Half course (fall term). M., 1–3, W., 1–4.*

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.

### **History of Science 159. History of Anthropology - (New Course)**

Catalog Number: 92863

*Rebecca M. Lemov*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

This conference course looks at the long history of anthropological inquiry. We will begin with early modern "Curiosity Cabinets" that sequestered anthropological materials alongside the miraculous, marvelous, and mundane. We then turn to the age of exploration with its first-hand encounters between high-seas explorers or cross-continental travelers and tribal or non-Western groups sometimes known as "natives." After some attention to anthropological zoos and world's fairs, we will discuss the dawn of anthropology's professional golden age in the twentieth century; the arrival of epistemological and political crises during the 1960s, 1970s, and 1980s; and finally the current day's ontological turn, circling back to the interpretive and epistemological goals that have often animated the field.

### **History of Science 164. Sense and Scientific Sensibility**

Catalog Number: 35633

*Sophia Roosth*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Scientific inquiry is often considered an endeavor pursued using one's sense of vision: scientists peer into microscopes and telescopes, and stare at graphs, diagrams, and computer screens. But on what other senses do scientists rely? How do they gather data using senses of hearing, smell, taste, and touch (or, for that matter, less acknowledged perceptual systems, among them, balance, temperature, movement, pain, and time)? How do researchers evaluate sensory evidence? Further, what is the history of scientific studies of the senses? To address such questions, each week we will explore a different sense (from the canonical five to synesthesia and ESP) by combining readings in the history of science with classic primary sources. Throughout, we will examine critical questions regarding how the senses are culturally and historically constructed, evaluated, and technologically mediated.

### **History of Science 166. "What is Enlightenment?" : Science, Religion, and the Making of Modernity**

Catalog Number: 83424

*Soha Hassan Bayoumi*

*Half course (fall term). M., 1–3. EXAM GROUP: 1*

From Immanuel Kant's answer to this question in 1784 to Michel Foucault's engagement with the same question and answer in 1984, two centuries had passed and much water had flowed under the bridge. From the inception of its ideals in the Anglo-Saxon world in the seventeenth



century at the hands of Spinoza, John Locke and Isaac Newton, to its development in France in the eighteenth century by Voltaire, Montesquieu and Rousseau and culmination with the writings of Immanuel Kant, the Enlightenment developed into an important intellectual movement which helped shape modernity and its repercussions in the contemporary world. This course will trace the history of Enlightenment in primary sources, enriched by a collection of secondary readings, and will explore contemporary reflections on Enlightenment from various schools of thought, ranging from romanticism to marxism, and from feminism to postmodernism. Some of the themes addressed include the politics of the Enlightenment, philosophy and morality, rationalism and empiricism, science and education, and religion and toleration.

*Note:* Offered jointly with the Divinity School as 3302.

**History of Science 167v. To Boldly Go: Science, Exploration, and Culture - (New Course)**

Catalog Number: 88209

*Matthew Shindell*

*Half course (fall term). W., 12–2. EXAM GROUP: 11*

This course offers a history of exploration in science and science in exploration from the 16th century to the present - roughly from Columbus to the Mars rovers. We will approach exploration not as an abstract concept, but as a human enterprise that grows out of, reinforces, and occasionally confronts elements of culture. In addition to examining the voyages of exploration conducted during the periods of European expansion, the Enlightenment, the 19th century and 20th centuries, and the Space Age, we will also study exploration as depicted in popular culture, fiction, television, and film.

**[\*History of Science 171. Narrative and Neurology]**

Catalog Number: 3222

*Anne Harrington*

*Half course (fall term). Hours to be arranged.*

An exploration of the complex relationship between the making of brain science and the human stories/experiences of brain damaged people. We will look at iconic cases of brain damage including Phineas Gage and H.M. (and who speaks for them), the emergence and historical function of neurological case histories, the study of brain-damaged soldiers in WWI, the "neurological novels" of Alexander Luria, the popularization of neuroscience via authors like Oliver Sacks and V.S. Ramachandran, the brain-injured patient as author, including how nowadays patients may use social media to narrate their own experiences with neurological impairment, and the notion of "neurodiversity."

*Note:* Expected to be given in 2015–16.

**[History of Science 174. Critical Experiments in the Human Sciences]**

Catalog Number: 1750

*Rebecca M. Lemov*

*Half course (spring term). M., W., (F.), at 11.*

This course focuses on high-impact experiments - among them, the Milgram "Obedience" experiments and the Stanford Prison Experiment - carried out in the twentieth-century human sciences by anthropologists, sociologists, social psychologists, and/or experimental psychologists. Many dreamed of a "technology of human behavior" and conducted experiments



toward this end. What were the results, and how do they continue to affect our thinking and daily lives today?

### **History of Science 176. Brainwashing and Modern Techniques of Mind Control**

Catalog Number: 76277

*Rebecca M. Lemov*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 15*

This course examines the phenomenon of "brainwashing" as a modern set of techniques that can apparently force a subject radically to alter her beliefs against her will. The Cold War roots of 'brainwashing' - both the myth and the reality -- lie in the politics of twentieth-century anti-Communism and the deeper fear that people's most strongly held thoughts, ideas, and ideological commitments could be vulnerable to powerful infiltration. In order to understand the dynamics of this process we will examine case studies beginning with the Korean War-era emergence of the term 'brainwashing', the American interdisciplinary science of "coercive persuasion" that arose in response, and successive waves of technological, political, and sociocultural developments. We will also look at how brainwashing and analogous persuasive techniques may operate among larger groups, crowds, organizations, and mass societies.

### **History of Science 178v. History of the Psychotherapies - (New Course)**

Catalog Number: 29007

*Elizabeth Lunbeck*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

Examines the history of the current psychotherapeutic landscape, looking at the development, methods, aims, efficacy, and limitations of a range of psychotherapeutic modalities from Freud's time to our own, among them psychoanalytic, psychodynamic, cognitive, behavioral, manualized, and evidence-based treatments; individual, play, family, and group therapies.

Explores tensions between therapy as a quest for self-improvement and a means of relieving symptoms, between focusing on cognition and on behavior, and between mind and brain. Looks at providers and patients, at the testimonies of writers and poets, and at office-based, hospital, and computer therapies. The question of the relationship between professional practices and the rise of a popular therapeutic sensibility is central to the course.

### **[History of Science 179v. The Freudian Century]**

Catalog Number: 84218

*Elizabeth Lunbeck*

*Half course (spring term). W., 4–6.*

Explores the consolidation and rise to prominence of a distinctively modern psychological perspective on human nature, motivation, and desire from 1900 to the present. Opens with the debut of therapeutic culture and the Freudian recasting of the self, with attention to dreams, sexuality, interiority, gender, and cultures of trauma. Moves to the mid-century period and beyond, the heyday of the psychological perspective in the United States, looking at the psychology of affluence, the invention of "identity," the new narcissism, and personalities and power in the workplace. Ends with an assessment of the virtues and liabilities of the 21st century expressive self.

*Note:* Expected to be given in 2015–16.



### **History of Science 180. Science, Technology, and Society in Modern East Asia**

Catalog Number: 5317

*Dong Won Kim*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 15*

This course aims to survey the history of science and technology in East Asian countries—China, Japan and Korea—since the late 19th century. It will emphasize the mutual influence between science & technology and society to answer how they become major industrial powers in the 21st century.

### **History of Science 185. Communicating Science: From Print Culture to Cybersocieties**

Catalog Number: 20399 Enrollment: Limited to 15.

*Alex Csiszar*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Science doesn't just happen in the lab. Scientific results have to be communicated among scientists, and to the public. This course investigates the ways in which scientific knowledge circulates, and pays special attention to how new communications media have shaped knowledge-in-the-making. Topics will include the history of scientific genres (letters, encyclopedias, periodicals), popular science, peer review, intellectual property, and new information technologies. Selected classes will take place in Houghton Library.

### **History of Science 186v. Technology and the Everyday - (New Course)**

Catalog Number: 61431

*Jeremy Blatter*

*Half course (spring term). M., W., at 11. EXAM GROUP: 14*

From the cotton gin to the green revolution, gas lamps to LED streetlights, scientific management to automation, and prosthetic limbs to the posthuman condition, this course will examine key themes in the history of technology and engineering in the nineteenth and twentieth century with special attention to the social and political context of technology and its impact on everyday life and experience.

### **[History of Science 190. Science Facts and Science Fictions]**

Catalog Number: 28387

*Sophia Rooth*

*Half course (spring term). Tu., Th., at 11.*

This course uses science fiction as a lens through which to view the history of science and technology. By reading sci-fi literature (including novels and short stories by Shelley, Wells, Verne, and Butler, as well as more recent works by Heinlein, Asimov, Le Guin, Gibson, and Atwood) and viewing sci-fi films, this course asks how science is fictionalized, and what such representations tell us about science as an enterprise that melds present contexts with futurism and fantasy. Topics include: time travel, utopias and dystopias, other worlds, artificial intelligence, robotics, alien life.

### **History of Science 192v. Science and Security - (New Course)**

Catalog Number: 29273

*Samuel Ashley Evans*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*



When and how should scientific research become a matter of security concern? This upper level undergraduate seminar explores this question through several areas of science including chemistry, physics, and biology, and includes both historical and contemporary examples. At the center of our readings are questions about the relationship between science and the state, and how that relationship structures, and is structured by, the objects of security concern. What constitutes the purpose and process of science, and what we should be worried about, are at the heart of our analysis rather than the start of our assumptions.

### **History of Science 197. Nature, Environment, and the Understanding of Space**

Catalog Number: 69934

*Jeanne Haffner*

*Half course (spring term). Th., 4–6. EXAM GROUP: 6*

Investigations of the natural world have focused on different concepts at different historical moments. In America, for instance, the notion of "wilderness" was most prevalent in the late-nineteenth century; that of "environment" became central in the twentieth; and, from the postwar era to the present, analyses of the inextricability of spatial form and social organization have dominated scholarship and social activism alike. The aim of this seminar is to examine these shifts, exploring how they were employed within particular historical contexts, and to assess their implications for the past, present, and future of environmental movements in Europe and America.

### **[History of Science 198. Controversy: Explorations at the Intersection of Science, Policy, and Politics]**

Catalog Number: 62073

*Naomi Oreskes*

*Half course (spring term). Tu., 2–4.*

Science is supposed to give us factual knowledge, yet scientific results often become mired in political controversy. This course examines the sources of controversy around scientific matters that bear on political questions. Topics include the role of experts in a democratic society, the role of values in scientific research and reasoning, the demarcation between controversy in science v. controversy about science, and the matter of whether any question can ever be deemed to be "purely" scientific.

*Note:* Expected to be given in 2015–16.

### ***Cross-listed Courses***

#### **[Classical Studies 165. Medicine in the Greco-Roman World]**

#### **History 1092. Japan and the Atomic Bomb in Historical Perspective - (New Course)**

#### **History 1445. Science and Religion in American History**

[\*History 1915. The Nine Lives of Benjamin Franklin]

#### **\*History 1992. Disease and Public Health in Modern East Asian History - (New Course)**

#### **\*MCB 142. Major Advances in Understanding Evolution and Heredity**

[Sociology 180. Law, Science, and Society in America ]

[\*Studies of Women, Gender, and Sexuality 1421. Medical Management of the Female Body]



### ***Primarily for Graduates***

#### **\*History of Science 200. Knowing the World: Studying the History of Science**

Catalog Number: 11825

*Alex Csiszar*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 7*

This is the graduate section to History of Science 100, Knowing the World: An Introduction to the History of Science.

#### **\*History of Science 201. Rethinking the "Origins" of Science: Science, Religion, and Culture in Medieval Europe and the Lands of Islam - (New Course)**

Catalog Number: 12701

*Katharine Park and Ahmed Ragab (Divinity School)*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 10*

This is the graduate section to History of Science 101, Communities of Knowledge: Science, Religion, and Culture in Medieval Europe and the Lands of Islam. Students are required to attend the lectures in History of Science 101.

#### **\*History of Science 206r. "It's Only a Hypothesis"**

Catalog Number: 2410

*Mark Schiefsky and Barry C. Mazur*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

An examination of the notions of hypothesis and hypothetical method in science and mathematics, with attention to key issues in the philosophy of science such as the realism/instrumentalism debate and the role of models in scientific practice. Readings drawn from ancient Greek philosophy, ancient and early modern astronomy, and contemporary mathematics and physics. Open to graduates and qualified undergraduates with permission of the instructors.

#### **History of Science 209. Science, Religion and Culture: Debates, Methods and Controversies**

Catalog Number: 74851

*Ahmed Ragab (Divinity School)*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

Critical examination of different methods and theories in history and philosophy of science and STS (Science, Technology and Society studies) along with discussions of a number of tools in the study and history of culture and religion and how they can be utilized in the study of science and religion; away from the conflict/reconciliation paradigms and towards examining the perceived relations and exchanges of science and religion through analyzing paradigms, discourses, traditions and authorities. The course can serve as a methodological introduction to history and philosophy of science and STS. The course is a research workshop with a focus on training and professionalization and an emphasis on methods tools in academic writing and research. Students work on specific projects throughout the semester from topic selection, question formation, to research and writing to produce a piece of academic writing such as research papers, conference papers, articles, book reviews, prospectus, syllabi, etc.

*Note:* Offered jointly with the Divinity School as 3341.



### [History of Science 231. Transforming Technologies: Science, Technology, and Social Change]

Catalog Number: 64715

*Naomi Oreskes*

*Half course (spring term). W., 10–12.*

Climate change threatens severe dislocation of our environment, culture and infrastructure, as well as substantial losses to biodiversity and natural beauty. Virtually all experts agree that to avoid extensive disruptive climate change, we must transform our energy system from one based on burning carbon-based fuels to renewables or other energy sources that are net carbon-neutral. This will require a technological transformation. This course examines that challenge in light of past and present transforming technologies. In the first part of the class, we examine past examples of technological transformation, and consider what we might learn from them. In particular, we consider the questions: where do new technologies come from? What has been the role of the free market v. the role of conscious planning? Does technology drive social change or does social change drive technological innovation? Above all, how do we get the technologies we need? Do we get the technologies we need? In the second part we examine the required energy transition to prevent anthropogenic climate change, and the obstacles to it.

### [History of Science 235. Current Topics in the Social Study of the Life Sciences - \(New Course\)](#)

Catalog Number: 24576

*Sophia Rooth*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

This seminar tracks the history and current status of concepts of the biological. We will interrogate how the category of "life itself" has been transfigured by experimental, medical, and theoretical interventions into living things, from animal experimentation in the eighteenth century, to nineteenth century theories of inheritance, to mid-twentieth century breakthroughs in immortalizing cell cultures, to contemporary attempts to fabricate organisms from synthetic genetic components. We will focus primarily on recently published work in the history and anthropology of biomedicine, as well as cultural theory, philosophy, and media studies addressing the life sciences. Throughout, we will pay special attention to where biologists have imagined the seat of vitality, whether organismic, cellular, genetic, or informatic. How has life recently entered into new circulations of capital, intellectual property, and political rhetoric as it is sequenced, synthesized, licensed, patented, cut up, frozen, cloned? What has life been, what has it become, and what will it be next?

### [History of Science 237. Postgenomics]

Catalog Number: 20249

*Sarah S. Richardson*

*Half course (fall term). Tu., 2–4.*

Joining "postgenomic" assessments of the genome projects, this seminar examines the history and contemporary practice of genomics from a multidisciplinary perspective. Topics include the role of technology, government funding, private industry, and race, gender, and nationality in the historical development of genomics, the ways in which genomic research challenges traditional conceptions of biology and science, and the implications of emerging trends such as direct-to-consumer genomics and whole-genome sequencing.



**[History of Science 238. Rethinking the Darwinian Revolution: Seminar]**

Catalog Number: 9533

*Janet Browne*

*Half course (spring term). Th., 2–4.*

Taking Charles Darwin as a well-documented case study, we will explore the historiography of evolutionary ideas from 1900 onwards, covering the political, social, and scientific commitments involved in the concept of a "Darwinian Revolution." We take a special interest in tracking evolutionary ideas in Victorian literature. There will be an opportunity for graduate students to read key Darwin texts and put together their own syllabus on the history of Darwinism.

**History of Science 240v. Classics in the History of Medicine: Seminar - (New Course)**

Catalog Number: 12481

*Aaron Mauck*

*Half course (fall term). M., 1–3. EXAM GROUP: I*

This course will chart the emergence of dominant themes and methods in the history of medicine over the last thirty years. Through an examination of pivotal texts, we will seek to explain how scholars have excavated new sites of historical interrogation and introduced new perspectives on established objects of historical inquiry. Topics will include the illness experience, representations of the body, the doctor-patient relationship, medical technologies, hospitals, and race and medicine.

**History of Science 245. The Changing Concept of Race in Science and Medicine in the United States: From Jefferson to Genomics (Graduate Seminar in General Education)**

Catalog Number: 57429

*Evelynn M. Hammonds*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

This course explores the history of the concept of "race" as used by biologists, anthropologists, and physicians from the 17th century to the present and social and political responses to the concept of race in these fields.

*Note:* The seminar will design and develop a General Education course on these themes for undergraduates.

**[\*History of Science 246. History and Anthropology of Medicine and Biology]**

Catalog Number: 19559

*David Shumway Jones*

*Half course (spring term). W., 2–4.*

Explores recent historical and anthropological approaches to the study of life in both medicine and biology. Topics include: natural history and medicine before the emergence of biology; the history of heredity and molecular biology; race and medicine in the colonies and the metropole; bioeconomic exchange; old and new forms of biopower at molecular, organismic, and global scales. The seminar trains students to engage in scholarly debates in the humanities, social sciences, and natural sciences about the nature of life, the body, and biomedicine. Co-taught with Professor Stefan Helmreich (MIT Anthropology); the class will meet at Harvard.



### **History of Science 247. Current Issues in the History of Medicine: Seminar**

Catalog Number: 28251

*Allan M. Brandt*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

Explores new methods for understanding disease, medicine, and society, ranging from historical demography to cultural studies. Topics include patterns of health and disease, changes in medical science and clinical practice, the doctor-patient relationship, health care systems, alternative healing, and representations of the human body. The course will focus on historical problem-framing, research strategies, and writing.

### **[History of Science 248. Ethics and Judgment in the History of Science and Medicine]**

Catalog Number: 61433

*David Shumway Jones*

*Half course (spring term). W., 2–4.*

Examines the tensions felt by historians and physicians between historicizing past ethical behaviors and norms and wanting to pass judgment on past actors and actions. Topics include contested diseases and accusations of unethical research; the focus in Spring 2014 will be on controversial therapeutics.

### **\*History of Science 253. Bioethics, Law, and the Life Sciences**

Catalog Number: 4500

*Sheila Jasanoff (Kennedy School)*

*Half course (spring term). M., W., 10–11:30. EXAM GROUP: 5*

Seeks to identify and explore salient ethical, legal, and policy issues – and possible solutions – associated with developments in biotechnology and the life sciences.

*Note:* Offered jointly with the Kennedy School as IGA-515. May not be taken for credit by students who have already taken IGA-515 (KSG).

### **\*History of Science 259. The History of the History of Science**

Catalog Number: 68494

*Naomi Oreskes*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

A critical survey of conceptions of the history of science over the past hundred years or so and an interpretative engagement with why what's been said about science and its history has mattered so much.

### **[\*History of Science 261. Ethnography of Science and Technology]**

Catalog Number: 21346

*Sophia Roosth*

*Half course (fall term). W., 2–4.*

This course surveys monographs in the ethnography of science, both canonical and current. How have the methods and tools of the interpretive social sciences been applied to cultures of science and technology? What is the relation of description to analysis in ethnographies of science? How do such ethnographies approach theory-building and interpretation? Beginning with early work in the sociology of scientific knowledge and laboratory studies, students will read work in feminist science studies, field and environmental studies, multi-sited ethnography, sensory



ethnography, and ethnographic accounts of digital worlds. Throughout, pressure will be placed on issues of method, style, and representation.

**[History of Science 265. Science in/as/of Culture]**

Catalog Number: 43494

*Sophia Roosth*

*Half course (spring term). M., 4–6.*

This seminar introduces students to Science and Technology Studies (STS), an interdisciplinary field seeking to understand the natural sciences as cultural and social practices. STS increasingly draws upon a diverse methodological and analytic toolkit: not only sociology, anthropology, and philosophy, but cultural studies, critical theory, gender, race, and postcolonial studies, and laboratory studies. Each unit in this course combines theories and methods in the social study of science with a series of cross-cutting themes including: proof, controversy, practice, actants and agency, post-humanism. Students will investigate the relation of STS to the History of Science and explore recent trends and theories in STS.

**[History of Science 270. Sciences of the Self]**

Catalog Number: 58523

*Rebecca M. Lemov*

*Half course (spring term). Th., 12–2.*

How social, human and behavioral scientists pursued a science of the self from French-revolution-era theories of the "bourgeois self" to Freud's insights about hysterics to mid-twentieth-century American theories of "personality" to biological and computational models of the late-twentieth century (e.g., the "quantified self" movement). What is the relationship of self to soul and self to society? Some attention to the historiography of the psychological and social sciences will also be given.

**[History of Science 271. Self as Data]**

Catalog Number: 72536

*Rebecca M. Lemov*

*Half course (fall term). Th., 10–12.*

Many scholars have considered how the modern self became an object of expert knowledge, scientific experimentation, and institutional discipline. This seminar focuses on cases, past and present, in which individuals treat their own habits, bodies, moods, and thoughts as objects of scrutiny, analysis, and intervention. Ranging from 19th century diary writing and the Buckminster Fuller Chronofiles to contemporary diet techniques, Benjamin Franklin's self-monitoring practices to the Quantified Self movement's digital data collection apps, the seminar explores what shifting modes of self-tracking, self-care, and self-governance reveal about changing understandings of the self, and how they remake subjectivity.

*Note:* This course will be co-taught with Prof. Natasha Schull (MIT Program in Science, Technology, and Society).

**History of Science 272. Big Data: Past, Present, Future - (New Course)**

Catalog Number: 41725

*Rebecca M. Lemov*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*



The goal of this class is to understand more deeply the roots and current practices involved in "Big Data," an umbrella term and current buzzword used to mark the revolutionary potential inherent in working with scaled-up collections of data and new data-processing and -storage technologies. We will begin by examining claims that Big Data has ushered in a new era of epistemology and scientific understanding. Next, we will investigate the historical development as well as material and political conditions that produced the current moment. We will read histories and ethnographies of Big Data and its historical precursors across fields as diverse as (but not limited to) bioinformatics, climate science, anthropology, library science, and paleontology, and will consider the interpenetration of Big Data's practices in commerce, national security, personal life ("self-tracking") and the project of self-engineering. The aim of the course is to be better able to assess the challenges and opportunities the current "data deluge" poses to society.

**[\*History of Science 274v. Topics in the History of Psychoanalysis]**

Catalog Number: 87975

*Elizabeth Lunbeck*

*Half course (spring term). Th., 10–12.*

An introduction to issues and concepts in psychoanalysis, considered clinically in cultural, historical, and contemporary contexts. Major texts, figures, and controversies from Freud to the present. The course will focus on conceptualizations of theory creation and change, and on research and writing strategies.

*Note:* Open to advanced undergraduates with permission of the instructor.

**History of Science 275v. Psychoanalytic Practices from Freud to the Present - (New Course)**

Catalog Number: 17521

*Elizabeth Lunbeck*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

In this course we will chart the history of psychoanalysis—from its foundations in Freud to the modern relational mainstream—through the lens of clinical practice. Attention to classic texts and field-defining controversies, focusing on the ways in which analysts have conceptualized technique and the analytic setting; abstinence and gratification; therapeutic action and efficacy; reality, both inner and outer; attachment and separation; analytic paradigms, schools, and movements. The issue of how the historian can best capture, conceptualize, and write about the clinical encounter—as theorized and experienced—in psychoanalysis as well as in other clinical disciplines will be a central concern of the course. Special attention to the concept of trauma as seen by both analysts and historians: trauma both individual and societal, developmental and war-induced, in patients and refugee analysts, in culture and social policy, and from hysteria to PTSD. Note: Open to advanced undergraduates with permission of the instructor.

**[History of Science 279v. Freud and His Legacies: Readings in the History of Psychoanalysis]**

Catalog Number: 66452

*Elizabeth Lunbeck*

*Half course (fall term). W., 4–6.*

Selected topics in psychoanalysis from Freud to the present, with attention to conceptualizing and writing the discipline's history. Among topics to be covered are the conditions of theory



change, historicizing the analytic self, and assembling the analytic archive; locating major figures and national schools (Klein, Lacan, Kohut; Britain, France, Argentina); case studies in thinking with psychoanalysis-understandings of people and possessions, conflict and aggression, warfare and welfare; and pathologies of everyday life, from the abused wife to the corporate titan. Throughout, the seminar will focus more generally on writing intellectual and disciplinary histories. Note: Open to advanced undergraduates with permission of the instructor.

### **History of Science 282. Genre and Knowledge - (New Course)**

Catalog Number: 65834

*Alex Csiszar*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

How and to what extent is knowledge shaped by the forms and genres through which it has been produced? Bringing history of science and technology together with media studies, book history, and cultural theory, we will consider histories and theories of representation, textuality, authorship, reading, illustration, translation, and the archive. Readings will include Foucault, Chartier, Latour, Kittler, Daston, Biagioli, Gitelman, Elshakry, and Kirschenbaum.

### **\*History of Science 285. Science, Power and Politics**

Catalog Number: 5124

*Sheila Jasanoff (Kennedy School)*

*Half course (fall term). W., 2:10–4. EXAM GROUP: 7*

This seminar introduces students to the major contributions of the field of science and technology studies (STS) to the understanding of politics and policymaking in democratic societies.

*Note:* Offered jointly with the Kennedy School as IGA-513.

### **[History of Science 289. Entangled Objects: Or the Stuff of Science, Culture, and Society]**

Catalog Number: 84196 Enrollment: Limited to 15.

*Jean-francois Gauvin*

*Half course (spring term). W., 4–6.*

This course focuses on things: from the Indian sari to the iPod. Its aim is to look at objects from a variety of angles (science, anthropology, art, cultural studies) and to investigate what makes them such powerful anchors--actors--of our daily lives. The readings and discussions will provide a strong theoretical background to the final assignment: designing and mounting a temporary exhibit.

*Note:* Expected to be given in 2015–16.

### **History of Science 292v. Securing Knowledge: Science, Technology and Security - (New Course)**

Catalog Number: 74517

*Samuel Ashley Evans*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 15*

This is the graduate section to History of Science 192v, Science and Security. Students are required to attend History of Science 192v. In addition to the undergraduate emphasis on studying the nexus between science, technology and security, this graduate section will use the



nexus as a basis for considering how modes of inquiry have developed in the discipline of Science, Technology, and Society (STS).

### **\*History of Science 298v. Media, Method, and Practice - (New Course)**

Catalog Number: 55057

*Jeremy Blatter*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

What are the tools of our trade? How can media augment scholarship? How are theories represented? Arguments diagrammed? Data visualized? From building a research database to actor-network mapping, this seminar will explore the power and peril of the digital humanities in relation to our own scholarly practices. As a practice-oriented course each student will be expected to explore over the course of the semester new methods, tools and presentational modes in connection with their current research or developing projects.

### ***Cross-listed Courses***

[**East Asian Film and Media Studies 200 (formerly East Asian Studies 200). The Uses and Meaning of the New Arts of Presentation]**

[**History 2462. Readings in the U.S. in the 20th Century: Proseminar]**

[**Japanese History 260r. Topics in Japanese Cultural History**]

### ***Graduate Courses of Reading and Research***

#### **\*History of Science 300. Direction of Doctoral Dissertations**

Catalog Number: 3388

*Allan M. Brandt 3031, Janet Browne 5511, Joyce E. Chaplin 1058 (on leave 2014-15), Alex Csiszar 2475, Peter L. Galison 3239 (on leave fall term), Jean-francois Gauvin 3205, Evelyn M. Hammonds 4545, Anne Harrington 1895, Sheila Jasanoff (Kennedy School) 2248, David Shumway Jones 3111 (on leave spring term), Shigehisa Kuriyama 5269 (on leave 2014-15), Rebecca M. Lemov 5570, Naomi Oreskes 3983, Katharine Park 2974, Scott Harris Podolsky (Medical School) 6984, Ahmed Ragab (Divinity School) 6263, Sarah S. Richardson 6730, Sophia Roosth 2722, Mark Schiefsky 2354 (on leave spring term), and Steven Shapin 3984*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

*Note:* Under special circumstances arrangements may be made for other instruction in guidance for doctoral dissertations.

#### **\*History of Science 301. Reading and Research**

Catalog Number: 5641

*Allan M. Brandt 3031, Janet Browne 5511, Joyce E. Chaplin 1058 (on leave 2014-15), Alex Csiszar 2475, Peter L. Galison 3239 (on leave fall term), Jean-francois Gauvin 3205, Evelyn M. Hammonds 4545, Anne Harrington 1895, Sheila Jasanoff (Kennedy School) 2248, David Shumway Jones 3111 (on leave spring term), Shigehisa Kuriyama 5269 (on leave 2014-15), Rebecca M. Lemov 5570, Barry C. Mazur 1975, Everett I. Mendelsohn 2700, Naomi Oreskes 3983, Katharine Park 2974, Scott Harris Podolsky (Medical School) 6984, Ahmed Ragab (Divinity School) 6263, Sarah S. Richardson 6730, Sophia Roosth 2722, Mark Schiefsky 2354 (on leave spring term), and Steven Shapin 3984*



*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*  
Individual work in preparation for the General Examination for the PhD degree.

### \*History of Science 302. Guided Research

Catalog Number: 5282

*Soha Hassan Bayoumi 1473, Allan M. Brandt 3031, Janet Browne 5511, Alex Csiszar 2475, Peter L. Galison 3239 (on leave fall term), Jean-francois Gauvin 3205, Evelyn M. Hammonds 4545, Anne Harrington 1895, Sheila Jasanoff (Kennedy School) 2248, David Shumway Jones 3111 (on leave spring term), Shigehisa Kuriyama 5269 (on leave 2014-15), Rebecca M. Lemov 5570, Everett I. Mendelsohn 2700, Robb Moss 1392, Naomi Oreskes 3983, Katharine Park 2974, Scott Harris Podolsky (Medical School) 6984, Ahmed Ragab (Divinity School) 6263, Sarah S. Richardson 6730, Sophia Roosth 2722, Mark Schiefsky 2354 (on leave spring term), and Steven Shapin 3984*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

Through regular meetings with faculty advisor, each student will focus on research and writing with the purpose of developing a publishable research paper.

### \*History of Science 310hf. History of Science Salon

Catalog Number: 1047

*Naomi Oreskes*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: 10*

What is history of science about as a discipline and profession? This half-course meets throughout the academic year to introduce first-year graduate students to the range of debates, questions, and research practices currently shaping the field.

*Note:* The course is required for and restricted to first year students in the PhD program and students in the AM program in the History of Science.

### \*History of Science 320qc. Secrecy, Security, Surveillance - (New Course)

Catalog Number: 43545 Enrollment: Limited to 12.

*Peter L. Galison 3239*

*Quarter course (fall term). M., 1–3. EXAM GROUP: 14*

Over the course of the last hundred years—from World War I to the present—the world has assembled a massive system of state secrecy, censorship, security and surveillance. This course introduces the problem, tracking not only how the national and now global system of watching and archiving came into place, but exploring the consequences of this apparatus for identity, deliberation, and democracy. Enrollment limited to 12, by permission of the instructor.

## Human Evolutionary Biology



## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### ***Faculty of the Department of Human Evolutionary Biology***

Daniel E. Lieberman, Edwin M. Lerner II Professor of Biological Sciences, Harvard College Professor (*Chair*)  
 John C. Barry, Lecturer on Human Evolutionary Biology  
 Terence D. Capellini, Assistant Professor of Human Evolutionary Biology  
 Katherine Diane Duncan, College Fellow in Human Evolutionary Biology  
 Lara Durgavich, College Fellow in Human Evolutionary Biology  
 Peter T. Ellison, John Cowles Professor of Anthropology (*on leave spring term*)  
 Judith Flynn, Lecturer on Human Evolutionary Biology  
 Amy Hansen, Preceptor in the Life Sciences  
 Katherine J. Hinde, Assistant Professor of Human Evolutionary Biology  
 Carole K. Hooven, Lecturer on Human Evolutionary Biology  
 Susan F. Lipson, Lecturer on Human Evolutionary Biology  
 Zarin Pearl Machanda, College Fellow in Human Evolutionary Biology  
 Stephanie L. Meredith, College Fellow in Human Evolutionary Biology  
 David Pilbeam, Henry Ford II Professor of Human Evolution (*Director of Undergraduate Studies*)  
 Linda M. Reynard, Lecturer on Human Evolutionary Biology  
 Alexandra Rosati, Visiting Assistant Professor of Human Evolutionary Biology  
 Maryellen Ruvolo, Professor of Human Evolutionary Biology, Harvard College Professor (*Director of Graduate Studies*)  
 Tanya M. Smith, Associate Professor of Human Evolutionary Biology  
 Noreen Tuross, Landon T. Clay Professor of Scientific Archaeology  
 Anna G. Warrener, Lecturer on Human Evolutionary Biology  
 Richard W. Wrangham, Ruth Moore Professor of Biological Anthropology (*on leave spring term*)

### ***Other Faculty Offering Instruction in the Department of Human Evolutionary Biology***

Andrew A. Biewener, Charles P. Lyman Professor of Biology (*on leave fall term*)  
 Stacey A. Combes, Associate Professor of Organismic and Evolutionary Biology  
 George V. Lauder, Henry Bryant Bigelow Professor of Ichthyology and Curator of Ichthyology in the Museum of Comparative Zoology

### ***Affiliates of the Department of Human Evolutionary Biology***

David E. Reich, Professor of Genetics (*Medical School*)

Human Evolutionary Biology provides a general foundation in human and organismic biology as part of the Life Sciences cluster of concentrations. It addresses why humans and primates are the way they are from an evolutionary perspective. Understanding the biological bases for the behavioral and physical traits that distinguish humans from other primates is one of the great challenges of modern biology, and is the focus of Human Evolutionary Biology. Students



interested in addressing questions about human and non-human primate cognition from the perspective of human evolutionary biology also may pursue a special program of study affiliated with the University-wide Mind, Brain, and Behavior Initiative. For concentration requirements, see the Department of Human Evolutionary Biology website.

***Primarily for Undergraduates***

**\*Human Evolutionary Biology 91r. Supervised Reading and Research**

Catalog Number: 3631

*David Pilbeam*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*

Special study of selected topics in human evolutionary biology, given on an individual basis and directly supervised by a member of the Human Evolutionary Biology Faculty.

*Note:* May be taken for a letter grade or Pass/Fail. Signature of faculty supervisor required.

**\*Human Evolutionary Biology 97. Sophomore Tutorial in Human Evolutionary Biology**

Catalog Number: 2205

*David Pilbeam*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 8*

An introduction to the issues and methods of human evolutionary biology, focusing on evolutionary theory, the concept of adaptation, and their application to human evolution. Weekly readings and discussions, with biweekly writing assignments that integrate major course themes.

*Note:* Required of and limited to Human Evolutionary Biology concentrators.

**\*Human Evolutionary Biology 99a. Tutorial—Senior Year**

Catalog Number: 2840

*Katherine D. Zink*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 3*

Research and writing of the Senior Thesis.

*Note:* Limited to honors candidates. Signature of the faculty adviser required.

**\*Human Evolutionary Biology 99b. Tutorial - Senior Year**

Catalog Number: 61326

*David Pilbeam*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 17*

Research and writing of the Senior Thesis.

*Note:* Limited to honors candidates. Signature of the faculty adviser required.

***Cross-listed Courses***

**\*Freshman Seminar 44s. Neanderthals and Human Evolutionary Theory**

**Life Sciences 1b. An Integrated Introduction to the Life Sciences: Genetics, Genomics, and Evolution**

**Life Sciences 2. Evolutionary Human Physiology and Anatomy**

**Science of Living Systems 16. Human Evolution and Human Health**



### ***For Undergraduates and Graduates***

#### **\*Human Evolutionary Biology 1210. Research in Comparative Biomechanics: Seminar**

Catalog Number: 11259

*Andrew A. Biewener, Stacey A. Combes, George V. Lauder, Daniel E. Lieberman, and Anna G. Warrener*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 5*

Introduces students to experimental techniques used to investigate the structure and physiology of humans and other animals. 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:* Life Sciences 2 or Organismic and Evolutionary Biology 102 or equivalent preferred.

#### **[Human Evolutionary Biology 1275. Walk This Way: Sex Differences in Locomotion]**

Catalog Number: 85913 Enrollment: Limited to 8.

*Anna G. Warrener*

*Half course (fall term). Tu., Th., 10–11:30.*

This course takes a broad look at how differences in male and female structure and physiology affect locomotion and movement. The first half of the course will include lectures and discussions introducing students to the biological determinants of sex, anatomical variation, and biomechanics. Students then participate in lab-based data collection and biomechanics analysis focusing on how men and women are different and similar in movement profiles. Grades are based on exams, discussion and lab participation, and a short paper and presentation.

*Note:* Expected to be given in 2015–16. Lab safety overview and human subjects training course required.

*Prerequisite:* Science of Living Systems 16 or Life Sciences 2 or approval of instructor.

#### **Human Evolutionary Biology 1310. Hormones and Behavior**

Catalog Number: 2265

*Carole K. Hooven*

*Half course (spring term). M., W., 11–12:30 and a weekly section to be arranged. EXAM GROUP: 13*

An introduction to the interaction between hormones and behavior, emphasizing research in humans. General principles of endocrine physiology are presented. The course then focuses on how hormones affect the brain and body in early development and later in adulthood, and the relationship of hormones to sex and gender. We will explore human reproduction, energy metabolism, mating and sexuality, parental behavior, stress, and dominance interactions.

*Note:* This course will be offered every other academic year. Expected to be omitted in 2015–16. This course is a prerequisite for Human Evolutionary Biology 1418.

#### **[\*Human Evolutionary Biology 1312. Human Sexuality: Research and Presentation Seminar]**



Catalog Number: 5008 Enrollment: Limited to 15.

*Judith Flynn*

*Half course (fall term). Th., 3–5.*

An examination of human sexuality from a scientific perspective. Students will read and present primary scientific literature that highlights current research on a variety of topics including: sexual development, gender identity, sexual orientation, cross cultural variations in mating systems, promiscuity, the evolution of monogamy, sexual attraction, sexual communication, including an exploration of the existence of human pheromones, libido and sexual dysfunction.

*Note:* Expected to be given in 2015–16.

### **\*Human Evolutionary Biology 1313. Stress: Research and Presentation Seminar**

Catalog Number: 27108 Enrollment: Limited to 15.

*Judith Flynn*

*Half course (spring term). F., 2–4. EXAM GROUP: 18*

An examination of stress from a scientific perspective with a focus on stress research in mammals, especially primate and humans. A writing and speaking intensive seminar that will explore the basics of the stress response, physiological effects of the stress and factors that affect stress responsiveness, such as perinatal and early life effects, social support, outlets for frustration and coping skills. The relationship between stress and disease will also be explored. Scientific studies of the effectiveness of modalities of stress reduction will also be discussed. Students will present primary scientific literature that highlights current research on a variety of topics in the field.

### **Human Evolutionary Biology 1329. Sex, Love and War: The Evolution of Human Behavior**

Catalog Number: 89352

*Richard W. Wrangham and Katherine J. Hinde*

*Half course (fall term). M., W., 11:30–1. EXAM GROUP: 18*

This introductory course is designed to familiarize students with the behavioral ecology of humans from an evolutionary perspective, including evolutionary psychology and dual inheritance theory. We will survey behavioral diversity and consistency across human societies, and we will gain insights into the adaptive significance of human behavior and social organization by reference to social dynamics in other species. Topics to be covered include cooperation, aggression and warfare, dominance and hierarchy, mating and pair-bonds, parenting, social learning, culture and religion.

*Note:* This course is most relevant for freshman and sophomores who have not yet declared a concentration in Human Evolutionary Biology, or for HEB concentrators who have not taken courses in the evolution of behavior.

### **Human Evolutionary Biology 1330. Primate Social Behavior**

Catalog Number: 4332

*Zarin P. Machanda and Stephanie L. Meredith*

*Half course (spring term). M., W., F., at 1, and a weekly section to be arranged. EXAM GROUP: 8*

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.

### **[Human Evolutionary Biology 1335. Behavioral Ecology of Chimpanzees]**

Catalog Number: 32284

*Zarin P. Machanda*

*Half course (spring term). W., 1–4.*

An advanced seminar on current topics in behavioral ecology research of chimpanzees and bonobos. Topics will include: foraging, dominance, cooperation, adolescence, reproductive strategies, culture, ranging, cognition, molecular ecology, and relationships. We will discuss behavioral flexibility of chimpanzees between different communities across Africa and learn how to collect and analyze behavioral data. We will compare the behavior of chimpanzees and bonobos with that of humans and examine how these species might serve as models for human evolution.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Human Evolutionary Biology 1330 or Science B-29 or permission of instructor.

### **Human Evolutionary Biology 1351. Reproductive Ecology**

Catalog Number: 3408

*Lara Durgavich*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

A course on the physiological ecology and evolutionary biology of human and primate reproduction. Topics covered include gamete production, gestation, birth, lactation, reproductive maturation, mature reproductive function, aging and senescence.

*Prerequisite:* Life Sciences 2 or Human Evolutionary Biology 1310.

### **Human Evolutionary Biology 1366. Mating Strategies**

Catalog Number: 62507 Enrollment: Limited to 15.

*Stephanie L. Meredith*

*Half course (spring term). W., 2–5. EXAM GROUP: 18*

In this advanced seminar, we will examine the selection pressures that drive animals (including the human animal) to make particular mating decisions. We will engage in a broad, comparative exploration of the diversity of mating strategies across the animal kingdom, paying particular attention to primates, in order to ground our understanding of human mating strategies in an evolutionary perspective. Topics to be covered include the evolution of: sex, paternal care, sex-role reversal, social monogamy versus sexual monogamy, sexual coercion, homosexual behavior, and frequency dependent mating strategies.

*Note:* Human Evolutionary Biology concentrators will have priority, if space is limited.

*Prerequisite:* Human Evolutionary Biology 97 or Human Evolutionary Biology 1330 or Organismic and Evolutionary Biology 57 or permission of instructor.

### **[Human Evolutionary Biology 1380. Behavioral Biology of Women]**

Catalog Number: 8721 Enrollment: Limited to 30.

*Lara Durgavich*



*Half course (fall term). Tu., Th., 10–11:30.*

This course is an exploration of female behavioral biology from an evolutionary and biosocial perspective. We will focus on physiological, ecological, and social aspects of women's development from puberty, through reproductive processes such as pregnancy, birth and lactation, to menopause and aging. We will also explore female life-history strategies in a variety of cultural settings. Topics include cognitive and behavioral differences between men and women and male and female reproductive strategies. Examples are drawn primarily from traditional and modern human societies; data from studies of nonhuman primates are also considered.

*Note:* Expected to be given in 2015–16. Priority given to Human Evolutionary Biology concentrators.

**[Human Evolutionary Biology 1411. Evolution and Adaptation of the Human Diet]**

Catalog Number: 89118

*Noreen Tuross and Richard W. Wrangham*

*Half course (fall term). M., W., F., at 11; Tu., at 2.*

Within and across cultures people adopt widely varying diets, yet as a species, our foods are characteristically human. In this course we ask what is the fundamental nature of the human diet, what constrains it, how people adapt to different diets, and how the human diet evolved from those of our primate ancestors.

*Note:* Expected to be given in 2015–16.

**[Human Evolutionary Biology 1416. The Neurobiology of Sociality: Seminar]**

Catalog Number: 42215 Enrollment: Limited to 15.

*Katherine J. Hinde*

*Half course (spring term). W., 2:30–5:30.*

Recent research has illuminated the neural mechanisms underpinning sociality and social behavior in humans and other animals. In this seminar we will discuss publications that address modifications to neural structure and function as a result of behavioral specializations among taxa in relation to their social complexity or among individuals within species as a function of their social condition. This course will emphasize the value of approaching neurobiology from an evolutionary perspective and understanding the selective pressures that have shaped our mind, brain, and behavior.

*Note:* Expected to be given in 2015–16. Can be taken by Human Evolutionary Biology concentrators as a Junior Research Seminar. Open to graduate students.

*Prerequisite:* Previous or concurrent registration in Molecular and Cellular Biology 80 strongly recommended.

**\*Human Evolutionary Biology 1418. Endocrinology and Behavior: Research Seminar**

Catalog Number: 1437 Enrollment: Limited to 8.

*Susan F. Lipson*

*Half course (fall term). M., W., (F.), at 11, and a weekly laboratory either M. or W., 2-5. EXAM GROUP: 18*

An introduction to laboratory techniques and research design in behavioral endocrinology. Students conduct pilot research projects.

*Note:* Preference given to Human Evolutionary Biology concentrators. Lab safety training



required (after enrollment).

*Prerequisite:* Human Evolutionary Biology 1310 or Life Sciences 2 or with permission of instructor.

### **Human Evolutionary Biology 1419. Laboratory Methods in Human Evolutionary Biology**

Catalog Number: 98922 Enrollment: Limited to 10.

*Linda M. Reynard*

*Half course (spring term). W., 1–4. EXAM GROUP: 8*

An introduction to laboratory methods in Human Evolutionary Biology. We will use state-of-the-art equipment and techniques to explore how humans metabolize caffeine, starch, and alcohol. Topics include quantitative PCR and genetic analysis, immunological methods, enzyme kinetics, chromatography, and measurement of isotope ratios in tissues.

*Prerequisite:* Life Sciences 1 and Life Sciences 1b.

### **Human Evolutionary Biology 1420. Human Evolutionary Anatomy**

Catalog Number: 6233

*Tanya M. Smith*

*Half course (spring term). M., W., F., at 10, and a weekly section to be arranged. EXAM GROUP: 5*

How did the human body evolve, and how does it develop, grow and function? This course provides an integrative regional overview of human anatomy, with an emphasis on the musculo-skeletal system, and a comparative approach to the evolution of modern anatomy. Additional topics include: skeletal and dental development; gross anatomy of the nervous and circulatory systems; comparative limb anatomy; and comparative cranial anatomy.

*Prerequisite:* Life Sciences 2 or with permission of instructor.

### **Human Evolutionary Biology 1421. Teeth**

Catalog Number: 8758 Enrollment: Limited to 6.

*Tanya M. Smith*

*Half course (fall term). W., 3–5:30. EXAM GROUP: 6*

Teeth are one of the best preserved and most commonly-recovered elements in fossil assemblages. This seminar will focus on ways in which dental remains may inform studies of primate growth and development, ecology, and health. Students will read and discuss current scientific literature, engage in histological studies in the Dental Hard Tissue Laboratory, and conduct pilot research projects.

*Note:* Preference given to Human Evolutionary Biology junior and senior concentrators.

### **Human Evolutionary Biology 1424. Human Health in Evolutionary and Anthropological Perspective**

Catalog Number: 85528 Enrollment: Limited to 12.

*Lara Durgavich*

*Half course (fall term). F., 10–1. EXAM GROUP: 5*

This course applies a Darwinian perspective to explore the ultimate causes of human disease, and uses the tenets of evolutionary theory to explain variability in the health of individuals and populations. In addition, we will examine the role that environmental conditions, economic factors, and sociocultural practices play in shaping modern patterns of human health and disease.



Topics will include human-pathogen coevolution, diet and nutrition, reproductive health, mental illness, and senescence.

*Note:* Priority given to Human Evolutionary Biology concentrators

*Prerequisite:* Introductory course that covers the basics of evolutionary theory.

### **\*Human Evolutionary Biology 1434. Primate Behavior Lab**

Catalog Number: 19021 Enrollment: Limited to 8.

*Stephanie L. Meredith*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

In this class, we will collaboratively design a data collection protocol to answer questions of interest to both students and zookeepers regarding the Franklin Park Zoo gorillas, collect behavioral data at the Franklin Park Zoo (students will need to be able to commit to 5-6 hours of data collection during those weeks), analyze our behavioral data, write up study results in the format of a publishable scientific paper, and create a scientific meetings-style poster presentation of study results to be shared with the staff of the Franklin Park Zoo.

*Note:* Signature of instructor is required to enroll. Enrollment will be limited to 8 students. Class meeting time to be changed as needed.

*Prerequisite:* Suggested prerequisites are HEB 1330, HEB 1329 or equivalent.

### **[Human Evolutionary Biology 1435r. Primate Ecology and Evolution]**

Catalog Number: 83093

*John C. Barry*

*Half course (fall term). Tu., Th., 10-11:30, and a weekly section to be arranged.*

The lecture-seminar course will explore how primates have evolved and adapted. We will examine both living and fossil primates and discuss the degree to which "environmental" change is implicated in evolution. Goals include providing direct, hands-on experience with fossils and fostering an understanding of the strengths and limitations of the fossil record. Topics will include adaptations for food harvesting and processing, life history strategies, sexual dimorphism, and locomotion.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* None, but Life Sciences 2, Science of Living Systems 16, Human Evolutionary Biology 1420, or Human Evolutionary Biology 1330 would be helpful.

### **\*Human Evolutionary Biology 1451. Primate Functional Genetics and Genomics**

Catalog Number: 99399 Enrollment: Limited to 12.

*Terence D. Capellini*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

Recent advances in genetics, genomics, and developmental biology are improving our understanding of human and non-human primate biological traits. These disciplines, when incorporated into a multi-faceted context, can reveal the mechanistic basis of evolutionary adaptations. This seminar is designed to investigate and critically evaluate foundational and novel research in primates (and other organisms) that employs the tools of these trades. In doing so, students are exposed to an integrative perspective upon which to explore classic and modern questions in functional biology.

*Prerequisite:* Life Sciences 1b or equivalent genetics/genomics course.



### **\*Human Evolutionary Biology 1463. Molecular Evolution of the Primates**

Catalog Number: 3359 Enrollment: Limited to 12.

*Maryellen Ruvolo*

*Half course (fall term). Th., 1–4. EXAM GROUP: 8*

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:* Life Sciences 1b.

### **Human Evolutionary Biology 1480. Human Evolution through Developmental Change - (New Course)**

Catalog Number: 28385 Enrollment: Limited to 12.

*Terence D. Capellini and David Pilbeam*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Humans and our primate relatives display marked variation in biological traits. This variation results from natural selection operating on pre- and post-natal developmental mechanisms. While these mechanisms remain mostly unknown, recent advances in genetics, genomics, and developmental biology now allow us to begin to understand how evolutionary processes influence and are influenced by underlying developmental and genetic organization. This course explores these inter-relationships in the context of the primate paleontological record. We focus on the evolution of the cranium, dentition, axial skeleton, and limbs, and present studies that cast light on the mechanisms that underlie major transitions in human evolution.

*Prerequisite:* Life Sciences 1b

### **Human Evolutionary Biology 1490r. Primate Evolution**

Catalog Number: 7376

*David Pilbeam and John C. Barry*

*Half course (fall term). Tu., Th., 10–11:30 and a weekly section, W., 1:30–3:30. EXAM GROUP: 12*

A lecture/discussion course on primate evolution from a paleontological perspective. Following a survey of major primate groups as adaptive radiations, the hominoid fossil record will be reviewed within the context of the mammalian record, a particular focus being the relationship between adaptive, faunal, and climate change. Systems that can be inferred from the fossil record (for example, positional and foraging behaviors) will be discussed comparatively.

*Note:* No final exam; research paper required. Can be taken by Human Evolutionary Biology concentrators as a Junior Research Seminar. Introductory courses in paleoanthropology, evolution, genetics, or anatomy helpful.

### **Human Evolutionary Biology 1495. The Head**

Catalog Number: 83815 Enrollment: Limited to 12.

*Katherine D. Zink*

*Half course (fall term). W., 2–5. EXAM GROUP: 7*

How and why does the human head look the way it does? How does the head develop, and what



is the interplay between this development and how the head evolves? Why are human brains so anomalously large, while our faces are quite small? In this seminar, we will explore the evolution and natural history of the head, using the comparative anatomy of our primate and hominin relatives as a guide.

*Prerequisite:* Life Sciences 2 or Human Evolutionary Biology 1420 recommended, but not required.

### **Human Evolutionary Biology 1500. Building Babies: Developmental Trajectories from Conception to Weaning**

Catalog Number: 93737 Enrollment: Limited to 8.

*Katherine J. Hinde*

*Half course (spring term). Th., 2:30–5:30. EXAM GROUP: 11*

Research on human and non-human primate developmental trajectories has grown exponentially among numerous disciplines including evolutionary anthropology, psychobiology, nutrition, behavioral biology, and neuroscience. The seminar will cover the mechanisms, function, and evolution of human and non-human primate development from conception through pregnancy and lactation. Areas of development to be included will be somatic growth, immunology, behavioral/social interactions, neurobiology/cognition/learning, and metabolic processes.

### **[\*Human Evolutionary Biology 1530. Hominid Paleontology and Evolution]**

Catalog Number: 52879 Enrollment: Limited to 12.

*David Pilbeam and John C. Barry*

*Half course (fall term). Tu., Th., 10–11:30 and a weekly section.*

A lecture, discussion, and research course using cast and comparative collections, focusing on important issues in hominid paleobiology: ape ancestors, human ancestors, and early hominin radiations; earliest *Homo*; neandertals and modern humans; the role of environmental change. Can be taken as a research seminar.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Life Sciences 2 or Science of Living Systems 16 or Human Evolutionary Biology 1420 or with permission of instructor.

### **Human Evolutionary Biology 1540. Human Migration**

Catalog Number: 68708 Enrollment: Limited to 10.

*Noreen Tuross*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

The course will explore human migration at several scales, time depths and data sources, including the movement of humans out of Africa and the complex movements of the first farmers across Europe. We will explore the impacts that climates and disease burden have had on human migrations, and discuss recent movements of people and the reasons for migratory behavior in humans. in addition, a personal migration story will be developed by the class.

### **Human Evolutionary Biology 1590. Ancient Biomolecules - (New Course)**

Catalog Number: 93588 Enrollment: Limited to 30.

*Noreen Tuross and Linda M. Reynard*

*Half course (fall term). Tu., Th., 1:30–3, and a weekly section to be arranged. EXAM GROUP: 8*

How do we know where and how people migrated? How old is this ruin? Did ancient humans eat



a lot of meat? This course will explore the known, the unknown, and the unknowable in the study of ancient biomolecules and critically evaluate the current literature and the accompanying press reports. The course couples topics about the past in which ancient biomolecules are used with an examination of the methods employed. The format of the course will be lecture and case study.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* There are no prerequisites, but you can expect to do more work if you have not taken Life and Physical Sciences A or Life Sciences 1a or had a strong high-school biology course.

### ***Cross-listed Courses***

#### **\*OEB 121a. Research in Comparative Biomechanics: Seminar**

##### ***Primarily for Graduates***

#### **\*Human Evolutionary Biology 2312. Current Topics in Human Evolutionary Genetics**

Catalog Number: 1175

*Maryellen Ruvolo*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 5*

Critical reading of current literature on the genetics of living humans and discussion of evolutionary implications.

*Note:* Open to first and second year graduate students in Human Evolutionary Biology.

#### **[Human Evolutionary Biology 2335. Introduction to Mathematical Modeling in Human Evolutionary Biology]**

Catalog Number: 73853 Enrollment: Open to undergraduates with instructor's permission.

*Peter T. Ellison*

*Half course (spring term). Th., 2–5.*

This course will introduce students to the use and interpretation of the major forms of mathematical models used in contemporary evolutionary biology, including dynamical population models, game theoretic models, and agent-based models. Sophisticated mathematical training and ability are not required, but some familiarity with first year calculus is assumed. The course will include an introduction to relevant software packages for mathematical analysis and simulation. Application of mathematical models to contemporary topics and debates such as the evolution of cooperation and life history evolution will be explored. Students will develop a model of their own as a class project.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Mathematics 1a,1b or equivalent strongly recommended.

#### **Human Evolutionary Biology 2430. Behavioral Biology Seminar**

Catalog Number: 3777

*Katherine J. Hinde*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 9*

Reading and discussion of current research in the behavioral ecology of humans and nonhuman



primates. Emphasis placed on comparative and interdisciplinary approaches.

*Note:* Required of entering graduate students in Human Evolutionary Biology. Open to other graduate students. Limited to graduate students.

### **Human Evolutionary Biology 2460. Issues in Human Evolution**

Catalog Number: 1073

*David Pilbeam*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

A discussion course for graduate students in Human Evolutionary Biology. Topics will include origins of hominids, radiation of hominins, origins of the genus *Homo*, and origins of *Homo sapiens*.

*Note:* May be taken while auditing Science of Living Systems 16.

### **\*Human Evolutionary Biology 2590. Recent Topics in Ancient Biomolecules - (New Course)**

Catalog Number: 34717

*Noreen Tuross*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 17*

Graduate seminar to accompany undergraduate lecture course on ancient biomolecules.

*Note:* Primarily for graduate students, but undergraduates welcome with instructor's permission.

### ***Cross-listed Course***

### ***Graduate Courses of Reading and Research***

#### **\*Human Evolutionary Biology 3000. Reading and Research**

Catalog Number: 99167

*John C. Barry 1892, Terence D. Capellini 7274, Peter T. Ellison 7413 (on leave spring term), Katherine J. Hinde 6956, Daniel E. Lieberman 3980, Susan F. Lipson 1969, David Pilbeam 7224, Maryellen Ruvolo 2512, Tanya M. Smith 6147, Noreen Tuross 4845, and Richard W. Wrangham 2349 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

Special reading in selected topics under the direction of members of the department.

*Note:* Consult the appropriate member of the department.

#### **\*Human Evolutionary Biology 3001. Reading for General Examination**

Catalog Number: 47645

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

Individual reading in preparation for the general examination for the doctoral degree.

*Note:* Restricted to candidates for the doctoral degree and ordinarily to those who have completed at least one year in residence.

#### **\*Human Evolutionary Biology 3200. Graduate Seminar in Human Evolutionary Biology**

Catalog Number: 31571

*David Pilbeam 7224 and Terence D. Capellini 7274*

*Half course (fall term). W., 10–11:30. EXAM GROUP: 1*



Proseminar for Human Evolutionary Biology graduate students. Discussion of adaptations and the process of adaptation using examples from various areas of human evolutionary biology.  
*Note:* Open to graduate students in Human Evolutionary Biology.

**\*Human Evolutionary Biology 3310. Experimental Methods**

Catalog Number: 9602

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Human Evolutionary Biology 3320. Advanced Laboratory and Dissertations**

Catalog Number: 62752

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Human Evolutionary Biology 3337. Advanced Laboratory Methods in Human Endocrinology**

Catalog Number: 5345

*Susan F. Lipson 1969*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

*Note:* Intended for graduate students engaged in laboratory research on human endocrinology.

**\*Human Evolutionary Biology 3350. Laboratory Methods in Primate and Human Nutrition**

Catalog Number: 62293

*Richard W. Wrangham 2349 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

Independent laboratory study in the biochemical analysis of plant and animal foods, and of human and animal digestive physiology and feeding behavior.

**\*Human Evolutionary Biology 3400. Advanced Reading and Research**

Catalog Number: 77859

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

*Note:* Consult the appropriate member of the department.

**\*Human Evolutionary Biology 3500. Direction of the Doctoral Dissertation**

Catalog Number: 26337

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

*Note:* Consult the appropriate member of the department.

**\*Human Evolutionary Biology 3595. Laboratory Methods in Evolutionary Genetics**

Catalog Number: 7934

*Maryellen Ruvolo 2512*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

*Note:* Limited to graduate students conducting doctoral dissertation research.



**\*Human Evolutionary Biology 3600. Current Issues in Human Evolutionary Biology**

Catalog Number: 9373

*Members of the Department*

*Half course (fall term; repeated spring term). Tu., at 12. EXAM GROUP: Fall: 11; Spring: 7*

Weekly seminars in human evolutionary biology.

## 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*

Mark C. Elliott, Mark Schwartz Professor of Chinese and Inner Asian History (*Chair, fall term*)  
 Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies (*Chair, spring term*)  
*(on leave spring term)*

Rowan K. Flad, Professor of Anthropology

Janet Gyatso, Hershey Professor of Buddhist Studies (*Divinity School*)

Cemal Kafadar, Vehbi Koc Professor of Turkish Studies

C. C. Lamberg-Karlovsky, Stephen Phillips Professor of Archaeology and Ethnology

Terry D. Martin, George F. Baker III Professor of Russian Studies

Kelly A. O'Neill-Uzgiris, Associate Professor of History (*on leave fall term*)

Michael J. Puett, Walter C. Klein Professor of Chinese History

David J. Roxburgh, Prince Alwaleed bin Talal Professor of Islamic Art History

Michael Witzel, Wales Professor of Sanskrit

Richard K. Wolf, Professor of Music

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 1730 Cambridge Street, Cambridge, MA, 02138; 617-495-3777.



# Latin American and Iberian Studies

## **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

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Davíd L. Carrasco, Neil L. Rudenstine Professor for the Study of Latin America (*Divinity School and Faculty of Arts and Sciences*) (*Chair*)

Thomas B. F. Cummins, Dumbarton Oaks Professor of the History of Pre-Columbian and Colonial Art

Alejandro de la Fuente, Robert Woods Bliss Professor of Latin-American History and Economics and Professor of African and African American Studies and of History

Brian D. Farrell, Professor of Biology

William L. Fash, Bowditch Professor of Central American and Mexican Archaeology and Ethnology (*on leave spring term*)

Frances Hagopian, Jorge Paulo Lemann Visiting Associate Professor

N. Michele Holbrook, Charles Bullard Professor of Forestry

Steven R. Levitsky, Professor of Government

Doris Sommer, Ira Jewell Williams, Jr. Professor of Romance Languages and Literatures and of African and African American Studies

Diana Sorensen, Dean of Arts and Humanities, and James F. Rothenberg Professor of Romance Languages and Literatures and of Comparative Literature

The Committee on Latin American and Iberian Studies (CLAIS) is composed of a multidisciplinary group of FAS faculty associated with the activities of the David Rockefeller Center for Latin American Studies, which promotes and coordinates research, teaching, and public programs on Latin American and related fields such as the Caribbean, the Iberian peninsula, and the Latin American Diaspora in the United States.

Founded in 1994, Harvard's David Rockefeller Center for Latin American Studies (DRCLAS) works to increase knowledge of the cultures, economies, histories, environment, and contemporary affairs of past and present Latin America. For complete information on DRCLAS visit the David Rockefeller Center for Latin American Studies website.

Although the CLAIS does not offer an undergraduate concentration or an advanced degree, it awards a Certificate in Latin American Studies to undergraduate and graduate students who have completed an approved course of study as part of their work toward a degree in many concentrations. For complete information on Latin American Studies certificate requirements, visit the David Rockefeller Center for Latin American Studies website ("Undergraduate



Certificate in Latin American Studies" or "Certificate in Latin American Studies - Graduate Students").

The following departments and professional schools offer courses related to Latin America. A more detailed description of these courses may be found in this catalog under the appropriate department, or on the course websites of the different professional schools.

Departments with Courses of Interest:

- General Education
- Freshman Seminars
- Anthropology
- Economics
- English
- Government
- History
- History of Literature
- History of Art and Architecture
- History of Science
- Organismic and Evolutionary Biology
- The Study of Religion
- Romance Languages and Literatures
- Social Studies
- Sociology

Professional Schools with Courses of Interest:

- Harvard Business School
- Harvard Graduate School of Design
- Harvard Divinity School



- Harvard Graduate School of Education
- Harvard Kennedy School
- Harvard Law School
- Harvard Medical School
- Harvard School of Public Health
- Harvard Extension School

Related website pages, on the David Rockefeller Center for Latin American Studies website:

- Guide to Courses
- Student Resources
- College Student Resources (Undergraduate Grants and Prizes)
- Graduate and Professional School Students Resources

## Life Sciences

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

The Life Sciences encompass a broad array of disciplines that share a focus on understanding living systems. Life Sciences courses are jointly organized by faculty members of the Chemistry and Chemical Biology, Human Evolutionary Biology, Molecular and Cellular Biology, Organismic and Evolutionary Biology, Psychology, and Stem Cell and Regenerative Biology Departments. Life Sciences courses fulfill requirements in multiple Life Sciences Concentrations and General Education and are taught by teams of faculty from multiple departments. Incoming students interested in the life sciences should take Harvard's online Chemistry and Biology Placement Tests. Students who take these tests will receive a recommendation for the appropriate beginning Life Science course, either Life Science 1a, or Life and Physical Sciences A. For more information about Life Sciences Education, please visit the [Life Sciences Homepage](#).

### ***Life and Physical Sciences***



### *Primarily for Undergraduates*

#### **Life and Physical Sciences A. Foundational Chemistry and Biology**

Catalog Number: 3956

*Gregory C. Tucci and Tamara J. Brenner*

*Half course (fall term). M., W., F., at 9, and a weekly one-hour of discussion section, three-hour lab, and one-hour of review session. EXAM GROUP: 10*

This course introduces fundamental concepts in chemistry and biology. Topics in chemistry include stoichiometry, acids and bases, aqueous solutions, gases, thermochemistry, electrons in atoms, and chemical bonding. The course also examines biological molecules, the transfer of information from DNA to RNA to protein, and cell structure and signaling.

*Note:* Students should use their scores on the Chemistry and Biology Placement Tests to determine whether to enroll in Life and Physical Sciences A or Life Sciences 1a. This course assumes fluency with high school algebra. Students who have completed Life Sciences 1a, Physical Sciences 1, Physical Sciences 10, Physical Sciences 11, Chemistry 17 or Chemistry 20 may not take Life and Physical Sciences A for credit. This course, when taken for a letter grade, meets the General Education Requirement for Science of Living Systems.

### ***Life Sciences***

#### *Primarily for Undergraduates*

#### **Life Sciences 1a. An Integrated Introduction to the Life Sciences: Chemistry, Molecular Biology, and Cell Biology**

Catalog Number: 2137

*Robert A. Lue, Daniel E. Kahne, Richard M. Losick, and Susan Mango*

*Half course (fall term). Tu., Th., 1–2:30;. EXAM GROUP: 8*

What are the fundamental features of living systems? What are the molecules imparting them and how do their chemical properties explain their biological roles? The answers form a basis for understanding the molecules of life, the cell, diseases, and medicines. In contrast with traditional presentations of relevant scientific disciplines in separate courses, we take an integrated approach, presenting chemistry, molecular biology, biochemistry, and cell biology framed within central problems such as the biology of HIV and cancer.

*Note:* For more information about the assignment process, please see the course website in the fall. This course, in combination with Life Sciences 1b, constitutes an integrated introduction to the Life Sciences. This course, when taken for a letter grade, meets the General Education requirement in Science of Living Systems.

#### **Life Sciences 1b. An Integrated Introduction to the Life Sciences: Genetics, Genomics, and Evolution**

Catalog Number: 2159

*Maryellen Ruvolo, Hopi E. Hoekstra, Kevin C. Eggen, and Pardis Sabeti*

*Half course (spring term). Tu., Th., 10-11:30, and three hours of laboratory/discussion weekly.*

*EXAM GROUP: 16*

How are observable characteristics of organisms influenced by genetics? How do genomes change over time to produce the differences we see among species? This course takes an



integrated approach, showing how genetics and evolution are intimately related, together explaining the patterns of genetic variation we see in nature, and how genomics can be used to analyze variation. In covering Mendelian genetics, quantitative genetics, and population genetics, this course will emphasize developments involving our own species.

*Note:* This course, in combination with Life Sciences 1a, constitutes an integrated introduction to the Life Sciences. This course, when taken for a letter grade, meets the General Education requirement in Science of Living Systems.

### **Life Sciences 2. Evolutionary Human Physiology and Anatomy**

Catalog Number: 9007 Enrollment: Limited to 300.

*Peter T. Ellison, George V. Lauder, and Daniel E. Lieberman*

*Half course (fall term). M., W., F., at 1, and three hours of laboratory/discussion weekly. EXAM GROUP: 1*

Why is the human body the way that it is? This course explores human anatomy and physiology from an integrated framework, combining functional, comparative, and evolutionary perspectives on how organisms work. Major topics, which follow a life-course framework, include embryogenesis, metabolism and energetics, growth and development, movement and locomotion, food and digestion, stress and disease, and reproduction. Also considered is the relevance of human biology to contemporary issues in human health and biology.

*Note:* This course replaces OEB 102. This course, when taken for a letter grade, meets the General Education requirement in Science of Living Systems. This course may not be taken Pass/Fail.

### **[Life Sciences 60. Ethics, Biotechnology, and the Future of Human Nature]**

Catalog Number: 2164 Enrollment: May be limited.

*Douglas A. Melton and Michael J. Sandel*

*Half course (fall term). M., 2–4, and a weekly section to be arranged.*

Explores the moral, political, and scientific implications of new developments in biotechnology. Does science give us the power to alter human nature? If so, how should we exercise this power? The course examines the science and ethics of stem cell research, human cloning, sex selection, genetic engineering, eugenics, genetic discrimination, and human-animal hybrids. Readings will be drawn from literature in the areas of biology, philosophy, and public policy.

*Note:* Expected to be given in 2015–16. May not be taken concurrently with Government 1093. May not be taken for credit if Government 1093 has already been taken. The course is open to both science and non-science concentrators. Ethical Reasoning 22 (Justice) is recommended as a background. This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

### ***Cross-listed Courses***

#### **MCB 192. Principles of Drug Discovery and Development**

#### **Science of Living Systems 11. Molecules of Life**

**[\*Visual and Environmental Studies 54s. Animating Science]**

### ***For Undergraduates and Graduates***



### **\*Life Sciences 100r. Experimental Research in the Life Sciences**

Catalog Number: 2122 Enrollment: Limited to 30.

*Alain Viel*

*Half course (fall term; repeated spring term). Fall: Th., 3–5; Spring: M., 1–2:30. EXAM*

*GROUP: Fall: 2; Spring: 8*

A laboratory course that immerses students in a dynamic project-based research environment. Participate in experimental projects directly linked with ongoing faculty research. Students select a project from the following research tracks: neurobiology, microbial sciences, cell biology, and synthetic biology. New projects, including some in other research fields, are offered every term. In a highly collaborative atmosphere, students form a fully-functional and diverse research group based on the sharing of ideas and progress reports between projects. New projects every term. Students collaborate to form a fully-functional and diverse research group based on the sharing of ideas and progress reports between projects. The spring microbiology project is part of the "genomes to Biomes" series.

*Note:* Location of the first meeting will be announced on the course website. Open to freshmen, sophomores, juniors, and seniors, regardless of concentration, and suitable for students either with or without extensive laboratory experience. The course may only be repeated once and the second enrollment must be approved by the instructor.

*Prerequisite:* LPS A or LS 1a or permission of the instructor. Students interested in a neurobiology project will need MCB 80 or permission of the instructor.

### **Life Sciences 120. Global Health Threats**

Catalog Number: 98532 Enrollment: Limited to 50.

*Richard M. Losick and Barry R. Bloom (Public Health)*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

The multidisciplinary application of epidemiology, molecular biology and genetics, pathogenesis, drug discovery, immunology and vaccine development, and economic analysis to understanding and combating major threats to human health in developing countries. Emphasis will be on critical readings and scientific writing. Grades will be based on papers in which students will propose the application of multidisciplinary approaches to global health threats not covered in lecture.

*Note:* This course cannot be taken if MCB 120 has already been taken. LS 120 cannot be taken concurrently with MCB 120.

*Prerequisite:* LS 1a and LS 1b, or LPS A and one additional course from the following:

Chemistry 27, Engineering 53, Life Sciences 2, MCB 60, MCB 52, MCB 54, OEB 10, OEB 53, or SCRB 10, or permission of the instructors.

### ***Primarily for Graduates***

### **\*Life Sciences 200. Integrated Science (Graduate Seminar in Undergraduate Education) - (New Course)**

Catalog Number: 84132

*Andrew W. Murray, Michael Manish Desai, Erel Levine, and Mary Elizabeth Wahl*

*Half course (fall term). M., W., F., 10–11:30. EXAM GROUP: 5*

Graduate students who take this class will help to shape the structure of a course to be offered the following year and will be encouraged to serve as its teaching fellows. That course is a year-long



integrated double course that will introduce a group of motivated freshman to the concepts that they will need to do interdisciplinary scientific research. Problems in the life sciences will be used to illustrate and integrate critical concepts from mathematics, physics, chemistry, computer science, and biology.

*Note:* The seminar will design and develop a course on these themes for undergraduates.

*Prerequisite:* Students must be in their second year of graduate study or above, and permission of the instructor.

### ***Cross-listed Courses***

#### **BCMP 234. Cellular Metabolism and Human Disease**

For additional courses in the Life Sciences, see offerings in the following chapters:

Chemical and Physical Biology

Chemistry and Chemical Biology

Human Evolutionary Biology

Molecular and Cellular Biology

Neurobiology

Organismic and Evolutionary Biology

Psychology

Stem Cell and Regenerative Biology

## Linguistics

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### ***Faculty of the Department of Linguistics***

Jay Jasanoff, Diebold Professor of Indo-European Linguistics and Philology (*Chair*)

Isabelle Carole Charnavel, Assistant Professor of Linguistics

Gennaro Chierchia, Haas Foundations Professor of Linguistics



Michael S. Flier, Oleksandr Potebnja Professor of Ukrainian Philology  
 C.-T. James Huang, Professor of Linguistics (*Director of Graduate Studies*)  
 Patrick J. Jones, Lecturer on Linguistics  
 Chi-Ming (Louis) Liu, College Fellow in the Department of Linguistics  
 Maria Polinsky, Professor of Linguistics (*Director of Undergraduate Studies*)  
 Jeremy Rau, Professor of Linguistics and of the Classics  
 Kevin M. Ryan, Assistant Professor of Linguistics (*on leave 2014-15*)

### ***Other Faculty Offering Instruction in the Department of Linguistics***

Steven Clancy, Senior Lecturer on Slavic Languages and Literatures and Director of the Slavic Language Program  
 Wesley M. Jacobsen, Professor of the Practice of the Japanese Language and Director of the Japanese Language Program  
 Steven Pinker, Johnstone Family Professor of Psychology

### ***Affiliates of the Department of Linguistics***

Jesse Snedeker, Professor of Psychology

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; and, the linguistic offerings at MIT.

### ***Primarily for Undergraduates***

#### **Linguistics 83. Language, Structure, and Cognition**

Catalog Number: 8319

*Maria Polinsky*

*Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12*

What do the world's almost 7,000 languages have in common? Why do they show recurrent commonalities and principled differences? What do they reveal about the human ability for speaking and thinking? How do languages develop? How do they die? This course addresses these and related questions while introducing the languages of the world; their distribution, recurrent structural properties, and genetic classification; processes of language contact; and the relationship between language and the brain.

#### **\*Linguistics 91r. Supervised Reading and Research**

Catalog Number: 1100

*Maria Polinsky and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

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 this course count towards the concentration.



### **\*Linguistics 97r. Group Tutorial — Sophomore Year**

Catalog Number: 1791

*Maria Polinsky and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 7;  
 Spring: 18*

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 the spring term.

*Note:* Required of concentrators.

### **\*Linguistics 98a. Group Tutorial — Junior Year**

Catalog Number: 4222

*Maria Polinsky and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6;  
 Spring: 5*

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

*Maria Polinsky and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 7;  
 Spring: 18*

Individual tutorial with a faculty member.

*Note:* Required of concentrators.

### **\*Linguistics 99a. Tutorial — Senior Year**

Catalog Number: 3082

*Maria Polinsky*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 16*

Group tutorial led by the Head Tutor with the participation of students' thesis advisors 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:* Both Linguistics 99a and 99b are required of all senior honors concentrators. Students who wish to enroll must obtain the signature of the Head Tutor.

### **\*Linguistics 99b. Tutorial - Senior Year**

Catalog Number: 2561

*Maria Polinsky*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 5*

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:* Both Linguistics 99a and 99b are required of all senior honors concentrators. Students who wish to enroll must obtain the signature of the Head Tutor.

### **Cross-listed Courses**

#### **[Empirical and Mathematical Reasoning 11. Making Sense: Language, Logic, and Communication]**

##### ***For Undergraduates and Graduates***

##### **Linguistics 101. The Science of Language: An Introduction**

Catalog Number: 1498

*Isabelle Carole Charnavel*

*Half course (spring term). M., W., at 10. EXAM GROUP: 6*

This course introduces components of study of language: phonology, morphology, syntax, and semantics. It presents the view 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 games, and language disorders.

##### **Linguistics 102. Sentence Structure**

Catalog Number: 7318

*Isabelle Carole Charnavel*

*Half course (spring term). M., W., at 2. EXAM GROUP: 18*

What determines how the words in a sentence are put together in a given language? This course introduces the field of syntax, and the study of order and structure among words. Students will learn to construct and evaluate syntactic analyses and argumentation and will be exposed to variation and universals in the syntactic patterns found in natural languages. The course will also provide an introductory survey of syntactic phenomena, including question formation, the passive, anaphora, and agreement.

##### **Linguistics 104. Word Structure**

Catalog Number: 1289

*Chi-Ming (Louis) Liu*

*Half course (fall term). M., W., at 10. EXAM GROUP: 5*

This course investigates the nature and structure of words through the lens of contemporary morphological theory. What's in a word? Topics include the place of word formation in relation to phonological and syntactic phenomena, morphological processes, and the nature of the lexicon. Emphasis on the analysis of morphological phenomena in a range of typologically diverse languages.

##### **Linguistics 105. Sounds of Language**

Catalog Number: 2791

*Patrick J. Jones*

*Half course (fall term). M., W., at 11. EXAM GROUP: 18*

What are the sounds of the world languages, and how are they organized to make words and



sentences? Why are some sounds hard to hear or make? Is there a ‘universal inventory’ of sounds? This class introduces students to the sounds of the world’s languages, and provides tools for studying them systematically. We will study the setup to transfer thoughts from one brain to another.

### **Linguistics 106. Knowledge of Meaning**

Catalog Number: 6115

*Gennaro Chierchia*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 15*

An introductory course on semantic interpretation in natural language. What does it mean to “know the meaning” of an utterance? This course provides the tools to characterize and study the meanings of sentences. Topics covered include the relation between form and meaning, ambiguity, reference, context dependency, and the role of logic vs. pragmatics in communication.

### **Linguistics 107. Introduction to Indo-European**

Catalog Number: 1336

*Jay Jasanoff*

*Half course (spring term). M., W., at 11. EXAM GROUP: 14*

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 108. Introduction to Historical Linguistics]**

Catalog Number: 8486

*To be determined*

*Half course (spring 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 2015–16.

### **Linguistics 112. Syntactic Theory I**

Catalog Number: 4730

*C.-T. James Huang*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

This course provides an intensive introduction to generative syntactic theory. Emphasis on syntactic argumentation. Topics center on foundational problems in the theory of syntax, including phrase structure of nominals and clauses, varieties of movement, locality, argument structure, ellipsis case agreement, and the syntax-semantics interface.

*Prerequisite:* Linguistics 102, equivalent, or permission of the instructor.

### **[Linguistics 114. Morphological Theory]**

Catalog Number: 7639

*To be determined*

*Half course (fall term). Hours to be arranged.*



This course provides an intensive introduction to morphological theory. Students will be introduced to current research and areas of debate in morphology proper, in morpho-syntax, and in morpho-phonology.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Ling 104, equivalent, or permission of the instructor.

### **Linguistics 115. Phonological Theory I**

Catalog Number: 1549

*Patrick J. Jones*

*Half course (fall term). M., 1–3. EXAM GROUP: I*

This graduate level class is an intensive introduction to phonological theory and experimental work in phonology. This includes rule-based and constraint-based approaches, the typology of phonological processes (vowel and consonant harmony, assimilation and dissimilation, lenition and fortition, etc.), and phonological acquisition. Experimental approaches will deal with gradience, exceptionality, and productivity with an introduction to the quantitative methodologies that these phenomena require.

*Prerequisite:* Linguistics 105, equivalent, or permission of instructor.

### **Linguistics 116. Semantic Theory I**

Catalog Number: 2118

*Gennaro Chierchia*

*Half course (fall term). W., 1–3. EXAM GROUP: I*

An introductory course on semantics in generative grammar. This course provides the formal tools to investigate the truth-conditional meanings of sentences. Topics covered include: compositionality, type theory and the fundamentals of clause structure, quantifier scope, and variable-binding.

*Prerequisite:* Linguistics 106, equivalent, or permission of the instructor.

### **Linguistics 117r. Linguistic Field Methods**

Catalog Number: 8401

*Maria Polinsky*

*Half course (spring term). W., 10–12:30. EXAM GROUP: 5*

Instruction in the elicitation of phonological, morphological, and syntactic information from a native speaker of an unfamiliar language, with the object of 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. Historical and Comparative Linguistics]**

Catalog Number: 2967

*To be determined*

*Half course (spring term). Hours to be arranged.*

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, and subgrouping.

*Note:* Expected to be given in 2015–16.



**[Linguistics 123. Intermediate Indo-European]**

Catalog Number: 6959

*To be determined.*

*Half course (spring term). Hours to be arranged.*

Designed as a sequel to Linguistics 107. A detailed overview of Indo-European comparative grammar, with emphasis on recent developments and discoveries.

*Note:* Expected to be given in 2015–16.

**[Linguistics 130. Psycholinguistics: Seminar]**

Catalog Number: 76462

*To be determined.*

*Half course (fall term). Hours to be arranged.*

A survey of current psycholinguistics research 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.

*Note:* Expected to be given in 2015–16.

**[Linguistics 132. Psychosemantics]**

Catalog Number: 6578

*Gennaro Chierchia and Jesse Snedeker*

*Half course (fall term). Hours to be arranged.*

Explores issues at the interface of linguistic semantics, pragmatics and psychology. Introduces how the analysis of meaning has been pursued by linguists and psychologists. Focuses on topics that are both of central interest to theoretical linguistics and the target of experimental research. These include sentence structure, sentential connectives, quantification, numbers, mass-count distinction, adjectives and comparison, scales and modalities.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* A background in psychology or linguistics; some acquaintance with both helpful but not necessary.

**[Linguistics 146. Syntax and Processing]**

Catalog Number: 0536

*To be determined.*

*Half course (spring term). Hours to be arranged.*

Selected grammatical phenomena will be examined from a theoretical and experimental perspective, with a view toward answering questions like the following: What theoretical treatments are available? How do experimental studies distinguish among competing theoretical approaches? What kind of future experimental work is needed to resolve the outstanding issues?

*Note:* Expected to be given in 2015–16.

**Linguistics 148. Language Universals**

Catalog Number: 5455

*Maria Polinsky*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

Provides an introduction to the study of cross-linguistic variation and analyzes alternative



approaches to language universals (functional explanations, processing explanations, explanations in terms of universal grammar). Topics to be studied include word order, case marking, agreement, lexical categories, subject-hood, and information structure. Sampling techniques and the use of hierarchies will also be covered.

*Prerequisite:* Linguistics 102 or permission of instructor.

### **Linguistics 152. Prosody and Intonation**

Catalog Number: 9457

*Patrick J. Jones*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

Prosody and intonation are intricately linked to many domains of language use and linguistic structure. We examine the phonetic form of prosodic contours and intonational grouping, the function of prosody in expressing semantic and pragmatic information and in disambiguation during sentence production and comprehension, and the use of "implicit" prosody even in silent reading.

*Prerequisite:* Linguistics 101 or permission of instructor.

### **Linguistics 160. Psychology of Language - (New Course)**

Catalog Number: 30781

*Gennaro Chierchia and Jesse Snedeker*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

How do children manage to learn the sounds, the words and the grammar of their native language in three years or less? Does the language that we speak change how we think? What happens in the mind (and brain) that allows us to convert sound into meaning during language comprehension (and meaning into motor movements during language production)? Why are human languages similar to each other in some ways, and what allows them to vary in others? We will explore these questions integrating the perspectives of linguistics, psychology and cognitive neuroscience.

*Note:* This is the same course as Psychology 1605. Only one of the two courses may be taken for credit.

*Prerequisite:* For psychology concentrators, Science of Living Systems 20. For linguistics concentrators: this course may be substituted for Linguistics 83 or Linguistics 101 as a requirement for the concentration.

### **Linguistics 168. Introduction to Germanic Linguistics**

Catalog Number: 7925

*Jay Jasanoff*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 15*

An introduction to the comparative and historical linguistics of the Germanic family, with emphasis on Gothic and the early medieval languages.

*Prerequisite:* Elementary knowledge of German, or another Germanic language, or permission of instructor.

### **Linguistics 171. Structure of Chinese**

Catalog Number: 4346

*Chi-Ming (Louis) Liu*



*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

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 102 in previous or current term or permission of instructor.

### [Linguistics 173. Linguistic Issues in 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 2015–16.

*Prerequisite:* Japanese 120b 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., 3–5. EXAM GROUP: 17*

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 120b, or familiarity with the linguistic structure of a non-Indo-European language, or permission of instructor.

### [Linguistics 175. Structure of Japanese ]

Catalog Number: 4029

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

Introduction to the syntactic structure of Modern Japanese: the structure of clauses and noun phrases and other constituents; selected special topics such as word order and scrambling, relative clauses and other sentence modifiers, passives and causatives, case marking, etc., as they pertain to linguistic theory.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Linguistics 102 in previous or current term or permission of instructor.

### [Linguistics 176. History and Prehistory 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 2015–16.

*Prerequisite:* Knowledge of Japanese equivalent to Japanese 120b, or familiarity with historical linguistics, or permission of the instructor.

### **[Linguistics 185r. Issues in Austronesian Linguistics]**

Catalog Number: 99421

*Maria Polinsky*

*Half course (spring term). M., 1–3.*

This course is an in-depth investigation into comparative Austronesian syntax. The Austronesian language family -- roughly 1,200 genetically-related languages dispersed over an area encompassing Madagascar, Taiwan, Southeast Asia, and islands of the Pacific -- exhibits several unusual properties: verb-first word order, ergativity, wh-agreement, articulated voice systems, and cleft structures. The course examines these phenomena from the perspective of comparative Austronesian syntax.

*Note:* Expected to be given in 2015–16.

### ***Cross-listed Courses***

#### **Irish 160r (formerly Irish 160). Advanced Modern Irish**

[Irish 161r. Continuing Advanced Modern Irish]

#### **Latin 134. Archaic Latin**

#### **Psychology 1605. Psychology of Language**

[Semitic Philology 130. Diglossia in Semitic Languages]

### ***Primarily for Graduates***

#### **Linguistics 200. Second Language Acquisition**

Catalog Number: 6098

*Steven Clancy*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

An overview of second-language teaching and learning focused on theoretical models, learning objectives, developmental stages, materials design, and the use of new technology in teaching. The course explores the nature of second language acquisition, focused specifically on the needs of graduate students teaching a second language.

*Note:* This course must be taken for letter grade.

#### **Linguistics 204r. Topics in Syntax**

Catalog Number: 6446

*Chi-ming (Louis) Liu (fall term) and C.-T. James Huang (spring term)*

*Half course (fall term; repeated spring term). Fall: Th., 1–3; Spring: M., 1–3. EXAM GROUP: 8*

Examination of current issues in syntactic theory with focus on topics of interest to the class.

#### **Linguistics 205r. The Syntax-Semantics Interface**

Catalog Number: 0776

*Isabelle Carole Charnavel*

*Half course (fall term). F., 1–3. EXAM GROUP: 1*



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. Argument Structure and Syntactic Structure]**

Catalog Number: 9020

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

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?

*Note:* Expected to be given in 2015–16.

**[Linguistics 207r. Topics in Semantics ]**

Catalog Number: 31141

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

Current issues in semantics. Topics to possibly include: Scope and anaphoric properties of indefinites, quantificational variability and generic uses, long distance indefinites.

*Note:* Expected to be given in 2015–16.

**Linguistics 212. Syntactic Theory II**

Catalog Number: 8175

*C.-T. James Huang*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

This course is designed to enable students to follow current research in syntax. Topics vary from year to year; may include head movement, case and agreement, anaphora, functional categories, ellipsis, argument structure, constraints on movement and derivations, and on form-meaning mappings.

*Prerequisite:* Linguistics 112, equivalent, or permission of instructor.

**Linguistics 215. Phonological Theory II**

Catalog Number: 5612

*Patrick J. Jones*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

This course addresses topics of current interest in phonological theory, potentially including competing constraint grammar frameworks, learnability, naturalness biases, prosody, quantitative approaches (experimental or corpus-driven), variation, gradience, and the morphological interface.

*Prerequisite:* Linguistics 115.

**Linguistics 216. Semantic Theory II**

Catalog Number: 8812

*Gennaro Chierchia*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

Continuation of Linguistics 116. Designed to enable students to follow current research in



semantics. Topics covered include: intensional contexts, indexicals, modalities, event based semantics, presuppositions, and formal theories of implicatures.

*Prerequisite:* Linguistics 116, equivalent, or permission of the instructor.

### **[Linguistics 219r. Advanced Phonology]**

Catalog Number: 2151

*Instructor to be determined.*

*Half course (spring term). Hours to be arranged.*

An examination of why phonological phenomena exist at all, and the nature of phonological computation. Primarily exemplification from harmony, reduplication, and meter. Design conditions imposed by economy, perception, articulation, the learning path, and the lexicon.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Linguistics 114 or permission of instructor.

### **[Linguistics 220ar. Advanced Indo-European]**

Catalog Number: 3428

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

Topics in Indo-European comparative grammar, including Anatolian. Conducted as a seminar.

*Note:* Expected to be given in 2015–16.

### **Linguistics 221r. Workshop in Indo-European**

Catalog Number: 1008

*Jay Jasanoff*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

The topic for the year will be arranged in consultation with interested students. Conducted as a seminar.

### **Linguistics 225a. Introduction to Hittite**

Catalog Number: 8206

*Jeremy Rau*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

Grammar and reading of texts in cuneiform and in transliteration; essentials of the comparative grammar of the Indo-European languages of Anatolia.

### **Linguistics 226r. Advanced Hittite**

Catalog Number: 0858

*Jeremy Rau*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

Advanced readings in Hittite and an introduction to Cuneiform and Hieroglyphic Luvian.

*Prerequisite:* Linguistics 225 or permission of instructor.

### **Linguistics 241r. Practicum in Linguistics**

Catalog Number: 4260

*Isabelle Carole Charnavel*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*



Presentation of reports on current research or assigned topics.  
*Note:* Required of second- and third-year Linguistics graduate students.

**[Linguistics 247. Topics in Germanic Linguistics]**

Catalog Number: 3693

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

Investigation of selected topics in Germanic historical linguistics.

*Note:* Expected to be given in 2015–16.

**Linguistics 250. Old Church Slavonic**

Catalog Number: 8449

*Michael S. Flier*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

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 251. Advanced Readings in Church Slavonic Texts ]**

Catalog Number: 7038

*Michael S. Flier*

*Half course (fall term). Hours to be arranged.*

Readings in canonical Old Church Slavonic texts and later Church Slavonic redactions.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Linguistics 250.

**[Linguistics 252. Comparative Slavic Linguistics]**

Catalog Number: 7659

*Michael S. Flier*

*Half course (spring term). Hours to be arranged.*

Introduction to the historical phonology and morphology of the Slavic languages with special attention to relative chronology and linguistic geography.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Linguistics 250

**Linguistics 287. Topics in Computational Linguistics and Natural Language Processing - (New Course)**

Catalog Number: 29774

*Stuart M. Shieber*

*Half course (spring term). M., F., 3–5. EXAM GROUP: 17*

In-depth investigation of topics in computational linguistics and natural-language processing.

Students discuss research papers and undertake a significant research project. This term, the course will focus on synchronous grammars and their use for formal modeling of the semantics of natural language, including background on Montague grammar, pertinent logic, lambda calculus, applications to machine translation and other language-processing problems.

*Note:* The course is being offered jointly with the computer science program as Computer Science 287r, with computationally-oriented final projects. Students may not take both Computer



Science 287r and Linguistics 287 for credit.

*Prerequisite:* Computer Science 187 or Linguistics 116 or permission of instructor.

**[Linguistics 290. Heritage Languages and Their Speakers ]**

Catalog Number: 58133

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

This course will present and analyze theoretical and experimental aspects of heritage language study. A heritage language is a minority language that an individual was exposed to in childhood but never learned to full competence because of the switch to another language. The course will identify critical linguistic generalizations applying to heritage languages. We will test the universal principles of language structure that are expected to stay unchanged in any language. The students will also learn crucial methodologies and tools for investigating heritage languages and their speakers in an experimental setting. Class discussions will reflect the current social and political discourse surrounding heritage populations. The work done in this class will lead to the development of experimental methodologies and tools for studying and testing heritage languages in the classroom.

*Note:* Expected to be given in 2015–16.

***Cross-listed Courses***

**Computer Science 287r. Topics in Computational Linguistics and Natural Language Processing**

**[Irish 200. Introduction to Old Irish]**

**[Irish 201r. Continuing Old Irish]**

**Welsh 225a. Medieval Welsh Language and Literature**

**Welsh 225b. Medieval Welsh Poetry**

***Graduate Courses of Reading and Research***

**\*Linguistics 300. Direction of Doctoral Dissertations**

Catalog Number: 6729

*Alfonso Caramazza 1871 (on leave spring term), Isabelle Carole Charnavel 7194, Gennaro Chierchia 5355, Michael S. Flier 2878, C.-T. James Huang 4066, Wesley M. Jacobsen 3443, Jay Jasanoff 1661, Steven Pinker 4733, Maria Polinsky 5601, Jeremy Rau 4657, Kevin M. Ryan 2030 (on leave 2014-15), and P. Oktor Skjaervo 2869 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Linguistics 301. Reading or Special Topics Course**

Catalog Number: 0861

*Members of the Department and others listed under Linguistics 300.*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*



# Mathematics

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Department of Mathematics*

Peter B. Kronheimer, William Caspar Graustein Professor of Mathematics (*Chair*)

Jameel Habeeb Al-Aidroos, Senior Preceptor in Mathematics

Paul G. Bamberg, Senior Lecturer on Mathematics

Rosalie Belanger-Rioux, Lecturer on Mathematics

William Boney, Benjamin Peirce Fellow (*on leave 2014-15*)

Yaiza Canzani, Benjamin Peirce Fellow (*on leave 2014-15*)

Janet Chen, Senior Preceptor in Mathematics

Sarah Chisholm, Preceptor in Mathematics

Tristan Clifford Collins, Benjamin Peirce Fellow

Yaim Cooper, Lecturer on Mathematics

Daniel Anthony Cristofaro-Gardiner, Benjamin Peirce Fellow (*on leave fall term*)

Noam D. Elkies, Professor of Mathematics (*on leave 2014-15*)

Jonathan Mbogo Esole, Benjamin Peirce Fellow

Sukhada Fadnavis, Benjamin Peirce Fellow

Dennis Gaitsgory, Professor of Mathematics

Peter McKee Garfield, Preceptor in Mathematics

Robin Gottlieb, Professor of the Practice of Mathematics

Benedict H. Gross, George Vasmer Leverett Professor of Mathematics, Harvard College Professor (*on leave spring term*)

Joseph D. Harris, Higgins Professor of Mathematics, Harvard College Professor

Michael J. Hopkins, Professor of Mathematics

Yu-Wen Hsu, Preceptor in Mathematics

Adam Jacob, Lecturer on Mathematics

Tasho Kaletha, Benjamin Peirce Fellow

Brendan Kelly, Preceptor in Mathematics

Mark Kisin, Professor of Mathematics (*Director of Graduate Studies*)

Oliver Knill, Preceptor in Mathematics

Siu Cheong Lau, Benjamin Peirce Fellow

Jacob Lurie, Professor of Mathematics (*Director of Undergraduate Studies*)

Barry C. Mazur, Gerhard Gade University Professor

Curtis T. McMullen, Maria Moors Cabot Professor of the Natural Sciences

Alison Beth Miller, Benjamin Peirce Fellow (*on leave spring term*)

Martin A. Nowak, Professor of Mathematics and of Biology (*on leave fall term*)



Hector Hardy Pasten Vasquez, Benjamin Peirce Fellow  
 Upendra Prasad, Lecturer on Mathematics  
 Igor Andreevich Rapinchuk, Lecturer on Mathematics  
 Emily Elizabeth Riehl, Benjamin Peirce Fellow  
 Laure Saint-Raymond, Visiting Professor of Mathematics  
 Wilfried Schmid, Dwight Parker Robinson Professor of Mathematics (*on leave spring term*)  
 Arul Shankar, Benjamin Peirce Fellow  
 Yum Tong Siu, William Elwood Byerly Professor of Mathematics  
 Shlomo Z. Sternberg, George Putnam Professor of Pure and Applied Mathematics  
 Hiro Tanaka, Benjamin Peirce Fellow (*on leave spring term*)  
 Clifford Taubes, William Petschek Professor of Mathematics  
 W. Hugh Woodin, Professor of Philosophy and of Mathematics (*on leave spring term*)  
 Horng-Tzer Yau, Professor of Mathematics  
 Shing-Tung Yau, William Caspar Graustein Professor of Mathematics and Professor of Physics  
 Nina Zipser, Lecturer on Mathematics and Dean for Faculty Affairs

### ***Other Faculty Offering Instruction in the Department of Mathematics***

The Mathematics Department hopes that all students will take mathematics courses. This said, be careful to take only those courses that are appropriate for your level of experience. 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, 18, 19a,b, 21a,b, 23a,b and 25a,b. The Harvard Mathematics Placement Test results recommend the appropriate starting level course, either Mathematics Ma, 1a, 1b, or 21. Recommendation for Mathematics 21 is sufficient qualification for Mathematics 18, 19a,b, 21a, 23a, and 25a.

What follows briefly describes these courses: Mathematics 1a introduces the basic ideas and techniques of calculus while Mathematics 1b covers integration techniques, differential equations, 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 Ma, Mb, 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 19a,b are courses that are designed for students concentrating in the life sciences. (These course are recommended over Math 21a,b by the various life science concentrations). In any event, Math 19a can be taken either before or after Math 21a,b. Math 19b should not be taken with Math 21b. Math 19a teaches differential equations, related techniques and modeling with applications to the life sciences. Math 19b teaches linear algebra, probability and statistics with a focus on life science examples and applications. Mathematics 18 covers selected topics from Mathematics 1b and 21a 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 strong interest in mathematics. They assume a solid understanding of one-variable calculus, 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. Mathematics 55, covers the material from Mathematics 25 plus much material from Mathematics 122 and Mathematics 113. Entrance into Mathematics 55 requires the consent of the instructor.

Students who have had substantial preparation beyond the level of the Advanced Placement Examinations are urged to consult the Director of Undergraduate Studies 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 supply 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, 18, 19, or 21.

Mathematics 113, 114, 122, 123, 131, and 132 form the core of the department's more advanced courses. Mathematics concentrators are encouraged to consider taking these courses, particularly Mathematics 113, 122 and 131. (Those taking 55a,b will have covered the material of Mathematics 113 and 122, and are encouraged to take Mathematics 114, 123, and 132.)

Courses numbered 200-249 are introductory graduate courses. They will include substantial homework and are likely to have a final exam, either in class or take home. Most are taught every year. They may be suitable for very advanced undergraduates. Mathematics 212a, 230a, 231a and 232a will help prepare graduate students for the qualifying examination in Mathematics. Courses numbered 250-299 are graduate topic courses, intended for advanced graduate students.

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 Director of Undergraduate Studies 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 Ma. Introduction to Functions and Calculus I**

Catalog Number: 1981 Enrollment: Normally limited to 15 students per section.

*Robin Gottlieb, Sarah Chisholm, Peter M. Garfield, Brendan Kelly, Upendra Prasad, 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); and a twice weekly lab session to be arranged. EXAM GROUP: 3*

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: Tuesday, September 2, 8:30 am, Science Center C. Participation in two, one hour workshops are required each week. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning. This course, when taken together with Mathematics Mb, can be followed by Mathematics 1b.

#### **Mathematics Mb. Introduction to Functions and Calculus II**

Catalog Number: 3857 Enrollment: Normally limited to 15 students per section.

*Sarah Chisholm, Upendra Prasad, 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: 3*

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:* Required first Meeting in spring: Monday, January 26, 8:30 am, Science Center A . Participation in two, one hour workshops are required each week. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning. This course, when taken for a letter grade together with Mathematics Ma.

*Prerequisite:* Mathematics Ma.

#### **Mathematics 1a. Introduction to Calculus**

Catalog Number: 8434 Enrollment: Normally limited to 30 students per section.

*Janet Chen, Jameel Al-Aidroos, Brendan Kelly, Sukhada Fadnavis, and members of the Department (fall term); Brendan Kelly (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. Spring: Section I, M., W., F., at 10, and a weekly problem section to be arranged. EXAM GROUP: 3*



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 problems from many other disciplines.

*Note:* Required first meeting in fall: Wednesday, September 3, 8:30 am, Science Center C . This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical 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.

*Cliff Taubes, Rosalie Belanger-Rioux, Sarah Chisholm, Nina Zipser, and members of the Department (fall term) Jameel Al-Aidroos, Rosalie Belanger-Rioux, Yu-Wen Hsu, and members of the Dpartment (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 VI, Tu., Th., 11:30-1.*

*Spring: Section I, M., W., F., at 10; Section II, M., W., F., 11; Section III, M., W., F., 12; Section IV, Tu., Th., 10-11:30 (with sufficient enrollment); Section V, Tu., Th., 11:30-1 (with sufficient enrollment), and a weekly problem section to be arranged. Required exams. EXAM GROUP: 3*

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: Tuesday, September 2, 8:30 am, Science Center B. Required first meeting in spring: Monday, January 26, 8:30 am, Science Center D. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Mathematics 1a, or Ma and Mb, or equivalent.

### **Mathematics 18 (formerly Mathematics 20). Multivariable Calculus for Social Sciences**

Catalog Number: 0906

*Peter McKee Garfield*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 3*

Focus on concepts and techniques of multivariable calculus most useful to those studying the social sciences, particularly economics: functions of several variables; partial derivatives; directional derivatives and the gradient; constrained and unconstrained optimization, including the method of Lagrange multipliers. Covers linear and polynomial approximation and integrals for single variable and multivariable functions; modeling with derivatives. Covers topics from Math 21a most useful to social sciences.

*Note:* Should not ordinarily be taken in addition to Mathematics 21a or Applied Mathematics 21a. Mathematics 21b can be taken before or after Mathematics 18. Examples draw primarily from economics and the social sciences, though Mathematics 18 may be useful to students in certain natural sciences. Students whose main interests lie in the physical sciences, mathematics,



or engineering should consider Math or Applied Mathematics 21a. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Mathematics 1b or equivalent, or a 5 on the BC Advanced Placement Examination in Mathematics.

### **Mathematics 19a. Modeling and Differential Equations for the Life Sciences**

Catalog Number: 1256

*P*upendra *P*rasad

*Half course (fall term; repeated spring term). M., W., F., at 1, and a weekly discussion section to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

Considers the construction and analysis of mathematical models that arise in the life sciences, ecology and environmental life science. 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:* This course is recommended over Math 21a for those planning to concentrate in the life sciences and ESPP. Can be taken with or without Mathematics 21a,b. Students with interests in the social sciences and economics might consider Mathematics 18. This course can be taken before or after Mathematics 18. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

### **Mathematics 19b. Linear Algebra, Probability, and Statistics for the Life Sciences**

Catalog Number: 6144

*P*eter *M*. *G*arfield

*Half course (spring term). M., W., F., at 1, and a weekly problem section to be arranged. EXAM GROUP: 8*

Probability, statistics and linear algebra with applications to life sciences, chemistry, and environmental life sciences. Linear algebra includes matrices, eigenvalues, eigenvectors, determinants, and applications to probability, statistics, dynamical systems. Basic probability and statistics are introduced, as are standard models, techniques, and their uses including the central limit theorem, Markov chains, curve fitting, regression, and pattern analysis.

*Note:* This course is recommended over Math 21b for those planning to concentrate in the life sciences and ESPP. Can be taken with Mathematics 21a. Students who have seen some multivariable calculus can take Math 19b before Math 19a. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

### **Mathematics 21a. Multivariable Calculus**

Catalog Number: 6760 Enrollment: Normally limited to 30 students per section.

*Oliver Knill, Jameel Al-Aidroos, Rosalie Belanger-Rioux, Yu-Wen Hsu, Siu-Cheong Lau, and members of the Department (fall term); Peter Garfield, Rosalie Belanger -Rioux, Sarah Chisholm, Yu-Wen Hsu, and members of the Department (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. Spring: 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., 12 (with sufficient enrollment); Section V, Tu., Th., 10-11:30; Section VI, Tu., Th.,*



*11:30-1 (with sufficient enrollment), and a weekly problem section to be arranged. EXAM GROUP: 3*

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's, and Divergence Theorems.

*Note:* Required first meeting in fall: Wednesday, September 3, 8:30 am, Science Center B .

Required first meeting in spring: Monday, January 26, 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 General Education requirement for Empirical and Mathematical Reasoning. Activities using computers to calculate and visualize applications of these ideas will not require previous programming experience.

*Prerequisite:* Mathematics 1b or equivalent.

### **Mathematics 21b. Linear Algebra and Differential Equations**

Catalog Number: 1771 Enrollment: Normally limited to 30 students per section.

*Peter Garfield, and members of the Department (fall term); Oliver Knill, and members of the Department (spring term)*

*Half course (fall term; repeated spring term). Fall: Section I, M., W., F., at 10 (with sufficient enrollment); Section II, M., W., F., at 11; Section III, M., W., F., at 12 (with sufficient enrollment); Spring: 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., 12; Section V, Tu., Th., 10-11:30; Tu., Th., 11:30-1; , and a weekly problem section to be arranged. EXAM GROUP: Fall: 3; Spring: 2*  
 Matrices provide the algebraic structure for solving myriad problems across the sciences. We study matrices and related topics such as linear transformations and linear spaces, determinants, eigenvalues, and eigenvectors. Applications include dynamical systems, ordinary and partial differential equations, and an introduction to Fourier series.

*Note:* Required first meeting in fall: Wednesday, September 3, 8:30 am, Science Center D .

Required first meeting in spring: Monday, January 26, 8:30 am, Science Center B . May not be taken for credit by students who have passed Applied Mathematics 21b. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Mathematics 1b or equivalent. Mathematics 21a is commonly taken before Mathematics 21b, but is not a prerequisite, although familiarity with partial derivatives is useful.

### **Mathematics 23a. Linear Algebra and Real Analysis I**

Catalog Number: 2486

*Paul G. Bamberg*

*Half course (fall term). Tu., Th., 2:30-4. EXAM GROUP: 14*

A rigorous, integrated treatment of linear algebra and multivariable differential calculus, emphasizing topics that are relevant to fields such as physics and economics. Topics: fields, vector spaces and linear transformations, scalar and vector products, elementary topology of Euclidean space, limits, continuity, and differentiation in n dimensions, eigenvectors and eigenvalues, inverse and implicit functions, manifolds, and Lagrange multipliers.



*Note:* Course content overlaps substantially with Mathematics 21a,b, 25a,b, so students should plan to continue in Mathematics 23b. See the description in the introductory paragraphs in the Mathematics section of the catalog about the differences between Mathematics 23 and Mathematics 25. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Mathematics 1b or a grade of 4 or 5 on the Calculus BC Advanced Placement Examination, plus an interest both in proving mathematical results and in using them.

### **Mathematics 23b. Linear Algebra and Real Analysis II**

Catalog Number: 8571

*Paul G. Bamberg*

*Half course (spring term). Tu., Th., 2:30-4. EXAM GROUP: 11*

A rigorous, integrated treatment of linear algebra and multivariable calculus. Topics: Riemann and Lebesgue integration, determinants, change of variables, volume of manifolds, differential forms, and exterior derivative. Stokes's theorem is presented both in the language of vector analysis (div, grad, and curl) and in the language of differential forms.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Mathematics 23a.

### **Mathematics 25a. Honors Linear Algebra and Real Analysis I**

Catalog Number: 1525

*Tasho Kaletha*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

A rigorous treatment of linear algebra. Topics include: Construction of number systems; fields, vector spaces and linear transformations; eigenvalues and eigenvectors, determinants and inner products. Metric spaces, compactness and connectedness.

*Note:* Only for students with a strong interest and background in mathematics. There will be a heavy workload. May not be taken for credit after Mathematics 23. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* 5 on the Calculus BC Advanced Placement Examination and some familiarity with writing proofs, or the equivalent as determined by the instructor.

### **Mathematics 25b. Honors Linear Algebra and Real Analysis II**

Catalog Number: 1590

*Daniel Anthony Cristofaro-Gardiner*

*Half course (spring term). M., W., F., at 10. EXAM GROUP: 5*

A rigorous treatment of basic analysis. Topics include: convergence, continuity, differentiation, the Riemann integral, uniform convergence, the Stone-Weierstrass theorem, Fourier series, differentiation in several variables. Additional topics, including the classical results of vector calculus in two and three dimensions, as time allows.

*Note:* There will be a heavy workload. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* Mathematics 25a or 55a.



### **\*Mathematics 55a. Honors Abstract Algebra**

Catalog Number: 4068

*Dennis Gaitsgory*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

A rigorous treatment of abstract algebra including linear algebra and group theory.

*Note:* Mathematics 55a is an intensive course for students having significant experience with abstract mathematics. Instructor 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 General Education requirement for Empirical and Mathematical Reasoning.

### **\*Mathematics 55b. Honors Real and Complex Analysis**

Catalog Number: 3312

*Dennis Gaitsgory*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

A rigorous treatment of real and complex analysis.

*Note:* Mathematics 55b is an intensive course for students having significant experience with abstract mathematics. Instructor permission required. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

### **\*Mathematics 60r. Reading Course for Senior Honors Candidates**

Catalog Number: 8500

*Jacob Lurie*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 11;*

*Spring: 7*

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

*Jacob Lurie*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2;*

*Spring: 16*

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

*Jacob Lurie and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16;*

*Spring: 6*



Supervised small group tutorial. Topics to be arranged.

*Note:* May be repeated for course credit with permission from the Director of Undergraduate Studies. Only one tutorial may count for concentration credit.

### ***For Undergraduates and Graduates***

See also Applied Mathematics and Statistics.

#### **Mathematics 101. Sets, Groups and Topology**

Catalog Number: 8066

*Jonathan Mboyo Esole*

*Half course (spring term). M., W., F., at 1. EXAM GROUP: 8*

An introduction to rigorous mathematics, axioms, and proofs, via topics such as set theory, symmetry groups, and low-dimensional topology.

*Note:* Familiarity with algebra, geometry and/or calculus is desirable. Students who have already taken Mathematics 23a,b, 25a,b or 55a,b should not take this course for credit. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* An interest in mathematical reasoning.

#### **Mathematics 110. Vector Space Methods for Differential Equations**

Catalog Number: 97995

*Paul G. Bamberg*

*Half course (spring term). M., W., 2–3:30. EXAM GROUP: 18*

Develops the theory of inner product spaces, both finite-dimensional and infinite-dimensional, and applies it to a variety of ordinary and partial differential equations. Topics: existence and uniqueness theorems, Sturm-Liouville systems, orthogonal polynomials, Fourier series, Fourier and Laplace transforms, eigenvalue problems, and solutions of Laplace's equation and the wave equation in the various coordinate systems.

*Prerequisite:* Mathematics 23ab or 25 ab, or Mathematics 21ab plus any Mathematics course at the 100 level.

#### **Mathematics 112. Introductory Real Analysis**

Catalog Number: 1123

*Tristan Collins*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

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.

*Prerequisite:* Mathematics 21a,b and either an ability to write proofs or concurrent enrollment in Mathematics 101. Should not ordinarily be taken in addition to Mathematics 23a,b, 25a,b or 55a,b.

#### **Mathematics 113. Analysis I: Complex Function Theory**

Catalog Number: 0405

*Adam Jacob*



*Half course (spring term). M., W., F., at 12. EXAM GROUP: 7*

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 112. Not to be taken after Mathematics 55b.

### **Mathematics 114. Analysis II: Measure, Integration and Banach Spaces**

Catalog Number: 9111

*Curtis T. McMullen*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Lebesgue measure and integration; general topology; introduction to  $L^p$  spaces, Banach and Hilbert spaces, and duality.

*Prerequisite:* Mathematics 23, 25, 55, or 112.

### **Mathematics 115. Methods of Analysis**

Catalog Number: 1871

*Siu Cheong Lau*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

Complex functions; Fourier analysis; Hilbert spaces and operators; Laplace's equations; Bessel and Legendre functions; symmetries; Sturm-Liouville theory.

*Note:* Mathematics 115 is especially for students interested in physics.

*Prerequisite:* Mathematics 23a,b, 25a,b, 55a,b, or 112.

### **[Mathematics 116. Real Analysis, Convexity, and Optimization]**

Catalog Number: 5253

*Paul G. Bamberger*

*Half course (fall term). Tu., Th., 11:30–1.*

Develops the theory of convex sets, normed infinite-dimensional vector spaces, and convex functionals and applies it as a unifying principle to a variety of optimization problems such as resource allocation, production planning, and optimal control. Topics include Hilbert space, dual spaces, the Hahn-Banach theorem, the Riesz representation theorem, calculus of variations, and Fenchel duality. Students will be expected to understand and invent proofs of theorems in real and functional analysis.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Mathematics 23ab, 25ab, or 55ab, or Mathematics 21ab plus at least one other more advanced course in mathematics.

### **Mathematics 117. Probability and Random Processes with Economic Applications**

Catalog Number: 45584

*Sukhada Fadnavis*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

A self-contained treatment of the theory of probability and random processes with specific application to the theory of option pricing. Topics: axioms for probability, calculation of expectation by means of Lebesgue integration, conditional probability and conditional expectation, martingales, random walks and Wiener processes, and the Black-Scholes formula for option pricing. Students will work in small groups to investigate applications of the theory



and to prove key results.

*Note:* A problem-solving section is required MW 2-3 or Th 7:30-9:30 PM

*Prerequisite:* A thorough knowledge of single-variable calculus and infinite series, plus at least one more advanced course such as MATH E-23a that provides experience with proofs and elementary real analysis. Acquaintance with elementary probability is desirable.

### **[Mathematics 118r. Dynamical Systems]**

Catalog Number: 6402

*Yaiza Canzani*

*Half course (spring term). Tu., Th., 10–11:30.*

Introduction to dynamical systems theory with a view toward applications. Topics include existence and uniqueness theorems for flows, qualitative study of equilibria and attractors, iterated maps, and bifurcation theory.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Mathematics 21a,b.

### **Mathematics 121. Linear Algebra and Applications**

Catalog Number: 7009

*Yaim Cooper*

*Half course (fall term). M., W., F., at 1. EXAM GROUP: 1*

Real and complex vector spaces, linear transformations, determinants, inner products, dual spaces, and eigenvalue problems. Applications to geometry, systems of linear differential equations, electric circuits, optimization, and Markov processes. Emphasizes learning to understand and write proofs. Students will work in small groups to solve problems and develop proofs.

*Note:* A problem-solving section is required M, W 2-3

*Prerequisite:* Mathematics 21b or equivalent. Should not ordinarily be taken in addition to Mathematics 23a, 25a, or 55a.

### **Mathematics 122. Algebra I: Theory of Groups and Vector Spaces**

Catalog Number: 7855

*Hiro Tanaka*

*Half course (fall term). M., W., F., at 12. EXAM GROUP: 11*

Groups and group actions, vector spaces and their linear transformations, bilinear forms and linear representations of finite groups.

*Prerequisite:* Mathematics 23a, 25a, 121; or 101 with the instructor's permission. Should not be taken in addition to Mathematics 55a.

### **Mathematics 123. Algebra II: Theory of Rings and Fields**

Catalog Number: 5613

*Barry C. Mazur*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Rings and modules. Polynomial rings. Field extensions and the basic theorems of Galois theory. Structure theorems for modules.

*Prerequisite:* Mathematics 122 or 55a.



### **Mathematics 124. Number Theory**

Catalog Number: 2398

*Benedict H. Gross*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

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 129. Number Fields**

Catalog Number: 2345

*Mark Kisin*

*Half course (spring term). M., W., F., at 1. EXAM GROUP: 8*

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 ideles.

*Prerequisite:* Mathematics 123.

### **Mathematics 130. Classical Geometry**

Catalog Number: 5811

*Clifford Taubes*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Presents several classical geometries, these being the affine, projective, Euclidean, spherical and hyperbolic geometries. They are viewed from many different perspectives, some historical and some very topical. Emphasis on reading and writing proofs.

*Prerequisite:* Mathematics 21a,b, 23a, 25a or 55a (may be taken concurrently).

### **Mathematics 131. Topology I: Topological Spaces and the Fundamental Group**

Catalog Number: 2381

*Emily Elizabeth Riehl*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

Abstract topological spaces; compactness, connectedness, continuity. Homeomorphism and homotopy, fundamental groups, covering spaces. Introduction to combinatorial topology.

*Prerequisite:* Some acquaintance with metric space topology (Mathematics 23a,b, 25a,b, 55a,b, 101, or 112) and with groups (Mathematics 101, 122 or 55a).

### **Mathematics 132. Topology II: Smooth Manifolds**

Catalog Number: 7725

*Daniel Anthony Cristofaro-Gardiner*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

Differential manifolds, smooth maps and transversality. Winding numbers, vector fields, index and degree. Differential forms, Stokes' theorem, introduction to cohomology.

*Prerequisite:* Mathematics 23a,b, 25a,b, 55a,b or 112.

### **Mathematics 136. Differential Geometry**

Catalog Number: 1949



*Tristan Clifford Collins*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

The exterior differential calculus and its applications to curves and surfaces in 3-space and to various notions of curvature. Introduction to Riemannian geometry in higher dimensions.

*Prerequisite:* Advanced calculus and linear algebra.

### **Mathematics 137. Algebraic Geometry**

Catalog Number: 0556

*Yaim Cooper*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

Affine and projective spaces, plane curves, Bezout's theorem, singularities and genus of a plane curve, Riemann-Roch theorem.

*Prerequisite:* Mathematics 123.

### **Mathematics 141. Introduction to Mathematical Logic**

Catalog Number: 0600

*Emily Elizabeth Riehl*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 18*

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.

*Prerequisite:* Any mathematics course at the level of Mathematics 21a,b or higher, or permission of instructor.

### **[Mathematics 144. Model Theory]**

Catalog Number: 0690

*Nathanael Ackerman*

*Half course (fall term). M., W., F., at 11.*

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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Mathematics 123 or the equivalent is suggested as a prerequisite, but not required.

### **Mathematics 145a. Set Theory I - (New Course)**

Catalog Number: 95052

*Peter Koellner*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

An introduction to set theory covering the fundamentals of ZFC (cardinal arithmetic, combinatorics, descriptive set theory) and the independence techniques (the constructible universe, forcing, the Solovay model). We will demonstrate the independence of CH (the Continuum Hypothesis), SH (Suslin's Hypothesis), and some of the central statements of classical descriptive set theory.



*Prerequisite:* Any mathematics course at the level of Mathematics 21a or higher, or permission of instructor.

### **Mathematics 145b. Set Theory II - (New Course)**

Catalog Number: 27354

*Peter Koellner*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

An introduction to large cardinals and their inner models, with special emphasis on Woodin's recent advances toward finding an ultimate version of Gödel's L. Topics include: Weak extender models, the HOD Dichotomy Theorem, and the HOD Conjecture.

*Prerequisite:* Mathematics 145a or permission of instructor.

### **Mathematics 152. Discrete Mathematics**

Catalog Number: 8389

*Paul G. Bamberg*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

An introduction to sets, logic, finite groups, finite fields, finite geometry, combinatorics, 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: students will gain experience in presenting proofs at the blackboard.

*Note:* Covers material used in Computer Science 121 and Computer Science 124. Students who have taken Computer Science 20, Mathematics 55, or Mathematics 122 should not take this course for credit.

*Prerequisite:* Mathematics 21b or 23a (may be taken concurrently). Previous experience with proofs is not required.

### **[Mathematics 153. Mathematical Biology-Evolutionary Dynamics]**

Catalog Number: 3004

*Martin A. Nowak*

*Half course (fall term). Tu., Th., 2:30–4.*

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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Mathematics 21a,b.

### **Mathematics 154. Probability Theory**

Catalog Number: 4306

*Hsiang-Tzer Yau*

*Half course (spring term). M., W., F., at 1. EXAM GROUP: 8*

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, random walks, and Markov processes.



*Note:* This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

*Prerequisite:* A previous mathematics course at the level of Mathematics 19ab, 21ab, or higher. For students from 19ab or 21ab, previous or concurrent enrollment in Math 101 or 112 may be helpful. Freshmen who did well in Math 23, 25 or 55 last term are also welcome to take the course.

### **Mathematics 155r. Combinatorics**

Catalog Number: 6612

*Sukhada Fadnavis*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

An introduction to counting techniques and other methods in finite mathematics. Possible topics include: the inclusion-exclusion principle and Möbius inversion, graph theory, generating functions, Ramsey's theorem and its variants, probabilistic methods.

*Prerequisite:* The ability to read and write mathematical proofs. Some familiarity with group theory (Math 122 or equivalent.)

### **Mathematics 156. Mathematical Foundations of Statistical Software - (New Course)**

Catalog Number: 80717

*Paul G. Bamberg*

*Half course (fall term). Monday 2-4:30, plus weekly sections to be arranged. EXAM GROUP: 7*  
 Presents the probability theory and statistical principles which underly the tools that are built into the open-source programming language R. Each class presents the theory behind a statistical tool, then shows how the implementation of that tool in R can be used to analyze real-world data. The emphasis is on modern bootstrapping and resampling techniques, which rely on computational power. Topics include discrete and continuous probability distributions, permutation tests, the central limit theorem, chi-square and Student t tests, linear regression, and Bayesian methods.

*Prerequisite:* An excellent background in single-variable calculus and infinite series, plus basic knowledge of multiple integration. Mathematics 18 or 21a, taken concurrently, would be sufficient. Students should be skillful software users but need not be programmers. Background in elementary probability (e.g. AP Statistics or Computer Science 20) would be helpful but is not required.

### **Mathematics 157. Mathematics in the World - (New Course)**

Catalog Number: 66394

*Joseph D. Harris*

*Half course (spring term). Tu., Th., 4–5:30. EXAM GROUP: 6*

An interactive introduction to problem solving with an emphasis on subjects with comprehensive applications. Each class will be focused around a group of questions with a common topic. Possible topics: logic, information, number theory, probability, and algorithms.

*Prerequisite:* Mathematics 21b or 23a. More importantly, students should have a broad mathematical curiosity and be eager to brainstorm during in-class problem solving sessions.

### **Mathematics 161. Category Theory in Context - (New Course)**

Catalog Number: 33581



*Emily Elizabeth Riehl*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

An introduction to categories, functors, natural transformations, the Yoneda lemma, limits and colimits, adjunctions, monads, and other topics as time permits with the aim of revisiting a broad range of mathematical examples from the categorical perspective.

*Prerequisite:* Mathematics 123 (may be taken concurrently) and Mathematics 131, or permission of instructor.

### *Cross-listed Courses*

[\*\*Applied Mathematics 104. Series Expansions and Complex Analysis\*\*](#)

[\*\*Applied Mathematics 105. Ordinary and Partial Differential Equations\*\*](#)

[\*\*Applied Mathematics 107. Graph Theory and Combinatorics\*\*](#)

[\*\*\\*Freshman Seminar 40p. Making the Grade? Middle and High School Math Education in the U.S.\*\*](#)

[\*\*\\*History of Science 206r. "It's Only a Hypothesis"\*\*](#)

[\*\*\[Philosophy 144. Logic and Philosophy\]\*\*](#)

### *Primarily for Graduates*

[\*\*Mathematics 212a. Real Analysis\*\*](#)

Catalog Number: 5446

*Shlomo Z. Sternberg*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Banach spaces, Hilbert spaces and functional analysis. Distributions, spectral theory and the Fourier transform.

*Prerequisite:* Mathematics 114 or equivalent.

[\*\*Mathematics 212br. Advanced Real Analysis\*\*](#)

Catalog Number: 7294

*Shlomo Z. Sternberg*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This class will be an introduction to harmonic analysis and singular integral. The textbook is *Classical and Multilinear Harmonic Analysis*, Volume 1, by Muscalu and Schlag. The topics covered in the course include maximum functions, interpolation of operators, Calderon-Zygmund theory and Littlewood-Paley theory. Some elementary probability theory will also be included. Good references of this course are Stein's book on singular integrals and Fourier analysis.

*Prerequisite:* Mathematics 212ar and 213a.

[\*\*Mathematics 213a. Complex Analysis\*\*](#)

Catalog Number: 1621

*Yum Tong Siu*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

A second course in complex analysis: series, product and partial fraction expansions of holomorphic functions; Hadamard's theorem; conformal mapping and the Riemann mapping



theorem; elliptic functions; Picard's theorem and Nevanlinna Theory.

*Prerequisite:* Mathematics 55b or 113.

### **Mathematics 213br. Advanced Complex Analysis**

Catalog Number: 2641

*Yum Tong Siu*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Fundamentals of Riemann surfaces. Topics may include sheaves and cohomology, potential theory, uniformization, and moduli.

*Prerequisite:* Mathematics 213a.

### **Mathematics 221. Algebra**

Catalog Number: 8320

*Hector Hardy Pasten Vasquez*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

A first course in commutative algebra: Noetherian rings and modules, Hilbert basis theorem, Cayley-Hamilton theorem, integral dependence, Noether normalization, the Nullstellensatz, localization, primary decomposition, discrete valuation rings, filtrations, completions and dimension theory.

*Prerequisite:* Mathematics 123.

### **[Mathematics 222. Lie Groups and Lie Algebras]**

Catalog Number: 6738

*Tasho Kaletha*

*Half course (spring term). M., W., F., at 1.*

Lie theory, including the classification of semi-simple Lie algebras and/or compact Lie groups and their representations.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Mathematics 114, 123 and 132.

### **Mathematics 223a. Algebraic Number Theory**

Catalog Number: 8652

*Igor Andreevich Rapinchuk*

*Half course (fall term). M., W., F., at 12. EXAM GROUP: 11*

A graduate introduction to algebraic number theory. Topics: the structure of ideal class groups, groups of units, a study of zeta functions and L-functions, local fields, Galois cohomology, local class field theory, and local duality.

*Prerequisite:* Mathematics 129.

### **Mathematics 223b. Algebraic Number Theory**

Catalog Number: 2783

*Igor Andreevich Rapinchuk*

*Half course (spring term). M., W., F., at 12. EXAM GROUP: 7*

Continuation of Mathematics 223a. Topics: adeles, global class field theory, duality, cyclotomic fields. Other topics may include: Tate's thesis or Euler systems.

*Prerequisite:* Mathematics 223a.



### **Mathematics 224. Representations of Reductive Lie Groups**

Catalog Number: 25927

*Wilfried Schmid*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

Structure theory of reductive Lie groups, unitary representations, Harish Chandra modules, characters, the discrete series, Plancherel theorem.

### **Mathematics 229x. Introduction to Analytic Number Theory**

Catalog Number: 41034

*Arul Shankar*

*Half course (fall term). M., W., F., at 1. EXAM GROUP: 1*

Fundamental methods, results, and problems of analytic number theory. Riemann zeta function and the Prime Number Theorem; Dirichlet's theorem on primes in arithmetic progressions; lower bounds on discriminants from functional equations; sieve methods, analytic estimates on exponential sums, and their applications.

*Prerequisite:* Mathematics 113, 123

### **Mathematics 230a. Differential Geometry**

Catalog Number: 0372

*Hiro Tanaka*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

Connections on the tangent bundle, Levi-Civita's theorem, Gauss's lemma, curvature, distance and volume, general relativity, connections on principle bundles.

*Prerequisite:* Mathematics 132 or equivalent.

### **Mathematics 230br. Advanced Differential Geometry**

Catalog Number: 0504

*Shing-Tung Yau*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

A continuation of Mathematics 230a. Topics in differential geometry: Analysis on manifolds. Laplacians. Hodge theory. Spin structures. Clifford algebras. Dirac operators. Index theorems. Applications.

*Prerequisite:* Mathematics 230a.

### **Mathematics 231a. Algebraic Topology**

Catalog Number: 7275

*Michael J. Hopkins*

*Half course (fall term). M., W., F., at 2. EXAM GROUP: 7*

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 and 132.

### **Mathematics 231br. Advanced Algebraic Topology**

Catalog Number: 9127

*Michael J. Hopkins*



*Half course (spring term). M., W., F., at 2. EXAM GROUP: 18*

Continuation of Mathematics 231a. Vector bundles and characteristic classes. Bott periodicity.

K-theory, cobordism and stable cohomotopy as examples of cohomology theories.

*Prerequisite:* Mathematics 231a.

### **Mathematics 232a. Introduction to Algebraic Geometry I**

Catalog Number: 6168

*Jonathan Mboyo Esole*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 18*

Introduction to complex algebraic curves, surfaces, and varieties.

*Prerequisite:* Mathematics 123 and 132.

### **Mathematics 232br. Algebraic Geometry II**

Catalog Number: 9205

*Jonathan Mboyo Esole*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

The course will cover the classification of complex algebraic surfaces.

*Prerequisite:* Mathematics 232a.

### **Mathematics 233a. Theory of Schemes I**

Catalog Number: 6246

*Alison Beth Miller*

*Half course (fall term). M., W., F., at 1. EXAM GROUP: 1*

An introduction to the theory and language of schemes. Textbooks: Algebraic Geometry by Robin Hartshorne and Geometry of Schemes by David Eisenbud and Joe Harris. Weekly homework will constitute an important part of the course.

*Prerequisite:* Mathematics 221 and 232a or permission of instructor.

### **[Mathematics 233br. Theory of Schemes II]**

Catalog Number: 3316

*Half course (spring term). M., W., F., at 11.*

A continuation of Mathematics 233a. Will cover the theory of schemes, sheaves, and sheaf cohomology.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Mathematics 233a.

### **Mathematics 243. Evolutionary Dynamics**

Catalog Number: 8136

*Martin A. Nowak*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Advanced topics of evolutionary dynamics. Seminars and research projects.

*Prerequisite:* Experience with mathematical biology at the level of Mathematics 153.

### **Mathematics 250. Algebraic Invariants of Knots - (New Course)**

Catalog Number: 53245



*Alison Beth Miller*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Topics in classical and high-dimensional knot theory, with a focus on invariants related to the Alexander module. Possible topics: Seifert surfaces and pairings, Tristram-Levine signatures, the Blanchfield pairing, classification of simple n-knots, singularities of algebraic hypersurfaces, connections to arithmetic invariant theory.

### **Mathematics 258x. Random Matrix**

Catalog Number: 80974

*Horng-Tzer Yau*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

The goal of this course is to give a detailed account of the recent advances concerning the local statistics of eigenvalue distributions of random matrices. Basic knowledge of probability theory and measure theory are required.

### **Mathematics 259. Diophantine Definability - (New Course)**

Catalog Number: 73673

*Hector Hardy Pasten Vasquez*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

A study of (positive existential) definability problems in number theory. The main topics to be considered will be definability of multiplication, interpretations and undecidability.

### **Mathematics 261. Topics in Symplectic Geometry: Langrangian Intersection Theory and SYZ - (New Course)**

Catalog Number: 50451

*Siu Cheong Lau*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

An investigation of geometric aspects of mirror symmetry in the SYZ approach using Langrangian intersection theory.

### **Mathematics 262. The Geometry of the Complex Monge-Ampere Equation - (New Course)**

Catalog Number: 16248

*Tristan Collins*

*Half course (spring term). M., W., F., at 12. EXAM GROUP: 7*

A discussion of the complex Monge-Ampere equation, and its applications in the geometry of Kahler manifolds. Topics: Yau's solution of the Calabi Conjecture, and the geometry of Gromov-Hausdorff limits of Ricci flat metrics. Further topics may include the degenerate Monge-Ampere equation and singular Calabi-Yau metrics, as well as Ricci flat metrics on non-compact manifolds, particularly conical Calabi-Yau metrics and their connection to the geometry of Fano varieties.

### **Mathematics 262x. Topics in Geometric Analysis - (New Course)**

Catalog Number: 64721

*Shing-Tung Yau*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*



Basic analysis of Riemannian manifolds and their applications in geometry and theoretical physics including general relativity and string theory.

### **Mathematics 263y. Topics in Geometry and Physics: K-Theory - (New Course)**

Catalog Number: 76548

*Daniel Stuart Freed*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

An introduction to topological K-theory followed by recent applications. Specific topics may include: twisted K-theory and representations of loop groups, differential K-theory and the index theorem, Ramond-Ramond fields in superstring theory, topological insulators.

### **[Mathematics 265. Reductive Groups Over Local and Global Fields] - (New Course)**

Catalog Number: 48986

*Tasho Kaletha*

*Half course (spring term). M., W., F., at 11.*

An introduction to the theory of reductive groups, beginning with their structure theory over algebraically closed fields, discussing rationality questions, and a study of special phenomena that occur when the field of definition is a local or global field.

*Note:* Expected to be given in 2015–16.

### **Mathematics 266. Intersection Theory in Algebraic Geometry - (New Course)**

Catalog Number: 59157

*Joseph D. Harris*

*Half course (spring term). M., W., F., at 10. EXAM GROUP: 5*

A second course in algebraic geometry, centered around intersection theory but intended in addition to introduce the student to basic tools of algebraic geometry, such as deformation theory, characteristic classes, Hilbert schemes and specialization methods.

### **Mathematics 269. Topics in Kinetic Theory - (New Course)**

Catalog Number: 43676

*Laure Saint-Raymond*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

An introduction to PDE's for statistical physics out of thermodynamic equilibrium. 1.

Mathematical tools for the study of kinetic transport equations. 2. Mean field approximation: the case of the Vlasov-Poisson system. 3. Collisional kinetic theory: an introduction to the Boltzmann equation.

*Prerequisite:* A knowledge of basic functional analysis and Fourier analysis.

### **Mathematics 271. Topics in Arithmetic Statistics - (New Course)**

Catalog Number: 21406

*Arul Shankar*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

Topics: Cohen Lenstra heuristics, prehomogeneous vector spaces, applications to statistics of number fields and class groups, Poonen-Rains heuristics, and ranks of elliptic curves. Tools will include Davenport and Bhargava's geometry-of-numbers' methods.



### **Mathematics 275. Topics in Geometry and Dynamics - (New Course)**

Catalog Number: 86549

*Curtis T. McMullen*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

A survey of fundamental results and current research. Topics may include: ergodic theory, hyperbolic manifolds, Mostow rigidity, Kazhdan's property T, Ratner's theorem, and dynamics over moduli space.

### **Mathematics 281. Algebraic K-theory and Manifold Topology - (New Course)**

Catalog Number: 77391

*Jacob Lurie*

*Half course (fall term). M., W., F., at 12. EXAM GROUP: 11*

An introduction to the algebraic K-theory of rings and ring spectra, emphasizing connections with simple homotopy theory and the topology of manifolds.

### ***Graduate Courses of Reading and Research***

#### **\*Mathematics 300. Teaching Undergraduate Mathematics**

Catalog Number: 3996

*Robin Gottlieb and Jameel Al-Aidroos*

*Half course (fall term). Tu., 1–2:30. EXAM GROUP: 11*

Become an effective instructor. This course focuses on observation, practice, feedback, and reflection providing insight into teaching and learning. Involves iterated videotaped micro-teaching sessions, accompanied by individual consultations. Required of all mathematics graduate students.

#### **\*Mathematics 303. Topics in Diophantine Problems - (New Course)**

Catalog Number: 89215

*Hector Hardy Pasten Vasquez 7765*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

#### **\*Mathematics 304. Topics in Algebraic Topology**

Catalog Number: 0689

*Michael J. Hopkins 4376*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

#### **\*Mathematics 308. Topics in Number Theory and Modular Forms**

Catalog Number: 0464

*Benedict H. Gross 1112 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

#### **\*Mathematics 314. Topics in Differential Geometry and Mathematical Physics**

Catalog Number: 2743

*Shlomo Z. Sternberg 1965*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*



**\*Mathematics 318. Topics in Number Theory**

Catalog Number: 7393

*Barry C. Mazur 1975*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Mathematics 321. Topics in Mathematical Physics**

Catalog Number: 2297

*Arthur M. Jaffe 2095*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Mathematics 327. Topics in Several Complex Variables**

Catalog Number: 0409

*Yum Tong Siu 7550*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Mathematics 333. Topics in Complex Analysis, Dynamics and Geometry**

Catalog Number: 9401

*Curtis T. McMullen 3588*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Mathematics 335. Topics in Differential Geometry and Analysis**

Catalog Number: 5498

*Clifford Taubes 1243*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Mathematics 339. Topics in Combinatorics**

Catalog Number: 83942

*Sukhada Fadnavis 7084*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Mathematics 341. Topics in Number Theory**

Catalog Number: 28563

*Keerthi Shyam Madapusi Sampath 2232*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Mathematics 343. Topics in Complex Geometry - (New Course)**

Catalog Number: 70763

*Tristan Clifford Collins 7773*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Mathematics 345. Topics in Geometry and Topology**

Catalog Number: 4108

*Peter B. Kronheimer 1759*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*



**\*Mathematics 346y. Topics in Analysis: Quantum Dynamics**

Catalog Number: 1053

*Horng-Tzer Yau 5260*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Mathematics 352. Topics in Algebraic Number Theory**

Catalog Number: 86228

*Mark Kisin 6281*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Mathematics 355. Topics in Category Theory and Homotopy Theory**

Catalog Number: 95192

*Emily Elizabeth Riehl 1416*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Mathematics 356. Topics in Harmonic Analysis**

Catalog Number: 6534

*Wilfried Schmid 5097 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Mathematics 358. Topics in Arithmetic Geometry**

Catalog Number: 30858

*Junecue Suh 6835*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Mathematics 361. Topics in Differential Geometry and Analysis**

Catalog Number: 61965

*Yaiza Canzani 7325 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Mathematics 362. Topics in Number Theory - (New Course)**

Catalog Number: 57512

*Alison Beth Miller 7777 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Mathematics 363. Topics in Elliptic Fibrations and String Theory**

Catalog Number: 89264

*Jonathan Mboyo Esole 3362*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Mathematics 365. Topics in Differential Geometry**

Catalog Number: 4647

*Shing-Tung Yau 1734*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Mathematics 373. Topics in Algebraic Topology**

Catalog Number: 49813

*Jacob Lurie 5450**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Mathematics 374. Topics in Number Theory**

Catalog Number: 83329

*Arul Shankar 7303**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Mathematics 381. Introduction to Geometric Representation Theory**

Catalog Number: 0800

*Dennis Gaitsgory 5259**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Mathematics 382. Topics in Algebraic Geometry**

Catalog Number: 2037

*Joseph D. Harris 2055**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Mathematics 385. Topics in Set Theory**

Catalog Number: 33405

*W. Hugh Woodin 7421 (on leave spring term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*Mathematics 387. Topics in Mathematical Physics: Bridgeland Stability Conditions**

Catalog Number: 47551

*Hiro Tanaka 7326 (on leave spring term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Mathematics 388. Topics in Mathematics and Biology**

Catalog Number: 4687

*Martin A. Nowak 4568 (on leave fall term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Mathematics 389. Topics in Number Theory**

Catalog Number: 6851

*Noam D. Elkies 2604**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*



# Medical Sciences

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Committee on Higher Degrees in Medical Sciences*

David E. Golan, Dean for Graduate Education, Professor of Biological Chemistry and Molecular Pharmacology, George R. Minot Professor of Medicine (*Medical School*) (*Chair*)

Thomas G. Bernhardt, Associate Professor of Microbiology and Immunobiology (*Medical School*)

David Lopes Cardozo, Assistant Professor of Neurobiology (*Medical School*) (*ex officio*)

Michael C. Carroll, Professor of Pediatrics (*Medical School*)

Constance L. Cepko, Bullard Professor of Genetics and Neuroscience, Professor of Ophthalmology (*Medical School*)

Susan M. Dymecki, Professor of Genetics (*Medical School*)

Stephen C. Harrison, Giovanni Armenise - Harvard Professor of Basic Biomedical Science, Professor of Pediatrics (*Medical School*)

David M. Knipe, Higgins Professor of Microbiology and Molecular Genetics (*Medical School*)

Isaac S. Kohane, Lawrence J. Henderson Professor of Pediatrics, Associate Professor of Medicine (*Medical School*)

Shiv S. Pillai, Professor of Health Sciences and Technology, Professor of Medicine (*Medical School*)

Samara Louise Reck-Peterson, Associate Professor of Cell Biology (*Medical School*)

Rosalind A. Segal, Professor of Neurobiology (*Medical School*)

Clifford J. Tabin, George Jacob and Jacqueline Hazel Leder Professor of Genetics (*Medical School*)

David L. Van Vactor, Professor of Cell Biology (*Medical School*)

Sean P.J. Whelan, Professor of Microbiology and Immunobiology (*Medical School*)

### *Other Faculty Offering Instruction in the Division of Medical Sciences*

Paola Arlotta, Professor of Stem Cell and Regenerative Biology

Alan H. Beggs, Assistant Professor of Genetics (*Medical School*)

Joyce E. Bischoff, Assistant Professor of Cellular and Molecular Physiology (Surgery) (*Medical School*)

Richard S. Blumberg, Professor of Medicine (*Medical School*)

Joan S. Brugge, Professor of Cell Biology (*Medical School*)

Joshua William Buckholtz, Assistant Professor of Psychology

Steve Buratowski, Professor of Biological Chemistry and Molecular Pharmacology (*Medical*



*School)*

- Fernando D. Camargo, Associate Professor of Stem Cell & Regenerative Biology  
 Jon Clardy, Hsien Wu and Daisy Yen Wu Professor of Biological Chemistry and Molecular Pharmacology, (*Medical School*)  
 Chad A. Cowan, Associate Professor of Stem Cell & Regenerative Biology  
 David Cox, Assistant Professor of Molecular and Cellular Biology and of Computer Science  
 Michael Crickmore, Instructor in Neurology (*Medical School*)  
 James M. Cunningham, Associate Professor of Medicine (*Medical School*)  
 Benjamin Lovegren de Bivort, Assistant Professor of Organismic and Evolutionary Biology  
 Catherine Dulac, Higgins Professor of Molecular and Cellular Biology  
 Florian Engert, Professor of Molecular and Cellular Biology  
 Raymond L. Erikson, American Cancer Society Professor of Cellular and Developmental Biology  
 Dana Gabuzda, Professor of Neurology (*Medical School*)  
 Rachelle Gaudet, Professor of Molecular and Cellular Biology  
 Satrajit S. Ghosh, Assistant Professor of Otology and Laryngology (*Medical School*)  
 Michael A. Gimbrone, Elsie T. Friedman Professor of Pathology (*Medical School*)  
 David D. Ginty, Visiting Professor of Neurobiology (*Medical School*)  
 Xi He, Assistant Professor of Neurology (*Medical School*)  
 Takao K. Hensch, Professor of Molecular and Cellular Biology, and Professor of Neurology (*Medical School*)  
 Konrad Hochedlinger, Professor of Stem Cell and Regenerative Biology  
 Donald E. Ingber, Professor of Bioengineering  
 Daniel E. Kahne, Professor of Chemistry and Chemical Biology, Harvard College Professor  
 Andrius Kazlauskas, Associate Professor of Ophthalmology (*Medical School*)  
 Scott G. Kennedy, Philip and Aya Leder Professor of Genetics (*Medical School*)  
 Nancy Kleckner, Herchel Smith Professor of Molecular Biology (*on leave spring term*)  
 Samuel M. Kunes, Professor of Molecular and Cellular Biology  
 Jeannie T. Lee, Assistant Professor of Genetics (*Medical School*)  
 Richard T. Lee, Professor of Stem Cell and Regenerative Biology (FAS), Professor of Medicine (*Medical School*)  
 Jeff W. Lichtman, Jeremy R. Knowles Professor of Molecular and Cellular Biology, Santiago Ramón y Cajal Professor of Arts and Sciences  
 Jeffrey D. Macklis, Max and Anne Wien Professor of Stem Cell and Regenerative Biology and Professor of Surgery and Neurology, Harvard Medical School  
 Susan Mango, Professor of Molecular and Cellular Biology  
 Andrea I. McClatchey, Assistant Professor of Pathology (*Medical School*)  
 Alexander Meissner, Associate Professor of Stem Cell & Regenerative Biology  
 Venkatesh N. Murthy, Professor of Molecular and Cellular Biology  
 Kiran Musunuru, Assistant Professor of Stem Cell and Regenerative Biology  
 John L. Rinn, Alvin and Esta Star Associate Professor of Stem Cell and Regenerative Biology  
 Derrick J. Rossi, Associate Professor of Stem Cell & Regenerative Biology  
 Lee L. Rubin, Professor of Stem Cell and Regenerative Biology  
 Joshua R. Sanes, Jeff C. Tarr Professor of Molecular and Cellular Biology  
 David T. Scadden, Professor of Stem Cell and Regenerative Biology and Gerald and Darlene Jordan Professor of Medicine



Alexander F. Schier, Leo Erikson Life Sciences Professor of Molecular and Cellular Biology

Stuart L. Schreiber, Morris Loeb Professor of Chemistry

Piotr Sicinski, Assistant Professor of Pathology (*Medical School*)

Jack L. Strominger, Higgins Professor of Biochemistry in the Department of Stem Cell and Regenerative Biology

Jack Szostak, Professor of Chemistry and Chemical Biology; Professor of Genetics (*Medical School*)

Naoshige Uchida, Professor of Molecular and Cellular Biology (*on leave fall term*)

Amy J. Wagers, Forst Family Professor of Stem Cell and Regenerative Biology

Duane R. Wesemann, Assistant Professor of Medicine (*Medical School*)

Bruce Yankner, Associate Professor of Neurology (*Medical School*)

Qiao Zhou, Associate Professor of Stem Cell & Regenerative Biology

Xiaowei Zhuang, David B. Arnold, Jr. Professor of Science

Leonard I. Zon, Professor of Stem Cell and Regenerative Biology and Grousbeck Professor of Pediatrics, Harvard Medical School (*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 graduate training program in cellular and molecular biology. BBS faculty members are drawn from all of the basic science departments of Harvard Medical School — Biological Chemistry and Molecular Pharmacology (BCMP), Cell Biology, Stem Cell and Regenerative Biology, Genetics, Microbiology and Immunobiology, Neurobiology and Systems Biology — and from many of Harvard's affiliated teaching hospitals. BBS has also incorporated faculty from the Faculty of Arts and Sciences (FAS) as part of its effort to build new initiatives in graduate training.

#### ***Primarily for Graduates***

##### **BBS 230 (formerly Microbiology 230). Analysis of the Biological Literature**

Catalog Number: 36968

*Michael Demian Blower (Medical School), Dipanjan Chowdhury (Medical School), Stephen J. Elledge (Medical School), Jonathan M. G. Higgins (Medical School), Cammie Lesser (Medical*



*School), Adrian Salic (Medical School), Andreas Herrlich (Medical School)*

*Half course (fall term). Tu., Th., 3-6. EXAM GROUP: 2*

Students participate in intensive small group discussions focused on the critical analysis of basic research papers from a wide range of fields including biochemistry, cell and developmental biology, genetics, and microbiology. Papers are discussed in terms of their background, significance, hypothesis, experimental methods, data quality, and interpretation of results.

Students will be asked to propose future research directions, to generate new hypotheses and to design experiments aimed at testing them. For the midterm and final exams the students will have to submit written critiques of recent papers from the literature, with an emphasis on proposing new experimental directions to test the models proposed in the papers.

*Note:* This course is required for first year BBS students, and is open only to BBS students.

### ***Graduate Courses of Reading and Research***

#### **\*BBS 301. Teaching Practicum**

Catalog Number: 77888

*Johanna Gutlerner (Medical School) 7590, Johanna Gutlerner (Medical School) 7590, and members of the Departments*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 1*

Course for TAs currently teaching in an approved BBS Core Course. The embedded teaching practicum provides practice-based training in facilitating a group discussion; professionalism in the classroom; curriculum design, course evaluation and assessment development; and preparation for teaching throughout and beyond time in graduate school. Teaching assistants are provided training and experience in the development of an early-career teaching philosophy.

*Note:* TAs should contact Jason Heustis.

#### **BBS 330 (formerly Genetics 330). Critical Thinking and Research Proposal Writing**

Catalog Number: 14711

*Monica P. Colaiácovo (Medical School) 4949 and members of the Medical School*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 14*

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:* This course is required for second year BBS students; others need permission of the instructor. Dates, times and locations for all sessions, following the first meeting, will be coordinated between each group of students and the pair of faculty members guiding these sessions. Group assignments will be posted on the course website following the first meeting.

#### **\*BBS 333r. Introduction to Research in Biological and Biomedical Sciences**

Catalog Number: 1206

*Susan M. Dymecki (Medical School) 1736*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

*Note:* BBS students register for lab rotations under this course number.

#### **\*BBS 380. Reading and Research in Biological and Biomedical Sciences**

Catalog Number: 0349



*David L. Van Vactor (Medical School) 2089*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

### ***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

*Joseph John Loparo (Medical School), Paul J. Anderson (Medical School), Lee Stirling Churchman (Medical School), Shobha Vasudevan (Medical School), Johannes Walter (Medical School), Timur Yusufzai (Medical School), and other members of the Departments.*

*Half course (fall term). M., W., F., 10:45-12:15. EXAM GROUP: 5*

An advanced treatment of molecular biology's Central Dogma. Considers the molecular basis of information transfer from DNA to RNA to protein, using examples from eukaryotic and prokaryotic systems. Lectures, discussion groups, and research seminars.

*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. Biological Macromolecules: Structure, Function and Pathways]**

Catalog Number: 5068

*Stephen C. Harrison (Medical School), Stephen C. Blacklow (Medical School), and Peter K. Sorger (Medical School)*

*Half course (spring term). Tu., Th., 9:30–11, W., 4–5:30.*

Macromolecular structure with emphasis on biochemistry, interactions and catalysis in cellular processes and pathways. Links between theory and observation will emerge from discussion of fundamental principles, computational approaches and experimental methods.

*Note:* Expected to be given in 2015–16. The course is intended for all Division of Medical Sciences (DMS) graduate students and is open to advanced undergraduates. Offered jointly with the Medical School as BP 714.0.

##### **[\*BCMP 213. Behavioral Pharmacology]**

Catalog Number: 4782 Enrollment: Limited to 15.

*Jack Bergman (Medical School) and Brian D. Kangas (Medical School)*

*Half course (spring term). Hours to be arranged.*

Introduction to behavioral pharmacology of CNS drugs (e.g., psychomotor stimulants, antischizophrenics, opioid analgesics, antianxiety agents); seminar format with emphasis on behavioral methodology (i.e., model and assay development) and pharmacological analysis (i.e., receptor selectivity and efficacy); attention to tolerance, drug dependence/addiction/treatment,



and basic behavioral processes.

*Note:* Expected to be given in 2015–16. Offered jointly with the Medical School as BP 719.0.

### **\*BCMP 218. Molecular Medicine**

Catalog Number: 2049 Enrollment: Limited to 35.

*George Q. Daley (Medical School), David E. Cohen (Medical School), and Irving M. London (Medical School)*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

A seminar on various human diseases and their underlying genetic or biochemical bases. Primary scientific papers discussed. Lectures by faculty and seminars conducted by students, faculty supervision.

*Note:* Faculty mentors will guide student-led discussions of the papers. Jointly offered with the Medical School as HT 140.

*Prerequisite:* Molecular Biology and Biochemistry.

### **BCMP 228. Macromolecular NMR**

Catalog Number: 3969

*Gerhard Wagner (Medical School), James J. Chou (Medical School), Haribabu Arthanari (Medical School), Kirill Oxenoid (Medical School) and members of the NMR lab*

*Half course (fall term). M., F., 2–3:30. EXAM GROUP: 7*

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. The course will include classroom lectures, 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.

### **BCMP 230. Principles and Practice of Drug Development**

Catalog Number: 1295

*Lee L. Rubin and Stan Neil Finkelstein (Medical School)*

*Half course (fall term). Th., 3–6. EXAM GROUP: 2*

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.

*Note:* Classes held at MIT. BCMP 230 is also offered as SCRB 230. Students may not take both for credit.

### **BCMP 234. Cellular Metabolism and Human Disease**

Catalog Number: 9644 Enrollment: May be limited

*Thomas Michel (Medical School) and members of the Department*

*Half course (spring term). M., W., F., 9-10:30. EXAM GROUP: 10*

Cellular and organismal metabolism, with focus on interrelationships between key metabolic pathways and human disease states. Genetic and acquired metabolic diseases and functional consequences. Interactive lectures and critical reading conferences are integrated with clinical encounters.



*Note:* Advanced undergraduate students may join on a limited-enrollment basis with permission of the course director. Also listed as MCB 234.

*Prerequisite:* Knowledge of introductory biochemistry, genetics, and cell biology required (MCB 52 and 54 or equivalent); one year of organic chemistry.

### **BCMP 236. Modern Drug Discovery: from principles to patients**

Catalog Number: 84345

*Nathanael Gray (Medical School), Timothy J. Mitchison (Medical School) and members of the Department*

*Half course (spring term). Tu., Th., 3:30–5. EXAM GROUP: 16*

This course will familiarize students with central concepts in drug action and therapeutics at the level of molecules, cells, tissues and patients. These concepts and methods are central to modern drug development and regulatory evaluation. In the 1st half of the course we will cover drug-target interactions, Pharmacokinetics and Pharmacodynamics at a quantitative level, the clinical trials process, biomarkers and new frontiers in Therapeutic development. The 2nd half will focus on modern approaches to therapeutic discovery and development, both small molecules and protein based. Examples are drawn from numerous unmet medical needs including cancer, HIV, neurodegenerative and infectious diseases. The course will include computational exercises and a MATLAB workshop.

*Note:* This course is a reworking of the BCMP 309qc and 307qc quarter courses.

### ***Graduate Courses of Reading and Research***

#### **\*BCMP 309. Regulation of Membrane Protein and Lipid Dynamics: Molecular Mechanisms and Biological Implications**

Catalog Number: 1558

*David E. Golan (Medical School) 1558*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

#### **\*BCMP 310. Molecular and Cellular Mechanisms of Insulin Action**

Catalog Number: 4299

*Morris F. White (Medical School) 3158*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

#### **\*BCMP 311. Structure and Dynamics of Macromolecular Assemblies**

Catalog Number: 3623

*Stephen C. Harrison (Medical School) 3597*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

#### **\*BCMP 312. Downregulating DNA Repair: Phosphatases & MicroRNAs**

Catalog Number: 30165

*Dipanjan Chowdhury (Medical School) 6266*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

#### **\*BCMP 313 (formerly Pathology 354). Biochemistry of transmembrane receptors and signaling**



Catalog Number: 49628

*Stephen C. Blacklow (Medical School) 1462*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*BCMP 314. Protein NMR Spectroscopy of Membrane Protein**

Catalog Number: 3449

*James J. Chou (Medical School) 4950*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*BCMP 315. Growth Factor Structure and Function**

Catalog Number: 6034

*Michael Klagsbrun (Medical School) 3167*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*BCMP 316. Signal Transduction and Phosphorylation in Heart Disease**

Catalog Number: 96794

*Maria Irene Kontaridis (Medical School) 6398*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*BCMP 317. Signal Transduction and Related Molecular Pathophysiology**

Catalog Number: 3354

*Steven E. Shoelson (Medical School) 3951*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*BCMP 318. Innate Immunity Against RNA Viruses**

Catalog Number: 45272

*Sun Hur (Medical School) 6403*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*BCMP 319. Histone Variants and Chromosome Biology**

Catalog Number: 1748

*Kami Ahmad (Medical School) 4592*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*BCMP 320. Systems and Synthetic Biology**

Catalog Number: 0265

*Pamela A. Silver (Medical School) 1595*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*BCMP 321. Structure and Function of ATP-dependent Chromatin Regulators in Human Cancer**

Catalog Number: 67886

*Cigall Kadoch (Medical School) 7714*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*BCMP 324. Structure and Replication of DNA**

Catalog Number: 5059

*Charles C. Richardson (Medical School) 2479**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*BCMP 325. Genomic Instability and Cancer Susceptibility**

Catalog Number: 4110

*Alan D. D'Andrea (Medical School) 3532**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*BCMP 328. Computational Analysis of Sequence Variation and Divergence**

Catalog Number: 2468

*Shamil R. Sunyaev (Medical School) 4671**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*BCMP 329. Structure Biology of Cytoplasmic Signal Transduction**

Catalog Number: 5005

*Michael J. Eck (Medical School) 1739**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*BCMP 331. Biochemistry and Biology of Neurodegenerative Diseases**

Catalog Number: 9727

*Michael S. Wolfe (Medical School) 4543**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*BCMP 332. Pathophysiologic functions of BMP signaling**

Catalog Number: 93159

*Paul B. Yu (Medical School) 7432**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*BCMP 333. Structural biology of mechanisms in gene regulation**

Catalog Number: 95018

*Piotr Sliz (Medical School) 6569**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*BCMP 334. MicroRNA Functions in Cancers and Quiescence**

Catalog Number: 79343

*Shobha Vasudevan (Medical School) 6972**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*BCMP 335. Biochemical and Genetic Analysis of Eukaryotic Gene Expression**

Catalog Number: 8052

*Steve Buratowski (Medical School) 1790**Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*BCMP 337. Drosophila Molecular Genetics**

Catalog Number: 0782

*Welcome W. Bender (Medical School) 7083**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*BCMP 338. Gene regulation in yeast and cancer**

Catalog Number: 0549

*Kevin Struhl (Medical School) 7415**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*BCMP 340. Biologically Active Small Molecules**

Catalog Number: 8300

*Jon Clardy (Medical School) 4667**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*BCMP 343. Molecular Genetics of Herpes Viruses**

Catalog Number: 0868

*Donald M. Coen (Medical School) 7617**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*BCMP 344. Molecular Pharmacology of Excitable Membranes**

Catalog Number: 0200

*Gary R. Strichartz (Medical School) 7530**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*BCMP 345. Transcription Factors in Hematopoiesis and Leukemogenesis**

Catalog Number: 4792

*Alan B. Cantor (Medical School) 5150**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*BCMP 348. Chromatin and Cancer**

Catalog Number: 6409

*Charles M. Roberts (Medical School) 5151**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*BCMP 349. Targeting Deregulated Apoptotic and Transcriptional Pathways in Cancer**

Catalog Number: 1071

*Loren D. Walensky (Medical School) 5665**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*BCMP 352. Chemical Mediators in Inflammation and Resolution**

Catalog Number: 4853

*Charles N. Serhan (Medical School) 3163**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*BCMP 353. Epigenomics and Chromatin Systems Biology**

Catalog Number: 8682

*Yujiang Shi (Medical School) 5509**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*BCMP 355. Transcriptional Control of Hematopoiesis and Leukemia**

Catalog Number: 4489

*Hanno Reinhard Hock (Medical School) 5660**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*BCMP 356. NMR Spectroscopy of Proteins and Metabolites**

Catalog Number: 8093

*Gerhard Wagner (Medical School) 2626**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*BCMP 358. Targeting Apoptosis Regulation in Cancer**

Catalog Number: 6735

*Anthony G. Letai (Medical School) 5663**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*BCMP 359. Molecular Mechanisms of Signal Transduction**

Catalog Number: 8520

*Elaine A. Elion (Medical School) 2941**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*BCMP 360. Regeneration of Cartilage and Skeletal Muscle**

Catalog Number: 6934

*Andrew B. Lassar (Medical School) 2946**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*BCMP 361. X-Ray Crystallographic Studies of Viruses and Proteins**

Catalog Number: 4155

*James M. Hogle (Medical School) 2943**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*BCMP 362. Eukaryotic Survival Decisions**

Catalog Number: 4972

*David E. Fisher (Medical School) 1800**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*BCMP 363. Normal cell division mechanisms and cell division defects in cancer**

Catalog Number: 4981

*David Pellman (Medical School) 3702**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*BCMP 366. Stem Cells in Disease and Development**

Catalog Number: 9236

*George Q. Daley (Medical School) 4951**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*BCMP 370. Advanced Topics in Biological Chemistry and Molecular Pharmacology**

Catalog Number: 0482

*David Lopes Cardozo (Medical School) 5995**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

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. Maintenance of genome stability in S phase**

Catalog Number: 3739

*Johannes Walter (Medical School) 3846**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*BCMP 375. Biomolecular Nanotechnology**

Catalog Number: 3288

*William Shih (Medical School) 5256**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*BCMP 376. Mechanisms of Action of Antibiotics**

Catalog Number: 3033

*Daniel E. Kahne 5065**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*BCMP 377. Quantitative Proteomics of Cancer Progression**

Catalog Number: 5225

*Jarrod Marto (Medical School) 5326**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*BCMP 378. Mechanisms of Hepatic Cholesterol Elimination**

Catalog Number: 6669

*David E. Cohen (Medical School) 3478**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*BCMP 379. Biochemical and Molecular Regulation of Vascular Growth**

Catalog Number: 9374

*Marsha Moses (Medical School) 5388**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*BCMP 381. Functional Small Molecules for Biological Discovery**

Catalog Number: 8841

*Nathanael Gray (Medical School) 5730**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*BCMP 382. Mechanisms of RNAi in Stem Cells**

Catalog Number: 9601

*Richard Ian Gregory (Medical School) 5743**Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*BCMP 383. Integrated and Functional Genomic Studies of Human Cancer**

Catalog Number: 5334

*Levi Alexander Garraway (Medical School) 6203**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*BCMP 384. Embryonic stem cells, Nuclear Transfer, Cancer, Reprogramming**

Catalog Number: 5330

*Konrad Hochedlinger 6101**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*BCMP 385. Control of Gene Expression in Tumorigenesis and Differentiation**

Catalog Number: 59773

*Thomas M. Roberts (Medical School) 7729**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*BCMP 386. Kinase Signaling in Cancer**

Catalog Number: 23358

*Jean J. Zhao (Medical School) 6237**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*BCMP 387. Single-molecule Biophysics and Force Spectroscopy**

Catalog Number: 47527

*Wesley Philip Wong (Medical School) 6463**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*BCMP 388. Single-molecule studies of DNA repair**

Catalog Number: 19862

*Joseph John Loparo (Medical School) 6798**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*BCMP 389. Chromatin and DNA Dynamics**

Catalog Number: 86491

*Timur Yusufzai (Medical School) 6953**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*



**\*BCMP 390. Gene Regulation Studied with Small Molecules**

Catalog Number: 87028

*James Elliott Bradner (Medical School) 6542*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*BCMP 391. Aging and redox biology**

Catalog Number: 82614

*Vadim Gladyshev (Medical School) 3401*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

***Quarter Courses for Graduate Students Only***

**\*BCMP 300qc. Advanced Topics in Biological Chemistry and Molecular Pharmacology**

Catalog Number: 69187

*David Lopes Cardozo (Medical School) 5995*

*Quarter course (fall term; repeated spring term). . EXAM GROUP: 10*

A series of reading and discussion seminars, each running for a half term (7 weeks).

*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 301qc. Translational Pharmacology**

Catalog Number: 97487 Enrollment: Enrollment may be limited.

*Donald M. Coen (Medical School) 7617 and David E. Golan (Medical School)*

*Quarter course (spring term). Hours to be arranged. EXAM GROUP: 3*

This intensive course held during the first two full weeks of January (ten days) covers principles of pharmacology and their translation into new drug development. Students participate in project groups composed of both graduate students and post-graduate M.D.'s to propose a drug development strategy from target choice through clinical trials. There are two hours of lectures each of the first eight mornings; afternoons include case studies discussed by Harvard faculty and faculty from the pharmaceutical and biotechnology industries, or time to work on the project. Evaluation is based on the project and class participation. Enrollment may be limited.

**[\*BCMP 302qc. Molecular Movies: Introduction to 3D Visualization with Maya]**

Catalog Number: 45965 Enrollment: Limited to 8. Will accept up to 12 auditors.

*David Lopes Cardozo (Medical School) 5995 and Members of the Department*

*Quarter course (fall term). F., 9–12.*

Introduction to advanced scientific visualization techniques using leading 3D software packages Maya and Molecular Maya. Focus will be placed on adapting existing 3D modeling/animation tools for purposes of visualizing biological processes.

*Note:* Expected to be given in 2015–16.

**[\*BCMP 303qc. Molecular Movies: Advanced 3D Visualization with Maya]**

Catalog Number: 61072 Enrollment: Limited to 18.

*David Lopes Cardozo (Medical School) 5995*

*Quarter course (spring term). F., 9–12.*



Explore Maya's vast visualization toolset. Advanced techniques in each of the phases of the 3D production pipeline will be presented including dynamics systems like Hair, nCloth, nParticles and PaintFx. Introduction to Maya's Embedded Language (MEL).

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Molecular Movies: Introduction to 3D Visualization with Maya required.

### **[\*BCMP 307qc. Approaches to Drug Action, Discovery, and Design]**

Catalog Number: 52371 Enrollment: May be limited.

*Nathanael Gray (Medical School) 5730, and members of the Department*

*Quarter course (spring term). Tu., Th., 3:30–5.*

Application of molecular, systems, and structural biology, genetics, genomics, enzymology, and chemistry to development of new therapies. Examples drawn from diseases including cancer and AIDS. Students write and present proposals for discovery of new therapeutics.

*Note:* Expected to be given in 2015–16. Only offering full credit course (BCMP 236) this term.

### **\*BCMP 308qc. Cell Fate Decisions in Development and Disease**

Catalog Number: 21552 Enrollment: Limited to 12.

*Alan B. Cantor (Medical School) 5150*

*Quarter course (fall term). W., 1:30 - 3:30. EXAM GROUP: 9*

This quarter course will offer students an in-depth examination of current knowledge regarding mechanisms of cell fate decisions. In addition, it will examine these processes in the context of developmental cell plasticity, cellular reprogramming, and cancer. This will primarily be a literature-based course, with examination and discussion of key studies in the field. Concepts involving epigenetics, chromatin remodeling, the instructive roles of transcription factors, transcription factor networks, transcription factor cross-antagonism, feedback loops, multilineage priming, non-coding RNAs, lineage identity maintenance, mitotic bookmarking, lateral inhibition, and cell signaling will be explored. These ideas will be examined in the context of blood, breast, lung, and gastrointestinal tract development.

### **[\*BCMP 309qc. Principles of Drug Action in Man]**

Catalog Number: 63265

*Timothy J. Mitchison (Medical School) 3713*

*Quarter course (spring term). Tu., Th., 3:30–5.*

This course pairs with BCMP 307qc. Approaches to Drug Action, Discovery, and Design.

*Note:* Expected to be given in 2015–16.

### **\*BCMP 310qc. Eukaryotic Gene Regulation - (New Course)**

Catalog Number: 10699 Enrollment: Limited to 8.

*Steve Buratowski (Medical School) 1790 and members of the Department*

*Quarter course (spring term). Tu., at 2, Th., 2–4. EXAM GROUP: 3*

Gene regulation is central to control of all functions in the organism. This course will explore our contemporary understanding of gene regulation by providing molecular and biochemical perspectives on topics that include general aspects of gene regulation such as the basal transcriptional machinery, chromatin remodeling and its role in gene regulation, and co-transcriptional processes, in addition to gene regulation in specific contexts. This course is an advanced reading course designed for students with introductory exposure to biochemistry,



molecular biology and/or genetics with BCMP 200 or an equivalent as a prerequisite.

*Note:* This is a quarter course. Must be taken SAT/UNSAT.

*Prerequisite:* BCMP 200 or an equivalent.

### **\*BCMP 311qc. Unmet Medical Needs and Translational Solutions - (New Course)**

Catalog Number: 41566

*Jagesh V. Shah (Medical School) 5248 and members of the Medical School faculty*

*Quarter course (fall term). M. through F., 9–5. EXAM GROUP: 5*

The central goal of modern biomedical research is to understand the cause of human disease and to use this knowledge to develop approaches that lessen human suffering. The path from identifying an unmet medical need through the development of interventions that impact disease is a complex process demanding the best of medicine and science, strong project management, significant financial support, and persistence. In this course, students will learn to evaluate how unmet medical needs can be "translated" into new clinical practices. The course will feature assessment of unmet medical needs, case studies of successes and failures in translation, seminars from translational medicine experts, and workshops that engage students in substantive and intense discussions on current topics. Lecturers will include innovators who have successfully led the development of therapeutic interventions, leaders in basic science who have helped uncover the underlying causes of disease and investigators who have led clinical trials that lead to the approval of new interventions.

*Note:* This course will meet Mondays through Fridays, from Monday, July 7, 2014 to Friday, July 18, 2014.

## ***Cell Biology***

***Primarily for Graduates***

### **Cell Biology 201. Molecular Biology of the Cell**

Catalog Number: 1044

*Danesh Moazed (Medical School) and Christopher Roy Wood (Medical School)*

*Half course (spring term). M., W., 10:30-12, and sections F., at 10:30-12. EXAM GROUP: 5*

Molecular basis of cellular compartmentalization, protein trafficking, cytoskeleton dynamics, mitosis, cell locomotion, cell cycle regulation, signal transduction, cell-cell interaction, cell death, and cellular/biochemical basis of diseases.

*Note:* Methodological focus on current approaches in cell biology including quantitative tools. Emphasis on experimental design. Offered jointly with the Medical School as CB 713.0.

*Prerequisite:* Basic knowledge in biochemistry, genetics and cell biology.

### **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), Wolfram Goessling (Medical School), Jordan A. Kreidberg (Medical School), Sean Megason (Medical School), Trista Elizabeth North (Medical School), Ramesh Shivdasani (Medical School), Jessica Whited (Medical School), and Malcolm Whitman (Dental School)*

*Half course (spring term). M., Th., 2–4. EXAM GROUP: 18*



Analyzes the developmental programs of frog, chick, zebrafish, and mouse embryos, emphasizing experimental strategies for understanding the responsible molecular mechanisms that pattern the vertebrate embryo. Morphogenesis, organogenesis, stem cells and regeneration will also be discussed.

*Note:* Offered jointly with the Medical School as CB 710.0. Includes lectures and conference sessions in which original literature is discussed in depth. Short research proposals are required in lieu of exams.

### **[Cell Biology 211. Molecular and Systems Level Cancer Cell Biology]**

Catalog Number: 5771

*Piotr Sicinski (Medical School), Jarrod Marto (Medical School), and Marc Vidal (Medical School)*

*Half course (spring term). M., W., 1–2:30.*

Examines the molecular basis of cancer formation including alterations in signal transduction pathways, cell cycle machinery, cell metabolism and apoptosis. Describes novel systems biology proteomic approaches to study cancer cell interactomes.

*Note:* Expected to be given in 2015–16. Expected to be given in 2015-2016. Given alternate years with Cell Biology 212. Offered jointly with the Medical School as CB 704.0.

*Prerequisite:* General knowledge of biochemistry, molecular genetics, and cell biology.

### **Cell Biology 212. Biology of the Cancer Cell**

Catalog Number: 4169

*David A. Frank (Medical School) and Jean J. Zhao (Medical School)*

*Half course (spring term). M., W., 12:30-2:00. EXAM GROUP: 7*

This semester long course takes a molecular approach to examine the basis of human cancer. The main concepts that we will cover include: Cancer genetics and epigenetics, tumor suppressor genes and oncogenes, signal transduction, DNA damage and repair, angiogenesis, metastasis and invasion, apoptosis, cancer stem cells, and tumor immunology and immunotherapy. Lectures will be delivered by experts in the various fields to provide an integrated perspective on past, current, and future approaches in cancer biology research. In addition, students will participate in workshops in which they will delve more deeply into the primary literature of several of these topics.

*Note:* Given alternate years with Cell Biology 211.

*Prerequisite:* Advanced biochemistry, molecular genetics, and cell biology.

### **Cell Biology 226. Concepts in Development, Self-Renewal, and Repair**

Catalog Number: 8747 Enrollment: Limited to 12.

*Iain A. Drummond (Medical School) and Amar Sahay (Medical School)*

*Half course (fall term). F., 2–5. EXAM GROUP: 7*

Explores developmental mechanisms through the life cycle, contrasting pluripotency and cell fate restriction in embryos and adult tissues. In depth analysis of in vivo approaches, with emphasis on adult stem cells, tissue repair and self-renewal.

*Note:* Offered jointly with the Medical School as CB 721.0. For more information visit:

[Massachusetts General Hospital](#) and select CB 226.

*Prerequisite:* Upper division cell biology or equivalent.

***Graduate Courses of Reading and Research*****\*Cell Biology 300. Advanced Topics in Cell, Molecular, and Developmental Biology**

Catalog Number: 5825

*David Lopes Cardozo (Medical School) 5995**Half course (fall term; repeated spring term). . EXAM GROUP: 3**A series of reading and discussion seminars, each running for a half term (seven weeks).**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 306. Chromatin Dynamics in metabolism and DNA repair**

Catalog Number: 75486

*Raul Mostoslavsky (Medical School) 6402**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Cell Biology 307. Cell-cell signaling in neural development and regeneration**

Catalog Number: 1911

*John G. Flanagan (Medical School) 3149**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Cell Biology 310. Mechanisms of Vertebrate Hedgehog Signaling**

Catalog Number: 9189

*Adrian Salic (Medical School) 5351**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Cell Biology 311. Cardiovascular Signal Transduction**

Catalog Number: 9196

*Thomas Michel (Medical School) 4392**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Cell Biology 312. Molecular Mechanisms of Transcriptional Control**

Catalog Number: 8538

*Anders Michael Naar (Medical School) 4328**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Cell Biology 313. Systems Biology of Mammalian Signal Transduction**

Catalog Number: 23964

*Peter K. Sorger (Medical School) 5544**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Cell Biology 314. Molecular Biology of Extracellular Matrix**

Catalog Number: 5077



*Bjørn R. Olsen 1164*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Cell Biology 316. Mechanism and Function of Intracellular Protein Turnover**

Catalog Number: 1017

*Alfred L. Goldberg (Medical School) 2827*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Cell Biology 317. Mechanisms of Programmed Cell Death**

Catalog Number: 2270

*Junying Yuan (Medical School) 2105*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Cell Biology 318. Molecular Biology of Cell Growth Regulation and Transformation**

Catalog Number: 3355

*John Blenis (Medical School) 2612*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Cell Biology 319 (formerly Pathology 368). Signaling Pathways in Cancer Cell Biology**

Catalog Number: 71626

*Alex Toker (Medical School) 4971*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Cell Biology 321. Neuronal Pathfinding and Synaptogenesis**

Catalog Number: 4841

*David L. Van Vactor (Medical School) 2089*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Cell Biology 325. Molecular and Cellular Regulators of Cancer Progression**

Catalog Number: 27821

*Sandra McAllister (Medical School) 3226*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Cell Biology 326. Signal Transduction During Early Development**

Catalog Number: 1872

*Malcolm Whitman (Dental School) 3267*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Cell Biology 328. Single-molecule biology and visualization of cellular dynamics**

Catalog Number: 0438

*Tomas Kirchhausen (Medical School) 1155*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Cell Biology 329. The Ubiquitin-Proteasome Pathway**

Catalog Number: 6826



*Daniel Finley (Medical School) 2313*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Cell Biology 332. Mass Spectrometry and Proteomics**

Catalog Number: 1568

*Instructor to be determined*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Cell Biology 333. Electron Microscopic Structure Determination**

Catalog Number: 9254

*Thomas Walz (Medical School) 3778*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Cell Biology 336. Signal Transduction in Normal and Transformed Cells**

Catalog Number: 6833

*Joan S. Brugge (Medical School) 1486*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Cell Biology 339. Cell Morphogenesis and Regulation**

Catalog Number: 3898

*Marc W. Kirschner (Medical School) 1078*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Cell Biology 343. Mechanisms of Mammalian Cell Differentiation and Gene Expression**

Catalog Number: 0202

*Bruce M. Spiegelman (Medical School) 7733*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Cell Biology 344. Molecular Mechanism of Signal Transduction**

Catalog Number: 6093

*Xi He (Medical School) 2004*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Cell Biology 345. Protein Transport Across the Endoplasmic Reticulum Membrane**

Catalog Number: 6793

*Tom Rapoport (Medical School) 1815*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Cell Biology 348. Transcriptional regulation and epigenetics in breast and prostate cancer**

Catalog Number: 87887

*Myles A. Brown (Medical School) 1789*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Cell Biology 349. Gene Silencing and Chromosome Structure**

Catalog Number: 8765



*Danesh Moazed (Medical School) 4254*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Cell Biology 351. Cardiovascular Stem Cells in Development and Disease**

Catalog Number: 7604

*Kenneth R. Chien 5667*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Cell Biology 354. Basic and Applied Mechanisms of Intracellular Transport**

Catalog Number: 7605

*Victor Wee Hsu (Medical School) 2606*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Cell Biology 356. Cell Growth Regulation, Telomere Maintenance, Cancer and Alzheimer's Disease**

Catalog Number: 3718

*Kun Ping Lu (Medical School) 2607*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Cell Biology 358. Mechanisms of Tumor Metastasis**

Catalog Number: 0606

*Bruce R. Zetter (Medical School) 7737*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Cell Biology 359. Intracellular Signaling Pathways in the Regulation of Cell Growth and Differentiation**

Catalog Number: 0335

*David A. Frank (Medical School) 3276*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Cell Biology 360. Genetic Control of Apoptosis in Drosophila**

Catalog Number: 6046

*Kristin White (Medical School) 3955*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Cell Biology 365. Mechanism and biology of ubiquitin-like protein conjugation cascades**

Catalog Number: 96188

*J. Wade Harper (Medical School) 4957*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Cell Biology 366. Mitochondria in Aging and Metabolism**

Catalog Number: 44666

*Marcia C. Haigis (Medical School) 5734*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Cell Biology 370. Mitotic Kinases, Chromatin and Chromosome Segregation**

Catalog Number: 0661

*Jonathan M. G. Higgins (Medical School) 5543**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Cell Biology 371. Nutrient Sensing and Metabolic Control**

Catalog Number: 5804

*Pere B. Puigserver (Medical School) 5735**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Cell Biology 372. Cytoskeletal Dynamics**

Catalog Number: 5032

*Timothy J. Mitchison (Medical School) 3713**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Cell Biology 373. Molecular Genetics of Cell Interaction in Development**

Catalog Number: 8133

*Spyros Artavanis-Tsakonas (Medical School) 2609**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*Cell Biology 374. Cell-extracellular matrix interaction in brain development and malformation**

Catalog Number: 35175

*Xianhua Piao (Medical School) 7046**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Cell Biology 375. Cancer Genetics and DNA**

Catalog Number: 26444

*David Marc Weinstock (Medical School) 6929**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Cell Biology 376. Chemical Approaches to Cell Division and Cancer**

Catalog Number: 7680

*Randy King (Medical School) 3941**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Cell Biology 377. Islet cell signaling mechanisms, Stem cells, iPS Cells in diabetes**

Catalog Number: 7966

*Rohit N. Kulkarni (Medical School) 5152**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Cell Biology 378. Bacterial Toxin Entry and Immunoglobulin Transport in Mucosal Epithelial Cells**

Catalog Number: 7656

*Wayne I. Lencer (Medical School) 5153**Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Cell Biology 379. BMP Signaling in Organogenesis**

Catalog Number: 2894

*Vicki Rosen (Dental School) 4790**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Cell Biology 380. Cytoskeletal Mechanics of Blood Platelet Production**

Catalog Number: 9706

*Joseph E. Italiano (Medical School) 5392**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Cell Biology 381. Molecular Mechanism of Microtubule-based Motility**

Catalog Number: 8578

*Samara Louise Reck-Peterson (Medical School) 6165**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Cell Biology 382. Regulation of Rho GTPases by synaptopodin**

Catalog Number: 16967

*Peter Hermann Mundel (Medical School) 7040**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Cell Biology 383. Molecular Biology of Instinctive Animal Behavior**

Catalog Number: 8119

*Stephen Daniel Liberles (Medical School) 6159**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Cell Biology 385. Epigenetic mechanisms and genomic integrity**

Catalog Number: 72714

*Mohammad Motamedi (Medical School) 7039**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Cell Biology 386. Systemic metabolism and cancer**

Catalog Number: 41321

*Nada Y. Kalaany (Medical School) 7026**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Cell Biology 387. Calcium signaling in health and disease**

Catalog Number: 81727

*Anna Greka (Medical School) 7021**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Cell Biology 389. Modeling ovarian cancer pathogenesis and early detection**

Catalog Number: 97721

*Ronny I. Drapkin (Medical School) 5912**Half course (fall term; repeated spring term). . EXAM GROUP: 5*



**\*Cell Biology 390. Membrane: cytoskeleton interface in morphogenesis and tumorigenesis/metastasis**

Catalog Number: 31092

*Andrea I. McClatchey (Medical School) 2204*

*Half course (fall term; repeated spring term). EXAM GROUP: 10*

**\*Cell Biology 399. Nanocourses**

Catalog Number: 0087

*David Lopes Cardozo (Medical School) 5995 and Spyros Artavanis-Tsakonas (Medical School) 2609*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 6; Spring: 17*

***Quarter Courses for Graduate Students Only***

**\*Cell Biology 300qc. Advanced Topics in Cell, Molecular, and Developmental Biology**

Catalog Number: 17665

*David Lopes Cardozo (Medical School) 5995*

*Quarter course (fall term; repeated spring term). EXAM GROUP: 5*

A series of reading and discussion seminars, each running for a half term (7 weeks).

*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.

**[\*Cell Biology 302qc. Advanced Experimental Design for Biologists]**

Catalog Number: 91286 Enrollment: Limited to 24.

*Randy King (Medical School) 3941 and David Jonathan Glass (Medical School)*

*Quarter course (spring term). M., W., 4–6.*

Theory and practice of experimental design. Build on principles from experimental design boot camp. Conducted in workshop setting to apply those principles to current student projects. Emphasis placed on interpretation and strategic project planning.

*Note:* Expected to be given in 2015–16.

**\*Cell Biology 304qc. Introduction to Human Gross Anatomy**

Catalog Number: 61023 Enrollment: Limited to 10.

*David Lopes Cardozo (Medical School) 5995, Gerald Greenhouse (Medical School), Everett Anderson (Medical School), Mohini Lutchman (Medical School)*

*Quarter course (spring term). M., W., F., 12–7, and some 12–5. EXAM GROUP: 15*

Lectures, laboratory dissections, and prosections to explore the gross structure and function of the human body. Provide a foundation to acquire practical skills in recognizing, dissecting, and differentiating key anatomical structures.

*Note:* Open to graduate students only.

**[\*Cell Biology 305qc. Intracellular transport]**

Catalog Number: 61228

*Victor Hsu (Medical School) and invited faculty*

*Quarter course (fall term). Tu., 3–5.*



This course will provide a practical guide to understanding the role of intracellular transport in physiology and disease settings. Basic mechanisms and also interdisciplinary areas that involve this fundamental cellular process will be selected for discussion.

*Note:* Expected to be given in 2015–16. Offered in alternate years.

### **\*Cell Biology 306qc. Teaching 100: The Theory and Science of Teaching**

Catalog Number: 62351 Enrollment: Limited to 15.

*Johanna Gutlerner (Medical School) 7590*

*Quarter course (fall term). Th., 1–3:30. EXAM GROUP: 3*

For many graduate students, teaching will be part of their career, whether as mentoring, formal classroom teaching, or outreach. In addition, the theory and research evidence accumulating in the disciplines of cognitive psychology, neuroscience, and from STEM classrooms, has turned the question of, 'How do we best teach science?' into its own scientific discipline. The Theory and Science of Teaching focuses on understanding why certain teaching methods are effective by examining the scientific research and theoretical frameworks that support these methods. We will read and discuss foundational educational and cognitive psychology texts and primary literature, and then develop an annotated lesson plan that allows us to put these ideas into practice.

*Note:* The course has been designed as a companion to Genetics 302qc: Teaching 101, but neither course is a prerequisite of the other.

### **[\*Cell Biology 307qc. Molecular Aspects of Chromatin Dynamics]**

Catalog Number: 91774 Enrollment: Limited to 25.

*Raul Mostoslavsky 6402, Danesh Moazed (Medical School), Johnathan Whetstone (Medical School), and Lee Zou (Medical School), and members of the Department*

*Quarter course (spring term). Hours to be arranged.*

Discuss chromatin dynamics in modulating cellular processes. Cover molecular mechanisms that regulate chromatin dynamics. How chromatin itself modulates biological processes, including mechanisms of inheritance. Discuss DNA methylation, histone modifications, nucleosome dynamics and novel epigenetic modulators.

*Note:* Expected to be given in 2015–16. Will offer in alternate years.

### **\*Cell Biology 308qc. Introduction to Histology**

Catalog Number: 38084 Enrollment: Limited to 11.

*Adrian Salic (Medical School), Gerald Greenhouse (Medical School) and Stephen Daniel Liberles (Medical School)*

*Quarter course (spring term). M., W., F., 1-4. EXAM GROUP: 3*

The study of structure and how structure relates to function, in cells and tissues.

### **[\*Cell Biology 309qc. Advanced Topics in Cell Biology]**

Catalog Number: 14797

*David L. Van Vactor (Medical School) 2089 and members of the Medical School*

*Quarter course (spring term). Tu., 6–7:30.*

Dinner Seminar Theme: Controlling Cellular Behavior and Metabolism through Cell Interaction and Signaling. Review articles assigned each week to prepare students for discussion.

*Note:* Expected to be given in 2015–16.



**[\*Cell Biology 310qc. Current Topics in Cancer Biology Research]**

Catalog Number: 60742

*Alex Toker (Medical School) 4971*

*Quarter course (spring term). M., W., F., 2:30-4.*

This course is designed for mid- to upper-year graduate students that are interested in Current Topics in Cancer Biology research. Leading and cutting edge technologies in Cancer Biology Research are explored in-depth using recent papers of high profile in a round-table discussion format. Topics include: Cancer Cell Signaling, Metastasis and EMT, Cancer Genomics, Cancer and microRNAs and Cancer Stem Cells.

*Note:* Expected to be given in 2015–16.

**[\*Cell Biology 311qc. Recent Advances in Cell Biology ]**

Catalog Number: 86396 Enrollment: Open to first-year and second-year BBS students.

*David L. Van Vactor (Medical School) 2089 and Wade Harper (Medical School) 4957*

*Quarter course (spring term). .*

Provides a comprehensive overview on the most recent advances in cell biology, covering hands-on experimental sessions including, electron microscopy, live cell imaging, single molecule imaging, 3D cultures, quantitative proteomics, protein interaction mapping, and more.

*Note:* Expected to be given in 2015–16. Note: Will not be offered in January 2015.

## ***Developmental and Regenerative Biology***

### ***Graduate Course***

**\*DRB 310. Blood Stem Cell Development and Regeneration**

Catalog Number: 35575

*Trista Elizabeth North (Medical School) 6515*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*DRB 311. Cardiovascular Development and Regeneration**

Catalog Number: 50682

*Caroline Erter Burns (Medical School) 6516*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*DRB 312. Epigenetic Modifications and Cellular Identity**

Catalog Number: 65789

*Alexander Meissner 6702*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*DRB 313. Liver Development, Regeneration and Carcinogenesis**

Catalog Number: 14267

*Wolfram Goessling (Medical School) 6563*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*DRB 314. Investigation of the molecular mechanisms governing development and reprogramming of neuronal subtypes in the mammalian cerebral cortex.**



Catalog Number: 80896

*Paola Arlotta 6703*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*DRB 315. Environmental Signaling, Plasticity and Fate Specification during Development**

Catalog Number: 29374

*Susan Mango 6386*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*DRB 316. Stem Cells and Organ Size Control**

Catalog Number: 96003

*Fernando D. Camargo 6401*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*DRB 317. Stem cells, Cancer, and Hematological Disorders**

Catalog Number: 44481

*Catherine T. Yan (Medical School) 6517*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*DRB 318. Adult hippocampal neurogenesis, cognition and affective behaviors**

Catalog Number: 18357

*Amar Sahay (Medical School) 7195*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*DRB 319. Adult mammalian regeneration**

Catalog Number: 45223

*Qiao Zhou 6578*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*DRB 320. Lung Regeneration and Lung Disease**

Catalog Number: 42137

*Jayaraj Rajagopal (Medical School) 6762*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*DRB 321. Stem Cells and Neurodegenerative Disease**

Catalog Number: 30604

*Lee L. Rubin 6061*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*DRB 322. Regulation of tissue stem cells**

Catalog Number: 80827

*David T. Breault (Medical School) 2595*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*DRB 324. Adult skeletal muscle stem cell regulation**

Catalog Number: 88077



*Andrew Stephen Brack (Medical School) 7008*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*DRB 325 (formerly Pathology 371). Biology and Function of Tissue-Specific Stem Cells**

Catalog Number: 85039

*Amy J. Wagers 5212*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*DRB 326 (formerly Pathology 385). Epigenetic Regulation by Large Non-coding RNA**

Catalog Number: 14839

*John L. Rinn 6229*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*DRB 331. Critical Analysis and Experimental Approaches in Developmental Biology**

Catalog Number: 22543 Enrollment: Limited to 16.

*Paola Arlotta 6703 and members of the Department*

*Half course (spring term). M. through Sa., 12–6. EXAM GROUP: 14*

This course will provide a survey of major topics and contemporary research in developmental and regenerative biology. Students will rotate in the laboratories of DRB faculty across the Harvard campuses and affiliated hospitals. Students engage with faculty and gain hands on experience in a variety of model systems, techniques and research areas. Each day of the course will consist of a lecture followed by hands-on laboratory activities and interactive discussions. Students will be required to complete the lab experience and the following assignments: lead two chalk-talk format paper presentations, and write one 5-6 page research proposal.

*Note:* Intensive January course.

***Quarter Course for Graduate Students Only***

**\*DRB 330qc. Experimental Approaches to Developmental Biology**

Catalog Number: 6590 Enrollment: Limited to 16.

*Paola Arlotta 6703, and members of the Department*

*Quarter course (spring term). M. through Sa., 10:30–6, January 6th-January 17th, 2014. EXAM GROUP: 12*

This laboratory course is designed to provide a survey of major topics and contemporary research in developmental and regenerative biology. Students will rotate in the laboratories of DRB faculty across the Harvard campuses and affiliated hospitals. Students engage with faculty and gain hands on experience in a variety of model systems, experimental techniques and research areas. Each day of the course will consist of a lecture followed by hands-on laboratory activities and interactive discussions.

*Note:* Open to first-year and second-year BBS students; Not repeatable for credit. January course.

***Genetics***

***Primarily for Graduates***



### **Genetics 201. Principles of Genetics**

Catalog Number: 4225

*Fred Winston (Medical School), Thomas G. Bernhardt (Medical School), Maxwell G. Heiman (Medical School), Mitzi I. Kuroda (Medical School), and Steven A. McCarroll (Medical School)*

*Half course (fall term). M., W., F., 9–10:20. EXAM GROUP: 10*

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, including yeast, *Drosophila*, *C. elegans*, mouse, human and bacteria.

*Note:* Intended for first-year graduate students. Offered jointly with the Medical School as GN 701.0.

### **[Genetics 202. Human Genetics]**

Catalog Number: 8064 Enrollment: Minimum of 8 and maximum of 30 students.

*Matthew L. Warman (Medical School) and members of the Department*

*Half course (spring term). M., 12:30–4.*

This course examines genetic principles and experimental approaches for addressing fundamental questions about human variation, history, health, and disease. Each session is comprised of a lecture followed by a class discussion.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Genetics 201 (or permission of the instructor) and basic knowledge of probability and statistics. Familiarity with bioinformatics and computational tools will be useful, but tutorial assistance will be provided where necessary.

### **[Genetics 216. Advanced Topics in Gene Expression]**

Catalog Number: 2244

*Robert E. Kingston (Medical School) and Fred Winston (Medical School)*

*Half course (spring term). Tu., 1–4.*

Covers both biochemical and genetic studies in regulatory mechanisms. Small number of topics discussed in depth, using the primary literature. Topics range from prokaryotic transcription to eukaryotic development.

*Note:* Expected to be given in 2015–16. Offered jointly with the Medical School as GN 703.0.

*Prerequisite:* BCMP 200 and Genetics 201.

### **[Genetics 219. Inheritance and Weird Stuff]**

Catalog Number: 14189

*Chao-Ting Wu (Medical School) and Kami Ahmad (Medical School)*

*Half course (spring term). Tu., 11–2.*

Focus on patterns of inheritance, including those that were once considered extraordinary but are now recognized as paradigms spanning fungi to humans. Expectations: questions, ideas, conversation during class. No tests, problem sets, or papers.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Primarily for first-year graduate students, but is open to medical students and advanced undergraduates. A basic understanding of genetics recommended.

### **Genetics 220. Molecular Biology and Genetics in Modern Medicine**

Catalog Number: 4660



### *Kiran Musunuru*

*Half course (fall term). F., 8:30-12:30, Tu., 2-5. EXAM GROUP: 10*

This course will provide a firm foundation for understanding the relationship between molecular biology, developmental biology, genetics, genomics, bioinformatics, and medicine. The goal is to develop explicit connections between basic research, medical understanding, and the perspective of patients. During the course the principles of human genetics will be reviewed. Students will become familiar with the translation of clinical understanding into analysis at the level of the gene, chromosome and molecule, the concepts and techniques of molecular biology and genomics, and the strategies and methods of genetic analysis, including an introduction to bioinformatics. The course will extend beyond basic principles to current research activity in human genetics.

*Note:* Offered jointly with the Medical School as HT 160.

### **Genetics 228. Genetics in Medicine - From Bench to Bedside**

Catalog Number: 9840

*Christopher Holmes Newton-Cheh (Medical School)*

*Half course (spring term). F., 2-5. EXAM GROUP: 18*

Focus on translational medicine: the application of basic genetic discoveries to human disease. Will discuss specific genetic disorders and the approaches currently used to speed the transfer of knowledge from the laboratory to the clinic.

*Note:* Course will include patient presentations and lectures by investigators known for their work in a specific disease area. Course will be held at MGH (transportation provided to MGH). Offered jointly with the Medical School as GN 711.0. For more information visit [Massachusetts General Hospital](#) and select GEN 228.

*Prerequisite:* Genetics 201 or equivalent.

### ***Graduate Courses of Reading and Research***

#### **\*Genetics 300. Advanced Topics in Genetics**

Catalog Number: 1037

*David Lopes Cardozo (Medical School) 5995*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

A series of reading and discussion seminars, each running for a half term (seven weeks).

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 303. Molecular Biology of Pathogenesis**

Catalog Number: 1972

*Frederick Ausubel (Medical School) 4639*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

#### **\*Genetics 303L. Craniofacial Developmental Biology - (New Course)**

Catalog Number: 47775



*Chienwei Eric Liao (Medical School) 7800*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Genetics 304. Molecular Genetics Basis of Human Disease, Particularly Cardiovascular Pathogenesis**

Catalog Number: 0693  
*Christine E. Seidman (Medical School) 3013*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Genetics 305. Centrosomes, Cilia, Cysts and Diseases**

Catalog Number: 9027  
*Jing Zhou (Medical School) 3779*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Genetics 306. Inherited Human Disorders**

Catalog Number: 7324  
*Jonathan G. Seidman (Medical School) 7529*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Genetics 308. Molecular Biology of Signal Transduction**

Catalog Number: 5616  
*Brian Seed (Medical School) 7619*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Genetics 309. Gene Expression in Yeast**

Catalog Number: 3763  
*Fred Winston (Medical School) 7877*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Genetics 310. Molecular Genetics of Neural Development and Gene Therapy to Prevent Blindness**

Catalog Number: 6324  
*Constance L. Cepko (Medical School) 1150*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Genetics 311. Molecular Mechanisms of Transcription Regulation in Mammals**

Catalog Number: 7310  
*Robert E. Kingston (Medical School) 1153*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Genetics 312. Genetic analysis of small RNA pathways and surveillance of core cellular systems**

Catalog Number: 8363  
*Gary B. Ruvkun (Medical School) 1366*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Genetics 313. Genomic Approaches to Human Disease Genetics**

Catalog Number: 6059

*David M. Altshuler (Medical School) 4307**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Genetics 314. Structure and Activities of Ribozymes**

Catalog Number: 7244

*Jack Szostak (Medical School) 7096**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Genetics 315. Molecular Genetics of Inherited Disorders**

Catalog Number: 3362

*James Gusella (Medical School) 1152**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Genetics 316. Transcription Factors and DNA Regulatory Elements**

Catalog Number: 2247

*Martha L. Bulyk (Medical School) 4259**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Genetics 317. Signaling Networks in Development and Disease**

Catalog Number: 2271

*Jordan A. Kreidberg (Medical School) 2080**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Genetics 318. Genome Structure**

Catalog Number: 5012

*George M. Church (Medical School) 1608**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Genetics 320. Genetics of Common Human Disease**

Catalog Number: 39071

*Mark Joseph Daly (Medical School) 6519**Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*Genetics 321. Genetic Analysis of Growth and Homeostasis**

Catalog Number: 6501

*Norbert Perrimon (Medical School) 1679**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Genetics 322. Vertebrate Pattern Formation**

Catalog Number: 0436

*Clifford J. Tabin (Medical School) 2430**Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Genetics 323. Molecular Biology of V(D)J Recombination**

Catalog Number: 6950

*Marjorie A. Oettinger (Medical School) 3172**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Genetics 325. Human Genetics, Genomics and Complex Traits**

Catalog Number: 8275

*Joel N. Hirschhorn (Medical School) 4321**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Genetics 326. Human Molecular and Cancer Genetics**

Catalog Number: 2900

*David J. Kwiatkowski (Medical School) 3770**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Genetics 327. Systems Biology of Mammalian Cell Fate Decisions**

Catalog Number: 69285

*Suzanne Gaudet (Medical School) 6183**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Genetics 328. Lymphocyte Differentiation, Recombination, DNA Repair, Cancer**

Catalog Number: 2702

*Frederick W. Alt (Medical School) 3146**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Genetics 329. Genetic Analysis of Synaptic Transmission**

Catalog Number: 9734

*Joshua M. Kaplan (Medical School) 3522**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Genetics 331. Developmental Oncobiology and Cancer Stem Cells**

Catalog Number: 17763

*Zhe Li (Medical School) 7193**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Genetics 332. Combining genetic and biochemical approaches to elucidate mechanisms underlying cancer**

Catalog Number: 2975

*Karen M. Cichowski (Medical School) 3932**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Genetics 333. Computational biology of transcriptional and epigenetic regulation**

Catalog Number: 96777

*Xiaole Shirley Liu (Public Health) 4911**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Genetics 334. Genomics and the Genetics of Human Disease**

Catalog Number: 5144

*Raju Kucherlapati (Medical School) 4324**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Genetics 335. Genetics, epigenetics, gene regulation, evolution, disease**

Catalog Number: 4982

*Chao-Ting Wu (Medical School) 3535**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Genetics 336. Developmental Biology of Hematopoiesis**

Catalog Number: 7165

*Leonard I. Zon (Medical School) 1137**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Genetics 337. Human Molecular Genetics**

Catalog Number: 7194

*Stuart H. Orkin (Medical School) 7402**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Genetics 338. Epigenetic inheritance and small regulatory RNAs - (New Course)**

Catalog Number: 72992

*Scott G. Kennedy (Medical School)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Genetics 341. Development and Homeostasis of the Skeleton**

Catalog Number: 8874

*Matthew L. Warman (Medical School) 5875**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Genetics 342. Genetic Analysis of Zebrafish Kidney Organogenesis**

Catalog Number: 4498

*Iain A. Drummond (Medical School) 5350**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Genetics 343. Zebrafish cardiovascular development and regeneration**

Catalog Number: 76107

*Charles Geoffrey Burns (Medical School) 7433**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Genetics 344. Computational Genomics**

Catalog Number: 2125

*Peter J. Park (Medical School) 5917**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Genetics 347. Ras signaling and colon cancer**

Catalog Number: 72917

*Kevin M. Haigis (Medical School) 5913**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Genetics 348. The regenerative biology of tendons and ligaments - (New Course)**

Catalog Number: 20949

*Jenna Lauren Galloway (Medical School) 7799**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Genetics 350. Genetic Regulation of Organogenesis and Organ Regeneration**

Catalog Number: 4974

*Richard L. Maas (Medical School) 3703**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Genetics 352. Cardiovascular Development and Disease, Muscle Biology**

Catalog Number: 58035

*Da-Zhi Wang (Medical School) 3228**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Genetics 353. Genetics of Human Disease**

Catalog Number: 6608

*Susan A. Slugenhardt (Medical School) 5483**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Genetics 354. Integrative genomics of cancer and autism**

Catalog Number: 53387

*Isaac S. Kohane (Medical School) 4531**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Genetics 355. Molecular Genetics of Human Neuromuscular Diseases**

Catalog Number: 9253

*Alan H. Beggs (Medical School) 1422**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Genetics 356. Research in Molecular Cytogenetics**

Catalog Number: 21395

*Cynthia C. Morton (Medical School) 2194**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Genetics 357. Lung Stem Cell Biology and Cancer**

Catalog Number: 9494

*Carla Kim (Medical School) 5742**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Genetics 358. Developmental Neurobiology and Genetics**

Catalog Number: 8297

*Susan M. Dymecki (Medical School) 1736**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Genetics 359. Cancer and development, intestinal development/differentiation**

Catalog Number: 9880

*Ramesh Shivdasani (Medical School) 4538**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Genetics 360. Microtubule Associated RNAs During Mitosis**

Catalog Number: 5677

*Michael Demian Blower (Medical School) 5733**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Genetics 361. Epigenetic regulation by long noncoding RNAs**

Catalog Number: 9152

*Jeannie T. Lee (Medical School) 2129**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Genetics 362. Molecular Biology and Genetics of Cancer**

Catalog Number: 9382

*David Morse Livingston (Medical School) 4872**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Genetics 366. Molecular Genetic Approaches to Human Disease Mechanisms**

Catalog Number: 8153

*Marcy E. MacDonald (Medical School) 2635**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Genetics 368. Molecular Genetics of Aging and Neurodegenerative Disorders**

Catalog Number: 50867

*Bruce Yankner (Medical School) 1557**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Genetics 369. Molecular Mechanisms of Plant Signal Transduction**

Catalog Number: 3010

*Jen Sheen (Medical School) 3892**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Genetics 370. Molecular Basis of Breast Cancer Initiation and Progression**

Catalog Number: 4519

*Kornelia Polyak (Medical School) 3898**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Genetics 371. Functional Genomics and Proteomics**

Catalog Number: 2190

*Marc Vidal (Medical School) 3914**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Genetics 372. Molecular Mechanisms of Aging and Age Related Diseases**

Catalog Number: 65974

*David A. Sinclair (Medical School) 2610**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Genetics 373. Kidney Disease, Genetics, Cytoskeleton**

Catalog Number: 3875

*Martin R. Pollak (Medical School) 4329**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Genetics 374. Mechanisms underlying accurate meiotic chromosome segregation**

Catalog Number: 4419

*Monica P. Colaiácovo (Medical School) 4949**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Genetics 376. Cell Cycle Control and Genomic Integrity**

Catalog Number: 3788

*Stephen J. Elledge (Medical School) 4954**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Genetics 377. Molecular Genetics of Chromosome Organization and Gene Expression**

Catalog Number: 0811

*Mitzi I. Kuroda (Medical School) 4959**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Genetics 378. Aging, Stress Defenses, and Developmental Gene Regulation in *C. elegans***

Catalog Number: 14452

*T. Keith Blackwell (Medical School) 1826**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Genetics 379. Applying Population Genetics to Find Disease Genes**

Catalog Number: 1677

*Instructor to be determined**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Genetics 380. Molecular Approaches to Metabolism and Energy Balance**

Catalog Number: 4688

*Evan David Rosen (Medical School) 4966**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Genetics 382. Muscle Stem Cell Commitment and Differentiation**

Catalog Number: 2626

*Emanuela Gussoni (Medical School) 5155**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*Genetics 385. Cell Cycle Proteins in Development and Cancer**

Catalog Number: 81081

*Piotr Sicinski (Medical School) 2245**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Genetics 387. Stem Cells and Developmental Biology**

Catalog Number: 4080

*Chad A. Cowan 6099**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Genetics 388. Genetics of Neuronal Morphogenesis and Connectivity in C. Elegans**

Catalog Number: 63445

*Maxwell G. Heiman (Medical School) 3225**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Genetics 389. Epigenomics of Allele-Specific Expression**

Catalog Number: 29559

*Alexander Gimelbrant (Medical School) 6521**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Genetics 391. Human genome variation, schizophrenia, and the molecular biology of neurons and microglia**

Catalog Number: 51043

*Steven A. McCarroll (Medical School) 6557**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Genetics 392 (formerly \*Pathology 318). Self-Renewal and Cancer**

Catalog Number: 10448

*David M. Langenau (Medical School) 6459**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Genetics 393. Genetic basis of skeletal development and evolution**

Catalog Number: 71384

*Matthew Harris (Medical School) 6954**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Genetics 394. How transcriptional networks rewire neuronal circuits**

Catalog Number: 42703

*Jesse M. Gray (Medical School) 3469**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*



**\*Genetics 395. Global studies of transcription elongation**

Catalog Number: 72253

*L. Stirling Churchman (Medical School) 3222*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Genetics 396 (formerly Pathology 369). Genome Editing and Epigenome Editing**

Catalog Number: 46863

*J. Keith Joung (Medical School) 5149*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Genetics 397. Immunogenomics**

Catalog Number: 95934

*Soumya Raychaudhuri (Medical School) 2624*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Genetics 398. Epigenetic regulation in stem cell/development & disease**

Catalog Number: 48404

*Yi Zhang (Medical School) 7196*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

***Quarter Courses for Graduate Students Only***

**\*Genetics 300qc. Advanced Topics in Genetics**

Catalog Number: 84294

*David Lopes Cardozo (Medical School) 5995*

*Quarter course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

A series of reading and discussion seminars, each running for a half term (7 weeks).

*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.

**\*Genetics 302qc. Teaching 101: Bringing Effective Teaching Practices to your Classroom**

Catalog Number: 91159 Enrollment: Limited to 15.

*Johanna Gutlerner (Medical School) 7590*

*Quarter course (spring term). Th., 1-3:30. EXAM GROUP: 8*

Survey basics of effective teaching practices, focusing on practical application and real-life examples. Topics include effective lecturing techniques, using goals and learning styles to inform lesson planning and design, assessing student understanding, and facilitating discussions.

**\*Genetics 303qc. Current Tools for Gene Analysis - (New Course)**

Catalog Number: 98485

*Fred Winston (Medical School) 7877 and Neena Haider (Medical School)*

*Quarter course (spring term). Th., 10-12. EXAM GROUP: 12*

The goal of this course is to explore a number of the current online tools to analyze genes, gene function, pathways, DNA, RNA, and protein analysis. Each class we will introduce a new online tool. The majority of the class will be spent exploring the tool together in an interactive manner.



At the end of each class students will be given an assignment which utilizes the knowledge they gained in class and helps them to further explore the new tool. Assignments will be reviewed in class the following week. After taking this class students will be proficient in the use of each online tool and will be able to apply their knowledge to learning new tools and programs.

*Note:* Students will need to bring a laptop to class each day. This course was developed and will be taught by Dr. Neena Haider, Associate Scientist at the Schepens Eye Research Institute and Associate Professor of Ophthalmology at Harvard Medical School.

*Prerequisite:* Genetics 201 or with permission from the instructor.

### **\*Genetics 390qc. Advanced Experimental Methods: Experimental Approaches in Genetic Analysis**

Catalog Number: 8039 Enrollment: Limited to 8.

*Fred Winston (Medical School) 7877 and members of the Department*

*Quarter course (spring term). M. through F., 8:30-4. January 5th - 16, 2015. EXAM GROUP: 15*

A survey of major themes in genetics combined with exposure to various experimental techniques, technologies, and model systems. Combines lectures and hands-on laboratory activities emphasizing experimental methods, hypothesis generation and testing, and data analysis.

*Note:* Limited to 8 students. Priority will be given to G1 graduate students in the BBS Department. Students must first contact the faculty for enrollment approval prior to registration for the course. Meeting Dates/Times: Approximately 8:30 A.M. - 4:00 P.M. each day for 10 days January 5 - 16, 2015 (Monday - Friday).

*Prerequisite:* Students must also enroll in, or have taken, Genetics 201.

### **\*Genetics 391qc. Advanced Experimental Design in Genetics**

Catalog Number: 70918 Enrollment: Limited to 8.

*Fred Winston (Medical School) 7877 and members of the Department*

*Quarter course (spring term). M. through F., 8:30-4. January 5 - January 16, 2015. EXAM GROUP: 15*

To be run concurrently with Genetics 390qc. Students will have the opportunity to design experimental approaches that aim to answer specific questions in the field of genetics. Combined with the hands-on laboratory experience of Genetics 390qc, students will use their knowledge of experimental methods and data analysis with a variety of model organisms and techniques. Over the two-week course period, students will be asked to reflect daily on their experiences and design two unique experiments that will broaden their experience in the areas of hypothesis testing and data interpretation.

*Note:* Limited to 8 students. Priority will be given to G1 graduate students in the BBS Department. Students must first contact the faculty for enrollment approval prior to registration for the course. Meeting Dates/Times: Approximately 8:30 A.M. - 4:00 P.M. each day for 10 days January 5 - 16, 2015 (Monday - Friday).

*Prerequisite:* Students must also enroll in, or have taken, Genetics 201.

### ***Human Biology and Translational Medicine***

Human Biology and Translational Medicine (HBTM) focuses on providing rigorous multidisciplinary training in the fundamental mechanisms and essential methodologies of human



biology and disease-oriented research, and in the translation of these discoveries into advances in the diagnosis, prevention, and treatment of human disease.

### ***Primarily for Graduates***

#### **HBTM 200. Principles and Practice of Human Pathology**

Catalog Number: 10575 Enrollment: Enrollment may be limited

*Scott Benjamin Lovitch (Medical School)*

*Half course (spring term). Tu., 9–11 and Th., 9–1. EXAM GROUP: 2*

Overview of human pathology, emphasis on mechanisms of disease and modern diagnostic technologies. Integrated lectures, labs, and student-driven term project leading to formal presentation on a medical, socioeconomic, or technological issue in human pathology.

*Note:* Jointly offered with the Medical School as HT035.0

*Prerequisite:* General biology.

#### **[HBTM 201 (formerly Pathology 209). Tumor Pathophysiology and Transport Phenomena**

##### **- A Systems Biology Approach]**

Catalog Number: 5934

*Rakesh K. Jain (Medical School)*

*Half course (fall term). M., 5-7.*

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 2015–16. Expected to be given in 2015-2016. Given alternate years with Cell Biology 212. Offered jointly with the Medical School as CB 704.0.

#### **HBTM 235 (formerly BCMP 235). Principles of Human Disease: Physiology and Pathology**

Catalog Number: 82892 Enrollment: Will be limited.

*Constance L. Cepko (Medical School), and members of the Medical School*

*Half course (fall term). M., W., F., 9–10:30. EXAM GROUP: 10*

This course covers the normal physiology and pathophysiology of selected organs, through lectures, readings, tutorials based on clinical cases, and patient presentations. Human biology is emphasized, with some examples also drawn from model organisms.

*Note:* Course enrollment will be limited, with priority given to graduate students and a maximum of 10 undergraduates (priority given to seniors).

*Prerequisite:* Knowledge of introductory biochemistry, molecular biology, and cell biology required (MCB52 and MCB54 or equivalent and one year of organic chemistry for undergraduates).

### ***Graduate Courses of Reading and Research***

#### **\*HBTM 304. Resolution of Lung Inflammation and Injury**

Catalog Number: 1421

*Bruce D. Levy (Medical School) 5922*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*HBTM 305. Endothelial Cell, Nitric Oxide, Proteomic Redox Regulation**

Catalog Number: 9077

*Joseph Loscalzo (Medical School) 5923**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*HBTM 307. Mechanisms of heart growth, regeneration, and failure**

Catalog Number: 1294

*Anthony Rosenzweig (Medical School) 5925**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*HBTM 314. Skin Immunology T Cell Trafficking Lymphoma**

Catalog Number: 2368

*Thomas Seth Kupper (Medical School) 5960**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*HBTM 315. Hypothalamic Gene Function and Regulation**

Catalog Number: 1577

*Joseph A. Majzoub (Medical School) 1875**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*HBTM 317. Adhesion, Integrins, Hematopoiesis, Kidney Genetics**

Catalog Number: 5746

*M. Amin Arnaout (Medical School) 1822**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*HBTM 320. Endothelial Progenitors in Health Disease**

Catalog Number: 8324

*Joyce E. Bischoff (Medical School) 1448**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*HBTM 321. Regenerative Biology**

Catalog Number: 58335

*Richard T. Lee 6168**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*HBTM 322. Cardiac Repair and Regeneration**

Catalog Number: 4398

*Ronglih Liao (Medical School) 6169**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*HBTM 323. Developmental Biology and Disease in Human and Zebrafish**

Catalog Number: 5160

*Calum Archibald MacRae (Medical School) 6170**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*



**\*HBTM 324. Principles/Practices of Developing Human Antibody Therapies**

Catalog Number: 3910

*Wayne A. Marasco (Medical School) 6171*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*HBTM 325. Genetics of Blood Development**

Catalog Number: 7279

*Barry Htin Paw (Medical School) 6172*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*HBTM 326. Human Genetics of Neuroinflammatory and Neurodegenerative Disorders**

Catalog Number: 1515

*Philip Lawrence De Jager (Medical School) 6233*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*HBTM 327. Translational Research on Kinase Inhibitors**

Catalog Number: 0138

*Pasi Antero Janne (Medical School) 6234*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*HBTM 329. Developing Targeted Therapies for Cancer**

Catalog Number: 49916

*Jeffrey Adam Engelman (Medical School) 6225*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*HBTM 331. Tumor Microenvironment, Angiogenesis and Metastasis: from Bench-to-Bedside-to-Biomarkers**

Catalog Number: 8347

*Rakesh K. Jain (Medical School) 2079*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*HBTM 340. (LHB). Disease-Centered Tutorial Clinics**

Catalog Number: 8640 Enrollment: Limited to LHB students only.

*Jordan A. Kreidberg (Medical School) 2080*

*Half course (spring term). . EXAM GROUP: 11*

**\*HBTM 341. Gene Regulation of Metabolism in Cardiovascular Health and Disease**

Catalog Number: 99499

*Zoltan Pierre Arany (Medical School) 6409*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*HBTM 342. Research in Hematology and Oncology**

Catalog Number: 47977

*Benjamin L. Ebert (Medical School) 6410*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*HBTM 343. Complex Trait Genetics of Blood Pressure and QT Interval Variation**

Catalog Number: 63084

*Christopher Holmes Newton-Cheh (Medical School) 6270**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*HBTM 345. Tuberous Sclerosis and LAM: Pathogenic Mechanisms**

Catalog Number: 91208

*Elizabeth Petri Henske (Medical School) 6579**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*HBTM 346. Bioimaging and Optical Spectroscopy: Detection of Early Disease with Light**

Catalog Number: 79138

*Lev T. Perelman (Medical School) 6601**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*HBTM 347. Effects of Diabetes, Exercise, and Skeletal Muscle Metabolism**

Catalog Number: 73142

*Laurie Joy Goodyear (Medical School) 3231**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*HBTM 348. Molecular Pathogenesis of the Metabolic Syndrome**

Catalog Number: 44412

*Sudha Biddinger (Medical School) 2628**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*HBTM 349. Network Medicine in Vascular Disease**

Catalog Number: 14556

*Stephen Y. Chan (Medical School) 7011**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*HBTM 350. Molecular basis of hematologic and solid cancers**

Catalog Number: 61555

*Roberto Chiarle (Medical School) 7016**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*HBTM 351. Biology and Immunotherapy of Chronic Lymphocytic Leukemia**

Catalog Number: 49316

*Catherine Ju-Ying Wu (Medical School) 7060**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*HBTM 352 (Formerly Pathology 310). Regulation of Vascular Development and Pathology**

Catalog Number: 28771

*Patricia A. D'Amore (Medical School) 1168**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*HBTM 353 (formerly Pathology 313). Mechanobiology and Developmental Control**

Catalog Number: 82486

*Donald E. Ingber 2832**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*HBTM 354 (formerly Pathology 317). Epithelial:stromal Interactions in the Formation and Progression of Carcinomas**

Catalog Number: 64171

*Antoine Karnoub (Medical School) 6458**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*HBTM 355 (formerly Pathology 377). Epigenetic Mechanisms in Mammalian Development**

Catalog Number: 42288

*Bradley E. Bernstein (Medical School) 5669**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*HBTM 356 (formerly Pathology 327). Genetic Models of Leukemogenesis**

Catalog Number: 86835

*A. Thomas Look (Medical School) 3771**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*HBTM 358 (formerly Pathology 332). Control of Cell Proliferation by RB/E2F**

Catalog Number: 33855

*Nicholas J. Dyson (Medical School) 1829**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*HBTM 359 (formerly Pathology 333). Genetics of Neurodegenerative Disease**

Catalog Number: 99808

*Mel B. Feany (Medical School) 4439**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*HBTM 360 (formerly Pathology 334). Characterization of Molecular Targets of Cancer Therapy**

Catalog Number: 25971

*Daniel A. Haber (Medical School) 1832**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*HBTM 361 (formerly Pathology 335). Molecular Approaches to Cell Immortalization and Transformation**

Catalog Number: 39571

*William C. Hahn (Medical School) 4317**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*HBTM 362 (formerly Pathology 350). Topics in Vascular Biology**

Catalog Number: 14796



*Michael A. Gimbrone (Medical School) 1896*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*HBTM 363 (formerly Pathology 352). Recombination Functions of the BRCA Genes**

Catalog Number: 22147

*Ralph Scully (Medical School) 4536*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*HBTM 364 (formerly Pathology 359). Signal Transduction Pathways Involved in Cellular Proliferation and Apoptosis**

Catalog Number: 14536

*Roya Khosravi-Far (Medical School) 2704*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*HBTM 365 (formerly Pathology 360). Biology and Genetics of Human Cancers**

Catalog Number: 37417

*Matthew L. Meyerson (Medical School) 2421*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*HBTM 366 (formerly Pathology 364). Molecular Genetics of Erythroid Iron Metabolism**

Catalog Number: 22101

*Mark Daniel Fleming (Medical School) 4955*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*HBTM 367 (formerly Pathology 365). Control of Endothelial Cell Fate and Vascular Development by Fluid Mechanical Forces**

Catalog Number: 57098

*Guillermo Garcia-Cardena (Medical School) 4956*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*HBTM 369 (formerly Pathology 372). DNA Damage Responses and Genomic Stability**

Catalog Number: 54705

*Lee Zou (Medical School) 5258*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*HBTM 370 (formerly Pathology 373). Integration of Metabolism and Stress Pathways**

Catalog Number: 39025

*Nika Danial (Medical School) 5393*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*HBTM 373 (formerly Pathology 382). Mechanisms of Acute and Chronic Allograft Rejection**

Catalog Number: 27268

*Richard N. Mitchell (Medical School) 5916*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*



**\*HBTM 374 (formerly Pathology 383). Cell Cycle, Ubiquitination and Protein Degradation, Cancer Research**

Catalog Number: 62612

*Wenyi Wei (Medical School) 5918*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*HBTM 375 (formerly Pathology 384). The Molecular Genetics of Human Cancer**

Catalog Number: 50657

*Pier Paolo Pandolfi (Medical School) 6177*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*HBTM 376 (formerly Pathology 386). Hematopoietic stem cell biology and aging**

Catalog Number: 28486

*Derrick J. Rossi 6330*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*HBTM 377 (formerly Pathology 388). Impact of Epigenetics On Cellular Homeostasis**

Catalog Number: 30031

*Johnathan Whetstine (Medical School) 6244*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*HBTM 378. Inherited basis for myocardial infarction**

Catalog Number: 95712

*Instructor to be determined*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*HBTM 379. Molecular pathogenesis of pediatric cancer**

Catalog Number: 18969

*Rani E. George (Medical School) 7428*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*HBTM 380. Gene Therapy Translation and Vector Development**

Catalog Number: 14087

*Luk Hugo Vandenberghe (Medical School) 7356*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*HBTM 381. Neurodevelopmental and neurodegenerative disorders**

Catalog Number: 92899

*Tracy Pearse (Medical School) 7417*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

***Quarter Courses for Graduate Students Only***

**\*HBTM 300qc. Advanced Topics in Human Biology and Translational Medicine**

Catalog Number: 32772

*David Lopes Cardozo (Medical School) 5995*



*Quarter course (fall term; repeated spring term). EXAM GROUP: Fall: 11; Spring: 7*

A series of reading and discussion seminars, each running for a half term (7 weeks).

*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.

### **\*HBTM 301qc. Case Studies in Human Biology and Translational Medicine**

Catalog Number: 95905 Enrollment: Will be limited.

*Caren Grossbard Solomon (Medical School) 6960 and Mary Elizabeth Hamel (Medical School)*

*Quarter course (spring term). M. through F., 9–10:30. EXAM GROUP: 3*

Two-week course that is required of and restricted to first-year LHB students. Each week of the course focuses on a different "case study" in translational medicine.

*Note:* January term course. Restricted to students in the Leder Human Biology and Translational Medicine Program only.

### **\*HBTM 302qc. Imaging and Microscopy Methods in Biology and Medicine**

Catalog Number: 13534 Enrollment: Limited to 12.

*Lev T. Perelman (Medical School) 6601, Le Qiu (Medical School) 7795, and Vladimir Turzhitsky (Medical School) 7797*

*Quarter course (fall term). T., 3–5. EXAM GROUP: 11*

Introduce modern imaging modalities with emphasis on modalities frequently employed in cellular, molecular biology and medicine. Overview of noninvasive medical imaging techniques frequently used in scientific research: X-ray CT, MRI, ultrasound, PET/SPECT and optical imaging.

### **\*HBTM 303qc. Vision: A System and its Assessment**

Catalog Number: 65449

*Patricia A. D'Amore (Medical School) 1168 and Russell L. Woods (Medical School)*

*Quarter course (fall term). W., 3–5. EXAM GROUP: 16*

This course provides an introduction to the visual system and its assessment. In general, we will consider vision as a system rather than its low-level components. Each two-hour session consists of two lectures provided by faculty with expertise in that area. Topics will include basic science and clinical topics, normal vision and abnormal vision, methods of assessment of animals and humans, clinical and laboratory measures.

### **[\*HBTM 304qc. Drug Development: From Concept to Commercialization]**

Catalog Number: 83871 Enrollment: Limited to 30.

*Michael Goldberg (Medical School) 7037*

*Quarter course (spring term). Tu., 5–7 p.m.*

This course is intended to provide graduate students with exposure to the diverse aspects of the drug development process. The novel cystic fibrosis drug Kalydeco will be used as an exemplar, though the themes of discovery, development, manufacturing, business development, commercialization, and growth are relevant across most therapeutics. Each class will include a lecture by a person involved in that particular aspect of Kalydeco development followed by a group discussion of the associated case study.

*Note:* Expected to be given in 2015–16.



**\*HBTM 305qc (formerly \*Pathology 301qc). The Molecular Bases of Eye Disease**

Catalog Number: 85085

*Darlene Ann Dartt (Medical School) 6904 and Magali Saint-Geniez (Medical School)*

*Quarter course (spring term). M., 3–5. EXAM GROUP: 16*

Understanding of the molecular bases for diseases that target the eye.

## ***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 Enrollment: Limited to 50.

*Thorsten Roman Mempel (Medical School), Michael C. Carroll (Medical School), Ulrich H. Von Andrian-Werburg (Medical School), and members of the Program in Immunology*

*Half course (fall term). Tu., Th., 1:30–3, with section Tu., Th., 3–4. EXAM GROUP: 8*

Comprehensive core course in immunology. Topics include a broad but intensive examination of the cells and molecules of the immune system. Special attention given to the experimental approaches that led to 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

*D. Branch Moody (Medical School) and Martin E. Hemler (Medical School)*

*Half course (spring term). Tu., Th., 1:30–4. EXAM GROUP: 1*

Continuation of Immunology 201 as an intensive core course in fundamentals of immune system, emphasis of physiological roles of immune cells *in vivo*. Classes taught by experts in their fields; involve 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

*Duane R. Wesemann (Medical School)*

*Half course (spring term). Th., 10–1. EXAM GROUP: 12*

Original research articles from fields including immunology, biochemistry, genetics, and cell and developmental biology will be critically analyzed in an intensive small group format. Grading will be based on class participation and oral presentations.

*Note:* Required for first-year immunology students, open to second-year immunology students.

No auditors. Offered jointly with the Medical School as IM 703.0.



### ***Graduate Courses in Reading and Research***

Primarily designed for work on a dissertation 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

*David Lopes Cardozo (Medical School) 5995*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

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 Enrollment: Limited to 20.

*Michael C. Carroll (Medical School) 2050 and William Nicholas Haining (Medical School) 6946*

*Half course (fall term; repeated spring term). W. 12:15-1:15 (lunch) and 3:30-5 (discussion). EXAM GROUP: 4*

Gives students exposure to research topics in Immunology. Students prepare for the weekly seminar through readings, discussions, and preparing brief write-ups. These discussions are facilitated by members of the Committee on Immunology.

*Note:* Required for, and limited to, first-year Immunology graduate students.

#### **\*Immunology 302. Innate and adaptive immune inflammation in allergic and asthmatic models**

Catalog Number: 1355

*K. Frank Austen (Medical School) 6887*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

#### **\*Immunology 303. Immunity to Tuberculosis**

Catalog Number: 9490

*Samuel M. Behar (Medical School) 4570*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

#### **\*Immunology 304. Innate immunity and host-pathogen interactions**

Catalog Number: 62634

*Lynda Stuart (Medical School) 6466*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

#### **\*Immunology 305. T Cell Immunology - tolerance, transplantation, autoimmunity**

Catalog Number: 74626

*Laurence A. Turka (Medical School) 2633*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Immunology 308. Cell signaling in innate immunity - (New Course)**

Catalog Number: 26398

*Hongbo Luo (Medical School) 5395**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Immunology 309. Molecular Aspects of Lymphocyte Interactions**

Catalog Number: 3778

*Cox Terhorst (Medical School) 6280**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Immunology 310. Responses mediated by innate and adaptive immune cells in cancer and other inflammatory disorders**

Catalog Number: 53318

*Mikael J. Pittet (Medical School) 2641**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Immunology 311. Macrophage biology in multiple contexts, including IBD and metabolism**

Catalog Number: 93003

*Tiffany Horng (Public Health) 6612**Half course (spring term). . EXAM GROUP: 6***\*Immunology 312. Interplay Between the Innate Immune System and Gut Microbial Communities**

Catalog Number: 11923

*Wendy S. Garrett (Public Health) 6613**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Immunology 314. Rheumatic Diseases**

Catalog Number: 8065

*Peter H. Schur (Medical School) 4551**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Immunology 315. Immunoregulation**

Catalog Number: 5540

*Martin E. Dorf (Medical School) 4541**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Immunology 316. Molecular Basis of Immunologic Recognition and Communication**

Catalog Number: 3192

*Harvey Cantor (Medical School) 4460**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Immunology 317. Molecular Biology of Receptor Transduction in the Immune System**

Catalog Number: 0518



*Brian Seed (Medical School) 7619*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Immunology 318. Mechanisms of Antigen Presentation and Cellular Immunology**

Catalog Number: 23104

*Florian Winau (Medical School) 2639*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Immunology 319. Molecular Basis of Cell Adhesion and Migration**

Catalog Number: 0293

*Timothy A. Springer (Medical School) 6145*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Immunology 320. Cell Adhesion in Vascular Biology and Innate Immunity**

Catalog Number: 85446

*Denisa D. Wagner (Medical School) 2092*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Immunology 320L. The study of human tissue resident T cells**

Catalog Number: 86176

*Rachael Ann Clark (Medical School) 3429*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Immunology 321. Why functional memory T cells are formed, and why protective T cell immunity fails to develop against chronic viral infection and cancer**

Catalog Number: 15497

*William Nicholas Haining (Medical School) 6946*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Immunology 321L. The molecular mechanism of immunity to fungal pathogens.**

Catalog Number: 46538

*Jatin Mahesh Vyas (Medical School) 7055*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Immunology 322. Systems Approaches to Innate and Adaptive Immunity; Functional Genomics of Complex Disease Genetics**

Catalog Number: 12714

*Ramnik Xavier (Medical School) 6878*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Immunology 322L. Molecular and cellular analysis of primary immunodeficiencies**

Catalog Number: 79856

*Luigi D. Notarangelo (Medical School) 6666*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*



**\*Immunology 323L. Immunity to bacterial enteropathogens: modulation by host and microbial factors**

Catalog Number: 47426

*Bobby J. Cherayil (Medical School) 7014*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Immunology 324. Systems Immunology of Tolerance and Autoimmunity**

Catalog Number: 1905

*Christophe O. Benoist (Medical School) 3928*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Immunology 324L. T cell sensitization and immunoregulation in ocular allo- and autoimmunity**

Catalog Number: 38401

*Reza Dana (Medical School) 7164*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Immunology 325. Immune Cell Interactions Controlling T Cell Effector Function**

Catalog Number: 1078

*Thorsten Roman Mempel (Medical School) 6173*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Immunology 325L. Mechanisms of Peripheral Tolerance and Their Breakdown in Allergic and Autoimmune Diseases**

Catalog Number: 46639

*Talal Amine Chatila (Medical School) 7126*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Immunology 326. Human T-cell Antigen Receptor; Human Lymphocyte Differentiation Antigens; TCR; Thymic Development; Protective Immunity; HIV-I; T-cell Vaccines**

Catalog Number: 6719

*Ellis L. Reinherz (Medical School) 1408*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Immunology 326L. Mechanistic elucidation of immune signaling**

Catalog Number: 86626

*Hao Wu (Medical School)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Immunology 327. Chemical Cell Biology**

Catalog Number: 0824

*Stuart L. Schreiber 2166*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Immunology 327L (formerly \*HBTM 368). Phagocyte-endothelial Cell Responses in Inflammation**



Catalog Number: 28559

*Tanya Mayadas (Medical School) 4963*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Immunology 328r. Introduction to Research**

Catalog Number: 5531

*Michael C. Carroll (Medical School) 2050*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Immunology 329. Basic and Clinical Mechanisms of Autoimmunity**

Catalog Number: 0354

*Howard L. Weiner (Medical School) 1335*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Immunology 329L. Examining the interplay of inflammation and glycosylation**

Catalog Number: 20965

*Robert Anthony (Medical School) 7201*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Immunology 330. Molecular Aspects of Mast Cells—Mediated Immune Responses**

Catalog Number: 7296

*Richard L. Stevens (Medical School) 2892*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Immunology 330L. CD4+ T Cell Tolerance**

Catalog Number: 55675

*James J. Moon (Medical School) 7251*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Immunology 331. Lymphoid Organs**

Catalog Number: 5725

*Joan E. Stein-Streilein (Medical School) 4769*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Immunology 332. The Role of Cysteinyl Leukotrienes and their Receptors in Pulmonary Inflammation and Fibrosis**

Catalog Number: 9530

*Yoshihide Kanaoka (Medical School) 5401*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Immunology 334. Understanding the Mechanisms of Pathogen-sensing by the Innate Immune System**

Catalog Number: 11337

*Terry K. Means (Medical School) 6898*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Immunology 335. Neuro-immunology of Pain and Host Defense - (New Course)**

Catalog Number: 87085

*Isaac Ming-cheng Chiu* 7888*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Immunology 336. T-Lymphocyte Recognition**

Catalog Number: 7292

*Michael B. Brenner (Medical School)* 2864*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Immunology 337. Study of the influence of initial bacterial colonization on the development of the mucosal immune system**

Catalog Number: 1320

*W. Allan Walker (Medical School, Public Health)* 1175*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Immunology 337L. Vascular and Cell Biology of Inflammation and Wound Healing**

Catalog Number: 36804

*Christopher Vincent Carman (Medical School)* 7438*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Immunology 339. Function and Regulation of Cellular Adhesion Mechanisms**

Catalog Number: 7841

*Martin E. Hemler (Medical School)* 2868*Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*Immunology 340. The Human Major Histocompatibility Complex, Immune Function, and Disease**

Catalog Number: 6650

*Chester Alper (Medical School)* 2951*Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*Immunology 341. Gene Regulation in Normal and Leukemic Stem Cells**

Catalog Number: 9403

*Daniel G. Tenen (Medical School)* 1172*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Immunology 342. Immune Cell Signaling, Gene Transcription and Tissue Injury in Lupus.**

Catalog Number: 7829

*George C. Tsokos (Medical School)* 5911*Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Immunology 343. The Regulation of Eicosanoid Generation**

Catalog Number: 8593



*Jonathan P. Arm (Medical School) 4946*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Immunology 344. Genetic Analysis of Lymphocyte Development and Nuclear Oncogene Function**

Catalog Number: 6438

*Frederick W. Alt (Medical School) 3146*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Immunology 345. Assembly and Function of pre-B Cell-fate and B Lymphocyte Antigen Receptors**

Catalog Number: 0866

*Shiv S. Pillai (Medical School) 3393*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Immunology 346. Trafficking of antigen in lymph nodes**

Catalog Number: 1755

*Michael C. Carroll (Medical School) 2050*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Immunology 348. Cell Biology, Biochemistry, and Immunology of Leukocyte-endothelial Adhesion**

Catalog Number: 0901

*Francis W. Luscinskas (Medical School) 3772*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Immunology 350. Regulation of Autoimmune T Cell Responses**

Catalog Number: 1916

*Vijay K. Kuchroo (Medical School) 2041*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Immunology 351. Studies on Glycosylation and Adaptive Immunity**

Catalog Number: 1875

*Charles J. Dimitroff (Medical School) 5521*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Immunology 353. Innate and Adaptive Immune Responses in HIV-1 Infection**

Catalog Number: 6000

*Marcus Altfeld (Medical School) 5689*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Immunology 354. Topics in Transplantation Biology**

Catalog Number: 1459

*David H. Sachs (Medical School) 1075*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Immunology 355. Molecular mechanisms of antigen presentation**

Catalog Number: 59519

*Edda Fiebiger (Medical School) 2631**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Immunology 356. Cytotoxic T Lymphocytes**

Catalog Number: 8232

*Judy Lieberman (Medical School) 1542**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Immunology 357. Microbial-epithelial-immune Cell Interactions in Mucosal Tissues**

Catalog Number: 2111

*Richard S. Blumberg (Medical School) 2351**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Immunology 359. Immunoregulatory Mechanisms at Mucosal Surfaces, Including the Lung and Gut, Affecting the Development of Inflammation, Allergy, Asthma or Peripheral Tolerance in Mice and Humans.**

Catalog Number: 3037

*Dale T. Umetsu (Medical School) 5289**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Immunology 360. Hematopoietic Stem Cells and their Niche**

Catalog Number: 8952

*David T. Scadden 2649**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Immunology 361. Induction and Regulation of Antigen-specific T Cell Responses**

Catalog Number: 7578

*Gilles A. Benichou (Medical School) 2652**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Immunology 362. Chemokine and Lipid Chemoattractants in Immune Cell Trafficking in Normal Physiology and Disease**

Catalog Number: 3817

*Andrew D. Luster (Medical School) 2654**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Immunology 363. Regulation of Immune and Inflammatory Responses by the Leukocyte Immunoglobulin-like Receptor Family**

Catalog Number: 6813

*Howard R. Katz (Medical School) 2837**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Immunology 364. T-cell Differentiation, Tolerance and Autoimmunity**

Catalog Number: 0972



*Diane J. Mathis (Medical School) 3063*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Immunology 366. Immune Mechanisms in Cardiovascular Disease**

Catalog Number: 6676

*Andrew H. Lichtman (Medical School) 3523*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Immunology 367. Biology and Chemistry of Complement Problems**

Catalog Number: 8080

*Anne Nicholson-Weller (Medical School) 1063*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Immunology 368. RNA Granules**

Catalog Number: 8986

*Paul J. Anderson (Medical School) 1947*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Immunology 369. Mechanisms of Autoimmune Disease**

Catalog Number: 6787

*Vicki R. Kelley (Medical School) 2656*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Immunology 371. Cellular and Molecular Mechanisms of Eosinophil and Other Leukocyte Involvement in Allergic Flammation**

Catalog Number: 3716

*Peter F. Weller (Medical School) 2657*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Immunology 372. Immunopathogenesis & regulation of immune response in EAE**

Catalog Number: 34969

*Samia Joseph Khoury (Medical School) 6948*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Immunology 373. Biology of Histocompatibility Systems in Man and Experimental Animals; Immunology of Aging**

Catalog Number: 6317

*Edmond J. Yunis (Medical School) 6036*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Immunology 374. Tumor Necrosis Factor-Alpha Gene Regulation in the Immunopathogenesis of AIDS and TB**

Catalog Number: 4558

*Anne E. Goldfeld (Medical School) 1008*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Immunology 375. Biology and Function of Immunoreceptors**

Catalog Number: 0510

*Jean-Pierre Kinet (Medical School) 2663**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Immunology 376. Molecular Basis of Immunodeficiencies; Immunological and Molecular Basis of Atopic Dermatitis**

Catalog Number: 3618

*Raif S. Geha (Medical School) 1795**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Immunology 378. T cell Biology and Cancer Immunology**

Catalog Number: 2916

*Kai Wucherpfennig (Medical School) 2481**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Immunology 380. Control of Leukocyte Trafficking and the Immune Response By Chemokines and Other Cytokines**

Catalog Number: 4872

*Barrett J. Rollins (Medical School) 3775**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*Immunology 382. AIDS Immunopathogenesis and Immune Reconstitution**

Catalog Number: 0468

*Robert P. Johnson (Medical School) 6125**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Immunology 384. The Role of Cysteinyl Leukotrienes and Nucleotide Receptors in Control of Pulmonary Allergic Immunity**

Catalog Number: 1056

*Joshua A. Boyce (Medical School) 6230**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Immunology 385. Regulation of T Lymphocyte Activation and Differentiation**

Catalog Number: 1243

*I-Cheng Ho (Medical School) 2764**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Immunology 386. Molecular and signaling pathways regulating T cell immunity and T cell anergy**

Catalog Number: 35936

*Vassiliki A. Boussiotis (Medical School) 6879**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Immunology 389. Development of Cancer Vaccines**

Catalog Number: 4106



*Glenn Dranoff (Medical School) 1821*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Immunology 390. The Role of NK Cells in Tissues**

Catalog Number: 87458

*Galit Alter (Medical School) 6760*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Immunology 391. Transcription Factors in Lymphocyte Commitment and Differentiation**

Catalog Number: 5285

*Katia Georgopoulos (Medical School) 2070*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Immunology 392. Dendritic Cells and the Initiation of Immune Responses; Genetic Analysis using Genome-Wide Mammalian RNAi Libraries**

Catalog Number: 0298

*Nir Hacohen (Medical School) 5157*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Immunology 393. The Role of the Transcription Factor NF- $\kappa$ B in Regulating Innate Inflammatory Responses**

Catalog Number: 3287

*Bruce H. Horwitz (Medical School) 5158*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Immunology 394. Cytotoxic Lymphocytes**

Catalog Number: 0938

*D. Branch Moody (Medical School) 5159*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Immunology 395. NKT and Other Immune Cell Subsets in Anti-Tumor & Anti-Viral Immunity**

Catalog Number: 2491

*Mark Adrian Exley (Medical School) 5749*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Immunology 396. Interested in Immune Tolerance, Particularly in Settings of Autoimmunity and Transplantation.**

Catalog Number: 1812

*Terry B. Strom (Medical School) 5160*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Immunology 397. Antigen Processing and Presentation by Dendritic Cells in Autoimmunity and Cancer**

Catalog Number: 3393



*Shannon Turley (Medical School) 5255*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Immunology 398. The Role of Notch Signaling in Lymphoid Neoplasia**

Catalog Number: 9151

*Jon Christopher Aster (Medical School) 5750*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

***Quarter Courses for Graduate Students Only***

**\*Immunology 300qc. Advanced Topics in Immunology**

Catalog Number: 99401

*David Lopes Cardozo (Medical School) 5995*

*Quarter course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

A series of reading and discussion seminars, each running for a half term (7 weeks).

*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.

**\*Immunology 301qc. Autoimmunity**

Catalog Number: 69978

*Kai Wucherpfennig (Medical School) 2481, Vijay K. Kuchroo (Medical School)*

*Quarter course (spring term). M., 4–6. EXAM GROUP: 11*

This course will focus on basic immunological mechanisms of autoimmune diseases, with an emphasis on recent advances in the field. At each session, we will focus on a particular topic and discuss three important publications.

*Note:* Offered in alternate years. Expected to be given in the first quarter of the spring term in academic year 2014-2015

**\*Immunology 302qc. Clinical Sessions**

Catalog Number: 40428

*Rachael Ann Clark (Medical School) 3429*

*Quarter course (spring term). T., 12-1. EXAM GROUP: 16*

Lectures by physician scientists and clinical exposure to patients with immunologically mediated diseases. The goal is to foster translational research into human immunologic disease.

*Note:* Limited to Immunology students.

**\*Immunology 303qc. The Warring Genomes: Innate Immunity and Host Defense**

Catalog Number: 55535

*Jonathan C. Kagan (Medical School) 6235*

*Quarter course (spring term). Tu., 4–6. EXAM GROUP: 2*

Focus on basic cellular and molecular aspects of innate immunity, with an emphasis on recent advances in the field. Each class will cover a specific topic, and supporting literature will be provided by the instructor.

*Prerequisite:* Students are expected to have already taken IMM201.



### **\*Immunology 305qc. Neuro-immunology in Development, Regeneration and Disease**

Catalog Number: 98545

*Isaac Ming-cheng Chiu 7888, Michael C. Carroll (Medical School) 2050, and Beth Stevens (Medical School) 6678*

*Quarter course (spring term). (Th.), 4–6. EXAM GROUP: 5*

It is increasingly clear that the nervous system and immune system share parallel molecular pathways, and communication between neurons and immune cells play significant roles in homeostasis and disease. This course will investigate current topics in neuro-immunology: CNS development, chronic pain, neuro-degeneration, aging, axon regeneration, auto-immunity and infection. We will focus our discussions on molecular mechanisms shared by the immune and nervous systems and the molecular cross-talk between these two systems.

*Note:* Each class will cover a specific topic in neuro-immunology. Students should be prepared to lead discussions on pre-selected papers for each session. Please note that this quarter course begins on April 23, 2015.

### **\*Immunology 306qc. Systems Immunology**

Catalog Number: 87129

*Nir Hacohen (Medical School) 5157, William Nicholas Haining (Medical School), Christophe O. Benoist (Medical School), and visiting speakers*

*Quarter course (spring term). F., 9–11. EXAM GROUP: 18*

Our focus in this course is on the emerging field of systems immunology. Each session will review a class of experimental approaches, followed by a critical discussion of illustrative papers. Hands-on workshops will introduce students to computational tools for analyzing large-scale datasets, focusing on gene expression. Integrative sessions will review how systems biology has been used in specific areas. In addition, students will organize into small groups to analyze published genomic datasets, and present their results at the last session.

### **\*Immunology 307qc. Cancer Immunology**

Catalog Number: 29695

*Kai Wucherpfennig (Medical School) 2481, Glenn Dranoff (Medical School), Stephanie Dougen (Medical School), and Michael Goldberg (Medical School)*

*Quarter course (fall term). M., 4–6. EXAM GROUP: 10*

There have been many exciting recent developments in the cancer immunology field, and multiple therapeutic approaches have shown efficacy against diverse types of cancer. This course will emphasize new mechanistic insights, in particular on the following topics: Mechanisms of spontaneous protective anti-tumor immunity; Key effector cell populations of anti-tumor immunity; Inflammation and tumor microenvironment; Immunosuppressive mechanisms in tumor immunity; Targeting of inhibitory receptors; Cancer vaccines; New approaches for delivery of immunotherapies into tumors.

### **\*Immunology 308qc. Translational Immunology and Immunotherapy - (New Course)**

Catalog Number: 90209 Enrollment: Limited to 12.

*Laurence A. Turka (Medical School) 2633, Thorsten Roman Mempel (Medical School) 6173, and Shiv S. Pillai (Medical School) 3393*

*Quarter course (spring term). W., 10–12. EXAM GROUP: 14*

This is a reading course with central themes on mechanisms and treatment of immune mediated



disorders, including autoimmunity, transplant rejection, and tumor immunotherapy. There will be a reading requirement of 2-3 relevant papers on the topics of discussion for each week. Each session will consist of a student-led presentation of background on the topic (which will consist of a brief introduction followed by a discussion involving the whole class) followed by another student's presentation of the key points of the papers. Each student is expected to make two presentations during the seven-week course. Evaluation is based on presentations and class participation.

## ***Medical Sciences***

### ***Primarily for Graduates***

#### **\*Medical Sciences 250ab. Human Functional Anatomy**

Catalog Number: 6946 Enrollment: Limited to 52. This course requires rental of a locker.

*Lee Gehrke (Medical School)*

*Full course (fall term). Lectures, M., W., F., 1:30-2:30; laboratory, M., W., F., 2:30-6. EXAM GROUP: 1*

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. The course has a minimum enrollment of 30. This course requires rental of a locker for two hundred and ten dollars. Offered jointly with the Medical School as HT010.

### ***Graduate Courses of Reading and Research***

#### **\*Medical Sciences 303. Cancer Genomics**

Catalog Number: 25409

*Rameen Beroukhim (Medical School) 7235*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

#### **\*Medical Sciences 304. Methods in Single-Cell RNA-seq Analysis - (New Course)**

Catalog Number: 74917

*Peter Vasili Kharchenko 7826*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

#### **\*Medical Sciences 310. Advanced Topics in Medical Sciences**

Catalog Number: 7449

*David Lopes Cardozo (Medical School) 5995*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

A series of reading and discussion seminars, each running for a half term (seven weeks).

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.



### **\*Medical Sciences 399. Topics in Medical Sciences**

Catalog Number: 3197

*David Lopes Cardozo (Medical School) 5995*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

*Subject selected by students and faculty member.*

#### ***Quarter Courses for Graduate Students Only***

### **\*Medical Sciences 300qc. Conduct of Science**

Catalog Number: 47879

*Raju Kucherlapati (Medical School) 4324*

*Quarter course (fall term). Hours to be arranged. EXAM GROUP: 11*

*Note:* Restricted to GSAS graduate students on the Longwood campus.

### **\*Medical Sciences 301qc. PATHS courses**

Catalog Number: 35301

*David Lopes Cardozo (Medical School) 5995*

*Quarter course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

A series of career development PATH courses and discussion seminars. Different topics are covered each term.

*Note:* Limited to the Division of Medical Sciences students. Not for academic credit towards the PhD degree.

### **\*Medical Sciences 302qc. Conduct of Science Refresher**

Catalog Number: 16457

*Raju Kucherlapati (Medical School) 4324*

*Quarter course (fall term). Hours to be arranged. EXAM GROUP: 11*

*Note:* Restricted to DMS graduate students.

### ***Microbiology and Immunobiology***

All courses in Microbiology and Immunobiology are subject to limitation in enrollment and will not be offered unless there is sufficient demand.

#### ***Primarily for Graduates***

### **Microbiology 201. Molecular Biology of the Bacterial Cell**

Catalog Number: 38739

*David Z. Rudner (Medical School), Thomas G. Bernhardt (Medical School), Simon L. Dove (Medical School), and Ann Hochschild (Medical School)*

*Half course (spring term). Tu., Th., 10–12. EXAM GROUP: 12*

This course is devoted to bacterial structure, physiology, genetics, and regulatory mechanisms. The class consists of lectures and group discussions emphasizing methods, results, and interpretations of classic and contemporary literature.



### **\*Microbiology 205. Mechanisms of Microbial Pathogenesis**

Catalog Number: 2480 Enrollment: Limited to 40.

*Clyde S. Crumpacker II (Medical School) and members of the Department*

*Half course (fall term). Tu., Th., 8:30–12:30. EXAM GROUP: 9*

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.

*Prerequisite:* A background course in molecular biology is strongly encouraged.

### **\*Microbiology 210. Microbial Sciences: Chemistry, Ecology, and Evolution**

Catalog Number: 63006 Enrollment: Limited to 30.

*Michael S. Gilmore (Medical School)*

*Half course (spring term). F., at 8:30, F., 9:45–11:45. EXAM GROUP: 10*

This is an interdisciplinary graduate-level and advanced undergraduate-level course in which students explore topics in molecular microbiology, microbial diversity, and microbially-mediated geochemistry in depth. This course will be taught by faculty from the Microbial Sciences Initiative. Topics include the origins of life, biogeochemical cycles, microbial diversity, and ecology.

*Note:* Also offered as Organismic and Evolutionary Biology 290.

*Prerequisite:* For advanced undergraduates, Life Sciences 1a and 1b are required, or permission of instructor. MCB 52 is recommended.

### **Microbiology 213. Social Issues in Biology**

Catalog Number: 7905 Enrollment: Limited to 20.

*Jonathan R. Beckwith (Medical School), and Louis Guenin (Medical School)*

*Half course (spring term). Th., 1–4. EXAM GROUP: 1*

Discussion course on topics selected from the following: history, philosophy of science; evolution vs. creationism; genetics and race; women and science; genetic testing; science journalism; genetics and criminality; science in wartime; scientists and social responsibility; theater and the public presentation of science.

*Note:* Offered jointly with the Medical School as MG 722.0. Alternates yearly between the Longwood and the Cambridge Campuses.

*Prerequisite:* Some background in genetics.

### **Microbiology 214. Mechanisms of Bacterial Pathogenesis and Host Immune Response - (New Course)**

Catalog Number: 37145

*Marcia Goldberg (Medical School), Jonathan C. Kagan (Medical School), and Michael Starnbach (Medical School)*

*Half course (fall term). Tu., Th., 10–12. EXAM GROUP: 12*

This course focuses on molecular mechanisms of bacterial pathogenesis and the host response to infection. The class consists of lectures and group discussions emphasizing methods, results, and interpretations of classic and contemporary literature. The course is designed to complement Microbiology 201.



### ***Graduate Courses of Reading and Research***

Primarily designed for work on a dissertation 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

*David Lopes Cardozo (Medical School) 5995*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

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 305. Molecular Determinants of Intracellular Bacterial Pathogenesis**

Catalog Number: 3190

*Darren E. Higgins (Medical School) 2963*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

#### **\*Microbiology 308. Bacterial/ Host Interactions in Symbiosis and Pathogenesis**

Catalog Number: 4217

*Dennis L. Kasper (Medical School) 4815*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

#### **\*Microbiology 310. Bacterial Genetics of Tuberculosis and Tularemia**

Catalog Number: 7652

*Eric J. Rubin (Medical School) 4084*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

#### **\*Microbiology 312. Acquired and Innate Immunity to Pneumococci**

Catalog Number: 78191

*Richard Malley (Medical School) 6461*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

#### **\*Microbiology 313. T-Lymphocyte Responses to Bacterial Pathogens**

Catalog Number: 4959

*Michael Starnbach (Medical School) 1816*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

#### **\*Microbiology 315. Signaling Networks That Regulate Synapse Development**

Catalog Number: 58003

*Michael E. Greenberg (Medical School) 1400*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Microbiology 316. Host Pathogen Interactions**

Catalog Number: 7769

*Stephen Lory (Medical School) 4326**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Microbiology 317. Molecular Mechanisms in Pathogenesis**

Catalog Number: 8985

*John J. Mekalanos (Medical School) 7315**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Microbiology 318. RNA Structure, RNA-protein Interactions, and Translation-level Gene Regulation in RNA Viruses**

Catalog Number: 1205

*Lee Gehrke (Medical School) 8036**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Microbiology 320. Epigenetic Regulation of DNA Virus Infection**

Catalog Number: 3967

*David M. Knipe (Medical School) 7089**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Microbiology 324. Bacterial Pathogenesis and Vaccine Development**

Catalog Number: 3472

*Gerald Pier (Medical School) 2853**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Microbiology 325. Signal Transduction, Host-Microbial Interactions and Immunology**

Catalog Number: 2839

*Scott Brian Snapper (Medical School) 4969**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Microbiology 326. Biology and virulence of enteric pathogens**

Catalog Number: 4703

*Matthew K. Waldor (Medical School) 5919**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Microbiology 328. Molecular Biology of Epstein Barr Virus Infection and Transformation of B Lymphocytes**

Catalog Number: 3188

*Elliott D. Kieff (Medical School) 1858**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Microbiology 329. The Regulation of Gene Expression in Pathogenic Bacteria**

Catalog Number: 5892

*Simon L. Dove (Medical School) 4953**Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Microbiology 330. Bacterial chromosome dynamics and cell biology**

Catalog Number: 5102

*David Z. Rudner (Medical School) 4968**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Microbiology 331. Modeling Mechanisms of Bacterial Pathogenesis**

Catalog Number: 1929

*Cammie Lesser (Medical School) 4962**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Microbiology 332. Gene Regulation of Prokaryotes**

Catalog Number: 0915

*Ann Hochschild (Medical School) 2314**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Microbiology 335. Molecular Biology of Parasites**

Catalog Number: 0528

*Dyann F. Wirth (Public Health) 2492**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Microbiology 336. Pathogen-host Interactions**

Catalog Number: 3981

*Marcia Goldberg (Medical School) 3783**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Microbiology 337. Mycobacterial Signal Transduction and Transcription Regulation**

Catalog Number: 5826

*Robert Husson (Medical School) 5914**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Microbiology 339. Bacterial Cell Division and Cell Biology**

Catalog Number: 7237

*Thomas G. Bernhardt (Medical School) 5752**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Microbiology 341. Molecular Biology Multi-drug Resistant Pathogens**

Catalog Number: 88249

*Michael S. Gilmore (Medical School) 6227**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Microbiology 343. Chemical Biology, Enzymology, Antibiotics, Glycosyltransferases, Inhibitors**

Catalog Number: 2963

*Suzanne Walker (Medical School) 5087**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Microbiology 344. Chemistry and Biology of Host-Virus Interactions**

Catalog Number: 8853

*Priscilla Yang (Medical School) 5156**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Microbiology 346. Genetics of Bacterial Adhesion and Pathogenesis**

Catalog Number: 5690

*Paula I. Watnick (Medical School) 5666**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Microbiology 347. Chemical Genetics Approach to Bacterial Pathogenesis**

Catalog Number: 2308

*Deborah Tan Hung (Medical School) 5701**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*Microbiology 348. Toll-like Receptors and Innate Immunity**

Catalog Number: 9708

*Jonathan C. Kagan (Medical School) 6235**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Microbiology 349. Molecular Mechanisms of Leukocyte Trafficking**

Catalog Number: 10956

*Ulrich H. Von Andrian-Werburg (Medical School) 2090**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Microbiology 350. Regulation of T-cell Mediated Immune Response**

Catalog Number: 77585

*Arlene H. Sharpe (Medical School) 1588**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Microbiology 351. Viral Pathogenic and Transformation Mechanisms**

Catalog Number: 92692

*Peter M. Howley (Medical School) 1076**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Microbiology 352. The Biology of microRNAs and their Dysregulation in Cancers**

Catalog Number: 56277

*Carl D. Novina (Medical School) 5356**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Microbiology 353. Development and delivery of RNA therapeutics**

Catalog Number: 43059

*Michael Goldberg (Medical School) 7037**Half course (fall term; repeated spring term). . EXAM GROUP: 15****Quarter Courses for Graduate Students Only***



### **\*Microbiology 300qc. Advanced Topics in Microbiology and Molecular Genetics**

Catalog Number: 62986

*David Lopes Cardozo (Medical School) 5995*

*Quarter course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

A series of reading and discussion seminars, each running for a half term (7 weeks).

*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.

### **\*Microbiology 302qc. Introduction to Infectious Disease Research: Infectious Diseases Consortium Boot Camp**

Catalog Number: 96439

*Eric J. Rubin (Public Health) 4084*

*Quarter course (spring term). M. through F., 9-5. EXAM GROUP: 9*

This intensive January course provides an introduction to the breadth of infectious disease research carried out at Harvard. Students will learn techniques for studying infectious diseases, more about different types of infectious diseases, and meet faculty, students, and postdocs in infectious diseases labs at Harvard.

## ***Neurobiology***

The Program in Neuroscience offers multidisciplinary training in the neurosciences leading to the PhD degree. Course instruction and supervision of dissertation research is provided by faculty of the Department of Neurobiology at Harvard Medical School as well as faculty of other departments at Harvard Medical School (and its affiliated medical institutions) and the Faculty of Arts and Sciences.

Courses at the 200 level may be open to advanced undergraduates with permission of the instructor. Additional courses open to undergraduates are offered by the Neurobiology concentration, listed separately.

### ***Primarily for Graduates***

#### **Neurobiology 200. Neurobiology**

Catalog Number: 6062 Enrollment: Limited to 50.

*John A. Assad (Medical School), Matthew P. Frosch (Medical School), Jeffrey Robb Holt (Medical School), Rosalind A. Segal (Medical School), and Ziv Williams (Medical School)*

*Half course (fall term). M., W., 8:30–12, F., 8:30–10:30. EXAM GROUP: 10*

This is a comprehensive course in Neuroscience. Basic principles of organization and function of the nervous system will be discussed with frequent reference to pathophysiology of neurological and psychiatric disorders. Combining pathophysiology with basic neuroscience should provide physician/scientists and Ph.D. candidates with a dynamic picture of the rapidly evolving field of neuroscience and the experimental process from which the picture is derived, and all students should emerge with a greater awareness both of the applications of their work in alleviating disease, and of the ways that disease can provide insight into basic scientific questions. The course will span modern neuroscience from molecular neurobiology to perception and cognition,



and will include the following major topics: Anatomy and Development of the Brain; Cell Biology of Neurons and Glia; Ion Channels and Electrical Signaling; Synaptic Transmission, Integration, and Chemical Systems of the Brain; Sensory Systems, from Transduction to Perception; Motor Systems; and Higher Brain Function (Memory, Language, Affective Disorders).

*Note:* Offered jointly with the Medical School as HT 130. Follows the Medical School calendar. Nine hours of lecture or lab/conference weekly.

*Prerequisite:* Introductory cell and molecular biology course and permission of instructor.

### **Neurobiology 204. Neurophysiology of Central Circuits**

Catalog Number: 5603

*Richard T. Born (Medical School), Mark Lawrence Andermann (Medical School), Michael Tri Hoang Do (Medical School), Christopher D. Harvey (Medical School), Margaret S. Livingstone (Medical School), and Rachel I. Wilson (Medical School)*

*Half course (spring term). M., W., 10–12. EXAM GROUP: 5*

This course introduces major themes and fundamental concepts underlying current research in systems neuroscience. Each week covers a different theme, and draws on research from different sensorimotor modalities and model organisms.

*Note:* Offered jointly with the Medical School as NB 721.0.

*Prerequisite:* Neurobiology 200 or with permission of instructor.

### **[Neurobiology 209. Neurobiology of Disease]**

Catalog Number: 5562

*Edward A. Kravitz (Medical School), Susanna Mierau (Medical School) and members of various clinical departments*

*Half course (spring term). M., 6–8:30., W., 7–9:30.*

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 2015–16. Given in alternate years. Offered jointly with the Medical School as NB 713.0. For advanced undergraduate, graduate students, MD and MD/PhD students.

*Prerequisite:* Introductory neurobiology, biochemistry, and genetics/molecular biology recommended.

### **Neurobiology 211. Molecular and Developmental Neurobiology - (New Course)**

Catalog Number: 87063

*Lisa V. Goodrich (Medical School), Bob Datta (Medical School), Michela Fagiolini (Medical School), Chenghua Gu (Medical School), Pascal Kaeser (Medical School), Joshua M. Kaplan (Medical School), Maria Kristiina Lehtinen (Medical School), and Beth Stevens (Medical School)*

*Half course (spring term). Tu., Th., F., 9–11. EXAM GROUP: 2*

Integrated introduction to the molecular events that govern development and function of neural circuits. Topics include neurogenesis, circuit assembly, synaptic transmission, and the associated signaling pathways. Lectures, discussion of primary literature, and original research proposal.



### **\*Neurobiology 220. Cellular Neurophysiology**

Catalog Number: 2141

*Bruce P. Bean (Medical School), Wade G. Regehr (Medical School), Bernardo L. Sabatini (Medical School), and Gary I. Yellen (Medical School)*

*Half course (fall term). Tu., Th., 9–12. EXAM GROUP: 9*

Introduction to the physiology of neurons, focusing on using electrophysiology and imaging to study function of ion channels, generation 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 230. Visual Object Recognition**

Catalog Number: 78454

*Gabriel Kreiman (Medical School)*

*Half course (fall term). M., 3:30–5:30. EXAM GROUP: 6*

Examines how neuronal circuits represent information and how those circuits are implemented in artificial intelligence algorithms. Topics: architecture of visual cortex, neurophysiology, visual consciousness, computational neuroscience, models of pattern recognition and computer vision.

*Prerequisite:* Life Sciences 1a (or Life and Physical Sciences A) and Life Sciences 1b (or equivalent). Recommended: Math (Maa/Mab, Math 1A,1B, Math 19 a or equivalent). Physical Sciences 1. MCB 80.

### ***Graduate Courses of Reading and Research***

#### **\*Neurobiology 300. Advanced Topics in Neurobiology**

Catalog Number: 6206

*David Lopes Cardozo (Medical School) 5995 and members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

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. 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 301. Visual Object Recognition: Computational Models and Neurophysiological Mechanisms**

Catalog Number: 8402

*Gabriel Kreiman (Medical School) 6174*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

#### **\*Neurobiology 302. Attention and Representation of Sensory Information in Cerebral Cortex**

Catalog Number: 9850



*John Maunsell (Medical School) 5670*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Neurobiology 303. Development, Function, and Disease State of the Inner Ear**  
Catalog Number: 0660

*Zheng-Yi Chen (Medical School) 5478*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Neurobiology 304. Behavioral Genetic Studies of Aggression in Drosophila**  
Catalog Number: 5467

*Edward A. Kravitz (Medical School) 2063*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Neurobiology 305. Cellular and Molecular Mechanisms of Epilepsy, Autism, and Postnatal Circuit Development**

Catalog Number: 1349  
*Matthew Peter Anderson (Medical School) 6691*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Neurobiology 306. Elucidate interactions between vascular and nervous systems**  
Catalog Number: 0992

*Chenghua Gu (Medical School) 5479*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Neurobiology 307. Architecture and plasticity of neurotransmitter release sites**  
Catalog Number: 77741

*Pascal Kaeser (Medical School) 6467*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Neurobiology 308. Molecular Mechanisms of Catecholaminergic-specific Gene Regulation**  
Catalog Number: 6125

*Kwang-Soo Kim (Medical School) 3046*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Neurobiology 309. Neural Circuitry in Schizophrenia**  
Catalog Number: 3823

*Francine M. Benes (Medical School) 1869*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Neurobiology 310. Neural Coding of Chemosensory Stimuli**  
Catalog Number: 2408

*Rachel I. Wilson (Medical School) 5257*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Neurobiology 311. Cellular and Molecular Studies of Synapse Formation in the Vertebrate Nervous System**



Catalog Number: 0081

*Joshua R. Sanes 5094*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Neurobiology 312. Study of synaptic competition by visualizing synaptic rearrangements directly in living animals using modern optical imaging techniques**

Catalog Number: 0082

*Jeff W. Lichtman 5163*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Neurobiology 313. Molecular Biology of Mammalian Circadian Clocks**

Catalog Number: 1758

*Charles J. Weitz (Medical School) 1139*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Neurobiology 314. Cellular Mechanism(s) of Axon Guidance**

Catalog Number: 1742

*Mustafa Sahin (Medical School) 6175*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Neurobiology 315. Molecular mechanisms of Proliferation and Survival in Neural development**

Catalog Number: 0128

*Rosalind A. Segal (Medical School) 1564*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Neurobiology 316. The development, organization, and functions of sensory neurons that mediate touch**

Catalog Number: 68038

*David D. Ginty (Medical School) 7431*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Neurobiology 317. Molecular genetic dissection of circuit assembly and morphogenesis**

Catalog Number: 4979

*Lisa V. Goodrich (Medical School) 4771*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Neurobiology 317L. Identification of pre-markers of developmental dyslexia (DD) in the pre-reading and infant brain and the identification of the underlying neural mechanism of comorbidity of DD and ADHD**

Catalog Number: 17626

*Nadine Gaab (Medical School) 7430*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Neurobiology 318. Molecular Genetics of Cerebral Cortical Development**

Catalog Number: 0825



*Christopher A. Walsh (Medical School) 1560*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Neurobiology 318L. Neurobiology of motivational states - (New Course)**

Catalog Number: 21425

*Michael Crickmore (Medical School) 7793*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Neurobiology 319. Neurological Control of Cell Growth and Differentiation**

Catalog Number: 2991

*Michael E. Greenberg (Medical School) 1400*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Neurobiology 319L. Characterizing the molecular, neural circuit and ecological underpinnings of behavioral diversity in fruit flies**

Catalog Number: 40312

*Benjamin Lovegren de Bivort 7305*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Neurobiology 320. Neuroprotection and Neuronal Repair in Neurodegenerative Disease**

Catalog Number: 4825

*Ole S. Isacson (Medical School) 2077*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Neurobiology 320L. Neural circuits underlying cognitive behaviors in mice**

Catalog Number: 31157

*Christopher D. Harvey (Medical School) 6140*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Neurobiology 321. Visual Perception, Object Recognition, Higher Cognitive Functions, Vision and Art**

Catalog Number: 5387

*Margaret S. Livingstone (Medical School) 1064*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Neurobiology 321L (formerly \*Neurobiology 321I). Multi-modal, multiscalar studies of human neurophysiology from single neurons to neuronal ensembles.**

Catalog Number: 72929

*Sydney S. Cash (Medical School) 7010*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Neurobiology 322. Cellular and Molecular Mechanisms in Axon Guidance and Regeneration**

Catalog Number: 2873

*Zhigang He (Medical School) 3910*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Neurobiology 322L. Molecular mechanisms of reward-related behavior**

Catalog Number: 88657

*Elena Halley Chartoff (Medical School) 7012**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Neurobiology 323. Synaptic Plasticity**

Catalog Number: 3209

*Florian Engert 4290**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Neurobiology 323L (formerly \*Neurobiology 323I). Sensory Transduction in Hair Cells of the Mammalian Inner Ear**

Catalog Number: 17369

*Jeffrey Robb Holt (Medical School) 7023**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Neurobiology 324. Research in Neuropeptide Gene Regulation**

Catalog Number: 4057

*Joseph A. Majzoub (Medical School) 1875**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Neurobiology 324L. Neuroscience and Genetics of Human Variation in Reward and Self-Control**

Catalog Number: 60914

*Joshua William Buckholtz 1653**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*Neurobiology 325. Synaptic Transmissions and Dendritic Processing**

Catalog Number: 2065

*Wade G. Regehr (Medical School) 1606**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Neurobiology 325L. Genetic dissection of inhibitory modulation in the central nervous system**

Catalog Number: 51945

*Uwe Rudolph (Medical School) 7049**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Neurobiology 326. Age-Dependent Mechanisms of Perinatal Brain Injury**

Catalog Number: 2469

*Frances E. Jensen (Medical School) 3940**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Neurobiology 326L. Extracellular matrix/neuron/glia interactions in the pathophysiology of schizophrenia and bipolar disorder**

Catalog Number: 94951



*Sabina Berretta (Medical School) 7087*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Neurobiology 327. Rotation Course in Neurosciences**

Catalog Number: 5694

*Rosalind A. Segal (Medical School) 1564*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

*Note:* Primarily for students in Neuroscience.

**\*Neurobiology 327R. Lab Rotations in Neurosciences**

Catalog Number: 23382

*Rosalind A. Segal (Medical School) 1564*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Neurobiology 328. Mechanisms of Cell Death in Stroke and Trauma**

Catalog Number: 8967

*Eng H. Lo (Medical School) 3049*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Neurobiology 328L. Role of Sleep in Memory and Emotional Processing in Healthy Subjects, Schizophrenia, Autism, and PTSD**

Catalog Number: 65645

*Robert A. Stickgold (Medical School) 3274*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Neurobiology 329. Molecular Mechanisms of Neurodegeneration in Alzheimer's and Parkinsons Diseases**

Catalog Number: 8816

*Dennis J. Selkoe (Medical School) 2857*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Neurobiology 329L. The Genetic and Neural Basis of Sleep in Drosophila**

Catalog Number: 28832

*Dragana Rogulja (Medical School) 7133*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Neurobiology 330. Gene Expression in the Brain and Motivated Behavior**

Catalog Number: 6269

*William A. Carlezon (Medical School) 3929*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Neurobiology 330L. Translational Genomics of Parkinsons Disease: Cause, Cures, Diagnostics**

Catalog Number: 55087

*Clemens Scherzer (Medical School) 7131*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Neurobiology 331. Neural Differentiation, Regeneration and Stem Cell Regulation in the Brain and Eye**

Catalog Number: 9045

*Dong Feng Chen (Medical School) 3930**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Neurobiology 331L. Motivational Influences on Cortical Networks Underlying Attention, Learning and Memory of Sensory Cues**

Catalog Number: 73341

*Mark Lawrence Andermann (Medical School) 7130**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Neurobiology 332. Ligand-Gated Ion Channels: Structure and Function**

Catalog Number: 1623

*Jonathan B. Cohen (Medical School) 1120**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Neurobiology 332L. Biological and computational underpinnings of visual processing**

Catalog Number: 96616

*David Cox 7161**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Neurobiology 333. Intercellular Communication**

Catalog Number: 2484

*David L. Paul (Medical School) 2318**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*Neurobiology 333L. Behavioral and synaptic plasticity in neuropsychiatric disorders; mechanisms of axon guidance and synapse elimination in autism**

Catalog Number: 38811

*Christopher William Cowan (Medical School) 7179**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*Neurobiology 334. Hair Cells and Afferent Neurons of the Inner Ear**

Catalog Number: 1134

*Ruth Anne Eatock (Medical School) 5739**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*Neurobiology 334L. Cellular and Molecular Mechanisms of Cortical Circuit Assembly**

Catalog Number: 89186

*Corey Harwell (Medical School) 7205**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Neurobiology 335. Physiological Function and the Pathogenetic Actions of Genes Implicated in Neurodegenerative Diseases**

Catalog Number: 84752



*Mark William Albers (Medical School) 7202*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Neurobiology 335L. Molecular mechanisms underlying the assembly of neural circuits - (New Course)**

Catalog Number: 78665

*Matthew Y. Pecot (Medical School) 7828*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Neurobiology 336. Developmental Cognitive Neuroscience, Focusing Primarily on Memory and Face Processing.**

Catalog Number: 2242

*Charles A. Nelson (Medical School, Public Health) 5480*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Neurobiology 336L. Synapse formation and refinement in the mammalian brain - (New Course)**

Catalog Number: 89008

*Hisashi Umemori (Medical School) 7846*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Neurobiology 337. Neurobiology of the Human Circadian Pacemaker**

Catalog Number: 5322

*Charles A. Czeisler (Medical School) 7763*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Neurobiology 338. Neural Circuitry of Primate Visual Cortex**

Catalog Number: 5634

*Richard T. Born (Medical School) 1787*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Neurobiology 339. Mechanisms of Central Synaptic Transmission**

Catalog Number: 9322

*Vadim Bolshakov (Medical School) 4948*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Neurobiology 341. Cognition and Cognitive Disorders; the Role of Translational Regulation**

Catalog Number: 8790

*Raymond J. Kelleher (Medical School) 5740*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Neurobiology 342. Neurophysiology of Visual Cortex and LGN**

Catalog Number: 2778

*R. Clay Reid (Medical School) 2957*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Neurobiology 343. Neuronal Metabolism and Excitability; Molecular Physiology of Ion Channels**

Catalog Number: 1887

*Gary I. Yellen (Medical School) 3268**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Neurobiology 344. Neurobiology and protein biochemistry underlying Parkinson's disease.**

Catalog Number: 38211

*Matthew James Lavoie (Medical School) 2640**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Neurobiology 345. Molecular Basis of Neuron Glia Interactions**

Catalog Number: 4918

*Gabriel Corfas (Medical School) 2907**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Neurobiology 346. Visual Processing in Primates**

Catalog Number: 0184

*John A. Assad (Medical School) 2985**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Neurobiology 347. Alzheimer's Disease Research**

Catalog Number: 6606

*Bradley T. Hyman (Medical School) 2952**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Neurobiology 348. Neural stem cells and cerebrospinal fluid**

Catalog Number: 11112

*Maria Kristiina Lehtinen (Medical School) 6465**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Neurobiology 349. Olfactory and Vomeronasal Systems Molecular and Developmental Neurobiology**

Catalog Number: 1416

*Catherine Dulac 2801**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Neurobiology 350. Development, degeneration, and circuitry of the vertebrate retina**

Catalog Number: 2038

*Constance L. Cepko (Medical School) 1150**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Neurobiology 351. Neurogenetics of Disease**

Catalog Number: 3008



*Louis M. Kunkel (Medical School) 1330*  
*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Neurobiology 353. Physiology, with an emphasis on ion channels, signal transduction, and imaging**

Catalog Number: 3689

*David E. Clapham (Medical School) 2987*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Neurobiology 354. Structural Biology of Signaling and Transport Through Biological Membranes**

Catalog Number: 9454

*Rachelle Gaudet 4413*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Neurobiology 355. A Biophysical Approach to System Function**

Catalog Number: 33133

*Michael Tri Hoang Do (Medical School) 6909*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Neurobiology 356. Ion Channels in Neural Cell Membranes**

Catalog Number: 8368

*David P. Corey (Medical School) 1345*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Neurobiology 357. Experience-Dependent Neuronal Circuit Maturation and Plasticity**

Catalog Number: 6674

*Michela Fagiolini (Medical School) 5751*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Neurobiology 358. Neurogenetics of Human Disease**

Catalog Number: 7616

*Xandra O. Breakefield (Medical School) 1428*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Neurobiology 359. Functional and Behavioral Interrogation of Neural Circuits in the Mammalian Olfactory System**

Catalog Number: 23173

*Bob Datta (Medical School) 6518*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Neurobiology 360. Neural Signal Processing and Mechanisms of General Anesthesia**

Catalog Number: 8525

*Emery N. Brown (Medical School) 1399*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Neurobiology 361. Immunobiology of the Nervous System and its Tumors**

Catalog Number: 7282

*Lois A. Lampson (Medical School) 2491**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Neurobiology 362. Optical imaging in Alzheimer's disease**

Catalog Number: 5030

*Brian Bacska (Medical School) 6693**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Neurobiology 363. Axonal Development and Reorganization**

Catalog Number: 7089

*Larry I. Benowitz (Medical School) 3150**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Neurobiology 364. hypothalamic circuitry controlling sleep and circadian rhythms**

Catalog Number: 1523

*Clifford B. Saper (Medical School) 3394**Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*Neurobiology 365. Behavioral Pharmacology of Stimulant Drugs and Brain Dopamine Systems**

Catalog Number: 8902

*S. Barak Caine (Medical School) 5477**Half course (fall term; repeated spring term). . EXAM GROUP: 10***\*Neurobiology 366. Functional Organization of the Retina**

Catalog Number: 7391

*Richard H. Masland (Medical School) 4923**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Neurobiology 367. Cortical Development and Regeneration**

Catalog Number: 4252

*Jeffrey D. Macklis 3396**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Neurobiology 370. Genetic and Molecular Studies of Neurodegenerative Diseases**

Catalog Number: 8336

*Rudolph E. Tanzi (Medical School) 2683**Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*Neurobiology 371. Sensory Neuron Development and Sleep Using Genetics and Live Imaging in Zebrafish.**

Catalog Number: 7081

*Alexander F. Schier 5238**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Neurobiology 372. Neurotransmitter Control of Ion Channels**

Catalog Number: 7104

*Bruce P. Bean (Medical School) 1148**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Neurobiology 373. Developmental Studies of the Murine Trigeminal Sensory System**

Catalog Number: 7485

*Qiuju Ma (Medical School) 3034**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Neurobiology 374. Molecular Basis of Alzheimer's Disease & Parkinson's Disease**

Catalog Number: 9022

*Jie Shen (Medical School) 3059**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Neurobiology 375. Mechanisms of Synaptic Transmission & Plasticity**

Catalog Number: 0790

*Venkatesh N. Murthy 2424**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Neurobiology 376. Genetics of Neuronal Cell Biology**

Catalog Number: 2911

*Thomas L. Schwarz (Medical School) 3923**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Neurobiology 377. Physiological Studies of Phototransduction and Light Adaptation**

Catalog Number: 6897

*Clint L. Makino (Medical School) 3946**Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*Neurobiology 378. Neuronal Mechanisms and Animal Behavior**

Catalog Number: 9659

*Naoshige Uchida 5745 (on leave fall term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Neurobiology 379. Growth Factor Regulation of Neural Development and Oncogenesis**

Catalog Number: 7751

*Scott L. Pomeroy (Medical School) 3947**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Neurobiology 380. Functional Wiring of the Rabbit Retina, Control of Postnatal Development**

Catalog Number: 4965

*Elio Raviola (Medical School) 3582**Half course (fall term; repeated spring term). . EXAM GROUP: 10*



**\*Neurobiology 381. Glutamate Transporters, Cell Death, Sleep/Wake Regulation**

Catalog Number: 6912

*Paul Allen Rosenberg (Medical School) 3949*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Neurobiology 382. Hypothalamus and Melanin Concentrating Hormone in the Regulation of Energy Homeostasis**

Catalog Number: 1457

*Eleftheria Maratos-Flier (Medical School) 4327*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Neurobiology 383. Role of the Basal Ganglia in Learning and Motivation**

Catalog Number: 0492

*Emad Eskandar (Medical School) 6176*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Neurobiology 384. Neuroscience of human emotions and emotional disorders**

Catalog Number: 89733

*Diego Pizzagalli (Medical School) 4425*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Neurobiology 385. Mammalian Gap Junctions, Inhibitory Neuronal Networks, and Corticothalamic Processing**

Catalog Number: 1296

*Carole Landisman (Medical School) 5787*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Neurobiology 386. Changes in Sensory Neurons that Contribute to Pain**

Catalog Number: 7609

*Clifford Woolf (Medical School) 3956*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Neurobiology 387. Modulation and Plasticity of Auditory Processing**

Catalog Number: 20829

*Daniel B. Polley (Medical School) 6881*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Neurobiology 389. Molecular Regulation of Neural Tube Development**

Catalog Number: 3914

*Mary R. Loeken (Medical School) 3151*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Neurobiology 390. Mechanisms of Synapse Regulation**

Catalog Number: 9202

*Bernardo L. Sabatini (Medical School) 4300*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Neurobiology 391. The biology and experimental therapeutics of malignant brain tumors**

Catalog Number: 12964

*E. Antonio Chiocca (Medical School) 7429**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Neurobiology 392. Synaptic Plasticity in the CNS**

Catalog Number: 6750

*Chinfei Chen (Medical School) 4437**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Neurobiology 393. Cranial axon growth and guidance**

Catalog Number: 3085

*Elizabeth C. Engle (Medical School) 4312**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*Neurobiology 394. Human Memory Processing and Brain State**

Catalog Number: 23915

*Edwin Malcolm Robertson (Medical School) 6565**Half course (fall term; repeated spring term). . EXAM GROUP: 4***\*Neurobiology 395. Neuron-Glia Interactions During Development & Disease; Synapse Development & Plasticity; Neuro-Immune Interactions**

Catalog Number: 7993

*Beth Stevens (Medical School) 6678**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*Neurobiology 396. Critical Period Mechanisms of Experience-Dependent Brain Development**

Catalog Number: 0142

*Takao K. Hensch (Medical School) 5813**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Neurobiology 397. Nervous System Construction and Function**

Catalog Number: 0158

*Samuel M. Kunes 3486**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*Neurobiology 398. HSV Vectors for Cancer Therapy**

Catalog Number: 4438

*Samuel D. Rabkin (Medical School) 4772**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*Neurobiology 399. Neurocircuits Thought to Regulate Metabolism and Behavior**

Catalog Number: 5626

*Bradford Barr Lowell (Medical School) 5741**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*



### ***Quarter Courses for Graduate Students Only***

#### **\*Neurobiology 300qc. Advanced Topics in Neurobiology**

Catalog Number: 11464

*David Lopes Cardozo (Medical School) 5995*

*Quarter course (fall term; repeated spring term). EXAM GROUP: Fall: 9; Spring: 2*

A series of reading and discussion seminars, each running for a half term (7 weeks).

*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.

#### **\*Neurobiology 301qc. Gene Therapy and Imaging for Nervous System Disorders**

Catalog Number: 18456 Enrollment: Limited to 12.

*Bakhos A. Tannous (Medical School) 6863, Xandra O. Breakefield (Medical School) 1428,*

*Casey A. Maguire (Medical School) 7357, and Luk Hugo Vandenberghe (Medical School) 7356*

*Quarter course (fall term). Tu., 3–5. EXAM GROUP: 1*

Introduction to gene therapy, different techniques in molecular imaging to monitor gene transfer and response to therapy. Discuss trends in gene therapy: viral vectors, siRNA and cell-based therapy, clinical trials for central nervous system disorders.

#### **[\*Neurobiology 304qc. Regeneration and Repair in the Mammalian Nervous System: Cellular and Molecular Mechanisms]**

Catalog Number: 41092 Enrollment: Limited to 18.

*Zhigang He (Medical School), Larry I. Benowitz (Medical School), Jeffrey D. Macklis, Clifford Woolf (Medical School)*

*Quarter course (spring term). W., 5:30–7:30 p.m.*

Approaches toward mammalian neural regeneration, comparing and contrasting development with adult plasticity/repair. Overview lectures and discussion of primary literature, motivated by motor and sensory circuitry central to spinal cord injury, ALS, and peripheral nerve injury.

*Note:* Expected to be given in 2015–16. Given in alternate years.

#### **\*Neurobiology 305qc. Biochemistry and Biology of Neurodegenerative Diseases**

Catalog Number: 22489 Enrollment: Limited to 20.

*Dominic M. Walsh (Medical School) 7516 and Michael S. Wolfe (Medical School) 4543*

*Quarter course (fall term). M., 2–4. EXAM GROUP: 7*

Biochemistry and biology are integrated to provide a broad perspective on major human neurodegenerative diseases. The biochemistry, enzymology, structural biology and pathology of disease-associated proteins and approaches to developing therapeutics will be examined.

*Note:* This bootcamp course will meet in August.

#### **\*Neurobiology 306qc. Quantitative Methods for Biologists**

Catalog Number: 85319 Enrollment: Limited to 80.

*Michael Springer and Richard T. Born (Medical School)*

*Quarter course (fall term). M., W., 9–5, Tu., Th., F., 1–5. EXAM GROUP: 14*

The goals of this course are to introduce students to programming in the MATLAB environment and to begin using this tool for analyzing data and for gaining intuition about the behavior of



complex systems through the use of numerical simulations.

*Note:* This bootcamp course will meet in August from 8/11 - 8/22.

**\*Neurobiology 307qc. Molecular Causes of Congenital Defects of the CNS**

Catalog Number: 93018 Enrollment: Limited to 12.

*Mary R. Loeken (Medical School) 3151*

*Quarter course (spring term). Tu., 2–5. EXAM GROUP: 1*

Congenital defects can be caused by inheritance of a defective gene, maternal infection, or prenatal exposure to environmental teratogens. Use of mutant mouse strains and genomic sequencing have been particularly useful in the rapid proliferation of our understanding of the cellular and molecular mechanisms by which congenital defects of the brain or nervous system arise, and how they lead to functional consequences that range from biochemical abnormalities to gross structural defects.

*Note:* Given every three years.

**\*Neurobiology 309qc. The molecular pathology and current therapies for retinal diseases**

Catalog Number: 42626

*Dong Feng Chen (Medical School) 3930, Neena Haider (Medical School), and Kin-Sang Cho (Medical School)*

*Quarter course (fall term). Hours to be arranged. EXAM GROUP: 8*

Retinal diseases are major causes of irreversible blindness. A surge of progress resulting from studies in the disease mechanisms and the development of new imaging technology have led to a huge step forward in the therapies for diagnosing and treating retinal diseases and preventing blindness. This course will offer students an in-depth examination of current knowledge regarding retinal diseases, molecular pathology, and therapy, with an emphasis on recent breakthroughs and discussion of key studies in the field. The class consists of lectures and group discussions that focus on seminal papers selected from both the basic science and clinical ophthalmology, which will serve as a basis for teaching students basic concepts of ophthalmology and becoming familiar with animal models of retinal diseases. Each session will review the landmark publications on a particular topic or disease. As the retina has long served a standard model for studying the CNS, the class will foster discussion on the implications of these studies in other disease mechanisms and therapy.

*Note:* Offered in alternate years.

**\*Neurobiology 310qc. Careers in Neuroscience - (New Course)**

Catalog Number: 54233 Enrollment: Limited to 25.

*David D. Ginty (Medical School) 7431*

*Quarter course (spring term). Tu., 5:30–7:30 p.m. EXAM GROUP: 7*

This course provides graduate students in the Program in Neuroscience with early exposure to the opportunities and challenges associated with a variety of rewarding careers in the field of neuroscience, as well essential steps along the path towards those careers. Academic career topics will include postdoctoral training, obtaining and starting independent faculty positions, grant writing and reviewing, and opportunities for research and teaching positions. Other topics will include career opportunities in biotechnology, the pharmaceutical industry, patent law, journal editing/science writing, science policy, and consulting. One main topic will be covered at each class meeting, and one or more invited discussion leaders with expertise in the topic will



participate in the class. Discussion leaders will include Harvard faculty members as well as outside experts.

*Note:* The course is required for all third year PiN students. To limit class size for optimal discussion (25 or fewer enrollees), enrollment is restricted to graduate students in their third year and beyond, and priority will be given to PiN students. The class meetings are open only to those who take the course for credit. A grade of satisfactory or unsatisfactory will be based on attendance.

### ***Pharmacology***

For courses pertaining to Pharmacology see listings under the Department of Biological Chemistry and Molecular Pharmacology.

### ***Speech and Hearing Bioscience and Technology***

#### ***Primarily for Graduates***

##### **SHBT 200. Acoustics of Speech and Hearing**

Catalog Number: 60388 Enrollment: Limited to 20. Must have a minimum of 5 students

*John J. Rosowski (Medical School) and Christopher A. Shera (Medical School)*

*Half course (fall term). Lectures, Tu., Thu., 1-2:30; recitations, W., 12-1. EXAM GROUP: 8*

Discusses limitations that the speech production and hearing systems impose on the sounds we produce and sense. Focuses on acoustic cues used in sound localization, speech production mechanisms, the mechanics of sound reception and perception.

*Note:* This course is taught in consort with 6.551J/HST.714J at the Massachusetts Institute of Technology. Classes will be held at MIT.

*Prerequisite:* Mathematical methods in science (Applied Mathematics 21a or Mathematics 21a) or equivalent. Rigid body mechanics (Physics 11A), or electrical circuits (Engineering Science 154) or permission of the instructor

##### **SHBT 201. Biology of the Inner Ear**

Catalog Number: 75495 Enrollment: Limited to 12.

*M. Charles Liberman (Medical School) and Stephane Maison (Medical School)*

*Half course (fall term). Tu., Th., 9–10:30, F. laboratory hours to be arranged. EXAM GROUP: 9* Normal biology, biophysics, physiology and morphology of the inner ear, its sensory innervation and efferent control systems, and the mechanisms underlying sensorineural hearing loss and balance disorders. Material is presented through lectures, laboratory exercises and discussions of the primary literature.

*Prerequisite:* Introductory neurobiology recommended

##### **SHBT 202. Clinical Aspects of Hearing and Speech**

Catalog Number: 69294 Enrollment: Limited to 15. Minimum of 5

*Konstantina Stankovic (Medical School), Ramon A. Franco (Medical School), Sharon G. Kujawa (Medical School), and Conrad Wall (Medical School)*

*Half course (spring term). M., W., 5–7. Clinical observations Mon-Fri 8-3. EXAM GROUP: 13*

Clinical approach to speech and hearing disorders as practiced by physicians, audiologists,



speech clinicians, rehabilitation specialists, bioengineers. Includes observation of patient care in clinic and operating room, audiology/balance disorders experience, lectures and discussion groups.

*Note:* Offered jointly with HST 724 at MIT. Classes to be held at the Massachusetts Eye and Ear Infirmary (MEEI)

*Prerequisite:* Anatomy of Speech and Hearing, Acoustics of Speech and Hearing or permission of the course director

### **\*SHBT 203. Anatomy of Speech and Hearing**

Catalog Number: 17772 Enrollment: Limited to 12.

*Barbara C. Fullerton (Medical School), James Tracey Heaton (Medical School), and James Bradley Kobler (Medical School)*

*Half course (spring term). Lecture: M.- F., 9:30- 10:30., Lab: M.- F., 10:30-1:30. EXAM*

*GROUP: 10*

This course covers anatomy of the head and neck, with cadaver dissection, stressing structures important in speech and hearing. Lecture topics also include basic neuroanatomy, imaging, surgery, and cancer of head and neck.

*Note:* This is an intensive January Course. Offered jointly with MIT as HST 718. Classes to be held at the Harvard Medical School campus (HMS).

*Prerequisite:* Introductory biology or equivalent and permission of the course director.

### **SHBT 204. Speech Communication**

Catalog Number: 47986 Enrollment: Limited to 20.

*Satrajit S. Ghosh (Medical School), and other faculty*

*Half course (spring term). Tu., Th., 11–12:30. EXAM GROUP: 15*

Survey of human speech communication. Acoustic theory of speech production; physiologic and acoustic descriptions of phonetic features, prosody, voice and speech perception and speech motor control. Applications to recognition, synthesis and speech disorders.

*Note:* Offered jointly with MIT course HST.710. Classes to be held at MIT.

*Prerequisite:* Background equivalent to MIT HST.714.

### **SHBT 205. Neural Coding and Perception of Sound**

Catalog Number: 63093 Enrollment: Limited to 20.

*Bertrand Delgutte (Medical School), M. Christian Brown (Medical School), John J. Guinan (Medical School), Jennifer R. Melcher (Medical School), and Daniel B. Polley (Medical School)*

*Half course (spring term). M., W., 9:30–11:30, Occasional lab on Friday. EXAM GROUP: 10*

Neural structures and mechanisms mediating the detection, localization and recognition of sounds. General principles are conveyed by theme discussions of auditory masking, sound localization, musical pitch, cochlear implants, cortical plasticity and auditory scene analysis.

*Note:* Offered jointly with MIT HST.723J.

*Prerequisite:* Neurobiology 200 or Permission of the instructor.

### **SHBT 206 (formerly Pathology 205). Molecular Biology of the Auditory System**

Catalog Number: 0211

*Albert Edge (Medical School)*

*Half course (fall term). Tu., 4–6. EXAM GROUP: 16*



Advances in molecular biology of hearing. Topics: Transcriptional and post-translational regulation of gene expression; cell fate determination during inner ear development; inner ear stem cells and regenerative capacity in various species; use of genomics in investigations of the inner ear; critical genes for generating functional hair cells.

*Note:* Given in alternate years.

*Prerequisite:* Introductory courses in neurobiology and molecular biology are recommended.

### ***Graduate Courses of Reading and Research***

#### **\*SHBT 300. Auditory neural coding laboratory**

Catalog Number: 29629

*Bertrand Delgutte (Medical School) 6509*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

Research projects on the neural coding of sound and the neural basis of auditory perception, with emphasis on the mechanisms for listening in adverse environments comprising reverberation and competing sound sources.

#### **\*SHBT 301. Investigates the acoustics and mechanics of the middle ear, with a dual emphasis on comparative physiology of the ear and clinical issues in middle-ear disease and its treatment**

Catalog Number: 54684

*John J. Rosowski (Medical School) 6498*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

#### **\*SHBT 302. The mechanics and physiology of the peripheral auditory system, with an emphasis on mechanisms of cochlear amplification, nonlinearity, and otoacoustic emissions.**

Catalog Number: 55476

*Christopher A. Shera (Medical School) 6499*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

#### **\*SHBT 303. Sensory coding, and feedback control, in the mammalian cochlea; mechanisms of sensorineural hearing loss.**

Catalog Number: 42465

*M. Charles Liberman (Medical School) 3945*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

#### **\*SHBT 305. Degeneration and regeneration of the auditory nerve; biomarkers of sensorineural hearing loss**

Catalog Number: 17641

*Konstantina Stankovic (Medical School) 6500*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

#### **\*SHBT 306. Clinical studies of laryngeal voice disorders with an emphasis on the development of improved diagnostic and treatment methods including the application of acoustic, aerodynamic, mechanical and imaging technologies.**



Catalog Number: 16069

*Robert E. Hillman (Medical School) 6508*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

### **\*SHBT 310. Independent Study in Speech and Hearing Sciences**

Catalog Number: 76933

*John J. Rosowski (Medical School) 6498 and Bertrand Delgutte (Medical School) 6509*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

Opportunity for independent study of topics in speech and hearing sciences under regular supervision by an SHBT faculty member.

*Note:* For SHBT students only

### **\*SHBT 311. Clinical work at MGHIHP**

Catalog Number: 85325

*John J. Rosowski (Medical School) 6498*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

*Note:* For SHBT students only.

### **\*SHBT 330. Dissertation Research**

Catalog Number: 45552

*John J. Rosowski (Medical School) 6498*

*Half course (spring term). . EXAM GROUP: 6*

For SHBT graduate students studying in research labs at MIT only.

### **\*SHBT 333r. Laboratory Rotation in Speech and Hearing Sciences**

Catalog Number: 41383

*Bertrand Delgutte (Medical School) 6509*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

Research on topics in theoretical, experimental, clinical, or translational aspects of Speech and Hearing Sciences arranged on an individual basis with a research supervisor.

*Note:* For SHBT students only

### ***Quarter Courses for Graduate Students Only***

#### **\*SHBT 301qc. Speech and Hearing Laboratory Visits**

Catalog Number: 14124

*Bertrand Delgutte (Medical School) 6509*

*Quarter course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

Research on topics in theoretical, experimental, clinical, or translational aspects of Speech and Hearing Sciences arranged on an individual basis with a research supervisor.

### ***Virology***

#### ***Primarily for Graduates***

**\*Virology 200. Introduction to Virology**

Catalog Number: 6075 Enrollment: Limited to 20.

*Max L. Nibert (Medical School), Michaela Gack (Medical School), Elliott D. Kieff (Medical School), David M. Knipe (Medical School), Karl Münger (Medical School), and Priscilla Yang (Medical School)*

*Half course (fall term). M., W., 1:30-3:30. EXAM GROUP: 1*

Introduction to virology. The lecture component reviews the basic principles of virology and introduces the major groups of human viruses. Weekly discussion groups critically analyze selected papers from the literature.

*Note:* There will be a final project consisting of a proposal based on laboratory rotations (for Virology, BBS, or Immunology Program students) or a final paper based on a topic from the literature. Offered jointly with the [Medical School](#) as MG 705.0.

**Virology 201. Virology**

Catalog Number: 1190

*Sean P.J. Whelan (Medical School), James M. Cunningham (Medical School), and Michaela Gack (Medical School)*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*

The course focuses on the following areas of virology: (i) epigenetic regulation, (ii) RNA virus replication mechanisms, (iii) innate responses to viral infection, (iv) inhibition of viral infection. The course will comprise lectures as well as reviewing literature that describes fundamental breakthroughs relevant to these areas. Within those areas, the class will read and discuss papers dealing with virus structure, replication, pathogenesis, evolution, emerging viruses, chronic infection, innate and adaptive immunity, anti-viral drugs/vaccines. Special emphasis will be placed on preparing students to critically evaluate the literature, formulate hypotheses and design experiments.

*Note:* Course format will be lectures, literature-based critical reading and discussion. Prepare and defend a written research proposal. Offered jointly with the Medical School as MG 723.0.

*Prerequisite:* Graduate standing and permission required.

**Virology 202. Proposal Writing**

Catalog Number: 6025

*Michaela Gack (Medical School), Galit Alter (Medical School), James A. DeCaprio (Medical School), Benjamin Ellison Gewurz (Medical School), and Frederick C. Wang (Medical School)*

*Half course (fall term). W., 1:45–5. EXAM GROUP: 1*

Students will write, present, and evaluate research proposals in the areas of virus replication, viral pathogenesis and treatment and prevention of viral infections.

*Note:* Offered jointly with the Medical School as MG 724.0.

*Prerequisite:* General background in biochemistry and virology.

**Graduate Courses of Reading and Research****\*Virology 300r. Introduction to Research**

Catalog Number: 0530

*David M. Knipe (Medical School) 7089*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Virology 301. Herpes Virus Interaction with the Host Cell**

Catalog Number: 7344

*David M. Knipe (Medical School) 7089**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Virology 303. AIDS Pathogenesis Research in the Nonhuman Primate Model of SIV****Infection with a Focus on Host Immune Responses in Natural Hosts of SIV, AIDS Vaccine Development, and Immunopathogenesis of CMV Infection**

Catalog Number: 6772

*Amitinder Kaur (Medical School) 6692**Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*Virology 304. Molecular Biology of Kaposi's Sarcoma-Associated Herpes Virus**

Catalog Number: 8182

*Kenneth M. Kaye (Medical School) 3064**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Virology 305. Entry and Replication of Negative-Strand RNA Viruses**

Catalog Number: 5437

*Sean P.J. Whelan (Medical School) 4591**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*Virology 307. Genetics and Biochemistry of Prokaryotic Transposable Elements and Yeast Meiotic Chromosome Metabolism**

Catalog Number: 6097

*Nancy Kleckner 4697 (on leave spring term)**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Virology 308. Molecular Genetics of Herpes Virus**

Catalog Number: 3000

*Donald M. Coen (Medical School) 7617**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Virology 309. Immunology of Pregnancy, Tolerance and Multiple Sclerosis**

Catalog Number: 4011

*Jack L. Strominger 1193**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*Virology 310. Cellular Transformation by SV40**

Catalog Number: 0221

*James A. DeCaprio (Medical School) 1296**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*Virology 311. Molecular Biology of Epstein-Barr Infection**

Catalog Number: 0513



*Frederick C. Wang (Medical School) 1297*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Virology 312. Molecular Biology of Epstein Barr Virus infection and Transformation of B Lymphocytes**

Catalog Number: 3483

*Elliott D. Kieff (Medical School) 1858*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Virology 313. Molecular Basis for Simian Virus Pathogenesis**

Catalog Number: 2528

*Ronald C. Desrosiers (Medical School) 1874*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*Virology 314. Viral Oncoproteins as Probes to Study the Regulation of Cell Growth and Differentiation**

Catalog Number: 6286

*Karl Münger (Medical School) 1586*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Virology 315. Mechanisms of Transcriptional Repression in Eukaryotic Cells**

Catalog Number: 0462

*Yang Shi (Medical School) 3169*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Virology 317. Virology and Immunology of Human Retroviruses**

Catalog Number: 0954

*Myron Essex (Public Health) 2499*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Virology 318. Persistence and Pathogenesis of Hepatitis C Virus Infection**

Catalog Number: 9144

*Raymond Taeyong Chung (Medical School) 6178*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Virology 319. Functional Analysis of Tumor Suppression Genes**

Catalog Number: 5817

*David Morse Livingston (Medical School) 4872*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Virology 320. Pathogenesis of Human Retroviruses**

Catalog Number: 1532

*Joseph G. Sodroski (Public Health) 1712*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Virology 321. Retroviral DNA Integration**

Catalog Number: 6857

*Alan N. Engelman (Medical School) 2196**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Virology 322. HIV Molecular Biology and Pathogenesis**

Catalog Number: 9023

*Dana Gabuzda (Medical School) 1581**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Virology 323. Immunobiology of Epstein-Barr Virus Receptor; Pathogenesis of EBV and****B-cell tumors**

Catalog Number: 69778

*Joyce D. Fingerroth (Medical School) 2707**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Virology 324. Leukemogenic Retroviruses**

Catalog Number: 5263

*James M. Cunningham (Medical School) 2346**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Virology 325. Retroviral Pathogenesis; AIDS Vaccine Development, and the Nature of Protective Immunity**

Catalog Number: 8029

*Ruth M. Ruprecht (Medical School) 2716**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*Virology 326. Pathogenesis and Treatment of Human Retrovirus and Herpesvirus Infection**

Catalog Number: 6440

*Martin S. Hirsch (Medical School) 2876**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*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**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*Virology 329. Immune control of HIV and implications for vaccine development**

Catalog Number: 5417

*Bruce Walker (Medical School) 2847**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18***\*Virology 330. Critical Readings in Virology**

Catalog Number: 5966



*David Lopes Cardozo (Medical School) 5995*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

A series of reading and discussion seminars, each running for a half term (seven weeks).

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.

**\*Virology 331. Polyomavirus JC, the Etiologic Agent of Progressive Multifocal Eukoencephalopathy (PML)**

Catalog Number: 9476

*Igor J. Koralnik (Medical School) 6179*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Virology 332. Protein Phosphorylation and Gene Expression in Normal and Transformed Cells**

Catalog Number: 9093

*Raymond L. Erikson 7506*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Virology 333. Antiretroviral Drug Resistance, and Drug Resistant Human Immunodeficiency Virus**

Catalog Number: 5526

*Daniel R. Kuritzkes (Medical School) 4773*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Virology 336. Genetic Changes in HIV and Hepatitis C Virus**

Catalog Number: 8685

*Todd Allen (Medical School) 6180*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Virology 339. Mechanisms of HIV protein degradation, epitope processing and presentation to virus-specific CD8 T cells**

Catalog Number: 3999

*Sylvie Le Gall (Medical School) 6269*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Virology 347. Reovirus Structure, Assembly, and Particle Functions in Entry and RNA Synthesis**

Catalog Number: 4181

*Max L. Nibert (Medical School) 3896*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Virology 348. Immunopathogenesis of HIV-1 and the Development of HIV-1 Vaccine Strategies**



Catalog Number: 8409

*Dan Hung Barouch (Medical School) 5744*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Virology 349. Imaging Techniques to Study the Behavior of Individual Biological Molecules and Complexes in Vitro and in Live Cells**

Catalog Number: 33202

*Xiaowei Zhuang 3991*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Virology 350. Regulation of Host Innate Immunity Against Viral Infection**

Catalog Number: 50408

*Michaela Gack (Medical School) 6959*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Virology 351. molecular mechanisms of HIV (human immunodeficiency virus) viral entry**

Catalog Number: 29818

*Bing Chen (Medical School) 7013*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Virology 352. Biology and evolution of human adenoviruses.**

Catalog Number: 52819

*James Chodosh (Medical School) 7017*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

***Quarter Courses for Graduate Students Only***

**\*Virology 300qc. Advanced Topics in Virology**

Catalog Number: 78093

*David Lopes Cardozo (Medical School) 5995*

*Quarter course (fall term; repeated spring term). . EXAM GROUP: 12*

A series of reading and discussion seminars, each running for a half term (7 weeks).

*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.

**\*Virology 301qc. Advanced Topics in Virology - Viral Oncology**

Catalog Number: 33563

*James A. DeCaprio (Medical School) 1296*

*Quarter course (spring term). Tu., Th., 4:30-6:00. EXAM GROUP: 7*

Introduction to viral oncology and critical evaluation of key papers in viral oncology.

Requirements include presentations, written critiques and class participation.

*Note:* Offered in the month of January; class size limited to 10 students



# Medieval Studies

## **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

### *Faculty of the Committee on Medieval Studies*

Nicholas Watson, Professor of English (*Chair*)

Charles Donahue, Jr., Paul A. Freund Professor of Law (*Law School*)

Sean J. Gilsdorf, Lecturer on History and Literature (*ex officio*)

Luis M. Girón Negrón, Professor of Romance Languages and Literatures and of Comparative Literature

Virginie Greene, Professor of Romance Languages and Literatures (*on leave fall term*)

Jeffrey F. Hamburger, Kuno Francke Professor of German Art and Culture

Amy Hollywood, Elizabeth H. Monrad Professor of Christian Studies (*Divinity School*)

Ioli Kalavrezou, Dumbarton Oaks Professor of Byzantine Art

Thomas Forrest Kelly, Morton B. Knafel Professor of Music

Beverly M. Kienzle, Professor of Practice, Chaired (*Divinity School*)

Racha Kirakosian, Assistant Professor of Germanic Languages and Literatures and of the Study of Religion

Kevin J. Madigan, Winn Professor of Ecclesiastical History, Harvard Divinity School (*Divinity School*)

Catherine McKenna, Margaret Brooks Robinson Professor of Celtic Languages and Literatures

Stephen A. Mitchell, Professor of Scandinavian and Folklore

Katharine Park, Samuel Zemurray, Jr. and Doris Zemurray Stone Radcliffe Professor of the History of Science

Ahmed Ragab, Richard T. Watson Assistant Professor of Science and Religion (*Divinity School*)

Panagiotis Roilos, George Seferis Professor of Modern Greek Studies and of Comparative Literature

James Simpson, Donald P. and Katherine B. Loker Professor of English

Daniel L. Smail, Professor of History

Christine Smith, Robert C. and Marian K. Weinberg Professor of Architectural History (*Design School*)

Jan Ziolkowski, Arthur Kingsley Porter Professor of Medieval Latin

### *Other Faculty Offering Instruction in Medieval Studies*

The Standing Committee on Medieval Studies exists in order to promote and coordinate work on medieval subjects throughout the University, including the Dumbarton Oaks Research Library and Museum in Washington, D.C. As a program committee within the Faculty of Arts and



Science, it offers a number of undergraduate and graduate courses each year, and coordinates a secondary field in Medieval Studies for Ph.D. students and a secondary field in Medieval Studies for undergraduates. Although Harvard offers no Ph.D. specifically in Medieval Studies, the committee has the authority to administer interdisciplinary Ph.D.s in liaison with a departmental program. Working in cooperation with a number of Graduate School of Arts and Sciences workshops, the Houghton Library, the Aga Khan Program in Islamic Architecture, and other departments and centers at Harvard, it also sponsors frequent events and activities of interest to medievalists. Among these are the meetings of the Mahindra Humanities Center's Medieval Studies Seminar on Monday afternoons, an occasional series of special seminars and conferences in Medieval Studies, twice-yearly receptions for medievalists throughout the Boston area, and an interdisciplinary graduate student workshop in Medieval Studies. The committee also maintains the Medieval Studies Library in Widener D.

For more information about Medieval Studies programs and events, please visit the [Committee's website](#). Specific questions concerning undergraduate or graduate-level Medieval Studies may be addressed to the Committee's Program Administrator, Sean Gilsdorf, or its Chair, Nicholas Watson. Please contact us to join the Medieval Studies [electronic mailing list](#).

### ***For Undergraduates and Graduates***

#### **Medieval Studies 107. Authority and Invention: Medieval Art and Architecture**

Catalog Number: 9420

*Christine Smith (Design School)*

*Half course (fall term). M., W., at 10, and an additional section to be arranged. EXAM GROUP: 5*

Masterworks of art and architecture in Western Europe from the decline of Rome to the dawn of the Italian Renaissance. Explores the creative tension between the impulse to originality and the authority of classical models in the search for new art forms. Emphasis on representative works considered in their totality (architecture, painting, sculpture, and minor arts) as experiential wholes; and on the plurality of geographical and cultural contexts (Italy, Germany, France, and Spain).

*Note:* Offered jointly with the Graduate School of Design as 4358. Meets at the Graduate School of Design, Gund Hall. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

#### **Medieval Studies 110. Mapping the Slavlands: Central Europe in the Middle Ages - (New Course)**

Catalog Number: 64028 Enrollment: Limited to 15.

*Jakub Jan Kabala*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

An introduction to the medieval history and culture of Slavs, Germans and Hungarians, ca. 800-1300 CE. Weekly meetings emphasize close reading of often-overlooked primary sources in translation, including chronicles, saint's lives, letters and charters. A collaborative GIS (Geographic Information Systems) project introduces students to new digital methods in historical spatial analysis, allowing them to map this fascinating civilization and its sources.



### **Medieval Studies 117. Constitutional and Legal History of Medieval England**

Catalog Number: 5468

*Charles Donahue, Jr. (Law School)*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

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:* Offered concurrently, but with a separate section, at the Law School as Law 2370.

### **[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.*

A survey of continental European constitutional and legal history from the fall of the Roman Empire to the "Rise of absolutism" at the beginning of the seventeenth 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 social, political, and religious history.

*Note:* Expected to be given in 2015–16. Offered concurrently, but with a separate section, at the Law School as Law 42100A-1.

### ***Primarily for Graduates***

### **[Medieval Studies 201. The Auxiliary Disciplines of Medieval History: Proseminar]**

Catalog Number: 3759

*Michael McCormick*

*Half course (fall term). W., I–3.*

Familiarizes scholars in all areas of medieval studies with the research tools and techniques for advanced study of late antique and medieval evidence: Latin palaeography, codicology, hagiography, late Latin philology, late antique studies, numismatics, diplomatic.

*Note:* Expected to be given in 2015–16.

### **\*Medieval Studies 202. Latin Palaeography and Manuscript Culture: Seminar**

Catalog Number: 7124 Enrollment: Limited to 12.

*Beverly M. Kienzle (Divinity School)*

*Half course (fall term). W., I–4. EXAM GROUP: I*

Introduction to Latin manuscripts and the historical and cultural context of their production and use. Opportunity to work with actual manuscripts and facsimiles, transcribe previously unedited texts, and discuss problems in textual criticism. Student presentations on research projects. All classes held in Houghton Library.

*Note:* Taught in collaboration with William Stoneman, Curator of Early Books and Manuscripts, Houghton Library. Offered jointly with the Divinity School as 2223.

*Prerequisite:* Completion of an intermediate Latin course or the equivalent.



### [Medieval Studies 223. Preaching and the Sermon in the Middle Ages]

Catalog Number: 8726 Enrollment: Limited to 12.

*Beverly M. Kienzle (Divinity School)*

*Half course (spring term). W., 1–4.*

A literary and historical survey of preaching and the sermon from the early to the late Middle Ages, as practiced by bishops, monks, friars, religious women, lay people, and dissident Christians. Readings from sermons and other primary sources, current research on the history of preaching, and methodological issues. Focus on sermon and sermon-related manuscripts in the Houghton Library collection.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2226.

*Prerequisite:* Completion of an intermediate Latin course or the equivalent.

### Medieval Studies 227. Hildegard of Bingen and the Gospels: Seminar

Catalog Number: 7365 Enrollment: Limited to 12.

*Beverly M. Kienzle (Divinity School)*

*Half course (spring term). W., 1–4. EXAM GROUP: 8*

Reading and analysis of Hildegard of Bingen's exegetical work with attention to genre, intertextuality, and multi-mediality. Students will investigate sources and parallels to Hildegard's exegesis in the manuscripts of the Houghton collection. Research project required. All meetings held in Houghton Library.

*Note:* Taught in collaboration with William Stoneman, Curator of Early Books and Manuscripts, Houghton Library. Offered jointly with the Divinity School as 2224.

*Prerequisite:* Completion of an intermediate Latin course or the equivalent.

### [Medieval Studies 240. Scrolls in the Middle Ages]

Catalog Number: 36257 Enrollment: Limited to 12.

*Thomas Forrest Kelly and Beverly M. Kienzle (Divinity School)*

*Half course (spring term). W., 1–4.*

Medieval scrolls continued to be made far into the era of the codex. They were used for reasons of format or solemnity, and to serve a variety of purposes (archival, legal, musical, and poetical). This seminar will study the phenomenon of the rotulus (scroll) and will prepare an exhibition at the Houghton Library of the fascinating and important scrolls in the Harvard libraries' collections. The course will meet at Houghton Library, with visits to other sites including the Morgan Library and the Beinecke Rare Book and Manuscript Library. Experience with Latin paleography is desirable but not required.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2228.

### [\*Medieval Studies 250. At Cross Purposes: The Crusades in Material Culture]

Catalog Number: 84714 Enrollment: Limited to 15.

*Evridiki Georganteli*

*Half course (spring term). W., 2–4.*

Crusading expeditions in the Holy Land, Spain and Eastern Europe from 1096 until the end of the Middle Ages shaped the political, socio-economic and cultural map of Europe and the Middle East. This course explores the multifaceted encounters between crusaders, Byzantines, Jews, Armenians and Muslims through the material traces they left behind: architecture, Byzantine objects dispersed across Western Europe, coins, sculptures, frescoes, and manuscripts



from the East and the West.

*Note:* Expected to be given in 2015–16.

**\*Medieval Studies 280 (formerly \*Comparative Literature 280). Literary Theory and Criticism in the Middle Ages: Seminar**

Catalog Number: 2215

*Jan Ziolkowski*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

Examines literary theory and criticism inside curriculum (trivium) and outside (oral culture); manuscripts and commentary tradition; biblical exegesis; arts of poetry, letter-writing, preaching; Platonic and Aristotelian traditions; allegory/allegoresis; sign theory. Includes Augustine, Snorri, Dante, Boccaccio.

*Note:* Knowledge of Latin not required. Qualified undergraduates welcome.

***Graduate Course***

**\*Medieval Studies 300hf. Medieval Studies Interdisciplinary Workshop**

Catalog Number: 5321

*Nicholas Watson 3851*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: 15*

Focuses on dissertations in progress and other research topics of mutual concern.

*Note:* Enrollment is open to all graduate students.

***Cross-listed Courses***

For courses of additional interest, please see courses taught by members of the Committee at the Graduate School of Design, Harvard Divinity School, and Harvard Law School.

***Celtic Languages and Literature***

[Celtic 101. The Hero of Irish Myth and Saga]

**Celtic 107. History of Ireland: Saint Patrick to the Flight of the Earls**

[Celtic 109. The Finn Cycle]

**Celtic 114. Early Irish Historical Tales**

**Celtic 118. The Gaelic World: 1100 - 1700**

[Celtic 137. Celtic Mythology]

[Celtic 138. Mabinogion: Narrative Traditions of Medieval Wales]

[Celtic 151. The Literature of Medieval Celtic Christianity: The Hagiographical Tradition]

[Celtic 184. The *Táin*]

**Celtic 194. The World of the Celtic Bard**

**Celtic 222. The Gaelic Manuscript Tradition**

[Irish 200. Introduction to Old Irish]

[Irish 201r. Continuing Old Irish]

**Irish 204r. Readings in Early Irish Poetry**

**Irish 205r. Readings in Early Irish Prose**

**Welsh 225a. Medieval Welsh Language and Literature**



### Welsh 225b. Medieval Welsh Poetry

[Welsh 226r. Readings in Middle Welsh Prose]

[Welsh 227. Seminar: Welsh Bardic Poetry]

### *The Classics*

#### Classical Philology 207. Augustine - (New Course)

Classical Studies 130. History and Fiction in European Literature: from Late Antiquity to the Renaissance - (New Course)

Classical Studies 162. The Making of Medieval Europe: Power, Knowledge, and Beliefs in the Greek East and the Latin West - (New Course)

Latin Bam. Latin Prose Selections (Late Antique and Medieval)

Latin Bbm. Introduction to Latin Poetry (Late Antique and Medieval)

Latin 141. Prudentius - (New Course)

Medieval Greek 115ar. Introduction to Byzantine Greek

### *Comparative Literature*

[Comparative Literature 211. Mysticism and Literature]

Comparative Literature 252. The Literatures of Medieval Iberia

Comparative Literature 298. Allegory

[Literature 157. From Type to Self in the Middle Ages]

Literature 193. "What's Love Got to Do With It": Love Poetry of the Middle Ages and Early Modernity

### *English*

\*English 40. Arrivals

\*English 41. Arrivals: 700-1700

\*English 44. Arrivals: The Invention of English Literature, 700-1700 - (New Course)

English 102h. Introduction to Old English: The Literature of Spiritual Warfare

English 103i. Advanced Old English: Anglo-Saxons at Home - (New Course)

English 115b. Chaucer: *The Canterbury Tales*

\*English 231. Divine Comedies: Graduate Seminar - (New Course)

\*English 233. Trans-Reformation English Writing: Graduate Seminar

\*English 300hf. Old and Middle English: Doctoral Conference

### *Folklore and Mythology*

### *Freshman Seminars*

### *General Education*

[Aesthetic and Interpretive Understanding 16. Openings: The Illuminated Manuscript]

Aesthetic and Interpretive Understanding 40. Monuments of Islamic Architecture

[Aesthetic and Interpretive Understanding 49. The Medieval Imagination: Visions,



### Dreams, and Prophecies]

[Aesthetic and Interpretive Understanding 51 \(formerly Italian 131\). The Cosmos of the Comedy](#)

[Culture and Belief 20. Reason and Faith in the West]

[Culture and Belief 27. Among the Nations: Jewish History in Pagan, Christian and Muslim Context](#)

[Culture and Belief 31. Saints, Heretics, and Atheists: An Historical Introduction to the Philosophy of Religion](#)

[Culture and Belief 38. Apocalypse Then! Forging the Culture of Medieval Rus'](#)

[Culture and Belief 45. The History of the English Language](#)

[Culture and Belief 51. Making the Middle Ages](#)

[Societies of the World 41. Medieval Europe]

### *Germanic Languages and Literatures*

[German 105. Women's Voices in German Medieval Literature - \(New Course\)](#)

[Germanic Philology 200. Middle High German - \(New Course\)](#)

[Scandinavian 150r \(formerly Scandinavian 150.\). The Vikings and the Nordic Heroic Tradition](#)

[Scandinavian 160a. Old Norse Language, Literature, and Culture: The Viking Legacy]

[Scandinavian 160br. Old Norse Language, Literature, and Culture: Mythology]

### *Government*

[Government 1060. Ancient and Medieval Political Philosophy](#)

### *History*

[\\*History 60i. The Crowd in History: From the Hunting Band to the Social Network - \(New Course\)](#)

[\\*History 60n. Dynasties: Medieval Noble Houses and Modern Family Firms - \(New Course\)](#)

[\*History 70j. Changing Landscapes in the Eastern Mediterranean: Byzantium between the Crusades and the Islamic World, c.1100-c.1450]

[\\*History 80g. Travelers to Byzantium](#)

[\\*History 88b. Medieval History and Cinema](#)

[History 1035. Byzantine Civilization](#)

[History 1055. Vengeance, Hatred, and Law in Premodern Europe]

[History 1060. Europe and Its Borders, 950-1550](#)

[History 1061. Civilization of the High Middle Ages - \(New Course\)](#)

[History 1144. The Renaissance in Florence]

[History 1301. Western Intellectual History II: The Prehistory of Modern Thought]

[History 1877 \(formerly \\*History 1977a\). History of Middle East, 600-1055](#)

[History 1878a. Ottoman State and Society I \(1300-1550\)](#)

[\\*History 1935. Byzantine Imperialism - \(New Course\)](#)

[History 1940. Science and the Global Human Past: Case Studies at the Cutting Edge]

[\*History 1977b. History of the Near East, 1055-1517]



**\*History 2050. Medieval Societies and Cultures: Proseminar**

[History 2055. Early Medieval History, Archaeology and Archaeoscience: Seminar]

**History 2080. Medieval Law**

[\*History 2112. Latin Texts of the Italian Renaissance: Proseminar]

**History 2884. Topics in Ottoman Social and Cultural History: Seminar**

**History 2886. Islamic Law and Society**

**\*History 3010. Reading and Research**

[Societies of the World 53 (formerly History 1040). The Fall of the Roman Empire]

*History and Literature*

**\*History and Literature 90g. Charlemagne in History, Story, and Myth**

**\*History and Literature 97. Tutorial — Sophomore Year**

*History of Art and Architecture*

**History of Art and Architecture 120n. Art of the Timurids in Greater Iran and Central Asia**

[History of Art and Architecture 128. Topics in Arabic Art and Culture: The Medieval Mediterranean]

**History of Art and Architecture 143r. The Art of the Court of Constantinople : Proseminar**

[History of Art and Architecture 145p. Court and Cloister in the Late Middle Ages]

[History of Art and Architecture 146s. Bible Stories : Narrative Strategies in High Medieval Art]

[History of Art and Architecture 147m. The Book of Hours : Pictures and Prayer in the Middle Ages]

[History of Art and Architecture 147p. Popular Cults and the Formation of Pilgrimage Sites]

[\*History of Art and Architecture 149g. Casts, Construction and Commemoration: German Gothic in America and Abroad]

[\*History of Art and Architecture 229p. Word and Image in Persian Painting : Seminar]

[\*History of Art and Architecture 240r. Topics in Byzantine Art : Illustrating the Word: manuscripts and their images from the Byzantine religious and secular world]

**\*History of Art and Architecture 242. Issues of Interpretation in Medieval Art : Seminar**

*History of Science*

**History of Science 101. Communities of Knowledge: Science, Religion, and Culture in Medieval Europe and the Lands of Islam**

**History of Science 108. Bodies, Sexualities, and Medicine in the Medieval Middle East**

[History of Science 111. Two Scientific Revolutions: From the Classical Age of Islamic Sciences to the Scientific World of Early Modern Europe]

[History of Science 112. Magic, Medicine and Miracles: Health and Healing in the Middle Ages and Renaissance]

[History of Science 113. Crusades, Plagues and Hospitals: Medicine and Society in the Islamic Middle Ages]



## *Linguistics*

### [Linguistics 168. Introduction to Germanic Linguistics](#)

[Linguistics 247. Topics in Germanic Linguistics]

### [Linguistics 250. Old Church Slavonic](#)

[Linguistics 251. Advanced Readings in Church Slavonic Texts ]

[Linguistics 252. Comparative Slavic Linguistics]

## *Music*

[Music 1a. Introduction to Western Music from the Middle Ages to Mozart]

### [\\*Music 97a. Music History and Repertory: Medieval to Baroque](#)

[Music 191r. Topics in Medieval and Renaissance Music: Proseminar]

[Music 212r. Chant: Seminar]

[Music 213r. Topics in Medieval Polyphony]

### [Music 214r. Renaissance Music](#)

## *Near Eastern Languages and Civilizations*

### [Arabic Ba. Intermediate Arabic I](#)

### [Arabic Bb. Intermediate Arabic II](#)

### [Arabic 130a. Upper-Level Classical Arabic I](#)

### [Arabic 130b. Upper-Level Classical Arabic II](#)

[Arabic 160r. Readings in Arabic Historians, Geographers, and Biographers]

### [Arabic 246r. Andalus, Sicily, and the Maghrib in Literary and Cultural Texts: Seminar](#)

### [Arabic 249r. Arabic Philosophical Texts: Seminar](#)

[Arabic 250r. Islamic Theological Texts: Seminar]

[Armenian 120. Armenian Magical Texts]

### [Hebrew 135. Introduction to Rabbinic Hebrew](#)

[Islamic Civilizations 145a. Introduction to Islamic Philosophy and Theology: Formative and Classical Periods (8th to 17th C.)]

[Persian 150r. Readings in Persian Historians, Geographers and Biographers]

[Persian 151r. Sufi Traditions in Classical Persian Literature]

### [Persian 152. Literary and Visual Narrative in the Persian Epic Tradition](#)

### [Turkish 140a. Introduction to Ottoman Turkish I](#)

### [Turkish 140b. Introduction to Ottoman Turkish II](#)

## *Philosophy*

### [Philosophy 117. Medieval Philosophy](#)

## *The Study of Religion*

[Religion 1401. Early Christian Thought 1: The Greek Tradition]

[Religion 1402. Early Christian Thought 2: The Latin Tradition]

[Religion 1429. Augustine and His Heretics]



[Religion 1442. "That God May Be All in All": Origen of Alexandria and the Roots of Christian Universalism - \(New Course\)](#)

[Religion 1448. Mystical Theology - \(New Course\)](#)

[Religion 1450. History of Christian Thought: The Medieval West](#)

### *Romance Languages and Literatures*

[French 70a. Introduction to French Literature I: From the Middle Ages to Eighteenth Century](#)

[French 102. Introduction to Medieval Literature and Old French]

[French 105. Marie de France and Chrétien de Troyes or the Beginning of Modern Fiction - \(New Course\)](#)

[French 213. In Search of a Medieval Subject]

[French 216. The Romance of the Rose]

[Romance Studies 79. Romance Languages and Cultures in Comparative Perspective]

[Spanish 70a. Heroes, Rogues, Lovers, Rebels, Saints: Voices from Medieval and Early Modern Spain](#)

[Spanish 110. Hispanic Literature: The Middle Ages]

[Spanish 120. Medieval Spain in the Poem of the Cid](#)

[Spanish 201. Historia de la lengua española](#)

### *Slavic Languages and Literatures*

[Slavic 201. Introduction to East Slavic Languages]

[Slavic 280r. Slavic Culture: Seminar](#)

## Middle Eastern Studies

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

#### *Faculty of the Committee on Middle Eastern Studies*

William E. Granara, Professor of the Practice of Arabic on the Gordon Gray Endowment, and Director of the Center for Middle Eastern Studies (*Chair*)

Ali S. Asani, Professor of Indo-Muslim and Islamic Religion and Cultures

Steven C. Caton, Khalid Bin Abdullah Bin Abdulrahman Al Saud Professor of Contemporary Arab Studies (*spring term*) (*on leave fall term*)

Khaled El-Rouayheb, James Richard Jewett Professor of Arabic and of Islamic Intellectual



## History

Luis M. Girón Negrón, Professor of Romance Languages and Literatures and of Comparative Literature

William Albert Graham, Murray A. Albertson Professor of Middle Eastern Studies, Harvard University Distinguished Service Professor (*fall term*) (*on leave spring term*)

Michael Herzfeld, Ernest E. Monrad Professor of the Social Sciences

Baber Johansen, Professor of Islamic Religious Studies (*Divinity School*)

Cemal Kafadar, Vehbi Koc Professor of Turkish Studies

Ousmane Kane, Professor of Near Eastern Languages and Civilizations, and Prince Alwaleed Bin Talal Professor of Contemporary Islamic Religion and Society (*Divinity School*)

Mary D. Lewis, Professor of History

Mohsen Mostafavi, Dean of the Graduate School of Design, and Alexander and Victoria Wiley Professor of Design (*Design School*)

Roy Mottahedeh, Gurney Professor of History (*on leave spring term*)

Afsaneh Najmabadi, Francis Lee Higginson Professor of History and Professor of the Studies of Women, Gender, and Sexuality (*on leave 2014-15*)

Gülru Necipoglu-Kafadar, Aga Khan Professor of Islamic Art

David J. Roxburgh, Prince Alwaleed bin Talal Professor of Islamic Art History

A. Hashim Sarkis, Aga Khan Professor of Landscape Architecture and Urbanism in Muslim Societies (*Design School*)

Malika Zeghal, Prince Alwaleed Bin Talal Professor in Contemporary Islamic Thought and Life

## ***Other Faculty Offering Instruction in Middle Eastern Studies***

Susan M. Kahn, Lecturer on Near Eastern Languages and Civilizations

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, history, or history of art and architecture. 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. Joint or concurrent degrees with other departments and faculties are 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:** The Center for Middle Eastern Studies publishes a list of Middle Eastern-related courses on its website. 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, 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*.

### ***Middle East Program***

#### **\*Middle Eastern Studies 299b. Master's Thesis Reading and Research**

Catalog Number: 33251

*Susan M. Kahn and members of the Committee*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 5*

*Note:* Supervised reading, research and writing of master's thesis. Generally taken by master's students in the final semester of the AM program in Regional Studies - Middle East.



# Mind, Brain, and Behavior

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Committee on Mind, Brain, and Behavior*

Gennaro Chierchia, Haas Foundations Professor of Linguistics (*Co-Chair*)  
Florian Engert, Professor of Molecular and Cellular Biology (*Co-Chair*)  
George Angelo Alvarez, John L. Loeb Associate Professor of the Social Sciences  
Paola Arlotta, Professor of Stem Cell and Regenerative Biology  
Matthew Boyle, Professor of Philosophy (*on leave 2014-15*)  
Alfonso Caramazza, Daniel and Amy Starch Professor of Psychology (*on leave spring term*)  
Susan E. Carey, Henry A. Morss, Jr. and Elisabeth W. Morss Professor of Psychology  
Verne S. Caviness, Jr., Giovanni Armenise - Harvard Distinguished Professor of Neurology (*Medical School*)  
David Cox, Assistant Professor of Molecular and Cellular Biology and of Computer Science  
Fiery Cushman, Assistant Professor of Psychology  
Bob Datta, Assistant Professor of Neurobiology (*Medical School*)  
Benjamin Lovegren de Bivort, Assistant Professor of Organismic and Evolutionary Biology  
Bradford Clark Dickerson, Associate Professor of Neurology (*Medical School*)  
Kurt W. Fischer, Charles Bigelow Professor of Education (*Faculty of Education*)  
Alice Weaver Flaherty, Associate Professor of Neurology, Associate Professor of Psychiatry (*Medical School*)  
Krzysztof Z. Gajos, Associate Professor of Computer Science  
Howard E. Gardner, John H. and Elisabeth A. Hobbs Professor of Cognition and Education (*Faculty of Education*)  
Paul Gompers, Eugene Holman Professor of Business Administration (*Business School*)  
Joshua D. Greene, Professor of Psychology  
Güven Güzeldere, Senior Lecturer on Philosophy and Psychology  
Takao K. Hensch, Professor of Molecular and Cellular Biology, and Professor of Neurology (*Medical School*)  
Katherine J. Hinde, Assistant Professor of Human Evolutionary Biology  
Hopi E. Hoekstra, Professor of Organismic and Evolutionary Biology and Molecular and Cellular Biology, Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology, Harvard College Professor, and Curator of Mammals in the Museum of Comparative Zoology  
Christine Hooker, Associate Professor of Psychology



Steven E. Hyman, Harvard University Distinguished Service Professor, Professor of Stem Cell and Regenerative Biology, Affiliate of the Department of History of Science, and Professor of Neurobiology (*Medical School*)

Sean D. Kelly, Teresa G. and Ferdinand F. Martignetti Professor of Philosophy

Edward A. Kravitz, George Packer Berry Professor of Neurobiology (*Medical School*)

Gabriel Kreiman, Associate Professor of Ophthalmology (*Medical School*)

David I. Laibson, Robert I. Goldman Professor of Economics

Rebecca M. Lemov, Associate Professor of the History of Science

Jeff W. Lichtman, Jeremy R. Knowles Professor of Molecular and Cellular Biology, Santiago

Ramón y Cajal Professor of Arts and Sciences

Margaret S. Livingstone, Professor of Neurobiology (*Medical School*)

Jeffrey D. Macklis, Max and Anne Wien Professor of Stem Cell and Regenerative Biology and Professor of Surgery and Neurology, Harvard Medical School

L. Mahadevan, Lola England de Valpine Professor of Applied Mathematics, of Organismic and Evolutionary Biology, and of Physics (*on leave 2014-15*)

Richard J. McNally, Professor of Psychology

Jason P. Mitchell, Professor of Psychology

Sendhil Mullainathan, Professor of Economics

Venkatesh N. Murthy, Professor of Molecular and Cellular Biology

Charles A. Nelson, Professor of Psychology in the Department of Psychiatry, Professor of Pediatrics, Professor in the Department of Social and Behavioral Sciences (*Medical School, Public Health*)

Bence P. Olveczky, John L. Loeb Associate Professor of the Natural Sciences

Naomi E. Pierce, Sidney A. and John H. Hessel Professor of Biology and Curator of Lepidoptera

Steven Pinker, Johnstone Family Professor of Psychology

Maria Polinsky, Professor of Linguistics

Sarah S. Richardson, John L. Loeb Associate Professor of the Social Sciences

Stephen P. Rosen, Beton Michael Kaneb Professor of National Security and Military Affairs

Aravinthan D. T. Samuel, Professor of Physics

Joshua R. Sanes, Jeff C. Tarr Professor of Molecular and Cellular Biology

Stuart M. Shieber, James O. Welch, Jr. and Virginia B. Welch Professor of Computer Science

Susanna Siegel, Edgar Pierce Professor of Philosophy

Alison Simmons, Samuel H. Wolcott Professor of Philosophy, Harvard College Professor

Maurice A. Smith, Thomas D. Cabot Associate Professor of Bioengineering, Gordon McKay Professor of Bioengineering

Jesse Snedeker, Professor of Psychology

Elizabeth S. Spelke, Marshall L. Berkman Professor of Psychology

Robert A. Stickgold, Associate Professor of Psychiatry (*Medical School*)

Tomasz Strzalecki, John L. Loeb Associate Professor of the Social Sciences

Naoshige Uchida, Professor of Molecular and Cellular Biology (*spring term*) (*on leave fall term*)

Leslie G. Valiant, T. Jefferson Coolidge Professor of Computer Science and Applied Mathematics

Felix Warneken, John L. Loeb Associate Professor of the Social Sciences (*on leave 2014-15*)

Richard W. Wrangham, Ruth Moore Professor of Biological Anthropology (*on leave spring term*)

Yun Zhang, Associate Professor of Organismic and Evolutionary Biology



### ***Other Faculty Offering Instruction in Mind, Brain, and Behavior***

Michael Alexander, Professor of Neurology (*Medical School*)

Peter Anthony Cariani, Clinical Instructor in Otolaryngology (*Medical School*)

Shelley H. Carson

William P. Milberg, Professor of Psychology in the Department of Psychiatry (*Medical School*)

Irene Pepperberg

William F. Pirl, Associate Professor of Psychiatry (*Medical School*)

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/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 humans) in a wider environmental and social context. The Committee coordinates the wide and varied course offerings that address methods, findings, and theory in neuroscience; helps students learn of opportunities within the various fields allied with neuroscience; and promotes interdisciplinary interaction among members of these fields.

For undergraduate students wishing to specialize in an area related to the neurosciences, specialized tracks are currently available in seven concentrations: Computer Science, History and Science, Human Evolutionary Biology, Linguistics, Neurobiology, Philosophy, and Psychology. MBB also offers a secondary field. For specific track and secondary field requirements, consult <http://mbb.harvard.edu>.

Foundation courses are required or recommended in all tracks so that all MBB students can interact. The foundation courses include Science of Living Systems 20, Psychological Science; MCB 80, Neurobiology of Behavior; and one of several designated interdisciplinary seminars listed below. The track program, which results in a Certificate in Mind/Brain/Behavior, also includes a junior symposium and senior thesis workshops.

#### ***Primarily for Undergraduates: Foundation Courses***

##### **Science of Living Systems 20. Psychological Science**

Catalog Number: 16308

Fall: Jason Mitchell (Psychology); Spring: Steven Pinker (Psychology)

Half course (fall term; repeated spring term). Fall: M., W., 1-2:30, and a weekly section to be arranged; Spring: Tu., Th., 2:30-4, and a weekly section to be arranged. EXAM GROUP: Fall: 1; Spring: 11

An introduction to the sciences of mind, including foundational concepts from neuroscience, evolution, genetics, philosophy, and experimental methods, and specific topics such as perception, memory, reasoning and decision-making, consciousness, child development, psychopathology, personality, language, emotion, sexuality, violence, morality and social relations.

Note: Students who have taken Science B-62 or Psychology 1 may not take this course for credit but may use those courses to satisfy the General Education requirement for Science of Living



Systems. This course, as well as Science B-62 and Psychology 1, meet the Tier 1 requirement for Psychology.

### **MCB 80. Neurobiology of Behavior**

Catalog Number: 6052

*Joshua R. Sanes, David Cox, and Jeff W. Lichtman*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

An introduction to the ways in which the brain controls mental activities. The course covers the cells and signals that process and transmit information, and the ways in which neurons form circuits that change with experience. Topics include the neurobiology of perception, learning, memory, language, emotion, and mental illness.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of Living Systems. The course is open to students with little formal training in biology.

#### ***Primarily for Undergraduates***

### **\*Mind, Brain, and Behavior 90r. Supervised Research: Topics in Mind/Brain/Behavior**

Catalog Number: 8784

*Florian Engert and MBB Faculty*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 14; Spring: 11*

Supervised individual research leading to a tutorial paper.

*Note:* Application required; consult MBB website.

#### ***Primarily for Undergraduates: Interdisciplinary Seminars***

Students in the Neurobiology and Psychology Mind/Brain/Behavior tracks must consult with their concentration regarding which seminars will count.

### **\*Mind, Brain, and Behavior 980a (formerly Mind, Brain, and Behavior 93). Conscious States: Waking, Sleeping, and Dreaming**

Catalog Number: 5017 Enrollment: Limited to 12. Preference to juniors in MBB tracks or MBB secondary field.

*Robert A. Stickgold (Medical School)*

*Half course (fall term). Tu., 3–5. EXAM GROUP: 2*

Focuses on waking, sleeping, and dreaming as examples of conscious states in both humans and animals. Original papers and Antonio Damasio's book (*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.

### **[\*Mind, Brain, and Behavior 980b (formerly Mind, Brain, and Behavior 95). Addiction, Choice, and Motivation]**

Catalog Number: 4890 Enrollment: Limited to 15. Preference to juniors in MBB tracks or MBB secondary field.

*Gene M. Heyman (Medical School)*

*Half course (fall term). Th., 4–6.*



Seeks a comprehensive understanding of addiction and why it has been such a contentious topic. Readings and discussion address (1) the characteristics of addiction as revealed in biographies, epidemiological studies, clinical research, experiments, and historical "natural experiments"; (2) how drugs work; (3) the functional significance of drug-induced neural changes; (4) genetic influences on alcohol use in the context of gene expression (4) a behavioral economic analysis of impulsivity and addiction.

*Note:* Expected to be given in 2015–16.

**[\*Mind, Brain, and Behavior 980c (formerly Mind, Brain, and Behavior 96). The Science of Happiness]**

Catalog Number: 2517 Enrollment: Limited to 15. Preference to juniors in MBB tracks or MBB secondary field.

*Nancy Lee Etcoff (Medical School)*

*Half course (fall term). Th., 1–3.*

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.

*Note:* Expected to be given in 2015–16.

**\*Mind, Brain, and Behavior 980d (formerly Mind, Brain, and Behavior 92). Conscious Perceptual Experience: Image, Space, and the Attentive Self**

Catalog Number: 7390 Enrollment: Limited to 15. Preference to juniors in MBB tracks or MBB secondary field.

*Florian Engert and MBB Faculty*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

Renowned neuroscientists from Harvard and elsewhere will lead highly interactive seminars addressing core problems underlying the emergence of conscious visual experience. Topics include the requisite neuronal representations of the content of visual images, their localization within extrapersonal space and the sense of ownership of such images by an attentive self. Related topics include selective attention, the binding problem, recursive neuronal networks and the distinction between phenomenal and access consciousness. Finally, also explores both the commonalities and differences between visual perception and visual imagery so as to achieve a greater understanding of the bases for the emergence of both entities.

**\*Mind, Brain, and Behavior 980e (formerly \*Mind, Brain, and Behavior 91z). Music, Mind, and Brain**

Catalog Number: 91901 Enrollment: Limited to 15. Preference to juniors in MBB tracks or MBB secondary field.

*Peter Anthony Cariani (Medical School)*

*Half course (spring term). M., 3–5. EXAM GROUP: 17*

Survey of neuropsychology of music. Examines psychological and neural substrates of music perception and cognition (pitch and consonance, melody and harmony, timbre, rhythm and meter, Gestaltist grouping processes). Then considers affective psychology (emotion, meaning,



pleasure), music therapy, music and language, and developmental, comparative, and evolutionary perspectives.

**\*Mind, Brain, and Behavior 980f (formerly \*Mind, Brain, and Behavior 99z). Creativity Research: Madmen, Geniuses, and Harvard Students**

Catalog Number: 40379 Enrollment: Limited to 15. Preference to juniors in MBB tracks or MBB secondary field.

*Shelley H. Carson*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

Examines human creativity from three perspectives: a) empirical research sources, b) case studies of eminent creative achievers, and c) ourselves as creative subjects. Topics include the definition and measurement of creativity, the creative process, the neuroscience of creativity, the creative personality, the role of family life and culture in creativity, the relationship of creativity to IQ, gender differences, and the relationship of creativity to psychopathology.

**\*Mind, Brain, and Behavior 980g. The Origins and Evolution of Cognition: A Comparative Study of Human and Nonhuman Abilities**

Catalog Number: 59755 Enrollment: Limited to 15. Preference to juniors in MBB tracks or MBB secondary field.

*Irene Pepperberg and Güven Güzeldere*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

Most scientists agree cognition is widespread in nature and involves an organism processing information to solve problems (like avoiding predators, finding prey, attracting a mate, achieving shelter), and in humans higher-level reasoning and conceptualizing. Less clear are the origins and evolutionary basis of cognition—what evolutionary pressures were exerted that selected for such processing? Explores possible ways to answer this question with research in anthropology, neurobiology, philosophy, psychology, genetics, sociality, and other disciplines. Faculty from a variety of departments attend discussions in their areas of expertise and assist students in coming to their own conclusions.

**\*Mind, Brain, and Behavior 980h. What Disease Teaches about Cognition**

Catalog Number: 20291 Enrollment: Limited to 15. Preference to juniors in MBB tracks or MBB secondary field.

*William P. Milberg (Medical School) and Michael Alexander (Medical School)*

*Half course (spring term). Tu., 5–7 p.m. EXAM GROUP: 6*

Seeks to reconcile the complicated and messy problems of patients with brain disease with the concise analysis of precisely defined cognitive functions in normal subjects. Students will learn to overlap cognitive functions on to the brain in disease – at the gross dissection and imaging levels – and to understand some of the complex interactions of individual cognitive operations in disease. Includes dissection of a human brain, mapping on to imaging, dissection of multi-dimensional clinical disorders into their component functional parts.

**[\*Mind, Brain, and Behavior 980ir. Topics in the Mind/Brain Sciences: How the Mind/Brain Represents the World]**

Catalog Number: 21066 Enrollment: Limited to 15. Preference to juniors in MBB tracks or MBB secondary field.



*Richard T. Born (Medical School), Alfonso Caramazza, and Güven Güzeldere*  
*Half course (fall term). M., 3:30–5:30.*

Many questions in the contemporary cognitive sciences seem to benefit from a multi-disciplinary approach, and require a converging multi-layered explanation. MBB faculty in neurobiology, psychology, and philosophy explore topics that can be examined by research methods of the respective fields of study, presenting and discussing common questions from multiple perspectives. Ultimate goals are to (1) give a genuine sense of the difficult but rewarding nature of interdisciplinary work and (2) make progress on difficult questions in the mind-brain sciences through such collaboration. This year, seminar attempts to understand how the mind and brain represent the world.

*Note:* Expected to be given in 2015–16.

**[Mind, Brain, and Behavior 980j (formerly Mind, Brain, and Behavior 97a). Avian Cognition: Why Being Called a Bird Brain Is a Compliment]**

Catalog Number: 46941 Enrollment: Limited to 15. Preference to juniors in MBB tracks or MBB secondary field.

*Irene Pepperberg*

*Half course (spring term). Tu., 3–5.*

Humans have a long, conflicting history judging nonhuman cognitive abilities, particularly for nonprimate species. We anticipate and accept communicative and cognitive capacities resembling our own in great apes and cetaceans, but not in birds. Controlled experimental studies have, however, documented impressive avian cognitive traits. This course explores classic and new findings in avian cognition to demonstrate that birds, despite brain architectures lacking much human-like cortical structure and evolutionary histories differing so greatly from ours, equal and sometimes surpass us on various cognitive tasks.

*Note:* Expected to be given in 2015–16. Not open to students who have taken Psychology 980f.

**\*Mind, Brain, and Behavior 980k. Fighting Cancer with the Mind - (New Course)**

Catalog Number: 86866 Enrollment: Limited to 15.

*William F. Pirl (Medical School)*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

Using contemporary mind-body practices as context, examines evidence (or lack of evidence) linking psychological practices with cancer survival. We will (1) review theoretical foundations for these links including psychoanalysis, psychoneuroimmunology, and cognitive-behavioral therapy; (2) analyze legitimization of mind-body practices for cancer in popular media; (3) interview mind-body medicine practitioners; and (4) examine published scientific data. Students will choose one mind-body practice for in-depth study, analyzing its underlying theories, scientific evidence, and appeal to patients.

***Additional Interdisciplinary Seminars***

**[\*History of Science 171. Narrative and Neurology]**

**History of Science 178v. History of the Psychotherapies - (New Course)**

**[History of Science 179v. The Freudian Century]**

**[\*Human Evolutionary Biology 1312. Human Sexuality: Research and Presentation Seminar]**



**\*Human Evolutionary Biology 1313. Stress: Research and Presentation Seminar**

**Human Evolutionary Biology 1366. Mating Strategies**

[Human Evolutionary Biology 1416. The Neurobiology of Sociality: Seminar]

**Human Evolutionary Biology 1500. Building Babies: Developmental Trajectories from Conception to Weaning**

**\*Neurobiology 101hfa (formerly \*Neurobiology 95hfd). Novel Therapeutics in the Central Nervous System**

**\*Neurobiology 101hfb (formerly \*Neurobiology 95hfh). Dopamine**

[\*Neurobiology 101hfc (formerly \*Neurobiology 95hfp). Designer Neurons: How Cell Types are Generated in the Nervous System and the Lab]

[\*Neurobiology 101hfd (formerly \*Neurobiology 95hfu). Building a Brain]

**\*Neurobiology 101hff (formerly \*Neurobiology 95hfy). Seeing Time in the Brain**

**\*Neurobiology 101hfi. The Neurobiology of Drug Addiction**

**\*Neurobiology 101hfj. Brain Rhythms in Cognition, Mental Health & Epilepsy**

**\*Neurobiology 101hfl. Building Blocks of Neural Networks: Synapses and Circuits in Heath and Psychiatric Disease - (New Course)**

**\*Neurobiology 101hfm. Fundamentals of Computational Neuroscience - (New Course)**

**\*Philosophy 160. Readings in Philosophical Psychology**

[\*Psychology 1357. Puzzles of the Mind: Humans, Animals, Robots: Seminar]

[Psychology 1453. Consciousness Explored]

*Additional Recommended Courses*

**Culture and Belief 34. Madness and Medicine: Themes in the History of Psychiatry**

[Empirical and Mathematical Reasoning 11. Making Sense: Language, Logic, and Communication]

[Neurobiology 209. Neurobiology of Disease]

**Science of Living Systems 15. Developmental Psychology: Origins of Knowledge**

*Additional Cross-listed Courses: Primarily for Undergraduates*

[Culture and Belief 11. Medicine and the Body in East Asia and in Europe]

[Culture and Belief 47. The Darwinian Revolution]

[Culture and Belief 58. Case Studies in the Medical Humanities: Interdisciplinary Perspectives on the Experience of Illness and Healing]

**Empirical and Mathematical Reasoning 17. Deductive Logic**

**Engineering Sciences 53. Quantitative Physiology as a Basis for Bioengineering**

**\*Freshman Seminar 22t. Why We Animals Sing**

**\*Freshman Seminar 24k. The Surprising Science of Happiness**

**\*Freshman Seminar 24p. Getting to Know Charles Darwin**

**\*Freshman Seminar 24u. "How Did I Get Here?"--Appreciating "Normal" Child Development**

**\*Freshman Seminar 25e. Autism**

**\*Freshman Seminar 25n. Understanding Psychological Development, Disorder and Treatment: Learning through Literature and Research**

**\*Freshman Seminar 25p. Neurotoxicology: Biological Effects of Environmental Poisons**



- [\*\*\\*Freshman Seminar 25q. Understanding Emotions\*\*](#)
- [\*\*\\*Freshman Seminar 25w. Responsibility, the Brain, and Behavior\*\*](#)
- [\*\*\\*Freshman Seminar 25x. Human Brain in Health and Disease: A Neurologist's Perspective\*\*](#)
- [\*\*\\*Freshman Seminar 25z. Stress and Disease \(Biobehavioral Aspects of Health and Disease\)\*\*](#)
- [\*\*\\*Freshman Seminar 26f. Dreams: Our Mind by Night\*\*](#)
- [\*\*\\*Freshman Seminar 26u. What is Mental Illness?\*\*](#)
- [\*\*\\*Freshman Seminar 43m. Psychology of Religion\*\*](#)
- [\*\*\\*Freshman Seminar 44s. Neanderthals and Human Evolutionary Theory\*\*](#)
- [\*\*\\*Freshman Seminar 44w. The Masquerade of Common Scents: An Exploration of Ephemeral Knowledge\*\*](#)
- [\*\*\\*Freshman Seminar 48e. Health and Mental Health in Everyday Life\*\*](#)
- [\*\*\\*Freshman Seminar 49n. Measurements of the Mind: The Creation and Critique of the Psychological Test\*\*](#)
- [Life Sciences 60. Ethics, Biotechnology, and the Future of Human Nature]
- [\*\*Linguistics 83. Language, Structure, and Cognition\*\*](#)
- [\*\*OEB 53. Evolutionary Biology\*\*](#)
- [\*\*OEB 57. Animal Behavior\*\*](#)
- [\*\*Philosophy 3. Introduction to the Problems of Philosophy\*\*](#)
- [Philosophy 8. Introduction to Early Modern Philosophy]
- [\*\*Philosophy 22. Introduction to Philosophy of Psychology\*\*](#)
- [\*\*Psychology 14. Cognitive Neuroscience\*\*](#)
- [\*\*Psychology 15. Social Psychology\*\*](#)
- [\*\*Psychology 18. Abnormal Psychology\*\*](#)
- [\*Psychology 950. Psychology Live]
- [\*\*Science of Living Systems 12. Understanding Darwinism\*\*](#)
- [\*\*Science of Living Systems 16. Human Evolution and Human Health\*\*](#)

*Additional Cross-listed Courses: For Undergraduates and Graduates*

- [\*\*Biomedical Engineering 110 \(formerly Engineering Sciences 145\). Physiological Systems Analysis\*\*](#)
- [\*\*Biomedical Engineering 130 \(formerly Engineering Sciences 149\). Neural Control of Movement\*\*](#)
- [\*\*Computer Science 181. Machine Learning\*\*](#)
- [\*\*Computer Science 182. Intelligent Machines: Reasoning, Actions, and Plans\*\*](#)
- [\*\*Computer Science 186. Economics and Computation\*\*](#)
- [\*\*Computer Science 187. Computational Linguistics\*\*](#)
- [\*\*\\*Computer Science 189r. Autonomous Multi-Robot Systems\*\*](#)
- [\*\*Economics 1030. Psychology and Economics\*\*](#)
- [Economics 1032. The Packing Problem: The Behavioral Economics of Scarcity]
- [\*\*Economics 1052. Game Theory and Economic Applications\*\*](#)
- [Government 1093. Ethics, Biotechnology, and the Future of Human Nature]
- [History of Science 138. Sex, Gender, and Evolution]
- [History of Science 139. The Postgenomic Moment]
- [\*\*History of Science 150. History of the Human Sciences\*\*](#)
- [History of Science 174. Critical Experiments in the Human Sciences]



[\*\*History of Science 176. Brainwashing and Modern Techniques of Mind Control\*\*](#)

[\*\*Human Evolutionary Biology 1310. Hormones and Behavior\*\*](#)

[\*\*Human Evolutionary Biology 1329. Sex, Love and War: The Evolution of Human Behavior\*\*](#)

[\*\*Human Evolutionary Biology 1330. Primate Social Behavior\*\*](#)

[Human Evolutionary Biology 1335. Behavioral Ecology of Chimpanzees]

[\*\*\\*Human Evolutionary Biology 1418. Endocrinology and Behavior: Research Seminar\*\*](#)

[Human Evolutionary Biology 1435r. Primate Ecology and Evolution]

[\*\*\\*Human Evolutionary Biology 1463. Molecular Evolution of the Primates\*\*](#)

[\*\*Human Evolutionary Biology 1480. Human Evolution through Developmental Change - \(New Course\)\*\*](#)

[\*\*Human Evolutionary Biology 1490r. Primate Evolution\*\*](#)

[\*\*Linguistics 101. The Science of Language: An Introduction\*\*](#)

[\*\*Linguistics 102. Sentence Structure\*\*](#)

[\*\*Linguistics 104. Word Structure\*\*](#)

[\*\*Linguistics 105. Sounds of Language\*\*](#)

[\*\*Linguistics 106. Knowledge of Meaning\*\*](#)

[\*\*Linguistics 112. Syntactic Theory I\*\*](#)

[\*\*Linguistics 115. Phonological Theory I\*\*](#)

[\*\*Linguistics 116. Semantic Theory I\*\*](#)

[Linguistics 130. Psycholinguistics: Seminar]

[Linguistics 132. Psychosemantics]

[Linguistics 146. Syntax and Processing]

[\*\*Linguistics 148. Language Universals\*\*](#)

[Mathematics 153. Mathematical Biology-Evolutionary Dynamics]

[\*\*MCB 105. Systems Neuroscience\*\*](#)

[\*\*MCB 115. Cellular Basis of Neuronal Function\*\*](#)

[\*\*\\*MCB 129. The Brain: Development, Plasticity and Decline\*\*](#)

[\*\*MCB 131. Computational Neuroscience\*\*](#)

[\*\*MCB 141. Molecular and Cellular Biology of the Senses and their Disorders\*\*](#)

[\*MCB 145. Neurobiology of Perception and Decision Making]

[\*\*\\*MCB 146. Experience-Based Brain Development: Causes and Consequences\*\*](#)

[\*\*MCB 170. Brain Invaders: Building and Breaking Barriers in the Nervous System\*\*](#)

[\*\*MCB 186. Circadian Biology: From Cellular Oscillators to Sleep Regulation\*\*](#)

[OEB 105. Neurobiology of Motor Control]

[\*\*OEB 131. Neuroethology\*\*](#)

[\*\*OEB 145. Genes and Behavior\*\*](#)

[Philosophy 144. Logic and Philosophy]

[Philosophy 147. Philosophy of Language]

[\*\*Philosophy 156. Philosophy of Mind\*\*](#)

[Philosophy 163. Rationality and Irrationality]

[Physics 136. Physics of Medical Imaging]

[Physics 141. The Physics of Sensory Systems in Biology]

[\*\*Psychology 1005. Health Psychology\*\*](#)

[\*Psychology 1052. The application of fMRI in cognitive neuroscience research]

[\*\*Psychology 1201. Your Brain on Drugs: Psychopharmacology\*\*](#)

[\*Psychology 1303. The Human Brain Then and Now]



**[Psychology 1304. Brain Damage as a Window into the Mind: Cognitive Neuropsychology](#)**

**[Psychology 1305. Evolution and Cognition - \(New Course\)](#)**

[Psychology 1307. Brain Genomics]

**[\\*Psychology 1352. Foundations of Cognitive Neuroscience Research](#)**

[\*Psychology 1354. Classic Papers on Memory (and the Ones that Got Away!)]

[\*Psychology 1358. Is there more to thought than muscle twitches? Cognitive and neural aspects of object and action knowledge]

[Psychology 1430. Human Memory and Amnesia]

[\*Psychology 1452. The Human Face]

**[\\*Psychology 1502. Cultural Psychology: Exploring Social Identities in the U.S. and Beyond](#)**

**[\\*Psychology 1503. Psychology of Close Relationships](#)**

**[\\*Psychology 1556r. Research Seminar in Implicit Social Cognition](#)**

**[Psychology 1601. Developmental Disabilities](#)**

[Psychology 1604. Social Development]

**[Psychology 1605. Psychology of Language](#)**

**[\\*Psychology 1651r. Language Development: Undergraduate Laboratory Course: Research Seminar](#)**

**[\\*Psychology 1652r. Laboratory in Early Cognitive Development](#)**

**[\\*Psychology 1655r. Conceptual Development: Undergraduate Laboratory Course](#)**

[Psychology 1702. The Emotional Mind]

**[\\*Psychology 1750. Free Will, Responsibility, and Law](#)**

**[Psychology 1801. Anxiety Disorders](#)**

[\*Psychology 1851. Clinical Psychology: Science and Practice]

**[\\*Psychology 1853. Self-Destructive Behaviors](#)**

[Psychology 1854. Schizophrenia: Seminar]

[\*Psychology 1861. Developmental Psychopathology]

[SCRB 180. Regeneration and Repair in the Mammalian Brain]

**[\\*SCRB 187. Brains, Identity, and Moral Agency](#)**

*Additional Cross-listed Courses: Primarily for Graduates*

[\*BCMP 213. Behavioral Pharmacology]

**[BCMP 230. Principles and Practice of Drug Development](#)**

[Computer Science 228. Computational Learning Theory]

**[Computer Science 229r. Topics in the Theory of Computation: Biology and Complexity](#)**

**[\\*Computer Science 279. Research Topics in Human-Computer Interaction](#)**

**[Computer Science 280r. Advanced Topics in Artificial Intelligence](#)**

[Computer Science 281. Advanced Machine Learning]

**[Computer Science 283. Computer Vision](#)**

**[Computer Science 284r. Topics on Computation in Networks and Crowds](#)**

[Computer Science 285. Multi-Agent Systems]

[Computer Science 286r. Topics at the Interface between Computer Science and Economics]

**[Computer Science 287r. Topics in Computational Linguistics and Natural Language Processing](#)**

**[\\*Computer Science 289 \(formerly \\*Computer Science 266\). Biologically-inspired Multi-](#)**



### [agent Systems](#)

[Engineering Sciences 226r. Special Topics in Neural Engineering: Learning and Memory in Neural Systems]

### [Engineering Sciences 249. Advanced Neural Control of Movement](#)

[History of Science 237. Postgenomics]

[History of Science 238. Rethinking the Darwinian Revolution: Seminar]

### [History of Science 245. The Changing Concept of Race in Science and Medicine in the United States: From Jefferson to Genomics \(Graduate Seminar in General Education\)](#)

[\*History of Science 246. History and Anthropology of Medicine and Biology]

### [History of Science 247. Current Issues in the History of Medicine: Seminar](#)

### [\\*History of Science 253. Bioethics, Law, and the Life Sciences](#)

[History of Science 270. Sciences of the Self]

[History of Science 271. Self as Data]

[\*History of Science 274v. Topics in the History of Psychoanalysis]

[History of Science 279v. Freud and His Legacies: Readings in the History of Psychoanalysis]

[History of Science 289. Entangled Objects: Or the Stuff of Science, Culture, and Society]

### [\\*Human Evolutionary Biology 2312. Current Topics in Human Evolutionary Genetics](#)

### [Human Evolutionary Biology 2430. Behavioral Biology Seminar](#)

### [Linguistics 205r. The Syntax-Semantics Interface](#)

[Linguistics 207r. Topics in Semantics ]

### [Linguistics 212. Syntactic Theory II](#)

### [Linguistics 216. Semantic Theory II](#)

[MCB 206. Introduction to Connectomics]

### [MCB 292. Cellular Biology, Neurobiology and Developmental Biology](#)

### [Microbiology 213. Social Issues in Biology](#)

### [Neurobiology 200. Neurobiology](#)

### [Neurobiology 204. Neurophysiology of Central Circuits](#)

### [\\*Neurobiology 220. Cellular Neurophysiology](#)

### [Neurobiology 230. Visual Object Recognition](#)

### [OEB 223. Topics in Neurogenetics](#)

### [\\*Psychology 2050. History of Psychology: Seminar](#)

[\*Psychology 2060. Reward and Self Control]

[\*Psychology 2145. Developmental Cognitive Neuroscience]

### [\\*Psychology 2150r. Social Cognitive Development: Research Seminar](#)

### [\\*Psychology 2160r. Laboratory for Affective and Developmental Neuroscience](#)

### [\\*Psychology 2170. Developmental Proseminar](#)

[\*Psychology 2190. Topics in Language Acquisition]

[\*Psychology 2310. Brain Mystery: What is so Special about the Primate Frontal Cortex]

### [\\*Psychology 2335r. Concepts, Actions, Objects \(CAOs\): Research Seminar](#)

### [\\*Psychology 2352r. Laboratory for Social Cognitive Neuroscience](#)

[\*Psychology 2353. Case Studies of Cognitive and Neural Models]

### [\\*Psychology 2354r. Advanced Laboratory in Cognitive Neuroscience](#)

### [\\*Psychology 2356r. Visual Cognition: Research Seminar](#)

### [\\*Psychology 2358r. Memory: Research Seminar](#)

[\*Psychology 2400. Cognitive Psychology and Emotional Disorders]



**[Psychology 2410r. Laboratory Research on Emotional Disorders](#)**

**[\\*Psychology 2436r. Social Neuroscience and Psychopathology Laboratory](#)**

[\*Psychology 2445. Psychological Treatment Research]

**[Psychology 2446r. Clinical Research Laboratory](#)**

**[\\*Psychology 2450. Affective and Social Neuroscience](#)**

**[Psychology 2461r. Laboratory for Clinical and Developmental Research](#)**

**[\\*Psychology 2464r. Research Methods in Child & Adolescent Clinical Psychology](#)**

**[\\*Psychology 2475r. Laboratory for the Systems Neuroscience of Psychopathology](#)**

[\*Psychology 2480. Human Neuropsychology/Neuroanatomy: Seminar]

**[\\*Psychology 2553r. Behavioral Insights Group Research Seminar](#)**

**[\\*Psychology 2554r. Moral Cognition: Research Seminar](#)**

**[\\*Psychology 2570r. Intergroup Relations: Research Seminar](#)**

**[\\*Psychology 2580r. Affective Forecasting: Research Seminar](#)**

**[\\*Psychology 2640r. The Understand Seminar](#)**

[\*Psychology 2650. Behavioral Approaches to Decision Making and Negotiation]

[\*Psychology 2651. Social Cognition from a Developmental and Evolutionary Perspective]

[Psychology 2652. The Psychology of Cooperation]

**[\\*Psychology 2660r. Research Seminar in Mindfulness Theory](#)**

**[\\*Psychology 2670a. Decision Making and the Psychology of Possibility](#)**

**[\\*Psychology 2670b. Decision Making and the Psychology of Possibility II](#)**

**[SHBT 200. Acoustics of Speech and Hearing](#)**

**[SHBT 201. Biology of the Inner Ear](#)**

**[\\*SHBT 203. Anatomy of Speech and Hearing](#)**

**[SHBT 204. Speech Communication](#)**

**[SHBT 205. Neural Coding and Perception of Sound](#)**

**[SHBT 206 \(formerly Pathology 205\). Molecular Biology of the Auditory System](#)**

## Molecular and Cellular Biology

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

*Faculty of the Department of Molecular and Cellular Biology*

Alexander F. Schier, Leo Erikson Life Sciences Professor of Molecular and Cellular Biology  
*(Chair)*

Howard C. Berg, Herchel Smith Professor of Physics and Professor of Molecular and Cellular Biology *(on leave fall term)*

Tamara J. Brenner, Lecturer on Molecular and Cellular Biology, Associate Director of Life



## Sciences Education

- Briana Burton, Associate Professor of Molecular and Cellular Biology
- Philippe Cluzel, Professor of Molecular and Cellular Biology and Gordon McKay Professor of Applied Physics (*on leave 2014-15*)
- David Cox, Assistant Professor of Molecular and Cellular Biology and of Computer Science
- Victoria M. D'Souza, Associate Professor of Molecular and Cellular Biology
- Vladimir Denic, Associate Professor of Molecular and Cellular Biology
- John E. Dowling, Gordon and Llura Gund Professor of Neurosciences (*on leave 2014-15*)
- Ryan Wesley Draft, Lecturer on Molecular and Cellular Biology
- Catherine Dulac, Higgins Professor of Molecular and Cellular Biology (*Director of Graduate Studies*)
- Florian Engert, Professor of Molecular and Cellular Biology
- Raymond L. Erikson, American Cancer Society Professor of Cellular and Developmental Biology
- Cassandra G. Extavour, Professor of Organismic and Evolutionary Biology and of Molecular and Cellular Biology (*on leave 2014-15*)
- Ethan Garner, Assistant Professor of Molecular and Cellular Biology
- Ronald Aaron Garner, Preceptor in Molecular and Cellular Biology
- Rachelle Gaudet, Professor of Molecular and Cellular Biology (*Molecular & Cellular Biology Concentration Co-Head*)
- William M. Gelbart, Professor of Molecular and Cellular Biology
- Karine A. Gibbs, Assistant Professor of Molecular and Cellular Biology
- Guido Guidotti, Higgins Professor of Biochemistry
- Takao K. Hensch, Professor of Molecular and Cellular Biology, and Professor of Neurology (*Medical School*)
- Hopi E. Hoekstra, Professor of Organismic and Evolutionary Biology and Molecular and Cellular Biology, Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology, Harvard College Professor, and Curator of Mammals in the Museum of Comparative Zoology
- Craig P. Hunter, Professor of Molecular and Cellular Biology
- Daniel E. Kahne, Professor of Chemistry and Chemical Biology, Harvard College Professor
- Nancy Kleckner, Herchel Smith Professor of Molecular Biology (*on leave spring term*)
- Samuel M. Kunes, Professor of Molecular and Cellular Biology
- Andres Leschziner, Associate Professor of Molecular and Cellular Biology (*Chemical and Physical Biology Concentration Head*)
- Jeff W. Lichtman, Jeremy R. Knowles Professor of Molecular and Cellular Biology, Santiago Ramón y Cajal Professor of Arts and Sciences
- Richard M. Losick, Maria Moors Cabot Professor of Biology
- Robert A. Lue, Professor of the Practice of Molecular and Cellular Biology
- Laura M. Magnotti, Preceptor in Molecular and Cellular Biology
- Susan Mango, Professor of Molecular and Cellular Biology (*Molecular & Cellular Biology Concentration Co-Head*)
- Matthew Meselson, Thomas Dudley Cabot Professor of the Natural Sciences
- Andrew W. Murray, Herchel Smith Professor of Molecular Genetics
- Venkatesh N. Murthy, Professor of Molecular and Cellular Biology (*Neurobiology Concentration Head*)



Daniel Joseph Needleman, Associate Professor of Applied Physics and of Molecular and Cellular Biology  
 David R. Nelson, Arthur K. Solomon Professor of Biophysics and Professor of Physics and Applied Physics  
 Erin K. O'Shea, Paul C. Mangelsdorf Professor of Molecular and Cellular Biology and of Chemistry and Chemical Biology  
 Diren Pamuk Turner, Preceptor in Molecular and Cellular Biology  
 Sharad Ramanathan, Professor of Molecular and Cellular Biology and Gordon McKay Professor of Applied Physics (*on leave 2014-15*)  
 Julie Anne Roden, Preceptor in Molecular and Cellular Biology  
 Casey Jean Roehrig, Preceptor in Molecular and Cellular Biology  
 Martin A. Samuels, Preceptor in Molecular and Cellular Biology  
 Joshua R. Sanes, Jeff C. Tarr Professor of Molecular and Cellular Biology  
 Vicki L. Sato, Professor of the Practice of Molecular and Cellular Biology  
 Haim I. Sompolinsky, Visiting Professor of Molecular and Cellular Biology (*Hebrew University*)  
 A. Thomas Torello, Lecturer on Molecular and Cellular Biology  
 Naoshige Uchida, Professor of Molecular and Cellular Biology (*on leave fall term*)  
 Alain Viel, Senior Lecturer on Molecular and Cellular Biology  
 Mary Elizabeth Wahl, College Fellow in the Department of Molecular and Cellular Biology

### ***Other Faculty Offering Instruction in Molecular and Cellular Biology***

Arkhad Abzhanov, Associate Professor of Organismic and Evolutionary Biology  
 Emily Patricia Balskus, Assistant Professor of Chemistry and Chemical Biology  
 Tamara J. Brenner, Lecturer on Molecular and Cellular Biology, Associate Director of Life Sciences Education  
 Colleen M. Cavanaugh, Edward C. Jeffrey Professor of Biology  
 Adam E. Cohen, Professor of Chemistry and Chemical Biology and of Physics  
 Michael Manish Desai, Assistant Professor of Organismic and Evolutionary Biology and of Physics, Thomas D. Cabot Associate Professor of Organismic and Evolutionary Biology  
 John E. Dowling, Gordon and Llura Gund Professor of Neurosciences (*on leave 2014-15*)  
 Ryan Wesley Draft, Lecturer on Molecular and Cellular Biology  
 Scott V. Edwards, Professor of Organismic and Evolutionary Biology, Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology, and Curator of Ornithology (*on leave 2014-15*)  
 Kevin C. Eggan, Professor of Stem Cell and Regenerative Biology  
 Cassandra G. Extavour, Professor of Organismic and Evolutionary Biology and of Molecular and Cellular Biology (*on leave 2014-15*)  
 Ronald Aaron Garner, Preceptor in Molecular and Cellular Biology  
 Peter R. Girguis, Professor of Organismic and Evolutionary Biology  
 Daniel L. Hartl, Higgins Professor of Biology (FAS) and Professor in the Department of Immunology and Infectious Diseases (*Public Health*)  
 Elena M. Kramer, Bussey Professor of Organismic and Evolutionary Biology  
 Erel Levine, Associate Professor of Physics  
 David R. Liu, Professor of Chemistry and Chemical Biology, Harvard College Professor  
 James Mallet, Distinguished Lecturer on Organismic and Evolutionary Biology



Christopher Marx, Visiting Associate Professor of Organismic and Evolutionary Biology  
 Alexander Meissner, Associate Professor of Stem Cell & Regenerative Biology  
 Douglas A. Melton, Xander University Professor of Stem Cell and Regenerative Biology  
 Bence P. Olveczky, John L. Loeb Associate Professor of the Natural Sciences  
 Hongkun Park, Professor of Chemistry and Chemical Biology and of Physics  
 Mara Prentiss, Mallinckrodt Professor of Physics  
 Anne E. Pringle, Visiting Associate Professor of Organismic and Evolutionary Biology  
 John L. Rinn, Alvin and Esta Star Associate Professor of Stem Cell and Regenerative Biology  
 Julie Anne Roden, Preceptor in Molecular and Cellular Biology  
 Casey Jean Roehrig, Preceptor in Molecular and Cellular Biology  
 Pardis Sabeti, Associate Professor of Organismic and Evolutionary Biology  
 Martin A. Samuels, Preceptor in Molecular and Cellular Biology  
 Vicki L. Sato, Professor of the Practice of Molecular and Cellular Biology  
 Stuart L. Schreiber, Morris Loeb Professor of Chemistry  
 Matthew D. Shair, Professor of Chemistry and Chemical Biology (*on leave 2014-15*)  
 Eugene I. Shakhnovich, Professor of Chemistry and Chemical Biology  
 Gregory L. Verdine, Erving Professor of Chemistry in the Departments of Stem Cell and Regenerative Biology and of Chemistry and Chemical Biology  
 John Wakeley, Professor of Organismic and Evolutionary Biology  
 Xiaoliang Sunney Xie, Mallinckrodt Professor of Chemistry and Chemical Biology  
 Yun Zhang, Associate Professor of Organismic and Evolutionary Biology  
 Xiaowei Zhuang, David B. Arnold, Jr. Professor of Science

The Department of Molecular and Cellular Biology offers courses to students interested in understanding biological processes based on the study of molecules and their interactions in the context of cells, tissues and whole organisms. Molecular and Cellular Biology encompasses fundamental principles of modern biology at the hub of nearly all life science sub-disciplines, and integrates many different methodologies ranging from chemistry and genetics to computer science and engineering, as well as fundamental concepts in physics and mathematics.

The MCB Department administers the Molecular and Cellular Biology (MCB) concentration, and co-administers the concentrations in Chemical and Physical Biology (CPB) and Neurobiology. Undergraduate and graduate students interested in Molecular and Cellular Biology are encouraged to consult their respective advising team regarding courses and requirements. Students may also consider, in consultation with their advisors, complementary courses offered within the Division of Sciences, the School of Engineering and Applied Sciences, and Harvard Medical School.

### ***Primarily for Undergraduates***

#### **\*MCB 52. Molecular Biology**

Catalog Number: 1938 Enrollment: Limited to 40.

*A. Thomas Torello*

*Half course (fall term). T., Th., from 1:00 - 2:30 and a 90 minute discussion session weekly.*

*EXAM GROUP: 8*

An integrated and quantitative introduction to the principles of molecular biology with an



emphasis on the experimental underpinning of key concepts. This course covers the biochemistry and structure of DNA; the Central Dogma of molecular biology (DNA replication and repair, transcription and RNA processing, and translation); and an overview of gene regulation and systems biology. The weekly section emphasizes problem solving and the scientific method. The investigative, discovery-based laboratory research project is optional.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of Living Systems.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a and permission of the instructor; Life Sciences 1b recommended.

### **MCB 60. Cellular Biology and Molecular Medicine - (New Course)**

Catalog Number: 35967

*Briana Burton, Vladimir Denic, and Alexander F. Schier*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

This course provides an introduction to the principles of molecular and cellular biology and their connections to biomedicine. We explore how medical syndromes provide insights into biological processes and how biological mechanisms underlie human disease and physiology. Topics range from DNA repair, protein folding and vesicle transport to metabolism, cell migration and cancer. Lectures focus on the experimental evidence for key concepts, and the weekly sections combine a discovery-based laboratory research project with discussions that emphasize problem solving and primary literature.

*Prerequisite:* LPS A or LS 1a, LS 1b recommended.

### **MCB 63. Biochemistry and Molecular Medicine - (New Course)**

Catalog Number: 88259

*Alain Viel and Rachelle Gaudet*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

The course integrates an introduction to the structure of macromolecules and a biochemical approach to cellular function. Topics addressing protein function will include enzyme kinetics, the characterization of major metabolic pathways and their interconnection into tightly regulated networks, and the manipulation of enzymes and pathways with mutations or drugs. An exploration of simple cells (red blood cells) to more complex tissues (muscle and liver) is used as a framework to discuss the progression in metabolic complexity. Students will also develop problem solving and analytical skills that are more generally applicable to the life sciences.

*Prerequisite:* LS 1a or LPS A.

### **MCB 64. The Cell Biology of Human Life in the World - (New Course)**

Catalog Number: 74654

*Robert A. Lue*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

This course teaches fundamental concepts in cell biology in the context of individual life histories drawn from different parts of the world. Each life case focuses on key aspects of human development, growth, aging and disease while providing a nuanced view of the interplay between the life sciences, geography and culture. For example, a comparative discussion of aging in the United States and Japan is used to explore diet, cellular metabolism and its relationship to protein damage and turnover, while the Human Immunodeficiency Virus and



AIDS in South Asia is used to explore mucosal immunity and the basis for estimating relative infection risk. Each case delves into the cell biology of major biological events across the life history of the human

### **MCB 65 (formerly MCB 56). Physical Biochemistry: Understanding Macromolecular Machines**

Catalog Number: 5424

*Rachelle Gaudet, Andres Leschziner, and Martin A. Samuels*

*Half course (spring term). M., W., F., at 10, and a weekly laboratory/discussion section. EXAM GROUP: 5*

The course aims to develop fundamental concepts of biochemistry as they apply to macromolecules, including protein and nucleic acid structure, thermodynamics and kinetics, ligand interactions and chemical equilibria. The course will also emphasize how these concepts are used in studies of the structure and function of biological molecules, including examples from metabolism. In the weekly section, students will undertake a discovery-based laboratory research project in which they will apply these concepts toward understanding the structure and function of the ATPase domain from the ABC transporter associated with antigen processing (TAP).

*Prerequisite:* LPS A or LS 1a, Chemistry 20 or Chemistry 17, Math 1b

### **MCB 68. Cell Biology Through the Microscope**

Catalog Number: 11556

*Ethan Garner and Jeff W. Lichtman*

*Half course (spring term). Tu., Th., 1:00 - 2:30, and a one hour lab section per week. EXAM GROUP: 1*

MCB 68 explores three fundamental fields of eukaryotic cell biology: chromosome segregation, cell motility, and neuroscience. Each topic is approached from a historic and technical perspective. Students will discover these systems as the scientific field did, learning how each successive advance in microscopy revealed new biological details. Students will come away with a theoretical and hands-on understanding of microscopy as well as a grasp of the biological findings each technology revealed.

*Prerequisite:* LS1a or LPSA is required. An additional introductory course in biology (e.g. MCB 52 or MCB 60, SCRB 10, MCB 80) is recommended but not required.

### **MCB 80. Neurobiology of Behavior**

Catalog Number: 6052

*Joshua R. Sanes, David Cox, and Jeff W. Lichtman*

*Half course (fall term). Tu., Th., 2:30-4. EXAM GROUP: 14*

An introduction to the ways in which the brain controls mental activities. The course covers the cells and signals that process and transmit information, and the ways in which neurons form circuits that change with experience. Topics include the neurobiology of perception, learning, memory, language, emotion, and mental illness.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of Living Systems. The course is open to students with little formal training in biology.

### ***Cross-listed Courses***



[**Empirical and Mathematical Reasoning 18. What are the odds?**]

**Life and Physical Sciences A. Foundational Chemistry and Biology**

**Life Sciences 1a. An Integrated Introduction to the Life Sciences: Chemistry, Molecular Biology, and Cell Biology**

**Life Sciences 1b. An Integrated Introduction to the Life Sciences: Genetics, Genomics, and Evolution**

**\*Life Sciences 100r. Experimental Research in the Life Sciences**

[\*Visual and Environmental Studies 54s. Animating Science]

### ***Molecular and Cellular Biology Supervised Reading and Research Courses***

#### **\*MCB 91r. Introduction to Research**

Catalog Number: 0282

*A. Thomas Torello and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 9; Spring: 2*

Laboratory research in topics related to the Molecular and Cellular Biology Concentration under the direction of, or approved by, members of the Board of Tutors.

*Note:* Limited to Molecular and Cellular Biology concentrators; written permission of both the tutor and laboratory sponsor must be submitted to the MCB Student Affairs Office prior to enrolling in the course. This introductory research course is intended to prepare students for MCB 99 and may ordinarily be repeated no more than once. Ordinarily may not be taken as a fifth course. A final paper must be submitted to the laboratory sponsor and to the MCB Student Affairs Office for review by the instructor and members of the Board of Tutors.

#### **\*MCB 99. Laboratory Research for Honors Thesis**

Catalog Number: 2987

*A. Thomas Torello and members of the Department*

*Full course (indivisible). Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 13*

For honors candidates writing a thesis in Molecular and Cellular Biology.

*Note:* Ordinarily may not be taken as a fifth course. Indivisible for students enrolling in the fall term. Students intending to enroll in the fall are required to submit a written proposal to the instructor. Students may enter the course at midyear only with the permission of the instructor. The thesis proposal must be approved by the instructor and Head Tutor prior to enrolling in MCB 99.

### ***For Undergraduates and Graduates***

#### **MCB 101. Human Genetics - (New Course)**

Catalog Number: 14764 Enrollment: Limited to 30.

*Craig P. Hunter*

*Half course (fall term). M., W., 10–11:30. EXAM GROUP: 5*

Genomic information is accelerating the discovery and characterization of the molecular and cellular basis of human health and disease. This new lecture/discussion course will explore how knowledge from new technologies is used to advance our understanding of human biology. Topics will include personal genomics, understanding genome-wide associated studies,



epigenetics, gene-environment interactions, and complex traits, the importance of model organisms to investigate molecular mechanisms, and the prospects for cancer genomics and gene/genome therapy. This lecture/discussion course will rely extensively on primary literature and contemporary review articles. Students will actively participate in class discussions and prepare four written summaries of assigned articles and two literature-based research projects (one in the middle of the term and one at the end of the term) that critically assess the scientific basis of popular news articles and consumer-targeted genomics information.

*Prerequisite:* LS 1a and LS 1b, MCB 60 or MCB52 and MCB54.

### **MCB 105. Systems Neuroscience**

Catalog Number: 0998

*Florian Engert*

*Half course (spring term). M., W., 10–11:30. EXAM GROUP: 6*

The neuronal basis of sensory processing and animal behavior will be explored in many different model systems as diverse as honeybees, weakly electric fish, and humans. Special emphasis is placed on the role of activity dependent modulation of neuronal connections in the context of learning, memory, and development of the nervous system.

*Prerequisite:* MCB 80.

### **MCB 111. Mathematics in Biology**

Catalog Number: 6444

*Michael Manish Desai and Erel Levine*

*Half course (spring term). M., W., 9–10:30. EXAM GROUP: 10*

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.

*Prerequisite:* Mathematics 19 or higher.

### **MCB 115. Cellular Basis of Neuronal Function**

Catalog Number: 8703

*Venkatesh N. Murthy*

*Half course (fall term). M., W., F., at 2. EXAM GROUP: 7*

The essential function of a neuron is to processes complex signals derived from the external world. To accomplish this function, neurons employ diverse mechanisms that respond to chemical and electrical signals with incredible sensitivity and plasticity. In this course, we will study these electrical, molecular, and cellular processes using biophysical and biological approaches. Specifically, we will explore topics on excitable membranes, neurotransmission, ion channels, dendritic integration, intracellular signaling, and synaptic plasticity in the context of various model circuits in the brain.

### **MCB 120. Global Health Threats - (New Course)**

Catalog Number: 94656 Enrollment: Limited to 50.

*Richard M. Losick and Barry R. Bloom (Public Health)*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

The multidisciplinary application of epidemiology, molecular biology and genetics,



pathogenesis, drug discovery, immunology and vaccine development, and economic analysis to understanding and combating major threats to human health in developing countries. Emphasis will be on critical readings and scientific writing. Grades will be based on papers in which students will propose the application of multidisciplinary approaches to global health threats not covered in lecture.

*Note:* This course cannot be taken if LS 120 has already been taken. MCB 120 cannot be taken concurrently with LS 120.

*Prerequisite:* LS 1a and LS 1b, or LPS A and one additional course from the following: Chemistry 27, Engineering 53, Life Sciences 2, MCB 60, MCB 52, MCB 54, OEB 10, OEB 53, or SCRB 10, or permission of the instructors.

### **MCB 121. The Microbes**

Catalog Number: 19325

*Karine A. Gibbs*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

This general microbiology course will focus on the genetics, cell biology, and physiology of microorganisms. The goal of this course is to give the students a broad overview of microbial physiology in the context of disease and environmental applications. The course will primarily consist of lectures with problem sets; we will also incorporate current and classical literature.

### **\*MCB 129. The Brain: Development, Plasticity and Decline**

Catalog Number: 8956 Enrollment: Limited to 20.

*Samuel M. Kunes*

*Half course (fall term). M., W., 10–11:30. EXAM GROUP: 5*

A lecture and discussion course on how the brain develops, employs plasticity to adapt to its environment and undergoes functional decline with aging. Topics include the birth, death and identity of neurons, axon guidance and synaptic specificity, adult neurogenesis, developmental disorders of synaptic function and memory, including autism and Alzheimer's Disease. We explore how the brain loses function with aging. Course assignments emphasize critical evaluation of the primary literature, experimental design and scientific writing.

*Prerequisite:* Permission of the instructor.

### **MCB 131. Computational Neuroscience**

Catalog Number: 9868

*Haim I. Sompolinsky (Hebrew University)*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*

Follows trends in modern brain theory, focusing on local neuronal circuits as basic computational modules. Explores the relation between network architecture, dynamics, and function. Introduces tools from information theory, statistical inference, and the learning theory for the study of experience-dependent neural codes. Specific topics: computational principles of early sensory systems; adaptation and gain control in vision, dynamics of recurrent networks; feature selectivity in cortical circuits; memory; learning and synaptic plasticity; noise and chaos in neuronal systems.

*Prerequisite:* Basic knowledge of multivariate calculus, differential equations, linear algebra, and elementary probability theory.



### **MCB 135. Introductory Systems Biology - (New Course)**

Catalog Number: 33733

*Mary Elizabeth Wahl*

*Half course (spring term). M., W., F., at 2:30. EXAM GROUP: 18*

How are biological patterns like spots and stripes generated? How do cells keep time? How do viral capsids self-assemble? In this course, these questions and many others are addressed through the lens of systems biology, an interdisciplinary field which explores general principles underlying complex biological phenomena. Key scientific skills like primary literature review, experimental design, and data interpretation will be introduced through weekly discussion sections and problem sets. Students from other disciplines are welcome.

*Prerequisite:* Ma 19a or equivalent (may be taken concurrently); LS 1a or LPS A.

### **MCB 141. Molecular and Cellular Biology of the Senses and their Disorders**

Catalog Number: 5205

*Catherine Dulac*

*Half course (spring term). Tu., Th., 1:30–3. EXAM GROUP: 1*

"The great art of life is sensation, to feel that we exist, even in pain." Lord Byron. Molecular basis of normal and pathological sensory perception, formation and modulation of sensory circuits during development and in the adult brain. Topics will include the mechanisms of sensory detection and discrimination, the discovery of key genes, cellular pathways and neural circuits affected in human disorders, molecular and genetic strategies for restoring normal sensation, coding of sensory information by the brain, establishment of appropriate connections in the developing brain, epigenetic influences on sensory function. Molecular, genetic and epigenetic approaches to normal and pathological sensing and associated behavior will be discussed.

*Prerequisite:* Prerequisite: LS 1a and LS 1b. Recommended: MCB 80 and a cell or molecular biology course such as MCB 60, MCB 52 or MCB 54, or MCB 115.

### **\*MCB 142. Major Advances in Understanding Evolution and Heredity**

Catalog Number: 7948 Enrollment: Limited to 20.

*Matthew Meselson and William M. Gelbart*

*Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 11*

MCB 142 aims to develop an understanding of the conceptual development of classical and molecular genetics, starting with Mendel and Darwin. Course work includes critical reading of selected papers on the chromosomal and molecular basis of heredity, student presentations, group discussion, and submission of written answers to problem sets. Participation in class discussion of readings is essential. A substantial essay on a mutually agreed topic is due at end of reading period.

*Prerequisite:* LS 1b or equivalent and permission of the instructor.

### **[\*MCB 144. The Power and Pitfalls of Genetical Thinking]**

Catalog Number: 25555 Enrollment: Limited to 12.

*Nancy Kleckner and David A. Haig*

*Half course (spring term). M., W., 12–1:30.*

An advanced treatment of heredity, including genetic, epigenetic and evolutionary aspects, as manifested in organisms from bacteria to man. Emphasis will be placed on how analytical



genetic thinking and approaches can be applied to fundamental biological questions. Course format will include lectures, reading of the primary literature, student group projects and a final paper. Suitable for students in either the physical or biological sciences.

*Note:* Expected to be given in 2015–16.

### [\*MCB 145. Neurobiology of Perception and Decision Making]

Catalog Number: 6972

*Naoshige Uchida*

*Half course (fall term). Tu., Th., 10–11:30.*

One of the current goals of neuroscience is to understand neuronal circuits underlying perception and behavior. Recent advances in neuroscience have allowed us to glimpse neuronal processes that link perception and decision making. How is sensory information processed in the brain? How does an animal choose its action? How does an animal learn from ever-changing environments and adjust their behavior? The course will examine neurophysiological studies in perception and decision-making.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* MCB 80 and permission of the instructor.

### \*MCB 146. Experience-Based Brain Development: Causes and Consequences

Catalog Number: 5390

*Takao K. Hensch (Medical School)*

*Half course (spring term). Tu., Th., 2–3:30. EXAM GROUP: 11*

At no time in life does the surrounding environment so potently shape brain function as in infancy and early childhood. This course integrates molecular/cellular biology with systems neuroscience to explore biological mechanisms underlying critical periods in brain development. Understanding how neuronal circuits are sculpted by experience will motivate further consideration of the social impact on therapy, education, policy, and ethics.

*Prerequisite:* LPS A or LS 1a, MCB 80, and permission of the instructor.

### [MCB 154. Advanced Cell and Developmental Biology]

Catalog Number: 83425

*Susan Mango*

*Half course (spring term). Tu., Th., 3–4:30.*

This course will survey primary research papers describing topics in molecular and cellular biology. We will focus on areas of disagreement, reading pairs of papers that come to antithetical conclusions. Which is correct? Can both points of view be right? What experiments or controls would bolster the hypotheses of one or the other paper? Topics will focus on seminal findings in cell and developmental biology. Each week a different area will be covered through a combination of paper discussions, an introductory lecture and a quiz.

*Note:* Expected to be given in 2015–16. Intended for advanced undergraduates who have taken MCB 60, or MCB 52 and MCB 54.

*Prerequisite:* MCB 60 or MCB 52 and MCB 54

### [\*MCB 155. Bioregulatory Mechanisms]

Catalog Number: 6230

*Vladimir Denic and Alexander F. Schier*



*Half course (spring term). Tu., Th., 4–6.*

An advanced course that emphasizes the scientific logic and technical innovations behind the discoveries of certain well-established cell and molecular mechanisms. Topics will include nuclear transport, ribosomal protein synthesis, protein folding, protein targeting to membranes, and protein degradation. The course will be taught by combining lecture material with student presentations and criticism of seminal papers with emphasis on experimental design, the importance of complementary *in vivo* and *in vitro* systems, and defining unanswered questions in the field.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* MCB 60 or MCB 52 and MCB 54, and permission of instructor.

**[MCB 156. Structural and Biophysical analysis of Macromolecules: The Case of HIV.]**

Catalog Number: 8543

*Victoria M. D'Souza*

*Half course (spring term). Tu., Th., 10–11:30.*

This course presents a detailed examination of macromolecular structure and function based on insights obtained from using modern biophysical techniques. To demonstrate concepts, the course will follow the interplay between the human immunodeficiency virus and its host cell as the virus attempts to complete an infectious cycle.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* MCB 60 or MCB 52, and Physics at the level of PS 2/3.

**[MCB 157. Developmental Genetics and Genomics]**

Catalog Number: 20809

*Craig P. Hunter*

*Half course (fall term). M., W., 12–1:30.*

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 2015–16.

*Prerequisite:* LS 1b

**[\*MCB 162. Major Advances in Understanding Heredity and Evolution]**

Catalog Number: 90518 Enrollment: Limited to 20.

*Matthew Meselson and James Mallet*

*Half course (spring term). Tu., Th., 2–3:30.*

MCB 162 aims to develop an understanding of the major conceptual and experimental advances to our present understanding of heredity and evolution, connecting today's science with its history and some of the personalities involved. Course work includes critical reading of original literature, student presentations, group discussion, and submission of written answers to weekly problem sets. Participation in class discussion of readings is essential. A substantial essay on a mutually agreed topic is due at the end of reading period.



*Note:* Expected to be given in 2015–16.

*Prerequisite:* LS 1b or equivalent and permission of the instructor.

### **MCB 165. Interplay between Viruses and their Hosts - (New Course)**

Catalog Number: 56079

*Victoria M. D'Souza*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*

This course provides a foray into virology, advanced cell biology, biochemistry and structural biology topics through the lens of viruses as they invade their hosts. To demonstrate concepts, a particular emphasis is placed on the human immunodeficiency virus (HIV), which provides well-studied examples of intricate virus-host interactions that occur throughout its complex life cycle.

*Prerequisite:* MCB 60 or MCB 52 or MCB 54.

### **MCB 169. Molecular and Cellular Immunology**

Catalog Number: 2518

*Shiv S. Pillai (Medical School)*

*Half course (fall term). Tu., Th., 10-11:30, and a 90-minute section to be arranged. EXAM GROUP: 12*

The immune system is frontier at which molecular biology, cell biology, and genetics intersect with the pathogenesis of disease. The course examines in depth the cellular and molecular mechanisms involved in the development and function of the immune system and also analyzes the immunological basis of human disease including AIDS and other infectious diseases, autoimmune disorders, allergic disorders, primary immunodeficiency syndromes, transplantation, and cancer.

*Prerequisite:* LPS A or LS 1a or equivalent. Genetics and cell biology strongly recommended.

### **MCB 170. Brain Invaders: Building and Breaking Barriers in the Nervous System**

Catalog Number: 43947

*Laura M. Magnotti*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

The brain has evolved a unique but very effective system to protect itself from invaders. In this course, we will explore the specific defenses that the nervous system uses to protect itself. We will also examine how some pathogens evade or breach those defenses and the impact of those invasions. Finally, we will explore how scientists have been able to translate their understanding of these pathogenic mechanisms into technologies for research and therapeutic applications.

*Prerequisite:* LPS A or LS1a and either MCB 80 or MCB 60 or MCB 54

### **MCB 176. Biochemistry of Membranes**

Catalog Number: 3186

*Guido Guidotti*

*Half course (fall term). M., W., 2–4, M., at 4. EXAM GROUP: 7*

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<sup>+</sup> gradients and ATP synthesis; membrane receptors, G proteins



and signal transduction; membrane fusion.

*Prerequisite:* MCB 60 or MCB 52 and MCB 54 are recommended but not required.

### **MCB 178. Biochemistry of Protein Complexes**

Catalog Number: 63269

*Guido Guidotti*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*

A course on the properties of protein complexes that serve as supports, machines and motors. Topics include : hemoglobin, actin filaments, myosin function, microtubules, kinesin, metabolon, photosynthesis, rotary motors, nuclear pores and transport, proteasome. Lecture on Monday is followed by student presentations on Wednesday. The course involves reading two research papers per week, and writing a research proposal.

*Prerequisite:* Chemistry 27 and MCB 60 or MCB 54 are recommended, but not required.

### **MCB 186. Circadian Biology: From Cellular Oscillators to Sleep Regulation**

Catalog Number: 2854

*Charles A. Czeisler (Medical School)*

*Half course (fall term). W., 2-5, and a weekly section to be arranged. EXAM GROUP: 7*

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:* LS 1b or equivalent, MCB 80 desirable.

### **MCB 187. Genome Editing - Progress and Frontiers - (New Course)**

Catalog Number: 23516 Enrollment: Limited to 90.

*J. Keith Joung (Medical School)*

*Half course (spring term). Tu., 10–11:30, and a two hour section weekly. EXAM GROUP: 12*

This course will provide a comprehensive and cutting-edge primer on the burgeoning field of targeted genome editing. Topics discussed will include foundational science, recent rapid technological advances, and research and therapeutic applications of engineered zinc-finger nucleases, TALENs, and CRISPR-Cas nucleases. The class will meet twice per week, including a one-and-a-half hour lecture and a two-hour section in which students will discuss and critique original scientific papers relevant to that week's subject.

*Note:* Students will be required to attend all lectures and to participate in all weekly sections. A mid-term exam will be given and students will be required to submit a final paper consisting of a research proposal.

*Prerequisite:* MCB 60 or MCB 52 (or equivalent), and one additional course in molecular and cellular biology.

### **[MCB 188. Chromosomes]**

Catalog Number: 8561

*Nancy Kleckner*

*Half course (spring term). Tu., Th., 2–4.*



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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* LS 1b or equivalent, MCB 60 or MCB 52 and MCB 54.

### **MCB 192. Principles of Drug Discovery and Development**

Catalog Number: 2188 Enrollment: Limited to 40.

*Gregory L. Verdine*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This interdisciplinary course will examine the process of drug discovery and development through disease-driven examples. Topics include: the efficacy/toxicity balance, the differences between drugs and inhibitors, and the translation of cellular biochemistry to useful medicine.

*Note:* May not be taken concurrently with SCRB 192. May not be taken for credit if SCRB 192 has already been taken.

*Prerequisite:* MCB 60 or MCB 52 and one year of organic chemistry.

### **[MCB 195. Foundations of Systems Biology and Biological Engineering]**

Catalog Number: 9112

*Philippe Cluzel*

*Half course (spring term). Tu., Th., 10–11:30.*

This course builds an understanding of design principles in biology. We will ask why biological circuits are built the way they are and answer using mathematical models. Topics: elementary circuits in biological networks, robustness, pattern-formation in embryos, error-correction, and evolutionary optimization.

*Note:* Expected to be given in 2015–16. Students from physics, engineering and other disciplines are also welcome.

*Prerequisite:* LPS A or LS 1a, LS 1b and Mathematics 1a/1b, and molecular cell biology at the level of MCB 60 or MCB 52 and MCB 54. Familiarity with mathematics at the level of 19/20 is strongly recommended.

### **[MCB 198. Advanced Mathematical Techniques for Modern Biology ]**

Catalog Number: 62117 Enrollment: Limited to 20.

*Sharad Ramanathan and L. Mahadevan*

*Half course (spring term). Tu., Th., 10-11:30, and a one-hour section meeting weekly.*

How do we find biologically meaningful patterns in a large amount of data? How do animals learn to use patterns in the environment to infer information despite the ignorance of the underlying laws? The course will introduce Bayesian analysis, maximum entropy principles, hidden markov models and pattern theory in order to study DNA sequence, gene expression and neural spike train data. The relevant biological background will be covered in depth.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* A strong background in calculus, linear algebra, fourier analysis, complex analysis



at the advanced undergraduate level and an introductory knowledge of probability theory is required. Knowledge of statistical mechanics and comfort with programming will be useful.

### **MCB 199. Statistical Thermodynamics and Quantitative Biology**

Catalog Number: 9072

*David R. Nelson*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

Course seeks to develop an understanding of thermodynamics and statistical mechanics, with applications to quantitative problems in biology such as configurations of biopolymers, equilibrium states of matter, chemical reactions and protein transport, using the concepts of entropy, free energy, adsorption, chemical kinetics and molecular diffusion.

*Prerequisite:* Two terms of college calculus, a calculus-based physics course, and some exposure to molecular and cellular biology. Experience with statistics and differential equations not essential, but helpful.

#### ***Cross-listed Courses***

#### **Applied Mathematics 126. Statistics and Inference in Biology**

#### **Life Sciences 120. Global Health Threats**

#### ***Primarily for Graduates***

#### **[MCB 206. Introduction to Connectomics]**

Catalog Number: 2303

*Jeff W. Lichtman and R. Clay Reid (Medical School)*

*Half course (spring term). Tu., 3:30–6:30.*

Focuses on how the tools of connectomics (nanoscale imaging, nanoscale and microscale cutting, fluorescent and electron-dense staining, image analysis algorithms) generate data about neural connectivity. Case studies: *C. elegans*, neuromuscular junction, retina, cortex.

*Note:* Expected to be given in 2015–16. This course will be taught by Harvard and MIT faculty, alternating meeting locations on both the Harvard and MIT campuses.

#### **\*MCB 208. Talking about Science**

Catalog Number: 3605 Enrollment: Limited to 30.

*Jeff W. Lichtman and Michael E. Greenberg (Medical School)*

*Half course (fall term). W., 5–7:30 p.m. EXAM GROUP: 17*

Teaches advanced students how to give a good research talk while exposing them to seminal scientific discoveries. Emphasis will be on speaking style, lecture organization, and use of video projection tools.

*Note:* In addition to lecture material from the instructor, students will present experiments from Nobel Prize-winning work. The presentations will be critiqued in class by the participants. Open to second year graduate students or with permission of the instructor.

#### **MCB 212. Topics in Biophysics**

Catalog Number: 3351

*Howard C. Berg*



*Half course (spring term). F., 2:30–4. EXAM GROUP: 18*

Motility and sensory transduction; chemotaxis in bacteria; flagellar motility; prokaryotic and eukaryotic motor molecules.

*Note:* Offered in alternate years. A term paper and seminar are required.

### **MCB 290hfr. Current Topics in Molecular, Cellular and Organismal Biology**

Catalog Number: 31903

*Vladimir Denic, and members of the Department*

*Half course (throughout the year). F., at 3:30. EXAM GROUP: Fall: 6; Spring: 17*

This class teaches students how to publicly present scientific papers to a diverse audience with emphasis on contextualizing the scientific problem under discussion, critically presenting the essential data, and using an engaging presentation style.

*Note:* Required for all first and second year graduate students in the Molecules, Cells and Organisms (MCO) Training Program. This course must be taken Sat/Unsat.

### **MCB 291. Genetics, Genomics and Evolutionary Biology**

Catalog Number: 2833

*Elena M. Kramer, James Mallet, and John L. Rinn*

*Half course (fall term). M., W., 10–11:30, F., 10–12. EXAM GROUP: 5*

This course covers the fundamentals of classical genetics, molecular genetics, macro- and microevolution, phylogenetics, and developmental evolution. The emphasis is on major concepts and terminology, reading landmark primary literature, and acquainting students with research techniques.

*Note:* Required for first year graduate students in the Molecules, Cells and Organisms (MCO) Training Program.

### **MCB 292. Cellular Biology, Neurobiology and Developmental Biology**

Catalog Number: 4288 Enrollment: Limited to 30.

*Ethan Garner, Venkatesh N. Murthy, and Alexander F. Schier*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

The biology of the individual cell lies at the heart of multi-cellular phenomena such as development and neural function. This course will emphasize critical evaluation of the primary literature, experimental design and scientific writing.

*Note:* Required for first year graduate students in the Molecules, Cells and Organisms (MCO) Training Program.

### **MCB 293. Biochemistry, Chemical and Structural Biology**

Catalog Number: 2706

*Andres Leschziner and Rachelle Gaudet*

*Half course (fall term). F., at 2, M., W., 2–4. EXAM GROUP: 1*

This course will introduce basic principles in general, organic and physical chemistry, including kinetics and thermodynamics, as well as macromolecular structure. Concepts will be illustrated with examples taken from the visual system.

*Note:* Required for first year graduate students in the Molecules, Cells and Organisms (MCO) Training Program.



### **MCB 294 (formerly MCB 225). Interesting Questions in Engineering and Physical Biology**

Catalog Number: 7646

*Nancy Kleckner and Mara Prentiss*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

Physical biology can be defined as a discipline that seeks to understand biological processes through the lens of physics and engineering. Faculty and students will unite to review current research with the aim of identifying and pondering interesting emerging questions in this area. Combination of lecture and discussion format. Comprises a series of two-week modules, most of which are given by a one or a pair of faculty drawn from MCB, Physics and SEAS.

*Note:* Intended primarily for first year graduate students in the EPB PhD track of the MCO program but available to other graduate students and advanced undergraduates as space permits.

#### ***Cross-listed Courses***

#### **BCMP 234. Cellular Metabolism and Human Disease**

[**Physics 269r. Topics in Statistical Physics and Physical Biology**]

#### ***Graduate Courses of Reading and Research***

##### **\*MCB 300. Introduction to Research**

Catalog Number: 4816

*Catherine Dulac 2801 and members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

##### **\*MCB 301. Synapse Formation**

Catalog Number: 3935

*Joshua R. Sanes 5094*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

##### **\*MCB 304. Experimental Biological Physics and Quantitative Cell Biology**

Catalog Number: 5730

*Daniel Joseph Needleman 6151*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

##### **\*MCB 305. Signaling Processing and Systems Biology**

Catalog Number: 1443

*Sharad Ramanathan 6015 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

##### **\*MCB 306. Biophysics and Physiology of Neurons**

Catalog Number: 1695

*Venkatesh N. Murthy 2424*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

##### **\*MCB 307. Developmental Genetics and Neurobiology**

Catalog Number: 8554



*Alexander F. Schier 5238*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*MCB 308. Quantitative Analysis of Regulatory Networks**

Catalog Number: 2226

*Erin K. O'Shea 5239*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*MCB 309. Sensory Processing in Visual Cortical Circuits**

Catalog Number: 92836

*David Cox 7161*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*MCB 310. Optical Approaches to Understanding Prokaryotic Cellular Organization**

Catalog Number: 17979

*Ethan Garner 6700*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*MCB 312. Military and Arms Control Applications of Biology and Chemistry**

Catalog Number: 2063

*Matthew Meselson 1319*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*MCB 315. Structural Biology of Signaling and Transport Through Biological Membranes**

Catalog Number: 9560

*Rachelle Gaudet 4413*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*MCB 316. Structural Biology of Retroviral Replication**

Catalog Number: 8769

*Victoria M. D'Souza 5584*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*MCB 322. Genetics and Development**

Catalog Number: 7290

*Craig P. Hunter 2803*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*MCB 326. Biochemical Virology**

Catalog Number: 0243

*Raymond L. Erikson 7506*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*MCB 328. Neuronal Circuit Development**

Catalog Number: 5728



*Takao K. Hensch 5813*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*MCB 329. Structural Biology of ATP-Dependent Chromatin Remodeling**

Catalog Number: 6060

*Andres Leschziner 5928*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*MCB 330. Mechanisms of DNA Transport Across Membranes**

Catalog Number: 7228

*Briana Burton 6214*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*MCB 331. Single-Cell Analysis of Transcriptional and Signaling Networks in Bacteria**

Catalog Number: 4064

*Philippe Cluzel 6215 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*MCB 332. Mechanisms of Membrane-Based Cell Biological Processes**

Catalog Number: 9806

*Vladimir Denic 6216*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*MCB 344. Molecular and Developmental Neurobiology**

Catalog Number: 2292

*Catherine Dulac 2801*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*MCB 350qc. Scientific Integrity - (New Course)**

Catalog Number: 79043

*Richard M. Losick 3561 and Matthew Meselson 1319*

*Quarter course (spring term). Three sessions from December 10-12, 2-4pm and one concluding session February 13, 2015 from 10am-1pm. EXAM GROUP: 11*

MCB 350qc is a discussion forum on scientific integrity using case studies to examine basic ethical and regulatory requirements for conducting research, and fulfills the National Institutes of Health (NIH) and National Science Foundation (NSF) requirements for formal Responsible Conduct of Research (RCR) instruction. Students are required to complete a pre-course assignment, attend all lectures including the final lecture in February, participate in class discussions, and complete a final course evaluation. A certificate will be issued upon successful completion of the course.

*Note:* According to NIH Guidelines, students are required to take a Scientific Integrity Refresher Course every four years (\*MCB 351qc).

**\*MCB 351qc. Scientific Integrity Refresher - (New Course)**

Catalog Number: 34222

*Samuel M. Kunes 3486*



*Quarter course (spring term). . EXAM GROUP: 16*

MCB 351qc is a refresher course in the Responsible Conduct of Research which must be completed by graduate students in the MCO PhD program every 4 years, and fulfills the National Institutes of Health (NIH) and National Science Foundation (NSF) requirements for formal Responsible Conduct of Research (RCR) instruction.

**\*MCB 352qc. Microscopy - (New Course)**

Catalog Number: 56922

*Jeff W. Lichtman 5163 and Douglas Scott Richardson 7858*

*Quarter course (spring term). Two Sessions in January 6-7, Hours TBA. EXAM GROUP: 6*

This course presents the fundamental concepts that underlie modern light microscopy in a rigorous but non-mathematical way for biological applications. The students will learn about the four major frameworks for light (ray optics, wave optics, electromagnetism, and quantum optics). The ways lenses work, the theory of resolution, and the optical design of the compound microscope will be described. The course will also describe the photo-physical principles that underlie fluorescence and genetically encoded fluorescent proteins, and light detector and imaging strategies. Scanning (confocal and 2P), light sheet and super-resolution microcopies will also be described. We will end with a tour of the Harvard Center of Biological Imaging.

**\*MCB 359. Chromosomes**

Catalog Number: 6278

*Nancy Kleckner 4697 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*MCB 363. Invertebrate Development and Transcriptional Circuitry**

Catalog Number: 15771

*Susan Mango 6386*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*MCB 366. Synaptic Plasticity and Neuronal Networks**

Catalog Number: 1085

*Florian Engert 4290*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*MCB 367. Structural Studies of Synapses**

Catalog Number: 1850

*Jeff W. Lichtman 5163*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*MCB 368. Neural Circuits for Sensation and Behavior**

Catalog Number: 30878

*Naoshige Uchida 5745 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*MCB 374. Developmental Neurobiology**

Catalog Number: 6167



*Samuel M. Kunes 3486*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*MCB 377. Genetics and Development**

Catalog Number: 5598

*William M. Gelbart 4774*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*MCB 378. Motile Behavior of Bacteria**

Catalog Number: 5729

*Howard C. Berg 1377 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*MCB 379. Social Behaviors and Genetics of Bacteria**

Catalog Number: 10595

*Karine A. Gibbs 6592*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*MCB 381. Microbial Development**

Catalog Number: 4994

*Richard M. Losick 3561*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*MCB 386. Molecular Evolution**

Catalog Number: 0763

*Matthew Meselson 1319*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*MCB 390. Function of Neuronal Circuits**

Catalog Number: 8883

*Markus Meister 3007*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*MCB 391. Biochemistry**

Catalog Number: 4888

*Guido Guidotti 1203*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*MCB 396. Regulation of Mitosis**

Catalog Number: 5706

*Andrew W. Murray 3765*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*



# Music

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Department of Music*

Carol J. Oja, William Powell Mason Professor of Music (*Chair*)

Carolyn Abbate, Paul and Catherine Buttenwieser University Professor (*on leave 2014-15*)

Tamar Barzel, Lecturer on Music

Richard Beaudoin, Preceptor in Music

Jessica E. Bodner, Visiting Lecturer on Music

Daniel T. Chong, Visiting Lecturer on Music

Andrew Gregory Clark, Senior Lecturer on Music and Director of Choral Activities

Suzannah Clark, Professor of Music (*on leave 2014-15*)

Federico Cortese, Senior Lecturer on Music and Director of the Harvard-Radcliffe Orchestra

Chaya Czernowin, Walter Bigelow Rosen Professor of Music

Emily Dolan, Gardner Cowles Associate Professor of Music

Scott L. Edwards, Lecturer on Music

Andrew Moses Friedman, Lecturer on Music

Christopher Hasty, Walter W. Naumburg Professor of Music

Daniel Artie Henderson, Lecturer on Music

Vijay Iyer, Franklin D. and Florence Rosenblatt Professor of the Arts

Jill Johnson, Senior Lecturer on Music and Director of Dance

Thomas Forrest Kelly, Morton B. Knafel Professor of Music

Kee-Hyun Kim, Visiting Lecturer on Music

Matthew J. McDonald, Visiting Associate Professor of Music

Ingrid Monson, Quincy Jones Professor of African-American Music, Supported by the Time Warner Endowment

Rowland Paul Moseley, Lecturer on Music

Osnat Netzer, Preceptor in Music

Michael J. Pisaro, Fromm Foundation Visiting Professor of Music

Alexander Rehding, Fanny Peabody Professor of Music (*on leave 2014-15*)

Sindhumi Revuluri, Associate Professor of Music (*Head Tutor of Undergraduate Studies*)

Janet Schmalfeldt, Visiting Professor of Music

Kay Kaufman Shelemay, G. Gordon Watts Professor of Music and Professor of African and African American Studies (*Director of Graduate Studies*)

Anne C. Shreffler, James Edward Ditson Professor of Music (*on leave spring term*)

Hans Tutschku, Fanny P. Mason Professor of Music

Kate van Orden, Professor of Music (*on leave 2014-15*) (*on leave spring term*)

Richard K. Wolf, Professor of Music

Ying Xue, Visiting Lecturer on Music



### ***Other Faculty Offering Instruction in Music***

Daniel Albright, Ernest Bernbaum Professor of Literature  
 Robert D. Levin, Dwight P. Robinson, Jr. Professor of Music, Emeritus

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 97 courses may be taken in any order and may also be taken in the freshman year. Depending on your interests and level of preparation, other courses in composition and/or performance may also be chosen as entry points to the study of Music at Harvard. Students not intending to concentrate in Music are warmly welcomed to take courses in music history, ethnomusicology, theory, composition, and performance.

#### ***Primarily for Undergraduates***

##### **Music 1. 1000 Years of Listening - (New Course)**

Catalog Number: 55044

*Emily Dolan*

*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 1*

This course aims to introduce you to a variety of music, and a range of ways of thinking, talking and writing about music. The majority of music dealt with will be drawn from the so-called "Classical" repertory, from the medieval period to the present day, including Monteverdi, Bach, Handel, Mozart, Beethoven, Schumann, and Schoenberg. Class will explore the technical workings of music and together we will build a vocabulary for analyzing music and articulating a response to it; we will explore music as a cultural phenomenon. By the end of class, students will be equipped to embark on a lifetime of informed listening.

*Note:* May not be taken for concentration credit. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

##### **[Music 1a. Introduction to Western Music from the Middle Ages to Mozart]**

Catalog Number: 8071

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16. Music 1a can be taken independently of Music 1b. No prior knowledge of music is presumed. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past. May not be taken for concentration credit.

##### **[Music 1b. Introduction to Western Music from Beethoven to the Present]**

Catalog Number: 4952

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16. Music 1b can be taken independently of Music 1a. No



prior knowledge of music presumed. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past. May not be taken for concentration credit.

### **Music 2. Foundations of Tonal Music I**

Catalog Number: 0645 Enrollment: Limited to 108.

*Osnat Netzer*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

Seeks to develop a greater understanding of music, musical analysis, and critical listening. We will study some of the organizing principles of musical works (from a range of styles) by means of composition projects, score analysis, and aural skills. 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 credit. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

### **\*Music 4. Introduction to Composition**

Catalog Number: 2239 Enrollment: Limited to 16.

*Osnat Netzer*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

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:* Some prior experience in music theory or permission of the instructor.

### **[Music 6. Harmony in Electronic Dance Music]**

Catalog Number: 96549

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16. To acquire permission, consult the iSite for further details.

### **\*Music 10hfr. Harvard-Radcliffe Orchestra**

Catalog Number: 77319 Enrollment: By audition prior to first class meeting of the year.

*Federico Cortese*

*Half course (throughout the year). M., Th., 7–9:30 p.m. EXAM GROUP: Fall: 17; Spring: 13*

This is an experiential learning course. The ensemble gives several concerts each year, sometimes joining with the chorus to perform large-scale works. Students are required to attend all rehearsals and certain special Saturday "retreats" announced in advance. Students are expected to practice the music outside the rehearsal time. Grades are based on attendance and



participation.

*Note:* The course is graded SAT/UNSAT based on attendance and participation. This course may be taken repeatedly, but to receive credit the course must be taken in the Fall and Spring semesters consecutively. A maximum of four semesters (two years) may be counted as credit towards the degree.

### **\*Music 12hfr. The Harvard Dance Project**

Catalog Number: 56909 Enrollment: Students chosen by workshop audition held at the start of the fall semester.

*Jill Johnson*

*Half course (throughout the year). Tu., Th., 3–6. EXAM GROUP: Fall: 2; Spring: 16*

The Harvard Dance Project (HDP) cultivates invention. This faculty-led, student performance company gives students the opportunity to be original cast members and collaborators in two or more diverse dance works created by professional choreographers, including a new installation by Dance Director, Jill Johnson, in the fall term of 2014. The project focuses on performance research, collaboration, and choreographic composition, and links choreographic thinking to other fields. It is a studio based course which includes at least nine performances at major venues on campus. The HDP aims to cultivate invention, foster the courage of artistry, and expose students to top artists in the field today.

*Note:* The course is graded SAT/UNSAT based on attendance and participation. This course may be taken repeatedly, but to receive credit the course must be taken in the Fall and Spring semesters consecutively. A maximum of four semesters (two years) may be counted as credit towards the degree.

### **\*Music 14hfr. Harvard-Radcliffe Collegium Musicum**

Catalog Number: 37923 Enrollment: By audition prior to first class meeting.

*Andrew Gregory Clark*

*Half course (throughout the year). Fall: Tu., W., 4:15–6:30. EXAM GROUP: Fall: 16; Spring: 14*

Harvard-Radcliffe Collegium

*Note:* The course is graded SAT/UNSAT based on attendance and participation. This course may be taken repeatedly, but to receive credit the course must be taken in the Fall and Spring semesters consecutively. A maximum of four semesters (two years) may be counted as credit towards the degree.

### **\*Music 15hfr. Harvard Glee Club**

Catalog Number: 38516 Enrollment: By audition prior to first class meeting.

*Andrew Gregory Clark*

*Half course (throughout the year). M., W., 4:15–6:30. EXAM GROUP: Fall: 17; Spring: 13*

Harvard Glee Club

*Note:* The course is graded SAT/UNSAT based on attendance and participation. This course may be taken repeatedly, but to receive credit the course must be taken in the Fall and Spring semesters consecutively. A maximum of four semesters (two years) may be counted as credit towards the degree.



### **\*Music 16hfr. Radcliffe Choral Society**

Catalog Number: 61787 Enrollment: By audition prior to first class meeting.

*Andrew Gregory Clark*

*Half course (throughout the year). M., 7-9 p.m., W., 4:15-6:30. EXAM GROUP: Fall: 17;*

*Spring: 13*

Radcliffe Choral Society

*Note:* The course is graded SAT/UNSAT based on attendance and participation. This course may be taken repeatedly, but to receive credit the course must be taken in the Fall and Spring semesters consecutively. A maximum of four semesters (two years) may be counted as credit towards the degree.

### **\*Music 51a. Theory Ia**

Catalog Number: 2261

*Richard Beaudoin*

*Half course (fall term). W., 2-4. EXAM GROUP: 7*

Course unfolds the foundations of tonal music, including line, harmony, counterpoint, rhythm, timbre, and form. Includes regular practical exercises in model composition, analysis, ear-training, keyboard skills, and musicianship.

*Note:* For this course a placement exam is required, which is offered the week before classes begin. Please contact the Music Department for further information. Music 51a 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. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

*Prerequisite:* Basic theory and ear training skills. Basic keyboard skills are useful.

### **\*Music 51b. Theory Ib**

Catalog Number: 9585

*Richard Beaudoin*

*Half course (spring term). W., 2-4. EXAM GROUP: 4*

Continuation of the principles in Music 51a. Course engages advanced topics in harmony, counterpoint, rhythm, timbre and form. Includes regular practical exercises in model composition, analysis, ear-training, keyboard skills and musicianship.

*Note:* Music 51b 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. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

*Prerequisite:* Music 51a.

### **\*Music 91r. Supervised Reading and Research**

Catalog Number: 1298

*Sindhumi Revuluri and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6;*

*Spring: 17*

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 Head Tutor. May be counted for concentration *only* with the prior approval of the Department.

### **\*Music 97a. Music History and Repertory: Medieval to Baroque**

Catalog Number: 0113

*Thomas Forrest Kelly*

*Half course (spring term). M., W., F., at 10. EXAM GROUP: 5*

An intensive survey of Western music from the middle ages to ca. 1750, providing methods of further study of music in historical and cultural contexts as well as knowledge of repertory.

*Note:* Music 97 is required of all concentrators, preferably taken in the sophomore year, or earlier by permission. Each third 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 97b. Music History & Repertory: Classical to Contemporary]**

Catalog Number: 71121

*Half course (spring term). M., W., F., at 10.*

A survey of Western classical music from the 18th to the 21st centuries, continuing from Music 97a. The course emphasizes listening, analysis, and historical context. Two semesters of Music 97 are required of all concentrators, preferably taken in the sophomore year, or earlier by permission.

*Note:* Expected to be given in 2015–16. Music 97 is required of all concentrators, preferably taken in the sophomore year, or earlier by permission. Each third 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 97c. Music History and Repertory: Music in Cross-Cultural Perspective**

Catalog Number: 36288

*Kay Kaufman Shelemyay*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

An introduction to selected world music repertoires (in this case, traditions from Africa, the Middle East, and Southeast Asia), as well as research methods and interpretive issues in the field of ethnomusicology.

*Note:* Music 97 is required of all concentrators, preferably taken in the sophomore year, or earlier by permission. There are no pre-requisites. Students from other departments are warmly invited.

### **\*Music 98r. Tutorial — Junior Year**

Catalog Number: 5601

*Sindhumi Revuluri and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 13*



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.

*Note:* With permission, may be taken for a second term.

### **\*Music 99r. Tutorial — Senior Year**

Catalog Number: 1765

*Sindhumathi Revuluri and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 9; Spring: 2*

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.

### ***For Undergraduates and Graduates***

### **\*Music 103r. Masterwork: The Choreographic Process of William Forsythe**

Catalog Number: 52654 Enrollment: Limited to 15.

*Jill Johnson*

*Half course (spring term). W., F., 3–6. EXAM GROUP: 17*

A comprehensive study of a William Forsythe work with one of his closest collaborators. Students will watch rare rehearsal and performance footage, and examine all aspects of the choreographic process from the first movement sketches to compositional modalities, lighting, music, and dramaturgical design. A unique, rigorous and interdisciplinary course of study which will include a collaborative process to create an original dance work for performance, and expose students to all aspects of a master work by a preeminent American dance innovator.

*Note:* Enrollment determined by interview during the first week of class.

*Prerequisite:* Previous dance experience required.

### **\*Music 105r. Fundaments of Improvisation & Composition, Dance**

Catalog Number: 58855 Enrollment: Limited to 15.

*Jill Johnson*

*Half course (fall term). W., F., 3–5. EXAM GROUP: 6*

Students will investigate fundamental skills of improvisation and composition. The course will employ a series of specific physical tasks and systems, taught through intensive exercises and guided improvisations which generate and modify movement and link the mind and body to innovation.

*Note:* Enrollment determined by interview during the first week of class.

*Prerequisite:* Previous dance experience required.

### **\*Music 121a. Choral Conducting**

Catalog Number: 1550 Enrollment: Limited to 12.

*Andrew Gregory Clark*

*Half course (spring term). M., W., 12–1:30. EXAM GROUP: 7*

This course will introduce the vocabulary and skills necessary for a conductor to communicate with an ensemble. Through repertoire of various eras, students will apply score reading and analysis skills, explore rehearsal methods, and consider the application of vocal pedagogy in



ensemble singing. Students will conduct a professional vocal ensemble in the final project. Two 90-minute classes.

*Note:* Individual sections will be scheduled.

*Prerequisite:* Background in music theory, some keyboard skill, participation in a choral or vocal ensemble, and permission of instructor.

### [\*Music 123r. Choral Literature of the 20th & 21st Century]

Catalog Number: 26522 Enrollment: Limited to 20.

*Andrew Gregory Clark*

*Half course (spring term). Tu., 1–3.*

*American Choral Music During World War II.* In the America of the 1940s, concert music attained an unprecedented cultural relevance and ubiquity that is hard to imagine today. During the Second World War, choral music in particular was called upon to fulfill a cultural desire for fervent public expressions of patriotism and national chauvinism. Music was politicized and harnessed for numerous war-related tasks, including propaganda, cultural diplomacy, therapeutic recuperation, and social uplift. One could argue that American musical identity itself was forged during this time of crisis. This course will trace the historical currents and themes of American choral music from 1940-1950 through the study of representative choral works. Using various archives at Harvard, students will also examine the choral scene at the University during World War II, including the repertoire, activities, and the membership profile of the Harvard Glee Club, Radcliffe Choral Society, and the University Choir. An extensive background in music theory and choral music repertoire is not required, but a familiarity with Western music notation will be assumed.

*Note:* Expected to be given in 2015–16.

### [\*Music 125a. Beginning Orchestration and Conducting]

Catalog Number: 8397

*Federico Cortese*

*Half course (spring term). M., 1–4.*

Studies in basic conducting skills related to exercises in 17th- and 18th-century orchestration. Demonstration of stringed instruments.

*Note:* Expected to be given in 2015–16. May not be counted for concentration credit. May be taken by students from other departments with permission of instructor.

*Prerequisite:* Music 51 or permission of instructor.

### [\*Music 127r. Advanced Conducting]

Catalog Number: 68953 Enrollment: Limited to 6. By audition only.

*Federico Cortese*

*Half course (spring term). M., 1–4.*

The course focuses on parallel development of the symphonic and quartet style in Beethoven. Conductors will learn the basic technique and rehearsal skills while conducting the works with two pianos and a string group. String players will perform the selected Beethoven quartets and also serve as a string group for the conductors. A moderate amount of analysis and historical background of the pieces will be discussed.

*Note:* Expected to be given in 2015–16. At the first class meeting appropriate skills levels will be evaluated.



**[\*Music 128r. Workshop on Opera]**

Catalog Number: 12841 Enrollment: Limited to 12.

*Federico Cortese*

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16. Open to singers and conductors.

**Music 150a. Theory IIa**

Catalog Number: 4771

*Andrew Moses Friedman*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Continues the work of Music 51. The fall term focuses on the Classical style (Haydn, Mozart, Beethoven and their contemporaries). Topics include harmony, phrase structure, and musical forms. Concepts are developed through written & aural analysis, model composition, keyboard harmony and ear-training exercises.

*Note:* Required of all concentrators.

*Prerequisite:* Music 51 or equivalent.

**Music 150b. Music Theory IIb**

Catalog Number: 36063

*Richard Beaudoin*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

Explores chromatic harmony in 19th-century instrumental and vocal forms. Concepts are developed through analysis, model composition, keyboard harmony and ear-training exercises.

*Note:* Required of all concentrators.

*Prerequisite:* Music 150a.

**[Music 151. Tonal Analysis]**

Catalog Number: 6830

*Half course (spring term). W., 2–4.*

Intensive study of tonal theory and methods of analysis through a detailed examination of music from the late eighteenth and nineteenth centuries. Students are introduced to the history of music theory, as well as numerous modern theoretical and analytical techniques.

*Note:* Expected to be given in 2015–16. Open to graduate students.

*Prerequisite:* Music 150a.

**Music 152. Post-Tonal Analysis**

Catalog Number: 4397

*Christopher Hasty*

*Half course (fall term). F., 1–3. EXAM GROUP: 1*

Intensive survey of compositional styles and techniques of the last 100 years. Traditional pitch-centered analysis, including set theory, as well as approaches focusing on rhythm, timbre, gesture, and other elements.

*Prerequisite:* Music 150 or permission of instructor.



### **Music 153. Jazz Harmony**

Catalog Number: 10693

*Daniel Artie Henderson*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Learn both the theory and the practice of the wonderful world of Jazz Harmony. By closely listening to and analyzing selected compositions from the Jazz tradition (Ellington, Monk, Jobim, Wayne Shorter, etc.) and from outside the Jazz tradition (Ravel, Debussy, Stevie Wonder, etc.), you will learn how Jazz harmony is used to add emotion, meaning, and richness to music. Then, compose your own music! Midterm and final projects are original compositions by you, performed and recorded live in class by professional jazz musicians of the highest caliber.

*Note:* A working knowledge of basic music theory, including the ability to notate music. Music 2 and/or Music 51 are recommended. Strongly recommended for those planning to take Music 186r.

### **[Music 155. Modal Counterpoint]**

Catalog Number: 7710

*Christopher Hasty*

*Half course (fall term). W., 2–4.*

Study of representative styles and genres of 16th-century polyphony. Detailed analytic work will be combined with compositional exercises.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Music 150 or permission of instructor.

### **Music 156. Tonal Counterpoint: Seminar**

Catalog Number: 3930

*Rowland Paul Moseley*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

Study of counterpoint: the rules and methods for combining voices and creating certain polyphonic forms (notably canon and fugue). By examining and performing music by past masters, and completing composition assignments, students gain expertise in the contrapuntal foundations of Western tonal music. The course focuses on repertoires by Corelli (trio sonatas), Handel and Mozart (operatic duets), and Haydn (fugues), and it thematizes the wider significance of trio textures. As well as building skills in composition, analysis, and musicianship, lectures tell a history of the music and technique studied.

*Prerequisite:* Music 150 or permission of instructor.

### **Music 157gew. South Indian Music Theory & Practice**

Catalog Number: 54037

*Richard K. Wolf*

*Half course (spring term). M., W., F., at 9. EXAM GROUP: 10*

Analysis of contemporary south Indian classical composition and improvisational forms.

Students will learn to sing or play an instrument and may participate in a concert at the end of the semester.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.



**[Music 157r. Theories of World Music]**

Catalog Number: 41629

*Richard K. Wolf*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16. Music 150 or permission of instructor.

**[Music 158r. Interpreting Musical Performance]**

Catalog Number: 9813

*Christopher Hasty*

*Half course (fall term). Hours to be arranged.*

*Analyzing Performance.* Analysis of pieces aimed at discovering and evaluating possibilities for execution and perception. Repertory includes fully notated music and music that has no tradition of notation. Questions addressed are those of perception, notation, and adequacy of conventional analytic categories.

*Note:* Expected to be given in 2015–16. Open to graduate students.

*Prerequisite:* Music 150 or permission of instructor.

**[Music 159r. Analysis: Repertory]**

Catalog Number: 38768

*Half course (spring term). M., 2–4.*

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Two semesters of theory or permission of the instructor.

**\*Music 160r. Composition: Proseminar**

Catalog Number: 8026 Enrollment: Limited to 12.

*Richard Beaudoin*

*Half course (fall term). Tu., 3–5. EXAM GROUP: 2*

Open to students prepared for individual work in composition. Incorporates readings and final performance of students' work.

*Prerequisite:* One course in theory/composition or permission of the instructor.

**\*Music 161r. Advanced Composition**

Catalog Number: 6714

*Chaya Czernowin*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

Advanced course in musical composition. Focus on the string quartet, including contemporary repertoire survey, short exercises, and a final project of modest dimensions. Consists of a mixture of one-on-one and group meetings.

*Prerequisite:* One course in theory/composition or permission of the instructor.

**\*Music 167r. Introduction to Electroacoustic Music**

Catalog Number: 3806 Enrollment: Limited to 10.

*Hans Tutschku*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

Composition and performance with analogue and digital electronic media. Projects realized using



recording gear and computers; study of relevant aspects of acoustic and electronic theory; repertoire since 1948 of *musique concrète*, acousmatic, and live-electronic music; synthesis, sampling, digital recording, and live performance techniques. Hands-on work will culminate in a final performance of individual projects.

*Prerequisite:* One course in theory/composition or permission of instructor.

### **Music 173r. Creative Music: Critical Practice Studio**

Catalog Number: 66684 Enrollment: Limited to 20. Open by submission of recordings; details below in Note.

*Vijay Iyer*

*Half course (spring term). Tu., 12–2. EXAM GROUP: 9*

This course is an intensive, research-oriented workshop environment for advanced improviser-composers. Open to both undergraduate and graduate students. Through critical listening, readings, term papers, and collaborative musical projects, students will engage with a range of contemporary musical perspectives and practices. Graduate students are welcome.

*Note:* Between December 22 and January 12, each student should submit a recording, up to fifteen minutes in length, of your performance, solo or with a group, of your own compositions or those of others, and featuring solo or group improvisation. Please provide details about the music -- instrumentation, repertoire, personnel, date of recording, and any other relevant descriptive information. Audio should be submitted via sharing links to YouTube, Soundcloud, Dropbox, or similar. Submit links to [vijayiyer@fas.harvard.edu](mailto:vijayiyer@fas.harvard.edu). Please do not email files. No applications will be accepted earlier than December 22 or later than January 12.

### **Music 175r. Special Topics**

Catalog Number: 32166

*Federico Cortese*

*Half course (fall term). Th., 1–4. EXAM GROUP: 8*

*Schubert.* Course explores the poetry, music and life in Schubert's time. Performance and analysis of song cycles and chamber music. Course includes strong performance component.

*Note:* Open to singers, pianists and instrumentalists.

### **[\*Music 180r. Performance and Analysis: Seminar]**

Catalog Number: 2294

*Half course (fall term; repeated spring term). Tu., 7-10 pm.*

Weekly master classes and intermittent private coachings.

*Note:* Expected to be given in 2015–16. Open to singers and instrumentalists. By audition only, prior to the first meeting.

### **[\*Music 181r. Performance and Interpretation: Renaissance Music]**

Catalog Number: 70749 Enrollment: Limited to 9. Open to concentrators and non-concentrators.

*Kate van Orden*

*Half course (fall term). W., 2–5.*

In this course, you become an amateur musician in Renaissance England and learn to play the viola da gamba in a consort. Through this combination of research and hands-on learning, we investigate repertory, culture and musical life circa 1600.



*Note:* Expected to be given in 2015–16. May be taken by students from other departments with permission of instructor.

### **[\*Music 185r. Classical Improvisation]**

Catalog Number: 72478 Enrollment: Limited to 12.

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

Course will identify the contexts and theoretical concepts of 18th and early 19th century improvisation in vocal and instrumental music. Authentic written-out embellishments and cadenzas by composers and their contemporaries will be studied and used as a basis for both written and improvised work, to include decoration, cadenzas, preludes, modulating preludes, and free fantasies.

*Note:* Expected to be given in 2015–16. By audition only, prior to the first class.

### **Music 186r. Jazz Improvisation**

Catalog Number: 40907 Enrollment: Auditions will be held during the first week of class to determine which ensemble you will join; in the rare case that too many students play the same instrument, auditions will determine class placement.

*Daniel Artie Henderson*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Our theme: learn how they did it, and then do it yourself. Through listening, transcription, analysis, and performance, we will guide you as you discover the unique skills and sounds of your favorite jazz musicians. Learn about melodic interpretation, ensemble interaction, rhythm, articulation, phrasing, and style. Section meeting is actually ensemble, where your small jazz ensemble will try to apply the concepts learned in lecture. Final performance project: a recording session at which you and your peers will perform and record your own arrangements or compositions.

*Note:* Vocalists and instrumentalists of all types are welcome.

*Prerequisite:* Music 153 (Jazz Harmony), or a working knowledge of jazz harmony as demonstrated to the teaching staff during the first week of class.

### **\*Music 189r. Chamber Music Performance - (New Course)**

Catalog Number: 77158 Enrollment: Auditions Required. See below for dates/times.

*Jessica E. Bodner, Daniel T. Chong, Kee-Hyun Kim, and Ying Xue*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

Through auditions, students will be divided into chamber music ensembles by the Parker Quartet and have weekly coachings with members of the Parker Quartet and Heng-Jin Park of the Boston Trio. Students will be expected to rehearse between each coaching and to participate in chamber music studio classes throughout the semester, which will be led by the Parker Quartet. Auditions will be held in the first week of the semester, either in conjunction with HRO auditions or on a separate non-HRO audition day. Students who do not meet the requirements below may take the course for SAT/UNSAT credit. Pre-formed ensembles are encouraged and will be accommodated as much as possible. Note: This course is only offered for a letter grade when students are involved in one or more of the following: music concentrator, enrolled in a music department course in the same semester, a member of a faculty-led ensemble. Students intending



to enroll in both the HRO and Music 189, auditions are held Sunday, August 31 and Monday, September 1 and Wednesday, September 3. Students interested in enrolling only in Music 189, auditions will be held Tuesday, September 2, 5:00 pm - 9:00 pm.

*Note:* This course is only offered for a letter grade when students are involved in one or more of the following: music concentrator, enrolled in a music department course in the same semester, a member of a faculty-led ensemble. Pre-formed ensembles are encouraged and will be accommodated as much as possible.

### **\*Music 189rs. Chamber Music Performance - (New Course)**

Catalog Number: 32211 Enrollment: Auditions Required. See below for dates/times.

*Kee-Hyun Kim, Jessica E. Bodner, Daniel T. Chong, and Ying Xue*

*Half course (fall term; repeated spring term). Tu., W., 7–10 p.m. EXAM GROUP: Fall: 16; Spring: 6*

Through auditions, students will be divided into chamber music ensembles by the Parker Quartet and have weekly coachings with members of the Parker Quartet and Heng-Jin Park of the Boston Trio. Students will be expected to rehearse between each coaching and to participate in chamber music studio classes throughout the semester, which will be led by the Parker Quartet. Auditions will be held in the first week of the semester, either in conjunction with HRO auditions or on a separate non-HRO audition day. Note: This course is only offered for Satisfactory/Unsatisfactory grade. The course listed above (Music 189r) may be taken for a letter grade. Students interested in enrolling only in Music 189, auditions will be held Tuesday, September 2, 5:00 pm - 9:00 pm. Note: This course is only offered for Satisfactory/Unsatisfactory grade. The course listed above (Music 189r) may be taken for a letter grade.

### **Music 190gew. Music in Islamic Contexts - (New Course)**

Catalog Number: 79553

*Richard K. Wolf*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

This course focuses on the arts of sound practiced by Muslims in India, Pakistan, and Iran, and on procedures of recitation that grow from pre-Islamic roots among Arabic-speaking peoples. The purposes are two-fold: one is to understand from a musically informed perspective a set of interrelated musical practices that cut across South and West Asia. The second is to understand how different ideologies, philosophies and texts - associated with Islam locally, nationally, and internationally - shape local understandings and constructions of sound.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief or Aesthetic and Interpretive Understanding, but not both.

### **[Music 190gw. South Indian Music]**

Catalog Number: 7577

*Richard K. Wolf*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16. By permission of instructor. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.



**[Music 190r. Topics in World Music: Proseminar]**

Catalog Number: 1312

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*Half course (fall term). W., 1–3.*

*Note:* Expected to be given in 2015–16. Students from other departments are warmly invited.

**[Music 191r. Topics in Medieval and Renaissance Music: Proseminar]**

Catalog Number: 2524

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*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16. May be taken by students from other departments with permission of instructor.

**Music 191rtkc. Chant**

Catalog Number: 44691

*Thomas Forrest Kelly*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

*Gregorian Chant.* From the time of Charlemagne until the 21st Century, the music called Gregorian chant has been in uninterrupted use in the West. This course will consider the music, the styles, the genres, and the sources of this music. Singing will be encouraged.

*Note:* May be taken by students from other departments with permission of instructor.

**Music 192r. Topics in Music from 1600–1800: Proseminar**

Catalog Number: 6726

*Emily Dolan*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

*Haydn and Mozart.* This course explores the lives and music of Joseph Haydn and Wolfgang Amadé Mozart, two composers who led powerfully contrasting but intertwined lives. We will study in depth the major genres of Enlightenment-era music in terms of style, structure, technique, and aesthetics. This course also covers the intellectual and social contexts in which Haydn and Mozart worked and the importance of their music within Enlightenment society.

*Note:* For music concentrators or with permission of instructor.

**Music 193r. Topics in Music from 1800 to the Present: Proseminar**

Catalog Number: 3741

*Carol J. Oja*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

*Blackface Minstrelsy in 19th Century America.* A theatrical genre that traded in racist caricature, blackface minstrelsy was one of the most popular entertainments of the 19th century U.S., with a legacy that has continued into American popular music and culture today. This course explores the historical development and intense paradoxes of blackface performance by drawing upon materials in the Harvard Theatre Collection, which houses one of the largest minstrelsy archives in the world. The class will culminate in curating an exhibit. Core aspects of the course include grappling with complex questions of racial stereotyping and exploring the banjo in sound and image. Guest experts include a banjo virtuoso, a performer in an African American string band, and a minstrelsy scholar.



*Note:* Ability to read musical notation helpful but not required. Open to undergraduates and graduate students. May be taken by students from other departments.

**[Music 193rca (formerly Music 193rs). Topics in Music from 1800 - Present]**

Catalog Number: 5935

*Carolyn Abbate*

*Half course (fall term). M., 2–4.*

*19th Century Opera.* The nineteenth-century saw a revolution in the aesthetics and cultural politics of opera. We will look at a series of works from Rossini to Debussy, with attention to libretti and their relationship to literature, musical design, and orchestration. In addition, we'll be considering present-day stagings of classic nineteenth-century works, especially those of Verdi and Wagner, and stage directors' interpretive interventions.

*Note:* Expected to be given in 2015–16. May be taken by students from other departments with permission of instructor.

**[Music 193rco. American Musical Theater]**

Catalog Number: 41958

*Carol J. Oja*

*Half course (fall term). W., 1–3.*

*Note:* Expected to be given in 2015–16. May be taken by students from other departments with permission of instructor.

**Music 193rs. Topics in Music from 1800 - Present - (New Course)**

Catalog Number: 29408 Enrollment: Limited to 20.

*Tamar Barzel*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

*Music, Identity, and Radical Poetics.* This course will explore the radical poetics of meaning developed by twentieth-century composer/improvisers, with a focus on the AACM, Asian improv, queercore, and Radical Jewish Culture scenes. Drawing on jazz's performance practices, these artists developed provocative ways of conceptualizing heritage, memory and identity, while transforming the ostensibly "unmarked" sound world of experimental music. With attention to the politics of gender, race and authenticity, we will engage their work through close listening, small-group discussions, and readings in critical theory and ethnomusicology. Students will conduct research projects (historical or ethnographic), culminating in a paper or combined paper-performance.

*Prerequisite:* One course in music theory/composition or jazz history, or permission of instructor.

**[Music 193rvo. Topics in Music from 1800 to the Present: Proseminar]**

Catalog Number: 41913

*Kate van Orden*

*Half course (spring term). Hours to be arranged.*

California in the 60s. This seminar examines American youth culture in the "long" 1960s through the lens of music in California. Both "popular" and "art" music will be considered, including the early minimalists, L.A. and the Laurel Canyon crowd, and San Francisco psychedelia. In addition to understanding musical forms, performance styles, and the effects of



technology (radio, recording, electric instruments), the class will delve into the politics of race, gender, and the draft.

*Note:* Expected to be given in 2015–16.

### **Music 194r. Special Topics**

Catalog Number: 98795

*Daniel Albright*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

*Shakespeare in Music.* The music of Shakespeare's own patterning of text, and the Shakespearean aspects of musical composition. Codes for interpreting dramatic music, both in Shakespeare's time and in the ages of Purcell, Berlioz, Verdi and Britten. We begin by looking at the role of music in the Elizabethan and Jacobean world: then on even-numbered weeks we will study a Shakespeare play (The Tempest, Romeo and Juliet, Macbeth, Othello, The Merry Wives of Windsor, A Midsummer Night's Dream); on odd-numbered weeks we will study musical adaptations.

*Note:* This course, when taken for letter grade, meets the Department of English Shakespeare requirement. Students from other departments are welcome.

### **[Music 194rs. Special Topics: Proseminar]**

Catalog Number: 8586

*Half course (fall term). Hours to be arranged.*

*Global Pop Music.* Exploration of current trends and issues in popular music production from around the world, including fusion, sampling and local and global scenes, through consideration of a broad range of contemporary examples.

*Note:* Expected to be given in 2015–16. May be taken by students from other departments.

### ***Cross-listed Courses***

#### **Aesthetic and Interpretive Understanding 24. First Nights: Five Performance Premieres**

[Aesthetic and Interpretive Understanding 31. American Musicals and American Culture]

[Aesthetic and Interpretive Understanding 62. California in the 60's] - (New Course)

#### **African and African American Studies 179. Jazz, Freedom, and Culture**

[African and African American Studies 182. From R & B to Neo Soul: Black Popular Music and Cultural Transformation]

[German 182. Music and German National Identity]

**\*Visual and Environmental Studies 162g. Water Musics--A Dialogue of Electroacoustic Music and Moving Images - (New Course)**

### ***Primarily for Graduates***

#### **Music Bhf. Exercises in Tonal Writing and Analysis**

Catalog Number: 3045

*Osnat Netzer*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: 3*

Includes theory (level of Music 150) 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

*Sindhumathi Revuluri*

*Half course (fall term). W., 10–12. EXAM GROUP: 5*

Introduction to musicological scholarship drawing upon theoretical frameworks, and working methods of historical musicology. Includes aspects of the history of the discipline of musicology, as well as newer methodologies. Students will read relevant theoretical texts from other disciplines and consider the possibilities of interdisciplinary projects within musicology.

*Note:* Graduate students only. May be taken independently by students from other departments with permission of instructor.

### **Music 201b. Current Methods in Ethnomusicology**

Catalog Number: 3995

*Ingrid Monson*

*Half course (spring term). W., 10–12. EXAM GROUP: 5*

Focuses on 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 by students from other departments with permission of instructor.

### **Music 206r. Research Methods in Ethnomusicology: Musical Ethnography**

Catalog Number: 6891

*Kay Kaufman Shelemyay*

*Half course (spring term). Th., 10–12. EXAM GROUP: 12*

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

*Richard K. Wolf*

*Half course (fall term). Tu., 10–12. EXAM GROUP: 12*

*Creative Ethnographic Writing.* Students will read, listen to and watch experimental creations on music and musical culture, and create their own written or multimedia works. The emphasis in this class is not on ethnographic research itself but on creative ways of communicating the results of ethnographic or historical research. As such, students should come to this class having already acquired considerable experience with at least one musical tradition.

*Note:* Open to undergraduates with permission of instructor. May be taken by students from other departments by permission of instructor.

### **[Music 207rs. Ethnomusicology: Seminar]**

Catalog Number: 8999



*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

**[Music 208r. Ethnomusicology: Seminar]**

Catalog Number: 2232

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16. Open to undergraduates with permission of instructor.

**[Music 208rs. Ethnomusicology: Seminar]**

Catalog Number: 44783

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

**[Music 209r. Ethnomusicology: Seminar]**

Catalog Number: 4022

*Ingrid Monson*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16. Open to undergraduates with permission of instructor.

**[Music 212r. Chant: Seminar]**

Catalog Number: 4984

*Thomas Forrest Kelly*

*Half course (fall term). Hours to be arranged.*

*Chant.* Transcribing the Beneventan Chant. In preparation for a new edition, the seminar will consider the sources and the music of one of the earliest repertoires of Western music, native to southern Italy.

*Note:* Expected to be given in 2015–16. Open to undergraduates with permission of instructor.

**[Music 213r. Topics in Medieval Polyphony]**

Catalog Number: 8384

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

**Music 214r. Renaissance Music**

Catalog Number: 7825

*Scott L. Edwards*

*Half course (spring term). M., 10–12. EXAM GROUP: 5*

*Exploring Renaissance Music.* This course introduces the study of Renaissance music from Josquin to Monteverdi through some of the major debates that have shaped the field. Issues to be addressed include Renaissance historiography, mode and imitation, *musica ficta*, problems in authentication, source studies, self-fashioning and subjectivity, intersections between nation, religion, and language, and performance practice. Musicological readings will be combined with



in-class musical analyses covering the major genres of the period—the cyclic mass, motet, madrigal, Lied, and chanson. This course is intended to provide a thorough grounding in issues of sixteenth-century music as well as a foundation for those students who plan to take generals.  
*Note:* Open to undergraduates with permission of instructor.

### **[Music 214rvo. Renaissance: Seminar]**

Catalog Number: 6817

*Kate van Orden*

*Half course (fall term). Hours to be arranged.*

*Words & Music in the Renaissance.* Text-music relations from Josquin to Monteverdi. Motets, madrigals and chansons read through against cultural paradigms defining the age. Will also problematize the "words & music" analytical approach, questioning its overwhelming importance in the historiography of Renaissance music.

*Note:* Expected to be given in 2015–16. Open to undergraduates with permission of instructor.

### **Music 216r. 18th-Century Music: Seminar**

Catalog Number: 1802

*Emily Dolan*

*Half course (fall term). M., 10–12. EXAM GROUP: 5*

*Instruments and Instrumentality.* This seminar will explore the history of musical instruments and the diverse ways in which we can think about what they are and what they do. We will touch on many topics including early organographies, notions of artisanal epistemology, the history of mediation, thing theory, and late eighteenth-century aesthetics. This seminar will draw on texts from a range of disciplines and will include a visit to the collection of musical instruments at the Museum of Fine Arts in Boston.

*Note:* Open to undergraduates with permission of instructor.

### **Music 217r. 19th-Century Music: Seminar**

Catalog Number: 9814

*Sindhumi Revuluri*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

*Music and Empire.* Considers the dynamic relationship between music and various manifestations of empire from the 17th century to the present through engagement with critical theory and a variety of musical works.

*Note:* Open to undergraduates with permission of instructor.

### **Music 218r. 20th-Century Music: Seminar**

Catalog Number: 0774

*Anne C. Shreffler*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

*Music of the Last 10 Years.* The seminar will focus on selected recent works (from the U.S. and Europe) reflecting a wide variety of aesthetic positions. We will explore Boston's dynamic new music scene, attending concerts and inviting visiting composers and performers to class.

*Note:* Open to undergraduates with permission of instructor.



**[Music 218rs. 20th-Century Music: Seminar]**

Catalog Number: 0301

*Half course (spring term). M., 2–4.*

*Film Sound/Film Music: Aesthetics and Technology.* This seminar explores film music and film sound in American and European cinema, from the transition to sound in the late 1920s, to a period in the 1960s when film music reached its first developmental endpoint. Topics include sound technology, differing approaches to the relation between music and image, the affinity between operatic aesthetics and film music aesthetics. Readings cover a range: from contemporary source documents, to modern film theory (Chion, Elsaesser, etc.).

*Note:* Expected to be given in 2015–16. Graduate students only.

**[Music 219r. 19th- and 20th-Century Music]**

Catalog Number: 2275

*Half course (fall term). Tu., 2–4.*

*Note:* Expected to be given in 2015–16. Open to undergraduates with permission of instructor.

**[Music 219rs. 19th and 20th Century Music]**

Catalog Number: 1518

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16. Open to undergraduates with permission of instructor.

**[Music 220r. History of Music Theory]**

Catalog Number: 20956

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16. Open to undergraduates with permission of instructor.

**[Music 221r. Current Issues in Music Theory]**

Catalog Number: 5926

*Half course (fall term). Th., 10–12.*

*Note:* Expected to be given in 2015–16.

**Music 222r. Schenkerian Analysis I**

Catalog Number: 4055

*Janet Schmalfeldt*

*Half course (spring term). F., 1–3. EXAM GROUP: 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 223r. Neo-Riemannian Analysis]**

Catalog Number: 6696



*Suzannah Clark*

*Half course (spring term). Hours to be arranged.*

*Neo-Riemannian Analysis.* Explores the new body of transformational analytical techniques usually grouped as “Neo-Riemannian Theory.” Analysis of pertinent musical passages, discussion of key texts (Riemann, Lewin, Hyer, Cohn, Kopp), context and limits of these ideas.

*Note:* Expected to be given in 2015–16. Open to undergraduates with permission of instructor.

### **Music 230r. Topics in Music Theory**

Catalog Number: 5712

*Matthew J. McDonald*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

*Sonic Style and the Auteur Director.* This seminar examines the sonic style of directors whose films feature distinctive treatments of music, sound, and speech. Contemporary cinema will be a particular focus, including the role of new technologies in enabling directors to assert greater control over the soundtrack. The seminar will engage with recent scholarship and the films of several directors, including Alfred Hitchcock, Robert Bresson, the Coen brothers, Tom Tykwer, and Gus van Sant.

*Note:* Open to undergraduates with permission of instructor.

### **Music 230rs. Topics in Music Theory**

Catalog Number: 89653

*Christopher Hasty*

*Half course (fall term). Th., 10–12. EXAM GROUP: 12*

*Music and Language* In this course we will explore commonalities and divergences of music and language and work toward productive ways of understanding sign/symbol, concepts and categories, meaning, discourse, rhetoric, and narrative through theories of music and language, old and new. We will consider "textless" and texted music, poetry and prose (including musicological writing) and relation of notation and performance in both music and language.

*Note:* Open to undergraduates with permission of instructor.

### **Music 250hf. Colloquium on Teaching Pedagogy**

Catalog Number: 92429

*Sindhumi Revuluri*

*Half course (throughout the year). Tu., 10–12. EXAM GROUP: 12*

*The Craft of Teaching.* Devoted to the craft of teaching, the course considers all major facets of academic teaching practices (lectures, tutorials, discussion, syllabi, advising, grading, etc.).

*Note:* Required of all third year music department graduate students. This course must be taken Sat/Unsat.

### **Music 261r. Composition: Seminar**

Catalog Number: 3326

*Michael J. Pisaro*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 10*

For first and second year graduate students prepared for work in original composition.



### **Music 262r. Composition: Seminar**

Catalog Number: 4457

*Chaya Czernowin*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 5*

For second year and advanced graduate students prepared for work in original composition.

### **[Music 263r. Intimate Sound Installations]**

Catalog Number: 92848

*Hans Tutschku*

*Half course (fall term). Tu., 1–4.*

Intimate Sound Installations. The course is designed for Music and VES students to explore sound installations as intimate and private listening experiences. Students will build and compose their works and change the Sert Gallery Cafe at the Carpenter Center into an acoustic search-space.

*Note:* Expected to be given in 2015–16.

### **[Music 264r. Electronic Music Composition: Seminar]**

Catalog Number: 1939

*Instructor to be determined*

*Half course (fall term). M., 2–4.*

Live Electronics

*Note:* Expected to be given in 2015–16.

### **Music 264rs. Electronic Music: Composition**

Catalog Number: 3357

*Hans Tutschku*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

Live Electronics. This course will explore different technologies for the live interaction between instruments and electronics, mainly using Max/MSP. Students will develop short musical studies and larger compositional project for presentation at the Hydra concert.

*Prerequisite:* Basic knowledge of Max/MSP.

### **\*Music 266r. Creative Music Seminar - (New Course)**

Catalog Number: 82774 Enrollment: Limited to 6.

*Vijay Iyer*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 8;*

*Spring: 1*

For advanced musicians (graduate or undergraduate) prepared for work in improvisation and original composition.

### **Music 270r. Special Topics**

Catalog Number: 3727

*Christopher Hasty*

*Half course (spring term). Tu., 10–12. EXAM GROUP: 12*

New Music Analysis. In this course we will engage a variety of music from ca. 1970 to the present. "New" in the course's title applies also to "Analysis". We will work toward developing



new ways of hearing, conceptualizing, and talking/writing about music that might respond to the challenges that the new or "now" affords. Our repertory will comprise many pieces (not all "high" and "western"); a small selection will be subject to intense hearing and discussion.

### **Music 271r. Fromm Seminar in Composition**

Catalog Number: 1311

*Michael J. Pisaro*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

*Experimental Music: Theory and Practice.* This seminar will follow a (potential) correspondence between figures in the history of American music and French philosophy since the 1950's and composers of the Wandelweiser group, as a way of mapping a part of the topography of recent experimental music. It will involve readings (and hopefully, if the space is right) some in-class performance.

### **[Music 272r. Special Topics]**

Catalog Number: 2059

*Half course (spring term). M., 10–12.*

*Critical Analysis.*

*Note:* Expected to be given in 2015–16.

### **Music 280r. Theorizing Improvisation - (New Course)**

Catalog Number: 99493

*Vijay Iyer*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

*Theorizing Improvisation.* This research-oriented seminar surveys the newly emerging, interdisciplinary area of critical improvisation studies, in which recent scholarship in African diasporic music and aesthetics joins a larger conversation on improvisation across multiple research fields in the arts, the sciences, and the humanities. Through a range of published and unpublished readings, mostly from the last two decades, we examine improvisation as a central feature of individual and collective subjectivities.

### **[Music 295r. California in the '60s (Graduate Seminar in General Education)]**

Catalog Number: 77487

*Kate van Orden*

*Half course (fall term). Hours to be arranged.*

*California in the '60s* This seminar will design and prep an undergraduate course for non-concentrators on music in California during the "long" sixties, from 1964–71. Principal themes will include youth, culture and the counter-culture politics of black power, women's liberation, and psychedelia; music includes surf rock, folk rock, acid rock, and singer-songwriters; artists include the Beach Boys, The Doors, Jefferson Airplane, Sly Stone, The Byrds and Joni Mitchell.

*Note:* Expected to be given in 2015–16. The seminar will design and develop a General Education course on these themes for undergraduates.

### ***Graduate Courses of Reading and Research***



### **\*Music 300. Reading and Research for Advanced Students**

Catalog Number: 2504

*Carolyn Abbate 5304 (on leave 2014-15), Richard Beaudoin 6255, Suzannah Clark 5718 (on leave 2014-15), Chaya Czernowin 6714, Emily Dolan 7640, Christopher Hasty 4445, Jill Johnson 2033, Thomas Forrest Kelly 1324, Ingrid Monson 1591, Carol J. Oja 4599, Alexander Rehding 4651 (on leave 2014-15), Sindhumi Revuluri 5846, Kay Kaufman Shelemy 3483, Anne C. Shreffler 4656 (on leave spring term), Hans Tutschku 5147, Richard K. Wolf 1386, and Kate van Orden 7120 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

Individual work on specific topics not included in the announced course offerings.

### **\*Music 301. Reading and Research**

Catalog Number: 6543

*Carolyn Abbate 5304 (on leave 2014-15), Suzannah Clark 5718 (on leave 2014-15), Emily Dolan 7640, Christopher Hasty 4445, Thomas Forrest Kelly 1324, Ingrid Monson 1591, Carol J. Oja 4599, Alexander Rehding 4651 (on leave 2014-15), Sindhumi Revuluri 5846, Kay Kaufman Shelemy 3483, Anne C. Shreffler 4656 (on leave spring term), Hans Tutschku 5147, Richard K. Wolf 1386, and Kate van Orden 7120 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

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

*Kay Kaufman Shelemy 3483*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 17*

### **\*Music 310. Direction of Doctoral Dissertations**

Catalog Number: 1819

*Carolyn Abbate 5304 (on leave 2014-15), Suzannah Clark 5718 (on leave 2014-15), Chaya Czernowin 6714, Emily Dolan 7640, Christopher Hasty 4445, Thomas Forrest Kelly 1324, Robert D. Levin 3482, Ingrid Monson 1591, Carol J. Oja 4599, Alexander Rehding 4651 (on leave 2014-15), Sindhumi Revuluri 5846, Kay Kaufman Shelemy 3483, Anne C. Shreffler 4656 (on leave spring term), Hans Tutschku 5147, Richard K. Wolf 1386, and Kate van Orden 7120 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

*Note:* May not be counted toward course requirements for the PhD degree.

## Near Eastern Languages and Civilizations



## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Department of Near Eastern Languages and Civilizations*

Shaye J.D. Cohen, Nathan Littauer Professor of Hebrew Literature and Philosophy (*Chair*)  
 Dalia Abo Haggar, Preceptor in Arabic  
 Irit Aharony, Senior Preceptor in Modern Hebrew  
 Moneera Al-Ghadeer, Shawwaf Visiting Associate Professor of Arabic and Islamic Studies  
 Sami Mahmoud Alkyam, Preceptor in Arabic  
 Ali S. Asani, Professor of Indo-Muslim and Islamic Religion and Cultures  
 Gojko Barjamovic, Lecturer on Near Eastern Languages and Civilizations  
 Nour Barmada abida, Preceptor in Arabic  
 Nicholas Boylston, Preceptor in Persian  
 Khaled El-Rouayheb, James Richard Jewett Professor of Arabic and of Islamic Intellectual History (*Director of Undergraduate Studies*)  
 Rachel Lea Fish, Visiting Lecturer on Near Eastern Languages and Civilizations  
 William Albert Graham, Murray A. Albertson Professor of Middle Eastern Studies, Harvard University Distinguished Service Professor (*on leave spring term*)  
 William E. Granara, Professor of the Practice of Arabic on the Gordon Gray Endowment, and Director of the Center for Middle Eastern Studies  
 Jay M. Harris, Dean of Undergraduate Education, and Harry Austryn Wolfson Professor of Jewish Studies  
 Feryal Hijazi, Preceptor in Arabic  
 Robert Homsher, College Fellow in the Department of Near Eastern Languages and Civilizations  
 Cemal Kafadar, Vehbi Koc Professor of Turkish Studies  
 Susan M. Kahn, Lecturer on Near Eastern Languages and Civilizations  
 Ousmane Kane, Professor of Near Eastern Languages and Civilizations, and Prince Alwaleed Bin Talal Professor of Contemporary Islamic Religion and Society (*Divinity School*)  
 Eitan Lev Kensky, Preceptor in Yiddish  
 Chad Kia, Lecturer on Persian Literature and Culture  
 Nevenka Korica, Senior Preceptor in Arabic on the Ali Abdul Rahman Alturki Endowment  
 Luke Anthony Leafgren, Lecturer on Near Eastern Languages and Civilizations  
 Peter Machinist, Hancock Professor of Hebrew and Other Oriental Languages  
 Hisham Mahmoud, Preceptor in Modern Arabic  
 Peter Der Manuelian, Philip J. King Professor of Egyptology  
 James R. Russell, Mashtots Professor of Armenian Studies (*on leave spring term*)  
 Richard J. Saley, Lecturer on Near Eastern Languages and Civilizations  
 P. Oktor Skjaervo, Aga Khan Professor of Iranian (*on leave fall term*)  
 Piotr Steinkeller, Professor of Assyriology (*Director of Graduate Studies*)  
 Malika Zeghal, Prince Alwaleed Bin Talal Professor in Contemporary Islamic Thought and Life

### *Other Faculty Offering Instruction in the Department of Near Eastern Languages and Civilizations*

Michael D. Coogan, Visiting Lecturer on Old Testament/Hebrew Bible (*Divinity School*)  
 Baber Johansen, Professor of Islamic Religious Studies (*Divinity School*)



Joel S. Kaminsky, Visiting Professor of Jewish Studies (*Divinity School*)  
 Jon D. Levenson, Albert A. List Professor of Jewish Studies (*Divinity School*)  
 Roy Mottahedeh, Gurney Professor of History (*on leave spring term*)  
 Dara Horn Schulman, Visiting Lecturer on Comparative Literature  
 D. Andrew Teeter, Associate Professor of Hebrew Bible/Old Testament (*Divinity School*)  
 Jason A. Ur, Professor of Anthropology

The Department of Near Eastern Languages and Civilizations introduces students to the ancient and modern peoples, languages, cultures, and societies of the Near and Middle East. Loosely defined as stretching from Morocco in the west to Iran and Afghanistan in the east, the region is home of the world's great religions and civilizations. Historically, the influence of its languages, literatures and cultures has extended to Central, East and Southeast Asia, sub-saharan Africa, Europe and North America. Thus, the study of the Near and Middle East is an important area of academic inquiry on account of its political, economic and cultural significance on the international stage.

Given the diversity of the course offerings, the catalog chapter is organized in the following categories, but many courses touch on more than one area. For example, one will find courses about the Bible under 'The Middle East in Antiquity', 'Jewish Studies', and also 'Hebrew Literature and History'. The chapter categories are as follows:

Near Eastern Civilizations - tutorials for undergraduates, and directed study for graduate students

The Middle East in Antiquity - Ancient Near Eastern and Biblical Studies; Armenian Studies Histories and Cultures of Muslim Societies - Islamic Civilizations

Jewish Studies

Modern Middle Eastern Studies - The Modern Middle East

Languages and Literatures - Akkadian; Arabic; Aramaic; Armenian; Egyptian; Hebrew Language (Classical and Modern); Hebrew Literature and History; Iranian; Persian; Semitic Philology; Sumerian; Turkish; Yiddish

## ***Near and Middle Eastern Civilizations***

### ***Near Eastern Civilizations***

#### ***Primarily for Undergraduates***

##### **\*Near Eastern Civilizations 91r. Supervised Reading and Research**

Catalog Number: 1132

*Khaled El-Rouayheb and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

Tutorial supervision of research in subjects not treated in regular courses.

##### **\*Near Eastern Civilizations 97r. Group Tutorial—Sophomore Year**

Catalog Number: 0167

*James R. Russell and members of the Department*



*Half course (fall term). M., 2–4. EXAM GROUP: 7*

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

*Khaled El-Rouayheb and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 13*

*Note:* Designed for juniors concentrating in Near Eastern Languages and Civilizations.

**\*Near Eastern Civilizations 99r. Tutorial — Senior Year**

Catalog Number: 6623

*Khaled El-Rouayheb and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 13*

*Note:* Designed for seniors concentrating in Near Eastern Languages and Civilizations.

***Cross-listed courses***

[**Aesthetic and Interpretive Understanding 54** (formerly **Culture and Belief 12**). **For the Love of God and His Prophet: Religion, Literature, and the Arts in Muslim Cultures**]

**Culture and Belief 19. Understanding Islam and Contemporary Muslim Societies**

**\*Freshman Seminar 37y. Muslim Voices in Contemporary World Literatures**

***Graduate Courses of Reading and Research***

**\*Near Eastern Civilizations 300. Direction of Master's Thesis**

Catalog Number: 2448

*Ali S. Asani 7739, William E. Granara 1054, Susan M. Kahn 4833, Chad Kia 2852, Jon D. Levenson (Divinity School) 2264, Peter Der Manuelian 4279, Roy Mottahedeh 1454 (on leave spring term), and Malika Zeghal 6744*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Near Eastern Civilizations 390. Direction of Doctoral Dissertations**

Catalog Number: 3041

*Ali S. Asani 7739, Shaye J.D. Cohen 4180, William Albert Graham 4156 (on leave spring term), William E. Granara 1054, Jay M. Harris 2266, Jon D. Levenson (Divinity School) 2264, Peter Machinist 2812, Peter Der Manuelian 4279, James R. Russell 3411 (on leave spring term), P. Oktor Skjaervo 2869 (on leave fall term), Piotr Steinkeller 7337, and Malika Zeghal 6744*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

***The Middle East in Antiquity***

***Ancient Near Eastern and Biblical Studies***



See also below under Akkadian and Sumerian, Aramaic, Hebrew, and Semitic Philology.

***Primarily for Undergraduates***

***Cross-listed Courses***

**[Culture and Belief 13. The Contested Bible: The Sacred-Secular Dance]**

**Culture and Belief 23. From the Hebrew Bible to Judaism, From the Old Testament to Christianity**

**Culture and Belief 48. God, Justice, and the Book of Job**

**Societies of the World 38. Pyramid Schemes: The Archaeological History of Ancient Egypt**

***For Undergraduates and Graduates***

**Ancient Near East 100. History of the Ancient Near East**

Catalog Number: 0702

*Gojko Barjamovic*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This course provides an overview of the history of the ancient Near East, with a focus on ancient Mesopotamia. It begins with the advent of writing in the late fourth millennium BCE and ends with the fall of Babylon to Cyrus the Great, in 539 BCE. The course combines archaeological, art historical, and textual data to explore the extraordinarily rich history of this region.

*Note:* Offered jointly with the Divinity School as 1115.

**Ancient Near East 102. Introduction to Mesopotamian Religion**

Catalog Number: 0486

*Piotr Steinkeller*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 15*

A survey of the history and major concerns of ancient Mesopotamian religion from prehistoric times down to the reign of Alexander the Great. Among the topics treated are the key figures of the Sumero-Babylonian pantheon, the major mythological compositions (read in translation), personal religion, cosmogonies and theogonies, magic and divination, Mesopotamian temples, and cult and ritual. The course makes rich use of ancient iconography.

*Note:* Offered jointly with the Divinity School as 3661.

**Ancient Near East 103. Ancient Lives**

Catalog Number: 65695

*Gojko Barjamovic*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

What are the essential elements of human society? Have our fundamental conditions developed, and how? Can we use themes from ancient history to think about contemporary society and culture? These questions are in focus in this Societies of the World (SW) course for the Harvard College Program in General Education, which explores the earliest human civilizations in the region of Mesopotamia c. 3500-300 bce. Few elements in the way we live and organize ourselves today are to be taken for granted. There is - and has always been - a wealth of ways in which humans live. But biologically we are the same as our ancestors of 5500 years ago, at the



dawn of history. Any likeness or difference between ‘us and them’ is therefore likely to be a product of history and culture. ‘Ancient Lives’ builds upon this realization to inspire a critical way of thinking about society in the broadest possible scope. Areas explored during the course are selected for their relevance across the range of contemporary life - they include freedom, music, public health, food, jurisprudence, trade, the visual arts, science, sexuality, religion and political power. You will learn about how societies and individuals have dealt with change on multiple levels, from large-scale societal revolutions to personal transformation. Having taken this course, you will have gained a fundamental understanding and appreciation of human life in the broadest scope, as well as of your own life as a part of history. You will be able to critically assess contemporary discourses on the study of ‘the other’ in past and present; engage with core concepts of human society, such as justice, beauty, value and belief on a broad historical base; be familiar with examples of classical social theory and thinkers through concrete cases in which their work has been applied to or shaped by the study of the past; and acquire skills in presenting scholarly work to a general audience.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Societies of the World.

### [Ancient Near East 111. Law in the World of the Bible]

Catalog Number: 6397

*Peter Machinist*

*Half course (fall term). Hours to be arranged.*

An examination of what law was and how it operated in ancient Israel through its primary expression in the Hebrew Bible. Attention to the wider contexts of law in the ancient Near East, especially Mesopotamia, in which biblical law originated, and to the legacy of biblical law in the subsequent traditions of early Judaism.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1129.

### Ancient Near East 113. Environmental Archaeology of the Ancient Near East - (New Course)

Catalog Number: 91925

*Robert Homsher*

*Half course (spring term). Tu., 1–3 with occasional labs to be arranged. EXAM GROUP: 1*  
 This course deals with major changes in climate and environment affecting humans, and the various ways in which Near Eastern societies have endured, mastered, or destroyed themselves, from an ecological perspective. Importance is placed on a diachronic outlook on dynamic human-environment interactions as understood through archaeology, particularly with reference to the challenge of sustainability in the so-called Anthropocene. A major focus of this course will be on case studies from around the eastern Mediterranean and greater Near East during the Holocene, but particularly dealing with examples from the Levant (modern Israel/Palestine, Syria, southern Turkey, Lebanon, and Jordan). Topics will cover different types of environments and geological processes found in the Near East, practical sampling and analytical procedures, and major categories of anthropological interpretation.

*Note:* Ancient Near East 115 and/or Anthropology 1010 are helpful, but certainly not essential, as background.



### **Ancient Near East 117. Biblical Archaeology**

Catalog Number: 1371

*Robert Homsher*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

This course combines biblical historiography and archaeology to critically evaluate many of the debatable incongruities between text and material evidence. Various periods of biblical history will be studied within their greater Near Eastern and Eastern Mediterranean context, looking specifically at results of archaeological excavations and evidence from extra-biblical textual sources. Beginning with the composition of biblical text and biblical chronology, readings and lectures will then navigate through biblical theories and archaeological evidence from the primordial creation stories until post-exilic Second Temple Judaism. Additionally, the history of "biblical archaeology" will be traced until the present day, especially including portrayals in popular media, while highlighting the good, the bad, and the very ugly.

*Note:* Offered jointly with the Divinity School as 1422.

### **Ancient Near East 120. Introduction to the Hebrew Scriptures - (New Course)**

Catalog Number: 17184

*Michael D. Coogan (Divinity School)*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

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:* May not be taken for credit if the student has taken ANE 120a or ANE 120b for credit.  
Offered jointly with the Divinity School as 1101.

### **[Ancient Near East 120a. Introduction to the Hebrew Bible/Old Testament 1: Pentateuch and Former Prophets]**

Catalog Number: 6544

*D. Andrew Teeter (Divinity School)*

*Half course (fall term). Tu., Th., 10–11:30.*

A critical introduction to the literature and theology of the Hebrew Bible, considered in light of the historical contexts of its formation and the interpretive contexts of its reception within Judaism and Christianity. The course, the first part of a divisible, year-long sequence, will focus on the major biblical narrative traditions, the Pentateuch and Former Prophets.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1102.

### **[Ancient Near East 120b. Introduction to the Hebrew Bible/Old Testament 2: Latter Prophets and Writings]**

Catalog Number: 22968

*D. Andrew Teeter (Divinity School)*

*Half course (spring term). Tu., Th., at 10-11:30, and a section to be arranged.*

A critical introduction to the literature and theology of the Hebrew Bible, considered in light of the historical contexts of its formation and the interpretive contexts of its reception within Judaism and Christianity. The course, the second part of a divisible, year-long sequence, will



focus on the Latter Prophets and the Writings.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1103.

### Ancient Near East 126. History of the Religion of Ancient Israel

Catalog Number: 1672

*Peter Machinist*

*Half course (fall term). M., W., (F.), at 10, and a section episodically to be arranged. EXAM*

*GROUP: 5*

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:* Offered jointly with the Divinity School as 1110.

### [Ancient Near East 131. Readings in the Septuagint]

Catalog Number: 3661

*Richard J. Saley*

*Half course (fall term). Tu., Th., at 12.*

This course aims to increase facility with Septuagint Greek by reading representative prose portions of the Septuagint and studying the peculiarities of the grammar inductively. The basics of Hellenistic Greek will be reviewed as necessary.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 4215.

*Prerequisite:* One year of Greek.

### Ancient Near East 132. Ancient Jewish Wisdom Literature

Catalog Number: 9522

*Jon D. Levenson (Divinity School)*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

A close critical reading and interpretation of works thought to derive from the Wisdom tradition of ancient Israel, through the Second Temple period. The workings of the world and the ways of God as they appear in works such as Proverbs, Job, Qohelet, Ben Sira, some Psalms, the Wisdom of Solomon, Fourth Maccabees, and Pseudo-Phocylides as well as narratives about such figures as Joseph, Esther, and Daniel. Egyptian and Mesopotamian antecedents and parallels briefly considered. Emphasis on matters of worldview and literary form.

*Note:* Offered jointly with the Divinity School as 1416.

*Prerequisite:* Ancient Near East 120 or an equivalent introduction to the historical-critical study of the Hebrew Bible.

### Ancient Near East 134. Genesis: Narrative Artistry and Theological Meanings

Catalog Number: 3291

*Jon D. Levenson (Divinity School)*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

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 will be given to



literary and religious rather than historical and editorial issues.

*Note:* Offered jointly with the Divinity School as 1417.

**Ancient Near East 136. Sibling Rivalries: Israel and the Other in the Hebrew Bible - (New Course)**

Catalog Number: 57242 Enrollment: Limited to 20.

*Joel S. Kaminsky (Divinity School)*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

This course will provide an in-depth examination of the biblical idea of divine election, that is, the notion that God specially favors certain individuals and nations, a notion that sits at the heart of ancient Israel's theological self-understanding. Beginning with the narratives of sibling rivalry in Genesis and then turning to other relevant texts from the Hebrew Bible (all read in English), as well as on occasion from the Apocrypha, the New Testament and rabbinic literature, we shall explore how the Hebrew Bible conceives of election, what it entails for those chosen, and what the Hebrew Bible's election theology implies about the three-way relationship among God, Israel, and the nations of the world, and conclude by surveying how early Christianity and rabbinic Judaism each appropriated ancient Israel's election theology in unique but related ways.

*Note:* Offered jointly with the Divinity School as 1790.

**Ancient Near East 142. The Bible Uncensored: Journeys into Texts Dark and Daring from the Hebrew Bible - (New Course)**

Catalog Number: 81386

*Peter Machinist*

*Half course (spring term). M., W., (F.), at 11, plus periodic discussion sections. EXAM GROUP: 14*

Not your usual introduction to the Hebrew Bible. Through a close study of biblical texts (in translation) that are at once strange, shocking, raw, even bawdy, this course aims to reveal the variety and excitement of biblical literature and the ancient Israel that lies behind it.

*Note:* Offered jointly with the Divinity School as 1828.

**[Ancient Near East 155r. Ancient Mesopotamia: Archaeology and Texts]**

Catalog Number: 11874

*Piotr Steinkeller*

*Half course (spring term). Hours to be arranged.*

Ancient Mesopotamia was the world's first literate urban civilization. This class will examine the origins and evolution of cities, temples, and government from two complementary perspectives: the archaeological record and cuneiform inscriptions in translation. Activities will include visits to museum collections (Peabody, Semitic Museum, Boston MFA), hands-on experience with creating cuneiform tablets, and virtual tours of southern Iraq using satellite imagery.

*Note:* Expected to be given in 2015–16.

**[Ancient Near East 165. The Chosen People]**

Catalog Number: 16825

*Michael D. Coogan (Divinity School)*

*Half course (fall term). Tu., Th., 8:30–10.*

A consideration of the concept of the biblical motif of divine choice of individuals and groups,



with close reading of representative texts in the Hebrew Bible/Old Testament. Knowledge of Hebrew not required.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1120.

*Prerequisite:* Introduction to Hebrew Bible/Old Testament or the equivalent.

### [\*\*Ancient Near East 212 \(formerly Ancient Near East 115\). Archaeology of the Levant\*\*](#)

Catalog Number: 2813

*Robert Homsher*

*Half course (fall term). Th., 11:30–1:30. EXAM GROUP: 15*

This course follows human societies in the region of the Levant (modern Israel/Palestine, Syria, southern Turkey, Lebanon, and Jordan) from the earliest sedentary communities through the Iron Age. This extensive survey through time focuses on current archaeological research, emphasizing major aspects of: geography and chronology, art and architecture, modes of social organization, explanations for major socio-cultural changes, social identity, domestic life, religious expression, and issues of gender. Societies and areas under investigation include: the Canaanites, Amorites, Phoenicia, Philistia, Israel, Judah, Aram, the Neo-Hittites, Ammon, Moab, Edom, and Arabia.

*Note:* Enrolled students will have the opportunity to participate in a one-week tour led by the instructor of sites in Israel spanning these chronological periods in summer 2015.

### ***Cross-listed Courses***

#### ***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: 2*

This course focuses on the art of recovering the text of the Hebrew Bible using 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 helpful but not required.

### [\*\*Ancient Near East 213. Environmental Archaeology of the Ancient Near East - \(New Course\)\*\*](#)

Catalog Number: 42357

*Robert Homsher*

*Half course (spring term). Tu., 1–3 with occasional labs to be arranged. EXAM GROUP: 1*

This course deals with major changes in climate and environment affecting humans, and the various ways in which Near Eastern societies have endured, mastered, or destroyed themselves, from an ecological perspective. Importance is placed on a diachronic outlook on dynamic human-environment interactions as understood through archaeology, particularly with reference to the challenge of sustainability in the so-called Anthropocene. A major focus of this course will be on case studies from around the eastern Mediterranean and greater Near East during the Holocene, but particularly dealing with examples from the Levant (modern Israel/Palestine,



Syria, southern Turkey, Lebanon, and Jordan). Topics will cover different types of environments and geological processes found in the Near East, practical sampling and analytical procedures, and major categories of anthropological interpretation.

*Note:* Ancient Near East 115 and/or Anthropology 1010 are helpful, but certainly not essential, as background.

**[Ancient Near East 225. The Greek Bible in History and Theology: Seminar]**

Catalog Number: 2475

*D. Andrew Teeter (Divinity School)*

*Half course (spring term). Tu., 4–6.*

An exploration of social, historical, interpretive, and theological issues associated with the so-called Septuagint and its complex relationship to early Judaism and Christianity. Emphases include origins, eschatology, messianism, halakhah, New Testament backgrounds, and biblical theology.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1301.

*Prerequisite:* Basic reading knowledge of Greek and Hebrew.

***Graduate Courses of Reading and Research***

**\*Ancient Near East 310. Reading and Research in Ancient Near Eastern Archaeology**

Catalog Number: 4264

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Ancient Near East 320. Reading and Research in Ancient Mesopotamian Civilization**

Catalog Number: 5678

*Peter Machinist 2812 and Piotr Steinkeller 7337*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Ancient Near East 330. Reading and Research in Biblical Studies**

Catalog Number: 1524

*Jon D. Levenson (Divinity School) 2264, Peter Machinist 2812, and D. Andrew Teeter (Divinity School) 6111*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

***Armenian Studies***

See also below under Armenian.

***For Undergraduates and Graduates***

**[Armenian Studies 100. Armenian Epic]**

Catalog Number: 2576

*James R. Russell*

*Half course (spring term). Hours to be arranged.*

Reading in translation of *The Wild Men of Sasun*, with analysis of native historical and



mythological sources, and thematic comparison to epic poetry of the neighboring Iranians (Ossetic *Narts*, Persian *Shah-nameh*, Kurdish epic songs), Turks (*Dede Korkut*), and Greeks (*Digenes Akrites*).

*Note:* Expected to be given in 2015–16.

**[Armenian Studies 102. Introduction to Armenian Civilization]**

Catalog Number: 50965

*James R. Russell*

*Half course (fall term). Th., 2–4.*

A survey of the history and culture of the Armenian people from earliest times to the Genocide and Soviet era.

*Note:* Expected to be given in 2015–16.

**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). Tu., 6–8 p.m. EXAM GROUP: 16*

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.

***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)*

*Half course (fall term). . EXAM GROUP: 15*

***Early Iranian Civilizations***

***For Undergraduates and Graduates***

See also below under Arabic, Aramaic, and Iranian.

***Primarily for Graduates***

**[Iranian 282a. Ancient Iranian Religions: Zoroastrianism]**

Catalog Number: 22326

*James R. Russell*

*Half course (spring term). F., 3–5.*

An introduction to the teachings of the Prophet Zarathushtra and the beliefs and practices of his followers, from the Achaemenid Persians, Parthian Arsacids, and Persian Sasanians to the Parsis



of India, based on translated primary sources and secondary researches.

*Note:* Expected to be given in 2015–16.

### ***Histories and Cultures of Muslim Societies***

See also below under Arabic, Persian, and Turkish. Refer also to the Urdu section of the Department of South Asian Studies.

### ***Islamic Civilizations***

#### ***Primarily for Undergraduates***

##### ***Cross-listed Courses***

[Aesthetic and Interpretive Understanding 54 (formerly Culture and Belief 12). For the Love of God and His Prophet: Religion, Literature, and the Arts in Muslim Cultures]

[\*\*Culture and Belief 19. Understanding Islam and Contemporary Muslim Societies\*\*](#)

[Culture and Belief 41. Gender, Islam, and Nation in the Middle East and North Africa]

[\*\*\\*Freshman Seminar 37y. Muslim Voices in Contemporary World Literatures\*\*](#)

[\*\*Religion 13. Scriptures and Classics\*\*](#)

#### ***For Undergraduates and Graduates***

##### **Islamic Civilizations 100. Supervised Reading and Research in Islamic Studies**

Catalog Number: 94225

*Khaled El-Rouayheb (fall term) and Ali S. Asani (spring term) and members of the Department*  
*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 13;*  
*Spring: 9*

A course of supervised research in subjects related to the study of Islam and Muslim societies not treated in regular courses.

##### **[Islamic Civilizations 145a. Introduction to Islamic Philosophy and Theology: Formative and Classical Periods (8th to 17th C.)]**

Catalog Number: 0292

*Khaled El-Rouayheb*

*Half course (fall term). Th., 3-5, and a weekly section to be arranged.*

An introductory survey of the development of Islamic theology and philosophy. We will examine and discuss some of the central problems that were much debated through the centuries, such as: the relationship between philosophy and faith; whether humans possess free will; how to understand apparently anthropomorphic expressions in Scripture; whether acts are good because God commands them or God commands them because they are good; and proofs for the existence of God.

*Note:* Expected to be given in 2015–16. Offered alternate years with Islamic Civilizations 145b. Though the two courses can be taken in either order, 145a covers the 8th–17th centuries and 145b covers the 19th–20th centuries. Offered jointly with the Divinity School as 3602.



**[Islamic Civilizations 145b. Introduction to Islamic Philosophy and Theology: The Modern Period (19th and 20th centuries)]**

Catalog Number: 12106

*Khaled El-Rouayheb*

*Half course (fall term). Th., 3–5, and a weekly section to be arranged.*

The course is a continuation of Islamic Civilizations 145a but may be taken independently. It explores the thought of some of the major Islamic philosophers and theologians in the 19th and 20th centuries: Muhammad Abduh, Muhammad Iqbal, Said Nursi, Abu l-Ala Maududi, Sayyid Qutb, Ali Shariati, Murtaza Mutahheri and Mohammed Arkoun.

*Note:* Expected to be given in 2015–16. Offered alternate years with Islamic Civilizations 145a. Though the two courses can be taken in either order, 145a covers the 8th–17th centuries and 145b covers the 19th–20th centuries. Offered jointly with the Divinity School as 3602b.

**Islamic Civilizations 146. al-Ghazali: Theologian and Mystic**

Catalog Number: 9561

*Khaled El-Rouayheb*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

Al-Ghazali (d.1111) is generally recognized to be one of the most influential of all Muslim religious thinkers. A prominent theologian and jurist, he experienced a spiritual crisis at the height of his career, and as a consequence explored mysticism (Sufism) and worked out a powerful synthesis between respect for the externals of the Islamic religion and the mystics' stress on the interior life. In this course, we will look in particular at his account of his spiritual crisis; his critical engagement with the Islamic Philosophers; and some of the more mystical works that he wrote toward the end of his life, including his theodicy, his meditations on the Qur'anic dictum that "God is the Light of the Heavens and the Earth", and select chapters from his great summa "The Revival of the Religious Sciences". All readings will be in English.

*Note:* Offered jointly with the Divinity School as 3599.

*Prerequisite:* No knowledge of Arabic required.

**\*Islamic Civilizations 170. Islam, Modernity and Politics**

Catalog Number: 55905 Enrollment: Limited to 18.

*Ousmane Oumar Kane*

*Half course (fall term). F., 2–4. EXAM GROUP: 7*

The aim of this seminar is to study the evolution of Islamic thought and political practices in Muslim societies from the 19th to the early 21st centuries. Attention will be devoted to the patterns of interaction between the Muslim World and the West because it is our assumption that these patterns contribute to influence ideological formations and modes of religious/political mobilizations in the Muslim World. By the end of the eighteenth century, much of the Muslim World was in "decline" whereas European imperial powers, mainly France and Great Britain, were on the rise. The course will explore the response of Muslim societies and intellectuals to the rise of European prominence. The major 19th century reformist movements that appeared in the Muslim World will be discussed, ranging from movements advocating mild reform to those rejecting all influence of "Western civilization" and advocating a return to the Tradition of Muhammad. In the twentieth century, virtually all the Muslim World came under European colonial domination. During colonial rule and after, the Muslim world experienced major transformations which affected the nature and administration of law, politics and society. It is in



this context, that the new Islamic revival that some have called "Islamism" was articulated as an alternative to Westernization. The course will address the rise of contemporary "Islamism," as an alternative to Western domination and modernization/Westernization. The major theorists of political Islam as well as the different trajectories of "Islamism" in diverse Muslim societies will be covered. The impact of political Islam in the West will also be addressed. The final part of the course will assess the trajectories of political Islam and address the ongoing debates on post-Islamism, secularism and modernity.

*Note:* Offered jointly with the Divinity School as 3368.

**\*Islamic Civilizations 171. Religion and Political Violence in North Africa and the Sahel - (New Course)**

Catalog Number: 13897 Enrollment: Limited to 18.

*Ousmane Oumar Kane*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Unknown in Africa before the jihad against the Soviet Occupation of Afghanistan, suicide bombing has become common place in the 21st century. From Algeria to Somalia through Libya, Mali and Nigeria, so-called Salafi jihadis have recruited and trained tens of thousands of combatants. Through cigarette and narcotic trafficking, hostage taking for ransom, and bank hold ups, they have procured huge financial resources, sophisticated weapons, and now constitute a serious security challenge not only to many countries of North Africa and the Sahel but also to their Western allies. This conference course will address the spread of jihadi groups in Muslim Africa (North Africa and the Sahel) after the cold war. The first part of the course will address the divergent theoretical interpretations of terrorism and address in particular the following questions: Is it greed that sustains civil wars or grievance? Does the root of terror lie in culture or politics? Is there any evidence that civilizations clashed after the cold war? The second part of the course will focus on select transnational Islamist movements, situated both in their local context of nation building and their larger regional contexts. Case studies will include Al-Qaida in the Islamic Maghreb in North Africa and the Sahel, the Harakat al-shabab al-mujahidin in the Horn of Africa, the Boko Haram in the Lake Chad region and the Gama'at islamiiya in Egypt and beyond.

*Note:* Offered jointly with the Divinity School as 3371.

**\*Islamic Civilizations 172. Knowledge and Authority in Muslim Societies - (New Course)**

Catalog Number: 64447 Enrollment: Limited to 20.

*Ousmane Oumar Kane*

*Half course (spring term). F., 2–4. EXAM GROUP: 18*

This seminar will investigate the ways in which the production of knowledge affects the construction of authority in the Islamic world. It will look at how various forms of religious knowledge are acquired, legitimated, transmitted and/or contested within Muslim communities. Several types of knowledge will be: exoteric knowledge based on the Koran and other Islamic sciences, mystical knowledge as developed by the Sufis, and talismanic knowledge. Ulama trained in the exoteric sciences derived their authority from the conventional knowledge of the Koran, and religious sciences. Sufi masters derived theirs from their purported ability to explain the hidden meanings of the Koran, to provide spiritual training and guide the disciple in the path toward spiritual fulfillment. Finally, the credibility of talisman makers rested largely on their ability to use religious texts for purposes such as healing and bringing luck. Of course, the



boundaries between these figures of authority are not rigid and some of them may engage in the activities of the other. The first part of the seminar will focus on pre-colonial Muslim societies and the second part on the impact of Western hegemony on the transmission of knowledge and construction of authority in the postcolonial Islamic world. Seminar participants will compare and contrast historical and contemporary experiences of transmission of knowledge and production of authority in various parts of the World of Islam and investigate the historical linkages between these regions.

*Note:* Offered jointly with the Divinity School as 3370.

**[\*Islamic Civilizations 174. Migration and Religion in Comparative Perspective] - (New Course)**

Catalog Number: 17296 Enrollment: Limited to 20.

*Ousmane Oumar Kane*

*Half course (fall term). F., 2–4.*

The seminar will explore two important issues in relation to mobility and religion. The first is how geographic mobility affects the faith and religious practices of diasporas, and the second how migration influences the development of religion in the sending and receiving countries of immigrants? After a critical evaluation of the concept of religion, seminar participants will look at pre-modern types of migration (forced and voluntary) and different religious traditions, and analyze the social and personal transformations provoked by migration. We will explore in particular theoretical perspectives on diasporas and look at the religious experience of Jews in Africa. We will also discuss various expressions of African religions in the new world, including Islam in Antebellum America, and Afro-American Religions, as well as the Islamic pilgrimage tradition in West Africa and its impact on state formation in pre-colonial Africa. The second part of the seminar will be focused on Muslim globalizations. Increasing numbers of labor migrants, students and refugees from Muslim countries have settled in Western Europe and North America in the last three decades. Their numbers are estimated at some 40 million in the early twenty-first century, an unparalleled presence in history. While Western societies are moving away from organized religion, Muslim immigrant communities, by striving to carve a niche in Western Societies, have followed the opposite direction. Although most Western societies recognize the freedom of worship, the multiplication of Muslim institutions (such as mosques, shops, restaurants, schools, cultural centers, newspapers, and charities) has created growing anxiety in the secularizing Western societies. We will look at how Muslim intellectuals mediate the integration of Muslim through the reinterpretation of Islamic theology, as well as how Western states grapple with the issue of Muslim integration in the post-September 11th context of War on Terror.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3359.

**Islamic Civilizations 175. Islam in African History**

Catalog Number: 15502

*Ousmane Oumar Kane*

*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 1*

As of 2009 according to the Pew Charitable Trust Survey of the Global Muslim population, 241 million Muslims lived south of the Sahara. This is about 15 percent of the Muslim global population. The course is designed to provide an understanding of the spread of Islam and the formation and transformation of Muslim societies in Sub-Saharan Africa. The course is



organized in two parts. The first part of the course will focus on the history of Islamization of Africa, and topics will include the ways in which Islam came to Africa, the relationships of Islam to trade, the growth of literacy in Arabic and Ajami, the rise of clerical classes and their contribution to State formation in the pre-colonial period. The second part of the course will address Muslim responses to European colonial domination, and the varieties of Islamic expressions in the post-independence period (rise of Islamist, Shiite and Salafi jihadi movements) and Muslim globalization. In addition to the lectures, the course will include film showing, and two discussion sections: one in English and one in Arabic.

*Note:* Offered jointly with the Divinity School as 3365.

### [**Islamic Civilizations 176. Islam in Modern West Africa**]

Catalog Number: 59889 Enrollment: Limited to 30.

*Ousmane Oumar Kane*

*Half course (fall term). Tu., Th., at 1, plus one hour to be arranged.*

At the beginning of European colonial rule in the early 20th century, less than a half of the West African population was Muslim. By independence from European colonial rule in the early 1960s, close to 90 percent of many West African countries have been Islamized. More people converted to Islam during the six decades of European colonial rule than in the preceding thousand year of slow Islamization. The aim of this lecture course is to analyze contemporary West African Muslim societies with particular reference to the twenty and twenty first centuries. This course will look at how colonialism created a favorable ground for the spread of Islam. It will also address the main institutions and movements of modern Islam in West Africa as well as the postcolonial transformations in education, gender, the arts, interfaith relations etc. In addition to the discussion section in English, this lecture course will also offer a section in Arabic in which participants will be initiated to the intellectual production of Muslim intellectuals in Africa.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3366.

### **Islamic Civilizations 178 (formerly \*Religion 1820). Muslim Societies in South Asia: Religion, Culture, and Identity**

Catalog Number: 2741

*Ali S. Asani*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

South Asia (India, Pakistan, and Bangladesh) is home to the largest concentration of Muslims in the world. This course introduces students to a variety of issues that have characterized the development and evolution of South Asian Muslim communities. While the course will briefly survey the historical development of Islamic and Muslim institutions in the region, its central focus will be the formation of identity - as expressed through language, literature, and the arts - among South Asian Muslim communities. The issues that influence these identities will be considered with regard to the constantly evolving religious and political contexts of South Asia. Special attention will be given to recent attempts to redefine Muslim religious identities through reform and revivalist movements as well as state policies of Islamization. We will look at the impact of these policies on issues such as the status of Muslim women, relations between Muslim and non-Muslims and the growth of sectarian tensions between Muslim groups. The course is appropriate for those who wish to acquire a bird's-eye view of the Islamic tradition in South Asia, as well as those interested in exploring some of the issues confronting Muslim



populations in contemporary times.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for either Culture and Belief or Societies of the World, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past. Offered jointly with Divinity School as 3625.

**[Islamic Civilizations 183. Reform and Revival in Modern Islam, 19th -20th centuries]**

Catalog Number: 15829

*Malika Zeghal*

*Half course (spring term). W., 1–3.*

This course will shed light on the historical transformation of the internal religious reforms of Islam in the 18th and 19th century into politicized and/or fundamentalist versions of Islam in the 20th century.

*Note:* Expected to be given in 2015–16. Offered jointly with Divinity School as HDS 3362.

**Islamic Civilizations 185r. Ulama, Religious Institutions, and Islamic Education in the Middle East**

Catalog Number: 73552

*Malika Zeghal*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

Examines the secondary literature in intellectual and social history, sociology and anthropology of Islamic education, religious scholars ('ulama) and religious authority in the Muslim world (19th-20th centuries). In the Spring of 2015, primary sources in Arabic will be examined in relation to each topic covered.

*Prerequisite:* Reading proficiency in Arabic required.

***Cross-listed Courses***

**History 1877 (formerly \*History 1977a). History of Middle East, 600-1055**

**[History 1878b. Ottoman State and Society II (1550-1920)]**

**[History of Art and Architecture 128. Topics in Arabic Art and Culture: The Medieval Mediterranean]**

**History of Science 108. Bodies, Sexualities, and Medicine in the Medieval Middle East**

**[History of Science 111. Two Scientific Revolutions: From the Classical Age of Islamic Sciences to the Scientific World of Early Modern Europe]**

**[History of Science 113. Crusades, Plagues and Hospitals: Medicine and Society in the Islamic Middle Ages]**

**Religion 1802. Introduction to Islamic Mysticism: The Sufi Tradition**

**[Religion 1816. Ismaili History and Thought]**

**Societies of the World 54 (formerly Religion 1832). Islam and Politics in the Modern Middle East**

***Primarily for Graduates***

**Islamic Civilizations 210. Introduction to Islamic Law**

Catalog Number: 56941 Enrollment: Limited to 30.



*Baber Johansen (Divinity School)*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

This lecture course provides an oversight over the history of Muslim Law, the *fīqh*, from the 8th to the 19th century. This system of legal and ethical norms is conceived as the continuous interpretation of the shari'a, the revealed principles and norms of law and ethics. In the "branches of the *fīqh*" (*fūrū' al-fīqh*) this interpretation, since the eighth century, takes the form of the production of legal and ethical norms. From the tenth century on, the texts of the methodology of *fīqh* (*uṣūl al-fīqh*) attempt to create the norms for norm production. We will discuss the norms and the methodology of the law as well as the institutions that allowed it to spread over the whole of the Muslim World. The course will consistently focus on the methods through which changes in genres of legal literature, methods, institutions and norms were introduced and recognized during different periods of the *fīqh*'s development. Special attention will be given to the changes that the system underwent from the 19th to the 21st century.

*Note:* Offered jointly with the Divinity School as 3621.

**[\*Islamic Civilizations 211. The Jurisprudence of the Supreme Constitutional Court (SCC) of Egypt between 2011 and 2014: Aspects of Constitutional Doctrine] - (New Course)**

Catalog Number: 87128 Enrollment: Limited to 12.

*Baber Johansen (Divinity School)*

*Half course (spring term). Tu., 2–4.*

The aim of this seminar is to study the SCC's role in the transition processes between the presidencies of Nasser and Mubarak, on the one hand, the presidencies of Mubarak to Mursi and from Mursi to the situation of 2014. Under all these regimes the SCC's task is to guarantee the state's abidance by its constitutional obligations in the field of legal procedure and democratic principles. In a first step we will compare the tasks assigned to the highest courts of the different branches of the judiciary in Egypt and the way in which the SCC is integrated into this hierarchy of these courts. In a second step we will study the way in which the SCC in the past acted as guarantor of constitutional norms with special consideration of Human Rights, the interpretation of Islamic Law as a constitutional source of national legislation and the state's prerogative of ruling under rules of emergence. Finally, we will focus on the role of the SCC as actor in the transition from the Mubarak to the Mursi presidency and from the Mursi regime to the regime under the control of the military that came into existence between July 2013 and February 2014. For the first and the second part we will mainly rely on the texts of the constitutions of 1971 and 1980 and on secondary literature on the court's jurisprudence. The third part will mainly be based on the texts of the constitutions of 2012 and 2014, on the political calendar of the years 2011-2014 and on BJ's translations of some of the most important decisions of the SCC during the 2011-2014 period and the analysis of their function in the transition process.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3494.

**[\*Islamic Civilizations 213. Theological and Legal Conceptions of Human Nature in Islam] - (New Course)**

Catalog Number: 46765 Enrollment: Limited to 12.

*Baber Johansen (Divinity School)*

*Half course (spring term). Th., 4–6.*

Concepts of human nature are systematically developed in early Islamic theology. By contrast, references to human nature in the texts of the applied law (*fūrū' al-fīqh*) are mostly passing



remarks used to justify a particular norm but rarely systematized and generalized. In the methodology of the law (*usūl al-fiqh*) references to the legal personality (*dhimma*) provide a bridge between the discussions on human nature in theology and the texts of the applied law. For a discussion of the theological concepts of nature the seminar will rely on the work of Josef van Ess and Bernard Weiss. BJ will provide a selection of texts on human nature translated from Arabic treatises on the applied law and the methodology of law written by authors of different law schools between the tenth and the thirteenth centuries. The purpose of the seminar is to understand in how far elements of natural law can be found in the legal and theological discussions of Islam from the 8th to the 12th century. We will discuss the secondary literature on natural law in Islam, published over the last decade and see, in how far it contains material that could help us to answer this question and how far it integrates the Muslim discussion of human nature.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3487.

**\*Islamic Civilizations 214. Concepts of Innovation (*tajdīd*) in Classical Islam (9th-12th centuries) - (New Course)**

Catalog Number: 27156 Enrollment: Limited to 10.

*Baber Johansen (Divinity School)*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

In the secondary literature Muslim law and theology of the Middle Period of Islam are widely characterized as tradition-bound and oriented towards the past. Such an assessment can, in fact, be justified through references to many of the texts of both disciplines. But it ignores that important jurists and theologians in 11th- and 12th century Baghdad and elsewhere adopted a different approach to the tasks of their disciplines, seeing innovation (*tajdīd*) as the characteristic of Muslim culture, law, and theology. In this seminar we will read (in Arabic or in the translations by BJ) philosophical, legal, and philological texts that define language, law, social and cultural practices as continuing processes of innovation. The philological debate on the divine or human "Instituting of language" (*wad‘ al-lugha*) that was led from the 9th to the 16th century served as a general point of reference for these debates. It will also be the starting point of our discussions. This discussion has to be related to the translation movement that - from the 8th to the 10th century - helped to integrate natural sciences and philosophy into Islamic culture and religion. We will read Dimitri Gutas' history of this translation movement. In the second half of the seminar, we will focus on the fields to which scholars of the eleventh and twelfth centuries apply their concept of innovation and the way in which the scholarly and political milieu reacted to this conceptualization.

*Note:* Offered jointly with the Divinity School as 3492.

**[\*Islamic Civilizations 217. The Construction of Gendered Spheres in Islamic Law: Ritual, Family, Kinship, Court Procedures] - (New Course)**

Catalog Number: 34925 Enrollment: Limited to 8.

*Baber Johansen (Divinity School)*

*Half course (fall term). Th., 4–6.*

From the eighth century on, the construction of gendered spheres in the *fiqh* assigns to women the capacity to dominate and control certain spheres, such as the sphere of reproduction, the education of children through the first years of their life, some schools of law also assign only to women the right to report to courts and the outer world on acts and persons they have seen in the



gendered spheres dominated by women. The seminar will try to establish a full list of such gendered spheres under feminine control. The reasons by which such gendered spheres are justified by the jurists are many: the women's intimacy has to be protected against the intrusion of the male gaze and touching that may stir the man's and the woman's sexual desire for each other. The seminar will discuss the growing list of reasons for additional veiling and seclusion in the writings of different schools of Sunni law. At the same time, an inverse development also takes place. The number of exceptional situations that require the uncovering of free (and slave) women in the presence of male strangers is constantly growing. Such situations as medical therapy or identification before a court require and justify the unveiling of women in the presence of strangers. As a result, a particular category of women of high standing is developed who are exempt from these exceptions. We will try to follow the development of the casuistry on veiling and unveiling and to find a satisfying explanation for the many contradictions that characterize the arguments for veiling as developed in the legal literature of the classical period. Such an effort to come to terms with the notions of the legal development of veiling from the eighth to the nineteenth century will also allow us to understand better the fundamental change that has taken place in the functions attributed to veiling over the last 50 years.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3486.

#### **\*Islamic Civilizations 230. Islamic Modernism (1): 1700-1800**

Catalog Number: 94782 Enrollment: Limited to 12.

*Baber Johansen (Divinity School)*

*Half course (fall term). Tu., 4–6. EXAM GROUP: 16*

This is the first of three courses on the development of Islamic Modernism from the 18th to the 21st century. All three seminars focus on a notion of "Modernism" and "Modernity" that is not simply imported into the Middle East. We will, therefore, have to discuss concepts of "Modernity" that see modernity produced in Europe or the US and then imported into the Middle East in order to show their shortcomings. We will also have to look closely at discussions within the field of Islamic Studies that deny or defend the existence of an Islamic modernism before the second half of the 19th century. The underlying assumption of the course organization is that Islamic Modernism cannot be understood when it is cut off from the intellectual and religious history of the centuries preceding it. The first of these three courses will therefore focus on the 18th-century religious reform movements: the Muwahhidun in the Arabian Peninsula, the Sufi thinkers in Morocco, Sudan, Libya and Upper Egypt. These movements challenged dominant forms of scholastic thought, legal reasoning, and historical consciousness, as well as the barriers built by them that denied non-theologians and non-jurists the right to interpret revelation and Islamic normativity.

*Note:* Offered jointly with the Divinity School as 3963.

#### **\*Islamic Civilizations 232 (formerly \*Religion 2835). Islamic Modernism (2): 1870-1970**

Catalog Number: 15165 Enrollment: Limited to 12.

*Baber Johansen (Divinity School)*

*Half course (spring term). Th., 4–6. EXAM GROUP: 6*

This is the second of the three seminars on Islamic Modernism. It treats the period between 1870-1970. It focuses on the development, within a colonialist context, of the learned Islamic modernism that develops in Egypt during the last third of the 19th century in the spheres of



Qur'anic exegesis, the reinterpretation of Islamic normativity in a way that is compatible with the institutions of the modern nation state. This modernism also pleads for a selective reception of modern sciences from the West. This type of Islamic modernism is best represented by Muhammad 'Abduh, the mufti of Egypt at the end of the 19th and the beginning of the 20th century. 'Abduh sees in the earliest period of Islam, the lifetime of the Prophet and the first four caliphs, the model by which all Islamic societies have to abide. The Muslim societies of the 19th and the 20th centuries that deviate from this model are characterized by him as living in "ignorance" or "paganism" (*jāhiliyya*), much as the pre-Islamic societies. This approach leads to a devaluation of the historical forms of political organization, law, and science that were developed after the early model period, a development that facilitates the adaptation of Islam to the requirements of a modern national state

*Note:* Offered jointly with the Divinity School as 3964.

**[\*Islamic Civilizations 233. Islamic Modernism (3): 1970-2014]**

Catalog Number: 65847 Enrollment: Limited to 12.

*Baber Johansen (Divinity School)*

*Half course (fall term). Tu., 2–4.*

The third seminar on Islamic Modernism focuses on the end of Arab Liberalism on the level of political parties and the loss of its intellectual focus and influence on the debates of modern Islam. Since the Nasser period liberal politics and liberal public debates have no longer been compatible with the types of authoritarian states that characterize the post-colonial period and that now claim to represent modernity. The Muslim mass movements that had attacked the state of the liberals find themselves also persecuted by new forms of military authoritarianism. It is the reaction to the Iranian Revolution of 1979 that requires a new outlook on Islam and its relation to modernity by Iranian and Arab intellectuals. It is in opposition to the authoritarianism of the Islamic Republic that Iranian intellectuals develop new forms of Islamic hermeneutics that open the horizon for a new understanding of Islam and of politics, leave more space for oppositional forces, and assign more importance to the struggle for more individual and collective rights. This new outlook is not restricted to Iran and to Shi'i intellectuals. The Iranian developments have encouraged a new understanding of Islam and a growing opposition against authoritarian states, developments that were visible since the 1990s also in the Arab world. The growing role of non-Islamist political activists during that period shows the widespread disappointment with the Muslim Brothers and the concept of an Islamic State, but it does not seem to lead to a renaissance of liberalism. The question which political and cultural role Islamic modernism is going to play in the near future is hard to answer. The seminar does not pretend to answer it.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3965.

**\*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). Hours to be arranged. EXAM GROUP: 12*

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, Islamic Civilizations 178 (formerly Religion 1820), or equivalent.

### **Cross-listed Courses**

[\*\*History 2884. Topics in Ottoman Social and Cultural History: Seminar\*\*](#)

[\*\*History 2886. Islamic Law and Society\*\*](#)

[\*\*History of Science 209. Science, Religion and Culture: Debates, Methods and Controversies\*\*](#)

### **Graduate Courses of Reading and Research**

#### **\*Islamic Civilizations 300. Reading and Research in Islamic Civilizations**

Catalog Number: 1963

*Ali S. Asani 7739, Khaled El-Rouayheb 5536, William Albert Graham 4156 (on leave spring term), William E. Granara 1054, Baber Johansen (Divinity School) 5295, Ousmane Kane (Divinity School) 7067, Chad Kia 2852, and Malika Zeghal 6744*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

### **Jewish Studies**

See also below under Aramaic, Hebrew, and Yiddish.

### **Jewish Studies**

#### **Primarily for Undergraduates**

### **Cross-listed Courses**

**[Aesthetic and Interpretive Understanding 29. Modern Jewish Literature]**

**[Culture and Belief 13. The Contested Bible: The Sacred-Secular Dance]**

[\*\*Culture and Belief 27. Among the Nations: Jewish History in Pagan, Christian and Muslim Context\*\*](#)

[\*\*Ethical Reasoning 15. “If There is No God, All is Permitted:” Theism and Moral Reasoning\*\*](#)

**[Religion 25. Judaism: Text and Tradition]**

### **For Undergraduates and Graduates**

**[Jewish Studies 103. Jewish Cultures in the Middle East]**

Catalog Number: 46199

*Susan M. Kahn*

*Half course (spring term). Tu., Th., 1–2:30.*

An introduction to the cultural history of Jewish life in the Middle East. Provides an overview of the changing administrative contexts that historically governed the lives of minority populations in the Mamluk, Ottoman and Modern periods, and examines historical modes of Jewish community-building, strategies of survival, and cultural production in these settings. Finally, the course focuses on the diverse fates Middle Eastern Jewish communities in the 20th century.



Readings will focus primarily on historical and anthropological accounts, though literary, cinematic and biographical sources will also be included.

*Note:* Expected to be given in 2015–16.

### [Jewish Studies 149. Topics in the Dead Sea Scrolls: Exegesis at Qumran]

Catalog Number: 54969

*D. Andrew Teeter (Divinity School)*

*Half course (spring term). Tu., 4–6.*

This course explores the diverse functions of scripture within the literature of the Dead Sea Scrolls, focusing in particular on the forms and methods of interpretation attested, considered in light of other varieties of interpretation in early Judaism. Sessions will be devoted to reading, translation and discussion of primary sources in Hebrew, as well as to discussion of relevant secondary literature.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1309.

*Prerequisite:* Two years of Biblical Hebrew strongly recommended.

### [Jewish Studies 168. Eighth-Century Prophets]

Catalog Number: 14062

*Michael D. Coogan (Divinity School)*

*Half course (spring term). Tu., Th., 8:30–10.*

A close examination of the books of Amos, Hosea, Micah, and Isaiah 1-39, in their historical and social contexts.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1104.

### [\*Jewish Studies 170. Job and the Problem of Suffering]

Catalog Number: 80691

*Michael D. Coogan (Divinity School)*

*Half course (fall term). Tu., Th., 8:30–10.*

An examination of the book of Job and its poetic treatment of the human condition. The course will also consider other biblical and ancient Near Eastern texts that deal with the issue of evil in the world from a religious perspective, and later readings and retellings of Job by Frost, MacLeish, Wiesel, Fackenheim, and others.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1106.

### *Cross-listed Courses*

#### [Literature 163. Jewish Languages and Literature]

#### [Societies of the World 35. Conditional Equality: The Case of the Jews of Europe in Modern Times]

### *Primarily for Graduates*

#### \*Jewish Studies 200r. Guided Readings in Jewish History

Catalog Number: 4478

*Shaye J.D. Cohen*

*Half course (fall term). M., 1–3. EXAM GROUP: I*



Topic for 2010-11: Boundaries and Identities. Readings of Jewish texts, ancient to modern, that deal with the question of the Other and the Self: what is the boundary between Jews and non-Jews, and between Judaism and non-Judaism? Topic for 2014-15 to be determined.

*Note:* Offered jointly with the Divinity School as 3709. Required of all entering graduate students in Jewish Studies; open to others with the permission of the instructor.

**[Jewish Studies 207. Rewriting Scripture in Jewish Antiquity: Seminar]**

Catalog Number: 9572 Enrollment: Limited to 15.

*D. Andrew Teeter (Divinity School)*

*Half course (fall term). Tu., 4–6.*

A study of the exegetical literature of so-called rewritten Bible texts from the Second Temple period, considered in relation to the received Hebrew Bible and its later interpretive traditions. Examination of exegetical techniques, aims, and presuppositions, with attention to higher level compositional strategies, underlying conceptions of scripture/scriptural authority, and the dynamics of canon formation. Primary sources will include, among others: the book of Jubilees, the Temple Scroll, Reworked Pentateuch, the Genesis Apocryphon, as well as selected prophetic and hymnic exemplars.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1302.

*Prerequisite:* Ability to read (unpointed) Hebrew.

***Graduate Courses of Reading and Research***

**\*Jewish Studies 300. Reading and Research in Jewish Studies**

Catalog Number: 1544

*Shaye J.D. Cohen 4180 and Jay M. Harris 2266*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 9; Spring: 2*

***Modern Middle Eastern Studies***

***The Modern Middle East***

***Primarily for Undergraduates***

**\*The Modern Middle East 91r. Supervised Reading and Research**

Catalog Number: 88561

*Ali S. Asani, William E. Granara, Susan M. Kahn, Malika Zeghal and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

Tutorial supervision of research in subjects not treated in regular courses.

***Cross-listed Courses***

**[Culture and Belief 41. Gender, Islam, and Nation in the Middle East and North Africa]**

**[\*History 82m. The Modern Mediterranean: Connections and Conflicts between Europe**



**and North Africa]**

**[Societies of the World 46. The Anthropology of Arabia]**

*For Undergraduates and Graduates*

**The Modern Middle East 100 (formerly Near Eastern Civilizations 100). Approaches to Middle Eastern Studies**

Catalog Number: 12411

*Malika Zeghal*

*Half course (fall term). M., W., at 10, plus a section meeting to be arranged. EXAM GROUP: 5*  
 An interdisciplinary introduction to Middle Eastern Studies focusing on the modern period. Disciplinary approaches will include exemplary texts in History, Anthropology, Religious Studies, Literature and Political Science. Required for all concentrators in The Modern Middle East. Open to all undergraduates.

*Note:* A required course primarily for undergraduates pursuing a secondary field in modern Middle Eastern Studies.

**The Modern Middle East 111 (formerly Islamic Civilizations 105). Culture and Society in Contemporary Iran**

Catalog Number: 51277

*Chad Kia*

*Half course (spring term). M., W., at 1, plus weekly section to be arranged. EXAM GROUP: 8*  
 Introduces a wide spectrum of students to some of the most significant aspects of Iranian culture from the Constitutional Revolution through the three decades since the Islamic Revolution of 1979, one of the paradigmatic shifts in twentieth-century global history. Using the modernist commitment of artists and intellectuals to social and political engagement as a unifying theme, the course will survey modern and contemporary Iranian culture through the analysis of various literary, artistic, cinematic, and intellectual forms. The impact of European culture; nationalism; the tensions between modernism, secularism, and religion; the emergence of women's voices, a cinematic avant-garde, and mass culture; the strains of cosmopolitan and provincial coexistence; the anti-Western critique of "occidentosis"; and the controversial 2009 elections are among the issues that will be addressed.

*Note:* This course assumes no prior knowledge of Persian, Iranian history or Islam; when taken for a letter grade, it meets the General Education requirement for Culture and Belief.

**[The Modern Middle East 120. The Arab Revolutions: popular uprisings and political transformations]**

Catalog Number: 34461

*Malika Zeghal*

*Half course (fall term). W., 1–3; .*

Examines the causes of the 2010-2011 Arab uprisings, the subsequent political transformations in the Middle East and North Africa and the prospects for democratic transitions.

*Note:* Expected to be given in 2015–16.

**The Modern Middle East 125. Culture and Society in Contemporary Israel - (New Course)**

Catalog Number: 37025



*Susan M. Kahn*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

This course uses a variety of methodological approaches to explore the multidimensional nature of contemporary Israeli culture and society. Conventional and alternative narratives of the Israeli experience will be illuminated by analyzing a variety of texts, including literature, film and ethnography. Careful attention to historical and social contexts will amplify these explorations. The goal of the course is to give students a range of scholarly tools to explore central questions about Israeli culture and social life.

*Note:* Course taught in English; no Hebrew necessary.

#### **The Modern Middle East 128. The Arab-Israeli Conflict - (New Course)**

Catalog Number: 65595

*Rachel Fish (Brandeis University)*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This course examines the historical narratives and dynamics of the Arab-Israeli conflict, both in terms of the conflicts between Israel and the neighboring Arab states and the particular struggle between Israel and the Palestinians. Through the exploration of primary sources and interrogation of parallel narratives, students will encounter the history and contemporary politics of the Arab-Israeli and Palestinian-Israeli conflicts.

#### **The Modern Middle East 158a. Modern Arabic Literature Seminar: The Racialized Other in Arabian Peninsula Literature and Culture**

Catalog Number: 55956

*Moneera Al-Ghadeer*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

This course introduces modern literature and contemporary technology writing in the contemporary Arabian Peninsula. Themes include "race" and "otherness" and how these tropes are fashioned by political and social discourses. Readings include novels from Kuwait, Saudi Arabia, Oman, Yemen, and Qatar, exploring how narratives have been influenced and marked by questions of canon formation, globalization and social change.

*Note:* Arabic helpful but not required. Open to both undergraduates and graduates.

#### **The Modern Middle East 158b. Modern Arabic Literature Seminar: Lebanese Civil War: Histories and Fictions**

Catalog Number: 5145

*William E. Granara*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Examines the roots and issues of the Lebanese Civil War (1975-90) and its continuing impact on modern Arabic fiction. The syllabus pairs realistic and romanticized representations of family, sectarianism, and gender binaries against the destruction and fantasy of the urban landscape. Themes include nostalgia and memory, exile and return. Films and documentaries will also be viewed.

*Note:* Arabic helpful but not required. Open to both undergraduates and graduates.

#### **[The Modern Middle East 160r (formerly Turkish 160r). History of Modern Turkey through Literature]**



Catalog Number: 6964

*Himmet Taskomur*

*Half course (spring term). M., W., at 12, and an additional hour to be arranged.*

This course surveys the history of modern Turkey and culture through Turkish literature in translation. Main focus is on topics of cultural revolution, nationalism, identity, gender, and migration. Primary readings are translations of novels, short stories, drama and poetry.

*Note:* Expected to be given in 2015–16. Knowledge of Turkish not required. Not open to auditors.

**[The Modern Middle East 175r (formerly Arabic 175r). Understanding Modern North Africa]**

Catalog Number: 69851

*William E. Granara*

*Half course (spring term). M., W., at 12.*

An introduction to the history, politics, cultures, societies and economics of the modern Maghrib (Morocco, Algeria, Tunisia and Libya). Emphasis on the formation of evolving post-colonial identities within Islamic, Arabo-Berber, African, and Mediterranean contexts.

*Note:* Expected to be given in 2015–16. Qualifies as a gateway course for secondary field in Modern Middle Eastern Studies.

***Cross-listed courses***

**[\*Literature 131. The Arab-American Experience in Fiction, Film, and Popular Culture - (New Course)]**

***Primarily for Graduates***

**The Modern Middle East 200a (formerly Near Eastern Civilizations 200a). Approaches to Middle Eastern Studies**

Catalog Number: 5918

*Susan M. Kahn and members of the Faculty*

*Half course (fall term). M., 1–3. EXAM GROUP: I*

Interdisciplinary seminar serves as an introduction to the major disciplines constituting Middle Eastern Studies, including history, political science, anthropology, literature and Islamic Studies. Faculty affiliated with Center for Middle Eastern Studies serve as guest lecturers.

*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 Graduate students in related fields.

***Cross-listed Courses***

**[Comparative Literature 255. Dysfunctional Family as National Allegory in the Middle Eastern Novel]**

***Graduate Courses of Reading and Research***



**\*The Modern Middle East 300. Direction of Master's Thesis**

Catalog Number: 37039

*Ali S. Asani 7739, William E. Granara 1054, Baber Johansen (Divinity School) 5295, Susan M. Kahn 4833, and Malika Zeghal 6744*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*The Modern Middle East 310. Reading and Research in the Modern Middle East - (New Course)**

Catalog Number: 12024

*Ali S. Asani 7739, William E. Granara 1054, Baber Johansen (Divinity School) 5295, Susan M. Kahn 4833, and Malika Zeghal 6744*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**Near and Middle Eastern Languages and Literatures**

**Akkadian**

See also above under Ancient Near Eastern and Biblical Studies.

**For Undergraduates and Graduates**

**Akkadian A. Introductory Akkadian**

Catalog Number: 4891

*Gojko Barjamovic*

*Full course (indivisible). Tu., Th., 1:30–3. EXAM GROUP: Fall: 8; Spring: 1*

An introduction to the Semitic language of Akkadian, primarily through the Old Babylonian dialect and cuneiform writing system as used during the time of Hammurabi (c. 1750 BCE). Students learn the fundamentals of grammar and the writing system, as well as the most common cuneiform signs in official and cursive script. Readings span a variety of genres, including private letters, judicial documents, literary and religious texts, divinatory compendia, legal code, and royal inscriptions. The course also briefly introduces students to examples of texts from other periods and dialects of the Akkadian language for cultural and comparative purposes.

**Akkadian 120. Intermediate Babylonian**

Catalog Number: 3724

*Piotr Steinkeller*

*Full course (indivisible). Tu., Th., at 11. EXAM GROUP: 15*

*Prerequisite: Akkadian grammar, basic vocabulary, knowledge of cuneiform script.*

**Akkadian 141r. Akkadian Myths and Epics**

Catalog Number: 7618

*Peter Machinist*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

*The Gilgamesh Epic.*

*Prerequisite: Akkadian grammar, basic vocabulary, knowledge of cuneiform script.*



### [Akkadian 144. Akkadian Divination Texts]

Catalog Number: 6734

*Piotr Steinkeller*

*Half course (fall term). W., 1–4.*

*Note:* Expected to be given in 2015–16.

### [Akkadian 149. Akkadian Legal and Economic Texts]

Catalog Number: 6703

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Akkadian grammar, basic vocabulary, knowledge of cuneiform script.

### [Akkadian 150. Working with Original Cuneiform Documents - \(New Course\)](#)

Catalog Number: 79166

*Piotr Steinkeller*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

An introduction to the reading and copying of cuneiform tablets. As part of the class, students will have an opportunity to study a wide range of tablets from the Harvard Semitic Museum collection, dating from the Pre-Sargonic through the Seleucid period. The course will also provide general information on the history of cuneiform script, tablet types and shapes, organization of script on various types of documents, and sealing practices.

*Note:* The class will meet once a week for 2 hours.

### [Akkadian 153. Old Akkadian]

Catalog Number: 8334

*Piotr Steinkeller*

*Half course (fall term). Th., 1–4.*

Readings in representative historical, epistolary, literary, and economic texts with emphasis on the grammar.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Akkadian grammar, basic vocabulary, knowledge of cuneiform script.

### [Akkadian 154a. Peripheral Akkadian](#)

Catalog Number: 2416

*Piotr Steinkeller*

*Half course (fall term). Tu., 1–4. EXAM GROUP: 8*

*Prerequisite:* Two full courses in Akkadian.

### [Akkadian 156. Neo-Babylonian Inscriptions]

Catalog Number: 4024

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

Focuses on juridical aspects of every-day life in 1st millennium BCE Babylon. Reports of legal cases, letters and contracts allow vivid insights into interactions between persons and enhances their sometimes moving biographies. Explores the fates of murderers, thieves, slaves and



foundlings; characteristics of legal decision-making bodies and the royal interventions in private law will be discussed.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Akkadian grammar, basic vocabulary, knowledge of cuneiform script.

**[Akkadian 157. Introduction to Old Assyrian Language and History]**

Catalog Number: 90343

*Gojko Barjamovic*

*Half course (fall term). Tu., Th., 11–12:30.*

Readings of texts in the Assyrian dialect of the period c. 1920-1720 BCE. Examples include loans and quittances, caravan texts, commercial records, partnership contracts, business letters, family and state law, political treaties, royal inscriptions, incantations and literature. The course will integrate the textual record with an overview of Anatolian history and material culture during the period in question.

*Note:* Expected to be given in 2015–16.

***Primarily for Graduates***

**[Akkadian 200r. Readings in Akkadian: Seminar]**

Catalog Number: 2970

*Piotr Steinkeller*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

***Graduate Courses of Reading and Research***

**\*Akkadian 300. Akkadian Language and Literature**

Catalog Number: 2233

*Peter Machinist 2812 and Piotr Steinkeller 7337*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 18; Spring: 14*

***Arabic***

See also Islamic Civilizations.

***Primarily for Undergraduates***

***Cross-listed Courses***

**[\*Literature 131. The Arab-American Experience in Fiction, Film, and Popular Culture - (New Course)]**

***For Undergraduates and Graduates***

**Arabic A. Elementary Arabic**

Catalog Number: 5773



*Dalia Abo Haggar and staff*

*Full course (indivisible). M., through F., at 9, 10, 11, or 12. EXAM GROUP: 4*

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). Samples of modern (contemporary) and classical styles of writing introduced into basic syllabus, and audio-visual material from the contemporary Arabic media. Required textbooks: (1) *Alif Baa* (with multimedia), 2nd edition. (2) *Al-Kitaab fii Ta'allum al-'Arabiyya*: Part I, 2nd edition.

*Note:* Not open to auditors. Cannot be taken pass/fail. Cannot divide for credit. Offered jointly with the Divinity School as 4345.

### **Arabic Ba. Intermediate Arabic I**

Catalog Number: 1106

*Nour Barmada and staff*

*Half course (fall term). M. through F., at 9, 10, 11, or 12. EXAM GROUP: 5*

A thorough review and continuation of literary (classic and modern) Arabic grammar with emphasis on reading, writing, speaking and listening comprehension. Course materials draw from both classical and modern Arabic literature and culture. Required textbook: *Al-Kitaab fii Ta'allum al-Arabiyya*, Part II with DVDs, 2nd edition.

*Note:* Not open to auditors. Cannot be taken pass/fail. Offered jointly with the Divinity School as 4351.

*Prerequisite:* Arabic A or equivalent.

### **Arabic Bb. Intermediate Arabic II**

Catalog Number: 0973

*Nour Barmada and staff*

*Half course (spring term). M., through F., at 9, 10, 11, or 12. EXAM GROUP: 10*

A continuation of Arabic Ba. Textbook: *Al-Kitaab*, volume II, 2nd edition.

*Note:* Not open to auditors. Cannot be taken pass/fail. Offered jointly with the Divinity School as 4361.

*Prerequisite:* Arabic A or equivalent.

### **Arabic 130a. Upper-Level Classical Arabic I**

Catalog Number: 4591

*Dalia Abo Haggar*

*Half course (fall term). M., Tu., Th., at 9. EXAM GROUP: 10*

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. Offered jointly with the Divinity School as 4353.

*Prerequisite:* Arabic Ba or equivalent, or may be taken separately with permission of the instructor.

### **Arabic 130b. Upper-Level Classical Arabic II**

Catalog Number: 2964

*Dalia Abo Haggar*



*Half course (spring term). M., Tu., Th., at 9. EXAM GROUP: 10*

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. Offered jointly with the Divinity School as 4354.

*Prerequisite:* Arabic 130a or equivalent, or may be taken separately with permission of the instructor.

### **Arabic 131a. Upper-Level Modern Arabic I**

Catalog Number: 0739

*Nevenka Korica-Sullivan*

*Half course (fall term). Section I: M. through Th., at 11; Section II: M. through Th., at 12. EXAM GROUP: 18*

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. Required textbook: *al-Kitaab -Kitaab fii Ta'allum al-Arabiyya*, Part III with DVDs.

*Note:* Not open to auditors.

*Prerequisite:* Arabic Ba or equivalent.

### **Arabic 131b. Upper-Level Modern Arabic II**

Catalog Number: 0697

*Nevenka Korica-Sullivan*

*Half course (spring term). Section I: M. through Th., at 11; Section II: M. through Th., at 12.*

*EXAM GROUP: 14*

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 essays. Required textbook: *al-Kitaab -Kitaab fii Ta'allum al-Arabiyya*, Part III with DVDs.

*Note:* Not open to auditors.

*Prerequisite:* Arabic 131a or equivalent.

### **Arabic 133. Upper-Level Spoken Modern Standard Arabic**

Catalog Number: 4747 Enrollment: Limited to 15.

*William E. Granara*

*Half course (fall term). M., W., 3–5. EXAM GROUP: 6*

This course emphasizes the development of advanced speaking and listening skills by exposing students to the contemporary media and academia. Some reading and writing will be required, but classes will revolve around oral presentations and directed conversations.

*Note:* Not open to auditors.

*Prerequisite:* Two years of MSA or equivalent proficiency.

### **Arabic 134. Colloquial Levantine Arabic**

Catalog Number: 4154 Enrollment: Limited to 12.

*Nour Barmada*



*Half course (spring term). M., W., 3–5. EXAM GROUP: 17*

Introduces students to Colloquial Levantine Arabic of Lebanon, Syria, Jordan, and Israel/Palestine. The course emphasizes the development of speaking and listening skills through the reinforcement of grammar and vocabulary.

*Note:* Not open to auditors. Students who have completed Arabic 135 may not take this course for credit.

*Prerequisite:* Two years of Standard Arabic or the equivalent.

**[Arabic 135. Colloquial Egyptian Arabic]**

Catalog Number: 4454 Enrollment: Limited to 12.

*Nevenka Korica-Sullivan*

*Half course (spring term). M., W., 3–5.*

Introduces students to Egyptian Arabic, the most widely recognized dialect in the Arab world. The course emphasizes the development of speaking and listening skills through the reinforcement of grammar and vocabulary.

*Note:* Expected to be given in 2015–16. Not open to auditors. Students who have completed Arabic 134 may not take this course for credit.

*Prerequisite:* Two years of Standard Arabic or the equivalent.

**[Arabic 160r. Readings in Arabic Historians, Geographers, and Biographers]**

Catalog Number: 5617

*Roy Mottahedeh*

*Half course (fall term). W., 4–6.*

*Note:* Expected to be given in 2015–16.

***Primarily for Graduates***

**Arabic 241ar. Advanced Modern Arabic Bridge: Language, Literature, and Culture I**

Catalog Number: 3309

*Sami Alkyam*

*Half course (fall term). Tu., Th., 11:30-1, and an additional hour to be arranged. EXAM GROUP: 15*

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. Not open to auditors.

*Prerequisite:* Advanced proficiency in Arabic.

**Arabic 241br. Advanced Modern Arabic Bridge: Language, Literature, and Culture II**

Catalog Number: 6399

*Sami Alkyam*

*Half course (spring term). Tu., Th., 11:30-1, and an additional hour to be arranged. EXAM GROUP: 15*

A continuation of Arabic 241ar.

*Note:* Conducted in Arabic. Not open to auditors.



### **\*Arabic 242ar. Arabic Five**

Catalog Number: 59675 Enrollment: Limited to 12.

*Moneera Al-Ghadeer*

*Half course (fall term). Tu., 4–6. EXAM GROUP: 16*

Invisible Societies in the Contemporary Arabic Novel. The course explores aspects of the contemporary Arabic novel and how authors fashion literary constructions of marginalized peoples, heteroglossia, and tensions between cosmopolitanism and localism.

*Note:* Course conducted solely in Arabic; all readings in Arabic.

*Prerequisite:* Four years of Modern Arabic or equivalent level of proficiency.

### **\*Arabic 242br. Arabic Five**

Catalog Number: 44568 Enrollment: Limited to 12.

*Sami Alkyam*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

Corporeal States: Body, Nation, Text and Beyond in Contemporary Arabic Novel

*Note:* Course conducted solely in Arabic; all readings in Arabic.

*Prerequisite:* Four years of Modern Arabic or equivalent.

### **[Arabic 243ar. Advanced Readings in Classical Arabic Bridge I: Historical Sources]**

Catalog Number: 41216

*William E. Granara*

*Half course (fall term). W., 9–11, plus one hour to be arranged.*

Reinforcement of advanced classical Arabic grammar and stylistics, and introduction to various genres of historical, geographical and biographical texts.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Three years of Arabic or equivalent level of proficiency.

### **[Arabic 243br. Advanced Readings in Classical Arabic Bridge II: Rational Sciences]**

Catalog Number: 77091

*Khaled El-Rouayheb*

*Half course (spring term). Tu., Th., 11:30–1.*

Reinforcement of advanced classical Arabic grammar and stylistics, and introduction to the genres of *usul*, *kalam*, *mantiq* and *falsafa*.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Three years of Arabic or equivalent level of proficiency.

### **Arabic 243cr. Advanced Readings in Classical Arabic Bridge III: Prose and Poetry**

Catalog Number: 11917

*William E. Granara*

*Half course (fall term). W., 9–11. EXAM GROUP: 10*

Reinforcement of advanced classical Arabic grammar and stylistics, and introduction to various genres of poetry and prose (adab).

*Prerequisite:* Three years of Arabic or equivalent level of proficiency.

### **Arabic 243dr. Advanced Readings in Classical Arabic Bridge IV: Religious Sciences**

Catalog Number: 66382



*Khaled El-Rouayheb*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Reinforcement of advanced classical Arabic grammar and stylistics, and introduction to various genres of *Quran, Hadith, Sira* and *Tafsir*.

*Prerequisite:* Three years of Arabic or equivalent level of proficiency.

### **Arabic 246r. Andalus, Sicily, and the Maghrib in Literary and Cultural Texts: Seminar**

Catalog Number: 6196

*William E. Granara*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

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 249r. Arabic Philosophical Texts: Seminar**

Catalog Number: 3572

*Khaled El-Rouayheb*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

Readings on selected topics in Islamic philosophy.

*Prerequisite:* Three years of Arabic or equivalent.

### **[Arabic 250r. Islamic Theological Texts: Seminar]**

Catalog Number: 7849

*Khaled El-Rouayheb*

*Half course (spring term). M., 1–3.*

Readings on selected topics in Islamic theology.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3883.

Students will be expected to read approximately 15-20 pages of classical Arabic per week.

*Prerequisite:* Three years of Arabic or permission of the instructor.

### **Arabic 251r. Classical Arabic Texts: Seminar - (New Course)**

Catalog Number: 19577

*Khaled El-Rouayheb*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

Readings on selected topics in Islamic intellectual history.

*Prerequisite:* Three years of Arabic. Students are expected to be able to read 15-20 pages of classical Arabic per week.

### ***Cross-listed Courses***

### **[Comparative Literature 263. Journey, Exile, and Displacement in Modern Arabic Literature]**

### ***Graduate Courses of Reading and Research***



**\*Arabic 300. Reading and Research in Arabic Language and Civilization**

Catalog Number: 7828

*Khaled El-Rouayheb 5536, William Albert Graham 4156 (on leave spring term), William E. Granara 1054, Baber Johansen (Divinity School) 5295, Ousmane Kane (Divinity School) 7067, and Roy Mottahedeh 1454 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Arabic 320. Reading and Research in Modern Arabic Literature and Literary Criticism**

Catalog Number: 9167

*William E. Granara 1054*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**Aramaic**

**For Undergraduates and Graduates**

See also Ancient Near East and Biblical Studies, Jewish Studies, and Early Iranian Civilizations.

**Aramaic A. Introduction to Ancient Aramaic**

Catalog Number: 5985

*Peter Machinist*

*Half course (fall term). F., 11–1. EXAM GROUP: 13*

Introduction to Aramaic focusing on Biblical Aramaic, but with selections also from other ancient Aramaic texts including Elephantine, Qumran and the Targumim.

*Note:* Jointly offered with the Divinity School as 4059.

*Prerequisite:* Two semesters of Biblical Hebrew.

**Aramaic B. Targumic and Related Aramaic**

Catalog Number: 89499

*Peter Machinist*

*Half course (fall term; repeated spring term). Fall: F., 2–4; Spring: Tu., 11–2. EXAM GROUP: Fall: 7; Spring: 15*

Readings in Egyptian, Palestinian and targumic Aramaic, with special focus on the grammar, literary form and function of the Targumim.

*Note:* Jointly offered with the Divinity School as 4060.

*Prerequisite:* Aramaic A or the equivalent.

**Graduate Courses of Reading and Research**

**\*Aramaic 300. Aramaic Language and Literature**

Catalog Number: 5758

*Shaye J.D. Cohen 4180, Khaled El-Rouayheb 5536, and Peter Machinist 2812*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**Armenian**



See also Armenian Studies.

***For Undergraduates and Graduates***

**[Armenian A. Elementary Classical Armenian]**

Catalog Number: 5476

*James R. Russell*

*Full course (indivisible). Tu., 2–4.*

Introduction to classical Armenian grammar and reading of selected texts.

*Note:* Expected to be given in 2015–16.

**[Armenian B. Elementary Modern Eastern Armenian]**

Catalog Number: 7168

*James R. Russell*

*Full course (indivisible). Th., 4–6.*

Introduction to the spoken and literary language of the Republic of Armenia.

*Note:* Expected to be given in 2015–16.

**[Armenian 120. Armenian Magical Texts]**

Catalog Number: 7221

*James R. Russell*

*Half course (spring term). Tu., 2–4.*

Armenian magical texts include codices, scrolls, and separately-printed saints' lives used for good or ill, containing magic squares and symbols, the latter mostly deriving from Islamic magic. The course will consider literary sources of magic texts (e.g., the prayer Havatov khostovanim, the meditations of Narek), parallel traditions (esp. Christian Ethiopia), and the consideration of the paintings in Armenian magical manuscripts from the standpoint of the genre of Outsider Art.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2200.

**Armenian 130. Advanced Classical Armenian**

Catalog Number: 4926

*James R. Russell*

*Half course (fall term). W., 5:30–7:30 p.m. EXAM GROUP: 17*

The text of St. Grigor Narekats'i *Matean olbergut'ean*, with other mystical texts from Armenian and Eastern Christian traditions.

*Prerequisite:* Armenian A.

***Graduate Courses of Reading and Research***

**\*Armenian 300. Armenian Language and Literature**

Catalog Number: 0240

*James R. Russell 3411 (on leave spring term)*

*Half course (fall term). . EXAM GROUP: 8*

***Egyptian***



### ***For Undergraduates and Graduates***

#### **Egyptian Aa. The Language of the Pharaohs: Introduction to Egyptian hieroglyphs I**

Catalog Number: 13886

*Peter Der Manuelian*

*Half course (fall term). M., W., 1:30–3. EXAM GROUP: 1*

This language course explores the fundamentals of Middle Egyptian, the classical stage of Egyptian hieroglyphs used throughout much of ancient Egyptian history. Lessons in the Egyptian writing system, grammar, and culture, with weekly vocabulary and exercises, will introduce the language and verbal system in a systematic fashion. By the end of the semester, students may begin to read selections from Egyptian classic stories and historical texts. Visits to the Semitic Museum and the Museum of Fine Arts, Boston, in order to read ancient hieroglyphic inscriptions on the original monuments, may also be included.

*Note:* Continues as Egyptian Ab. Offered jointly with the Divinity School as 4120.

#### **Egyptian Ab. The Language of the Pharaohs: Introduction to Egyptian hieroglyphs II**

Catalog Number: 80515

*Peter Der Manuelian*

*Half course (spring term). M., W., 1:30–3. EXAM GROUP: 8*

Continues Middle Egyptian I from the spring 2013 semester. Students will complete the introductory grammar book lessons, and move on to read a selection of basic stories, historical and biographical inscriptions, in the original hieroglyphs. Visits to the Egyptian galleries of the Museum of Fine Arts, Boston, in order to read some of the ancient hieroglyphic inscriptions on the original monuments, may also be included.

*Note:* Offered jointly with the Divinity School as 4121.

*Prerequisite:* Egyptian Aa, Middle Egyptian I or consent of instructor.

#### **[\*Egyptian 150. Voices from the Nile: Ancient Egyptian Literature in Translation]**

Catalog Number: 19657 Enrollment: Limited to 20.

*Peter Der Manuelian*

*Half course (spring term). M., W., at 11.*

Examines several literary genres, from the Pyramid Age through at least the New Kingdom (ca. 2500-1000 BCE), including royal decrees, autobiographies, the Pyramid Texts, legal documents, letters to the living (and dead), love stories and poetry, military texts, religious rituals, and tomb robber court trial transcripts. Special emphasis on classical tales of the Middle Kingdom ("The Shipwrecked Sailor," "The Story of Sinuhe," etc.). Lectures, class discussion; no prerequisites.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2131.

### ***Cross-listed Courses***

#### **Anthropology 1250. The Pyramids of Giza: Technology, Archaeology, History: Seminar**

#### **Societies of the World 38. Pyramid Schemes: The Archaeological History of Ancient Egypt**

*Primarily for Graduates*

### ***Cross-listed Courses***



**[\*Anthropology 2022. Picturing the Past: An Introduction to Digital Epigraphy and Archaeological Illustration]**

***Graduate Courses of Reading and Research***

**\*Egyptian 300. Reading and Research in Egyptology**

Catalog Number: 71257

Peter Der Manuelian 4279

*Half course (fall term; repeated spring term). Spring: Tu., 10–12. EXAM GROUP: Fall: 2; Spring: 16*

Old Egyptian or Middle Egyptian Texts

*Note:* This course must be taken for letter grade.

***Hebrew (Classical and Modern)***

See also Ancient Near Eastern and Biblical Studies and Jewish Studies.

***Hebrew Language***

***Classical Hebrew***

**Classical Hebrew A. Elementary Classical Hebrew**

Catalog Number: 8125

Peter Machinist

*Full course (indivisible). M., W., F., at 10. EXAM GROUP: 5*

A thorough and rigorous introduction to Biblical Hebrew, with emphasis on grammar in the first term, and translation of biblical prose in the second. Daily preparation and active class participation mandatory.

*Note:* Offered jointly with the Divinity School as 4010.

**Classical Hebrew 120a. Intermediate Classical Hebrew I**

Catalog Number: 5545

Peter Machinist and members of the Department

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

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

Peter Machinist and members of the Department

*Half course (spring term). M., W., F., at 10. EXAM GROUP: 5*

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

*Jon D. Levenson (Divinity School)*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

Advanced reading in selected biblical prose texts and intensive review of the grammar of Biblical Hebrew.

*Note:* Offered jointly with the Divinity School as 1625.

*Prerequisite:* Classical Hebrew A, 120a, and 120b, or equivalent.

### **Classical Hebrew 130br. Rapid Reading Classical Hebrew II**

Catalog Number: 7896

*Jon D. Levenson (Divinity School)*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

Advanced reading in selected biblical poetic texts and intensive review of the grammar of Biblical Hebrew.

*Note:* Offered jointly with the Divinity School as 1626.

*Prerequisite:* Classical Hebrew 130a or equivalent.

### **[Classical Hebrew 138. Historical Grammar of Biblical Hebrew ]**

Catalog Number: 4415

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

This course will trace the changes in Hebrew grammar in its ancient phases through the study of inscriptional, biblical, and extra-biblical texts.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Classical Hebrew 130 or equivalent.

### ***Modern Hebrew***

#### **Modern Hebrew B. Elementary Modern Hebrew**

Catalog Number: 4810

*Irit Aharony*

*Full course (indivisible). M. through F., at 10. EXAM GROUP: 4*

The course introduces students to the phonology and script as well as the fundamentals of morphology and syntax of Modern Hebrew. Emphasis is placed on developing reading, speaking, comprehension and writing skills, while introducing students to various aspects of contemporary Israeli society and culture.

*Note:* Offered jointly with the Divinity School as 4015. Not open to auditors. Cannot be taken pass/fail. Cannot divide for credit.

#### **Modern Hebrew 120a. Intermediate Modern Hebrew I**

Catalog Number: 1711

*Irit Aharony*

*Half course (fall term). M. through F., at 11. EXAM GROUP: 4*

The course reinforces and expands knowledge of linguistic and grammatical structures, with emphasis on further developing the four skills. Readings include selections from contemporary



Israeli literature, print media, and internet publications. Readings and class discussions cover various facets of Israeli high and popular culture.

*Note:* Conducted primarily in Hebrew. Offered jointly with the Divinity School as 4040.

*Prerequisite:* Modern Hebrew B or passing of special departmental placement test.

### **Modern Hebrew 120b. Intermediate Modern Hebrew II**

Catalog Number: 2563

*Irit Aharony*

*Half course (spring term). M. through F., at 11. EXAM GROUP: 14*

Continuation of Hebrew 120a.

*Note:* Conducted primarily in Hebrew. Offered jointly with the Divinity School as 4041.

*Prerequisite:* Modern Hebrew 120a.

### **Modern Hebrew 130a. Advanced Modern Hebrew I**

Catalog Number: 4985

*Irit Aharony and assistant*

*Half course (fall term). M., W., 1–3. EXAM GROUP: 1*

This course constitutes the third year of the Modern Hebrew language sequence. The course emphasizes the development of advanced proficiency in all skills. Readings include texts of linguistic and cultural complexity that cover contemporary Israeli literature and culture.

*Note:* Conducted in Hebrew. Not open to auditors. Offered jointly with the Divinity School as 4042.

*Prerequisite:* Modern Hebrew 120a, 120b, or equivalent level of proficiency.

### **Modern Hebrew 130b. Advanced Modern Hebrew II**

Catalog Number: 28788

*Irit Aharony and assistant*

*Half course (spring term). M., W., 1–3. EXAM GROUP: 8*

This course is a continuation of Hebrew 130a. Texts, films, and other materials expose students to the richness and complexity of the contemporary sociolinguistics of Israeli society.

*Note:* Conducted in Hebrew. Not open to auditors. Offered jointly with the Divinity School as 4043.

*Prerequisite:* Modern Hebrew 130a, or equivalent level of proficiency.

### **Modern Hebrew 241r. Advanced Seminar in Modern Hebrew: Israeli Culture: Cinema & Literature**

Catalog Number: 6949

*Irit Aharony*

*Half course (fall term). Tu., Th., 2–4. EXAM GROUP: 14*

This course constitutes the final level of Modern Hebrew language studies. The course offers representative readings and screenings from contemporary Israeli literature and cinema, and it forms bases of discussion on major cultural and linguistic themes through academic readings.

We will focus on the theme of the family in Israeli culture and relationships between fathers and sons in "Far away Islands"; "Book of Intimate Grammar"; the new series "Shtissel"; and more.

*Note:* Discussions, papers, movies and texts presented only in Hebrew. Not open to auditors.



Offered jointly with the Divinity School as 4045.  
*Prerequisite:* Modern Hebrew 130b or equivalent.

### ***Hebrew Literature and History***

#### ***For Undergraduates and Graduates***

##### **[Hebrew 130. Scriptural Interpretation in Ancient Israel: Inner-Biblical Exegesis]**

Catalog Number: 53182

*D. Andrew Teeter (Divinity School)*

*Half course (fall term). Tu., 4–6.*

An examination of the forms, methods, and aims of scriptural interpretation within the Hebrew Bible itself. Sessions will combine consideration of recent scholarship on "inner-biblical exegesis" with close readings of biblical texts (narrative, legal, prophetic, apocalyptic, hymnic) in Hebrew.

*Note:* Expected to be given in 2015–16. Two years of Biblical Hebrew strongly recommended. Offered jointly with the Divinity School as 1308.

##### **Hebrew 135. Introduction to Rabbinic Hebrew**

Catalog Number: 83659

*Shaye J.D. Cohen*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

Introduction to Tannaitic and Amoraic Hebrew with readings from talmudic and midrashic literature.

*Note:* Offered jointly with the Divinity school is 4036.

*Prerequisite:* Two semesters or the equivalent of Hebrew, preferably Biblical Hebrew.

#### ***Primarily for Graduates***

##### **\*Hebrew 200r. Problems in the Literature, History, and Religion of Ancient Israel: Seminar**

Catalog Number: 3265

*Peter Machinist and others*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

Topic for 2014-15 TBA; topic for 2013-14 was "Current scholarship on the formation of the literature of the Hebrew Bible."

*Note:* Primarily for doctoral students in Hebrew Bible. Offered jointly with the Divinity School as 1810.

*Prerequisite:* Good reading knowledge of Biblical Hebrew. Acquaintance with other relevant ancient and modern languages desirable.

##### **[Hebrew 208r. Literature of Israel: Seminar]**

Catalog Number: 1356

*Peter Machinist*

*Half course (fall term). W., 3–5.*

Topic for 2015-16 to be determined.



*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1825.

*Prerequisite:* Good reading knowledge of Biblical Hebrew. Acquaintance with other relevant ancient and modern languages desirable.

### **Hebrew 213b. Tannaitic Literature - (New Course)**

Catalog Number: 48373

*Jay M. Harris*

*Half course (spring term). Th., 4–6. EXAM GROUP: 6*

An in-depth textual analysis of the *Sifra*, its exegetical techniques, and its relation to other rabbinic documents.

*Prerequisite:* Knowledge of rabbinic Hebrew.

### **[Hebrew 218. Joseph and Esther: Seminar]**

Catalog Number: 0880

*Jon D. Levenson (Divinity School)*

*Half course (fall term). Th., 2–4.*

A close critical reading of Genesis 37-50 and the Book of Esther in Hebrew. Emphasis on literary design and religious messages and on the influence of the story of Joseph upon the Book of Esther.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1802.

*Prerequisite:* Three years of Hebrew or the equivalent, and a good acquaintance with the historical-critical method.

### **\*Hebrew 226r. Seminar in Jewish Studies**

Catalog Number: 42458

*Shaye J.D. Cohen*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 3*

An overview of the methods, questions, and controversies in the field of Jewish Studies over the last two centuries.

*Prerequisite:* Facility in reading rabbinic Hebrew. Permission of the instructor required for all students.

### **Hebrew 235. The Binding of Isaac (Aqedah): Seminar**

Catalog Number: 0170

*Jon D. Levenson (Divinity School)*

*Half course (fall term). Tu., 4–6. EXAM GROUP: 16*

An examination of Genesis 22 and its afterlife in ancient Judaism, early Christianity, and the Qur'an. Ample consideration of the interpretation and expansion of the story in modern theology and of critical responses to the story.

*Note:* Offered jointly with the Divinity School as 1808.

*Prerequisite:* Three years of Hebrew or the equivalent, and acquaintance with historical critical methods.

### **[Hebrew 236. Song at the Sea: Seminar]**

Catalog Number: 6496

*Jon D. Levenson (Divinity School)*



*Half course (spring term). Th., 2–4.*

A close reading of Exodus 13:17-15:21 in the context of the Hebrew Bible together with its ancient Near Eastern background. Ample Hebrew readings in this block of material and parallel biblical texts.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1816.

*Prerequisite:* An introductory course in the critical study of the Hebrew Bible and a solid command of Hebrew grammar (any period).

### [Hebrew 237. Jeremiah]

Catalog Number: 83454

*Michael D. Coogan (Divinity School)*

*Half course (spring term). Tu., Th., 8:30–10.*

A close examination of the book of Jeremiah, with special attention to its historical context and textual and literary history. Knowledge of Hebrew not required.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1121.

*Prerequisite:* Introduction to Hebrew Bible/Old Testament or the equivalent.

### [Hebrew 238. Readings in Midrash: Seminar]

Catalog Number: 36275

*Jon D. Levenson (Divinity School)*

*Half course (spring term). Th., 2–4.*

Close reading in Hebrew of selections from the *Mekhilta de-Rabbi Ishmael* with the goal of understanding the nature of biblical interpretation in rabbinic Judaism and the shape of rabbinic theology.

*Note:* Expected to be given in 2016–17. Offered jointly with the Divinity School as 3678.

*Prerequisite:* Three years of college level Hebrew (any period) or the equivalent.

### Hebrew 239. Exodus 2 in Three Contexts: Seminar - (New Course)

Catalog Number: 23835

*Jon D. Levenson (Divinity School)*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

A close critical reading of the account of the early life of Moses in three contexts: (1) the Hebrew Bible and the ancient Near Eastern world in which it took shape; (2) rabbinic Judaism in Late Antiquity; and (3) medieval Jewish commentary. Texts to be read in Hebrew include Exodus 2 and a selection of rabbinic midrashim and medieval commentaries on it.

*Note:* Offered jointly with the Divinity School as 1826.

*Prerequisite:* Three years of Hebrew or the equivalent (not a course for those lacking a secure grasp of Hebrew grammar).

### *Graduate Courses of Reading and Research*

#### \*Hebrew 300. Classical Hebrew Language and Literature

Catalog Number: 7831

*Jon D. Levenson (Divinity School) 2264 and Peter Machinist 2812*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*



**\*Hebrew 350. Hebrew Language and Literature**

Catalog Number: 4408

*Jay M. Harris 2266 and Jon D. Levenson (Divinity School) 2264*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 16; Spring: 6*

***Iranian***

See also above under Near Eastern Civilizations; Early Iranian Civilizations; Islamic Civilizations; and below under Persian.

***Primarily for Undergraduates***

***For Undergraduates and Graduates***

**[Iranian B. Introduction to Western Middle Iranian]**

Catalog Number: 86585

*James R. Russell*

*Full course. Tu., 6–8 p.m.*

An introduction to the pre-Islamic languages and literatures of Parthian and Sasanian Iran and Zoroastrian sacred texts, and their alphabets.

*Note:* Expected to be given in 2015–16. There are no prerequisites for this course.

***Cross-listed Courses***

**Linguistics 221r. Workshop in Indo-European**

***Primarily for Graduates***

**Iranian 215. Intermediate Western Middle Iranian - (New Course)**

Catalog Number: 45756

*James R. Russell*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Further study of the pre-Islamic languages and literatures of Parthian and Sasanian Iran and Zoroastrian sacred texts, and their alphabets.

*Prerequisite:* Introduction to Western Middle Iranian.

**Iranian 218a. Avestan Language and Literature I**

Catalog Number: 34825

*P. Oktor Skjaervo*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

**Iranian 218b. Avestan Language and Literature II**

Catalog Number: 78055

*P. Oktor Skjaervo*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 7*



### ***Graduate Courses of Reading and Research***

#### **\*Iranian 300. Reading and Research in Iranian Languages and Literatures**

Catalog Number: 8155

*James R. Russell 3411 (on leave spring term) and P. Oktor Skjaervo 2869 (on leave fall term)  
 Half course (fall term; repeated spring term). . EXAM GROUP: 3*

### ***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

*Nicholas Boylston*

*Full course (indivisible). M. through F. at 10, and a weekly section to be arranged. EXAM GROUP: Fall: 5; Spring: 6*

Introduction to the grammar of modern literary and spoken Persian. Selected readings from contemporary and classical Persian literature.

*Note:* Not open to auditors. Cannot be taken pass/fail. Cannot divide for credit.

##### **Persian Ba. Intermediate Persian I**

Catalog Number: 2206

*Nicholas Boylston*

*Half course (fall term). M. through F., at 11. EXAM GROUP: 18*

A thorough review and continuation of modern Persian grammar with an emphasis on reading, writing, speaking, and listening comprehension. Includes an introduction to classical prosody. Course materials draw from both classical and modern poetry and prose.

*Note:* Not open to auditors. Cannot be taken pass/fail.

*Prerequisite:* Persian A or the equivalent.

##### **Persian Bb. Intermediate Persian II**

Catalog Number: 3712

*Nicholas Boylston*

*Half course (spring term). M. through F., at 11. EXAM GROUP: 14*

Continuation of Persian Ba.

*Note:* Not open to auditors. Cannot be taken pass/fail.

##### **Persian 130ar. Advanced Persian I**

Catalog Number: 73988

*Chad Kia*

*Half course (fall term). T 10:30-12 and W 2-4, plus an additional hour to be arranged. EXAM GROUP: 15*

Review of advanced Persian grammar and syntax with introduction to both pre-modern and



modern Persian prose and poetry. Themes cover a wide range of disciplines, from literature, history, social sciences and the arts.

*Note:* Formerly Persian 131r and Persian 132r.

*Prerequisite:* Persian B or equivalent, or permission of the instructor.

### **Persian 130br. Advanced Persian II**

Catalog Number: 89002

*Chad Kia*

*Half course (spring term). M., W., 2–3:30, plus an additional hour to be arranged. EXAM*

*GROUP: 18*

Continuation of Persian 130ar.

*Note:* Formerly Persian 131r and Persian 132r.

*Prerequisite:* Persian B or equivalent, or permission of the instructor.

### **[Persian 150r. Readings in Persian Historians, Geographers and Biographers]**

Catalog Number: 6538

*Roy Mottahedeh*

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

### **[Persian 151r. Sufi Traditions in Classical Persian Literature]**

Catalog Number: 58728

*Chad Kia*

*Half course (spring term). M., W., 2–3:30.*

Readings in Persian Sufi literature from early post-Islamic centuries to Attar, Rumi, Hafez, and others, with emphasis on fundamental themes of the Sufi tradition. Practice in grammar and composition at an advanced level will develop the student's ability to read high literary texts, both in prose and poetry.

*Note:* Expected to be given in 2015–16. The course lectures and readings will be in English but there will be a separate section for students with adequate knowledge of Persian to read the text of the *Masnavi* in Persian. Offered jointly by the Divinity School as 4070.

*Prerequisite:* At least two years of Persian or equivalent.

### **Persian 152. Literary and Visual Narrative in the Persian Epic Tradition**

Catalog Number: 67634

*Chad Kia*

*Half course (fall term). Tu., 3–5. EXAM GROUP: 2*

Both poetry and the art of painting in medieval Persianate cultures developed to a high level of artistic excellence in the context of court patronage. This course examines that development through the epic tradition in medieval Persian poetry and prose including long narratives in heroic, romance, folk and ethical genres. The course considers the affinities and differences between these and epic tales from other traditions as well as their interactions with Persian painting and manuscript illustration. Beginning with the Parthian romance of *Vis and Ramin* and the heroic epic of *Shahnameh*, the survey will continue with epic romances of Nizami, prose narratives about folk heroes such as *Abu Muslimnameh*, and didactic epics by Sa'di and others.



*Note:* The course lectures and readings will be in English but there will be a separate section for students with adequate knowledge of Persian to read the relevant texts in Persian.

### ***Graduate Courses of Reading and Research***

#### **\*Persian 300. Persian Language and Literature**

Catalog Number: 6962

*Roy Mottahedeh 1454 (on leave spring term) and William E. Granara 1054*

*Half course (fall term; repeated spring term). EXAM GROUP: 4*

### ***Semitic Philology***

#### ***For Undergraduates and Graduates***

##### **[Semitic Philology 130. Diglossia in Semitic Languages]**

Catalog Number: 82868

*Instructor to be determined*

*Half course (spring term). Th., 3–5.*

Diglossia describes a situation in which two (or more) languages coexist, or two varieties of one language, within one speech community. In this course we will examine various aspects of such a linguistic situation from different theoretical points of view, considering this fascinating phenomenon in the history of the Semitic languages.

*Note:* Expected to be given in 2015–16.

##### **[Semitic Philology 151. Introduction to Northwest Semitic Epigraphy]**

Catalog Number: 2858

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

Readings in Hebrew, Phoenician and other Northwest Semitic 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 2015–16. Offered jointly with the Divinity School as 1152.

*Prerequisite:* Good working knowledge of Classical (Biblical) Hebrew.

##### **Semitic Philology 152. Introduction to Ugaritic**

Catalog Number: 2777

*Peter Machinist and staff*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

Introduction to Ugaritic grammar, with readings in mythological, epistolary, and administrative texts.

*Note:* Offered jointly with the Divinity School as 1153.

*Prerequisite:* Good working knowledge of Classical (Biblical) Hebrew.

### ***Primarily for Graduates***



### **Semitic Philology 220r. Northwest Semitic Epigraphy: Seminar**

Catalog Number: 2948

*Peter Machinist and staff*

*Half course (spring term). W., 12–2. EXAM GROUP: 7*

Topic for 2014-15 to be determined; topic for 2012-13 was "Advanced discussion of Ugaritic grammar and texts."

*Note:* Offered jointly with the Divinity School as 1160.

*Prerequisite:* Semitic Philology 151.

#### ***Cross-listed Courses***

### **Linguistics 221r. Workshop in Indo-European**

#### ***Graduate Courses of Reading and Research***

##### **\*Semitic Philology 300. Semitic and Afroasiatic Languages and Literatures**

Catalog Number: 2762

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

#### ***Sumerian***

See also above under Ancient Near Eastern and Biblical Studies.

#### ***For Undergraduates and Graduates***

##### **[Sumerian A. Elementary Sumerian]**

Catalog Number: 5260

*Piotr Steinkeller*

*Full course (indivisible). Fall: Tu., Th., at 1; Spring: Th., 1:30–4:30.*

Introduction to the Sumerian language with emphasis on grammatical structure.

*Note:* Expected to be given in 2015–16.

##### **Sumerian 120. Intermediate Sumerian**

Catalog Number: 7399

*Piotr Steinkeller and assistant*

*Full course (indivisible). Fall: Th., 1–4. EXAM GROUP: Fall: 8; Spring: 2*

*Prerequisite:* Knowledge of basic Sumerian grammar, vocabulary, and cuneiform script.

##### **[Sumerian 140. Sumerian Historical Texts]**

Catalog Number: 35916

*Piotr Steinkeller*

*Half course (fall term). W., 1–4.*

*Note:* Expected to be given in 2015–16.



**[Sumerian 141. Sumerian Myths and Epics]**

Catalog Number: 9858

*Piotr Steinkeller*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

**[Sumerian 145. Sumerian Incantations and Rituals]**

Catalog Number: 5259

*Piotr Steinkeller*

*Half course (fall term). W., 1–4.*

*Note:* Expected to be given in 2015–16.

**[Sumerian 146. Sumerian Religious Literature]**

Catalog Number: 2605

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

**[Sumerian 149. Sumerian Legal and Economic Texts]**

Catalog Number: 8820

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

***Primarily for Graduates***

**[Sumerian 200r. Readings in Sumerian: Seminar]**

Catalog Number: 7496

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

***Graduate Courses of Reading and Research***

**[\*Sumerian 300. Sumerian Language and Literature]**

Catalog Number: 7912

*Piotr Steinkeller 7337*

*Note:* Expected to be given in 2015–16.

***Cross-listed Courses***

**Linguistics 225a. Introduction to Hittite**

***Turkish (Ottoman and Modern)***

See also above under Near Eastern Civilizations; Islamic Civilizations.



### ***For Undergraduates and Graduates***

#### **Turkish A. Elementary Modern Turkish**

Catalog Number: 2527

*William E. Granara and staff*

*Full course (indivisible). M. through F., at 10. EXAM GROUP: 5*

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. Cannot be taken pass/fail. Cannot divide for credit.

#### **[Turkish 120a. Intermediate Modern Turkish I]**

Catalog Number: 4009

*Instructor to be determined*

*Half course (fall term). M. through F., at 10.*

Emphasis on complex sentence structure and building communicative competence in describing events and expressing ideas through exercises in reading, writing, and speaking.

*Note:* Expected to be given in 2015–16. Not open to auditors.

*Prerequisite:* Turkish A or equivalent.

#### **[Turkish 120b. Intermediate Modern Turkish II]**

Catalog Number: 1394

*Instructor to be determined*

*Half course (spring term). M. through F., at 10.*

Studies in argumentative and literary prose.

*Note:* Expected to be given in 2015–16. Not open to auditors.

*Prerequisite:* Turkish 120a or equivalent.

#### **[Turkish 121. Elementary Uzbek]**

Catalog Number: 14198

*William E. Granara and assistant*

*Full course (indivisible). Fall: M. through Th., at 9.*

Introduction to conversational and literary Uzbek. Overview of the grammar, intensive practice of the spoken language, and reading of contemporary texts.

*Note:* Expected to be given in 2015–16. Some knowledge of Modern Turkish or other Turkic language helpful but not required. For information on Uzbek instruction at other levels, please contact the Student Programs Officer at the Davis Center for Russian and Eurasian Studies, [reeca@fas.harvard.edu](mailto:reeca@fas.harvard.edu).

#### **[Turkish 125a. Intermediate Uzbek I]**

Catalog Number: 2947

*William E. Granara 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.

*Note:* Expected to be given in 2015–16. For information on Uzbek instruction at other levels, please contact the Student Programs Officer at the Davis Center for Russian and Eurasian



Studies, reeca@fas.harvard.edu.

*Prerequisite:* Turkish 121b or equivalent.

### [Turkish 125b. Intermediate Uzbek II]

Catalog Number: 0125

*William E. Granara and assistant*

*Half course (spring term). Hours to be arranged.*

A continuation of Turkish 125a.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Turkish 125a or equivalent.

### Turkish 130a. Advanced Turkish I

Catalog Number: 42651

*William E. Granara and assistant*

*Half course (fall term). Tu., Th., 9–11. EXAM GROUP: 9*

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.

### Turkish 130b. Advanced Turkish II

Catalog Number: 4354

*William E. Granara and assistant*

*Half course (spring term). Tu., Th., 10–12. EXAM GROUP: 12*

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 140a. Introduction to Ottoman Turkish I

Catalog Number: 8163

*William E. Granara and staff*

*Half course (fall term). Tu., 3–5:30. EXAM GROUP: 8*

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:* Not open to auditors.

*Prerequisite:* Turkish A or equivalent; one year of Arabic or Persian desirable.

### Turkish 140b. Introduction to Ottoman Turkish II

Catalog Number: 8298

*William E. Granara and staff*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 17*

Continuation of Turkish 140a. Exercises on specialized orthographic conventions and grammatical characteristics of Ottoman Turkish through readings in printed selections from the 19th and 20th centuries.



*Note:* Not open to auditors.

*Prerequisite:* Turkish 140a or equivalent.

**[Turkish 145. Readings on Early Modern Ottoman Intellectual History]**

Catalog Number: 0095

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

This course introduces students various writings of Ottoman intellectuals by focusing on selected themes, including language registers, styles of argumentations.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Advanced reading proficiency in Ottoman Turkish.

**[Turkish 150a. Advanced Ottoman Turkish: Readings on Ottoman Cultural History between 15th to 18th centuries.]**

Catalog Number: 91716

*Instructor to be determined*

*Half course (fall term). M., Th., 5–7:30 p.m.*

*Note:* Expected to be given in 2015–16. Not open to auditors.

*Prerequisite:* Turkish 140 or equivalent; one year of Arabic or Persian desirable.

**[\*Turkish 150b. Advanced Ottoman Turkish]**

Catalog Number: 40194

*Instructor to be determined*

*Half course (spring term). M., 2–4, F., 2:30–4:30.*

Bureaucracy and Empire: Introduction to Ottoman Archival Research. The course introduces research tools for Ottoman archives and surveys central government documents focusing on paleography, diplomatics and linguistic features of documents.

*Note:* Expected to be given in 2015–16. Not open to auditors.

*Prerequisite:* Turkish 140 or equivalent; one year of Arabic or Persian desirable.

***Graduate Courses of Reading and Research***

**\*Turkish 300. Turkish Languages and Literatures**

Catalog Number: 7702

*William E. Granara 1054 and Cemal Kafadar 2459*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 1; Spring: 8*

***Yiddish***

See also above under Near Eastern Civilizations: Jewish Studies.

***Primarily for Undergraduates***

***Cross-Listed Courses***

***For Undergraduates and Graduates***



### **Yiddish A. Elementary Yiddish**

Catalog Number: 4623

*Eitan Lev Kensky and staff*

*Full course (indivisible). Fall: M., W., F., at 10; Spring: M., W., (F.), at 10. EXAM GROUP: 5*

Introduction to the Yiddish language, as written and spoken in Eastern Europe, the Americas, Israel, and around the world, and to the culture of Ashkenazic Jews. Development of reading, writing, speaking, and oral comprehension skills. Course materials include rich selections from Jewish humor, Yiddish songs, and films of Jewish life past and present.

*Note:* For students with little or no knowledge of Yiddish. Additional sections at different times may be added as needed.

### **Yiddish Ba. Intermediate Yiddish I**

Catalog Number: 6023

*Eitan Lev Kensky and staff*

*Half course (fall term). M., W., (F.), at 11. EXAM GROUP: 18*

Further development of reading, writing, speaking, and oral comprehension skills. Introduction to features of the main Yiddish dialects: Polish/Galician, Ukrainian/Volhylian, and Lithuanian/Belorussian. Course materials include selections from modern Yiddish fiction, poetry, songs, the press, and private letters, as well as pre-WWII and contemporary Yiddish films. Occasional visits from native Yiddish speakers.

*Note:* Additional sections at different times may be added as needed.

*Prerequisite:* Yiddish A or equivalent.

### **Yiddish Bb. Intermediate Yiddish II**

Catalog Number: 1239

*Eitan Lev Kensky and staff*

*Half course (spring term). M., W., (F.), at 11. EXAM GROUP: 14*

Continuation of Yiddish Ba.

*Prerequisite:* Yiddish Ba or permission of the instructor.

### **[Yiddish Ca. Advanced Yiddish I]**

Catalog Number: 8331 Enrollment: To enroll, please contact the instructor.

*Instructor to be determined*

*Half course (fall term). M., W., 1–2:30.*

Emphasis on building advanced vocabulary from the three main lexical components, Germanic, Hebrew-Aramaic, and Slavic, and further development of writing, reading, and speech.

Continued exploration of the main Yiddish dialects. Introduction to various styles of Yiddish literature, journalism, theater, film, and song, particularly from the nineteenth century to the present, including contemporary sources from both secular Yiddish culture and the Yiddish-speaking "ultra-orthodox" communities of New York, Jerusalem, and elsewhere.

*Note:* Expected to be given in 2015–16. Additional sections at different times may be added as needed.

*Prerequisite:* Yiddish Bb or permission of the instructor.

### **[Yiddish Cb. Advanced Yiddish II]**

Catalog Number: 8968 Enrollment: To enroll, please contact the instructor.



*Instructor to be determined*

*Half course (spring term). M., W., 1–2:30.*

Continuation of Yiddish Ca.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Yiddish Ca or permission of the instructor.

### [Yiddish 130. Three Centers of Yiddish Culture]

Catalog Number: 95148

*Instructor to be determined*

*Half course (fall term). Tu., 2–4, plus a section to be arranged.*

In 1926, the Yiddish novelist Dovid Bergelson announced the "three centers" of Yiddish literature and culture: New York, Warsaw and Moscow. Using Bergelson's essay as a window on Yiddish modernism, this class looks at the relationship between language, city, and state. We will ask, what distinguished Yiddish culture in one place from another? Did writers see themselves at home or in exile? How did politics affect the Yiddish writer? And what should we make of the other Yiddish centers, Vilna, Kiev, even Berlin?

*Note:* Expected to be given in 2015–16. This class is intended for students with a reading knowledge of Yiddish, though all texts will be available in English translation. Class discussion will be in English. There will be an extra section for Yiddish readers.

### *Primarily for Graduates*

### **Yiddish 200r. Literature and Belief: The Case of Modern Yiddish Literature**

Catalog Number: 4263

*Dara Horn Schulman*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

Is literature animated by a "moral of the story," or by "art for art's sake"? This question was more than theoretical for modern Yiddish writers, who wrote at a crossroads between religious and secular life, under extraordinary circumstances. The course will explore how genre and belief interact in Yiddish stories, novels, poetry and drama over the past two centuries, as we closely examine the broader question of the purpose of art.

*Note:* Reading knowledge of Yiddish appreciated but not required; all texts available in translation. Open to graduate students in any department, and undergraduates with permission of the instructor. Offered jointly with the Divinity School as 3719.

### *Graduate Courses of Reading and Research*

### **\*Yiddish 300. Yiddish Language and Literature**

Catalog Number: 7833

*Instructor to be determined*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*



# Neurobiology

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Committee on Degrees in Neurobiology*

Venkatesh N. Murthy, Professor of Molecular and Cellular Biology (*Chair*)  
Paola Arlotta, Professor of Stem Cell and Regenerative Biology  
Richard T. Born, Professor of Neurobiology (*Medical School*)  
Randy L. Buckner, Professor of Psychology and of Neuroscience  
Florian Engert, Professor of Molecular and Cellular Biology  
Lisa V. Goodrich, Associate Professor of Neurobiology (*Medical School*)  
Takao K. Hensch, Professor of Molecular and Cellular Biology, and Professor of Neurology (*Medical School*)  
Jeff W. Lichtman, Jeremy R. Knowles Professor of Molecular and Cellular Biology, Santiago Ramón y Cajal Professor of Arts and Sciences  
Bence P. Olveczky, John L. Loeb Associate Professor of the Natural Sciences  
Aravinthan D. T. Samuel, Professor of Physics  
Joshua R. Sanes, Jeff C. Tarr Professor of Molecular and Cellular Biology  
Maurice A. Smith, Thomas D. Cabot Associate Professor of Bioengineering, Gordon McKay Professor of Bioengineering  
Naoshige Uchida, Professor of Molecular and Cellular Biology (*on leave fall term*)  
Yun Zhang, Associate Professor of Organismic and Evolutionary Biology

### *Other Faculty Offering Instruction in Neurobiology*

Ryan Wesley Draft, Lecturer on Molecular and Cellular Biology  
Catherine Irene Dubreuil, Lecturer on Biological Chemistry and Molecular Pharmacology (*Medical School*)  
Laura M. Magnotti, Preceptor in Molecular and Cellular Biology  
Venkatesh N. Murthy, Professor of Molecular and Cellular Biology

Neurobiology is the science of how the nervous system organizes behavior. This singular question has spawned a field of study with remarkable vertical range. It investigates phenomena on vastly different scales, from molecules to societies, and draws upon many of the classical disciplines for experimental tools and explanatory frameworks. The neurobiology concentration has its natural hub in the life sciences but emphasizes a solid grounding in other relevant fields. It provides a broad preparation for advanced studies in any of the life sciences or in medicine, and students will have many opportunities for hands-on laboratory experience and independent



research projects.

The undergraduate concentration is administered by the Department of Molecular and Cellular Biology. Curriculum and academic policies are determined by a Standing Committee with representatives from several departments of the Faculty of Arts and Sciences, and from other schools as appropriate to ensure the required breadth of the program.

The graduate program in Neurobiology is administered by the Division of Medical Sciences and is listed separately. Graduate level courses on Neurobiology topics can be found in various fields and related chapters of the course catalog. For more information about the Neurobiology Concentration, and a complete listing of courses that count toward the concentration, please visit the [Neurobiology Life Science Page](#).

### ***Primarily for Undergraduates***

#### ***Neurobiology Supervised Reading and Research***

##### **\*Neurobiology 98r. Laboratory Research**

Catalog Number: 0494 Enrollment: Laboratory safety session required. This course can be taken twice for concentration credit.

*Ryan W. Draft and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*

This course is taken to obtain credit for independent laboratory research during the 6th, 7th, or 8th semester. Research work should be directed by a member of the Neurobiology concentration standing committee or an appropriate Harvard affiliated faculty member in another department or institution. All students must submit registration materials for Neurobiology 98r at the time of enrollment.

##### **\*Neurobiology 99. Honors Thesis Tutorial**

Catalog Number: 9400

*Ryan W. Draft and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 10*

For honors candidates writing a thesis in Neurobiology. This course is ordinarily taken in the last semester of enrollment. The Head Tutor must approve a thesis proposal prior to enrolling in Neurobiology 99.

*Note:* Laboratory safety session required.

### ***For Undergraduates and Graduates***

#### ***Tutorials***

The Neurobiology 101hf Program is taught by MCB, OEB, and Medical School faculty. Ordinarily the tutorials are half courses spread throughout the year and cannot be divided or combined for credit. Neurobiology tutorials are considered advanced neurobiology courses. Ordinarily, only one tutorial course may be counted toward the secondary field. Students should feel free to contact the tutorial instructors directly. Their names, phone numbers, and e-mail



addresses, as well as tutorial seminar course descriptions, are posted on the Life Sciences website under the concentration course listings at [www.lifescience.fas.harvard.edu](http://www.lifescience.fas.harvard.edu). Please consult the Neurobiology website for dates and times of first meetings.

**\*Neurobiology 101hfa (formerly \*Neurobiology 95hfd). Novel Therapeutics in the Central Nervous System**

Catalog Number: 3437 Enrollment: Limited to 12.

*Members of the Department*

*Half course (throughout the year). W., 4:30–6. EXAM GROUP: Fall: 17; Spring: 13*

Recent advances have elucidated new non-traditional molecular signaling pathways involved in many disorders and diseases in the CNS. This tutorial will focus on examining novel therapeutics and 'outside the box' approaches to treat CNS disorders: Alzheimer's, Autism, Schizophrenia, Traumatic Injury and Multiple Sclerosis. To do this, we will examine primary and clinical literature and explore drug design strategies.

*Prerequisite:* LS 1a, MCB 80, and permission of the instructor. Intermediate biology courses (MCB 60, MCB 52, MCB 54) are recommended.

**\*Neurobiology 101hfb (formerly \*Neurobiology 95hfh). Dopamine**

Catalog Number: 2579 Enrollment: Limited to 12.

*Members of the Department*

*Half course (throughout the year). M., 4–5:30. EXAM GROUP: Fall: 17; Spring: 13*

Phase I: Instructor's lectures with open discussion will orient students to tools from multiple traditional disciplines (behavioral neuroscience, pharmacology, neuroanatomy, and psychiatry). Phase II: Instructor's lectures on important and controversial disease states (Parkinson's Disease, Schizophrenia, Drug Addiction). Phase III: Instructor assigns original articles for Socratic debate. Overall emphasis is on how the brain creates behavior via neurotransmitters and circuits.  
*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a, MCB 80, and permission of the instructor.

**[\*Neurobiology 101hfc (formerly \*Neurobiology 95hfp). Designer Neurons: How Cell Types are Generated in the Nervous System and the Lab]**

Catalog Number: 86442 Enrollment: Limited to 15.

*Laura M. Magnotti*

*Half course (throughout the year). Th., 7–8:30 p.m.*

The derivation of stem cells from a human embryo ten years ago ignited an explosion of scientific and public interest. This seminar will explore the current understanding of neural stem cells as it relates to their role in physiological and pathological states in developing and adult animals. We will also explore the generation, characterization, and manipulation of neural stem cells in current research.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* LPS A or LS 1a, MCB 80, and permission of the instructor.

**[\*Neurobiology 101hfd (formerly \*Neurobiology 95hfu). Building a Brain]**

Catalog Number: 74392

*Members of the Department*

*Half course (throughout the year). W., 7–8:30 p.m.*



Neuronal connectivity underlies brain function. This seminar focuses on discussing and debating research related to how synaptic connections are influenced by genes, the environment, and chance to generate functional circuits and accommodate learning. In particular we will discuss molecular mechanisms, activity patterns (spontaneous and experience-evoked), and organizational rules implicated in synaptic formation and refinement in the context of many regions within the nervous system (retina, olfactory bulb, cortex, autonomic, and neuromuscular system).

*Note:* Expected to be given in 2015–16.

*Prerequisite:* LPS A or LS 1a, MCB 80, and permission of the instructor.

#### **\*Neurobiology 101hff (formerly \*Neurobiology 95hfy). Seeing Time in the Brain**

Catalog Number: 72995 Enrollment: Limited to 12.

##### *Members of the Department*

*Half course (throughout the year). M., 7–8:30 p.m. EXAM GROUP: Fall: 17; Spring: 13*

Time critically shapes our perceptual experience, yet how the brain represents time is poorly understood. This course investigates the experience of time from multiple perspectives, focusing on a systems-level analysis of visual time perception. Topics include illusions of time, neuronal mechanisms of time, the meaning of timescales, models of time perception, and the influence of expectation on brain activity.

*Prerequisite:* LS 1a, MCB 80, and permission of the instructor.

#### **\*Neurobiology 101hfi. The Neurobiology of Drug Addiction**

Catalog Number: 57397 Enrollment: Limited to 12.

##### *Members of the Department*

*Half course (throughout the year). W., 4–5:30. EXAM GROUP: Fall: 17; Spring: 13*

Students will examine primary literature to understand the acute and chronic action of drugs of abuse, including opioids, cannabinoids, psychostimulants, nicotine, and ethanol. The course will introduce the models of addiction and examine animal and human research results to build an understanding of how modifications to molecular signaling, cells and neural circuits underlie the development of the addicted brain.

*Prerequisite:* LS 1a, MCB 80, and permission of the instructor. In addition, one of the following courses is required: MCB 60, MCB 52, or MCB 54.

#### **\*Neurobiology 101hfj. Brain Rhythms in Cognition, Mental Health & Epilepsy**

Catalog Number: 94358 Enrollment: Limited to 12.

##### *Members of the Department*

*Half course (throughout the year). W., 7–8:30 p.m. EXAM GROUP: Fall: 17; Spring: 13*

"Everything in the universe has a rhythm, everything dances." - Maya Angelou. The brain, too, dances. Its rhythms are the result of millions of neurons coordinating each other's activity. This course will explore how these rhythms are generated, how they relate to our perception and cognition, and how they can be used to better understand and diagnose psychiatric and neurological disorders.

*Prerequisite:* LS 1a, MCB 80, and permission of the instructor

#### **\*Neurobiology 101hfl. Building Blocks of Neural Networks: Synapses and Circuits in Heath and Psychiatric Disease - (New Course)**



Catalog Number: 85872 Enrollment: Limited to 12.

*Members of the Department*

*Half course (throughout the year). Th., 7–8:30 p.m. EXAM GROUP: Fall: 16; Spring: 6*

The synapse is a fundamental information-processing unit of the nervous system. In this course, we will first explore the biology of excitatory and inhibitory synapses, developmental origins of neuronal subtypes and mechanisms that govern their circuit integration. Then we will address the basic design principles, wiring and functional plasticity of neuronal circuits that are altered in a plethora of neuropsychiatric disorders. We will also discuss how this knowledge can be used to better understand, diagnose and design therapeutics for neuropsychiatric disorders.

*Prerequisite:* LS 1a, MCB 80, and permission of the instructor

**\*Neurobiology 101hfm. Fundamentals of Computational Neuroscience - (New Course)**

Catalog Number: 62858 Enrollment: Limited to 12.

*Members of the Department*

*Half course (throughout the year). Tu., 7–8:30 p.m. EXAM GROUP: Fall: 16; Spring: 6*

The brain is an extremely complex computing device. Computational neuroscience seeks to understand brain function by constructing mathematical models of the nervous system to summarize our knowledge and gain new insights into how neurons perform basic tasks, e.g., encode stimuli, form memories, or generate movements. This course presents computational techniques for investigating, modeling, and understanding the function of neurons, neuronal networks, and systems.

*Prerequisite:* LS 1a, MCB 80, one of Math 19a/21a/21b or above, or permission of the instructor.

*Cross-listed Courses in Neurobiology*

**[\*BCMP 213. Behavioral Pharmacology]**

**Biomedical Engineering 110 (formerly Engineering Sciences 145). Physiological Systems Analysis**

**Biomedical Engineering 130 (formerly Engineering Sciences 149). Neural Control of Movement**

**[Human Evolutionary Biology 1416. The Neurobiology of Sociality: Seminar]**

**\*Life Sciences 100r. Experimental Research in the Life Sciences**

**MCB 80. Neurobiology of Behavior**

**MCB 105. Systems Neuroscience**

**MCB 115. Cellular Basis of Neuronal Function**

**\*MCB 129. The Brain: Development, Plasticity and Decline**

**MCB 131. Computational Neuroscience**

**MCB 141. Molecular and Cellular Biology of the Senses and their Disorders**

**[\*MCB 145. Neurobiology of Perception and Decision Making]**

**\*MCB 146. Experience-Based Brain Development: Causes and Consequences**

**MCB 170. Brain Invaders: Building and Breaking Barriers in the Nervous System**

**MCB 186. Circadian Biology: From Cellular Oscillators to Sleep Regulation**

**[MCB 206. Introduction to Connectomics]**

**[Neurobiology 209. Neurobiology of Disease]**

**\*Neurobiology 220. Cellular Neurophysiology**



[\*\*Neurobiology 230. Visual Object Recognition\*\*](#)

[\*\*OEB 57. Animal Behavior\*\*](#)

[OEB 105. Neurobiology of Motor Control]

[\*\*OEB 131. Neuroethology\*\*](#)

[\*\*OEB 145. Genes and Behavior\*\*](#)

[\*\*OEB 223. Topics in Neurogenetics\*\*](#)

[Physics 141. The Physics of Sensory Systems in Biology]

[\*Psychology 1052. The application of fMRI in cognitive neuroscience research]

[\*\*Psychology 1201. Your Brain on Drugs: Psychopharmacology\*\*](#)

[\*Psychology 1303. The Human Brain Then and Now]

[\*\*Psychology 1304. Brain Damage as a Window into the Mind: Cognitive Neuropsychology\*\*](#)

[Psychology 1307. Brain Genomics]

[\*\*\\*Psychology 1352. Foundations of Cognitive Neuroscience Research\*\*](#)

[Psychology 1430. Human Memory and Amnesia]

[\*Psychology 1452. The Human Face]

[\*Psychology 2480. Human Neuropsychology/Neuroanatomy: Seminar]

[\*SCRB 160. Experimental Embryology: From Stem Cells to Tissues and Back Again]

[SCRB 180. Regeneration and Repair in the Mammalian Brain]

## 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*)

Peter John Huybers, Professor of Earth and Planetary Sciences and of Environmental Science and Engineering

James J. McCarthy, Professor of Biological Oceanography and Alexander Agassiz Professor of Biological Oceanography

Daniel P. Schrag, Sturgis Hooper Professor of Geology and Professor of Environmental Science and Engineering

Courses in the various branches of oceanography are listed separately under the headings Earth and Planetary Sciences, Biology, and Engineering Sciences in this catalog. Further opportunities for study in oceanography exist at the Woods Hole Oceanographic Institution and at the Woods Hole Marine Biological Laboratory. Interested students are invited to contact members of the



Faculty Committee on Oceanography for additional advice. The committee encourages undergraduate and graduate students to pursue sea-going and other oceanography-related research and study opportunities, including during the summer, at a variety of possible institutions in the US and abroad. Interested students are encouraged to write the committee chair for specific advice on this and to apply for funding in order to pursue such oceanography-related projects, field work, or study opportunities. Please see the [Oceanography website](#) for more information.

## Organismic and Evolutionary Biology

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### *Faculty of the Department of Organismic and Evolutionary Biology*

John Wakeley, Professor of Organismic and Evolutionary Biology (*Chair*)

Arkhad Abzhanov, Associate Professor of Organismic and Evolutionary Biology

Andrew J. Berry, Lecturer on Organismic and Evolutionary Biology

Andrew A. Biewener, Charles P. Lyman Professor of Biology (*on leave fall term*)

Kirsten Bomblies, Thomas D. Cabot Associate Professor of Organismic and Evolutionary Biology (*on leave spring term*)

Michael R. Canfield, Lecturer on Organismic and Evolutionary Biology

Jennifer A. Carr, Preceptor in Organismic and Evolutionary Biology

Colleen M. Cavanaugh, Edward C. Jeffrey Professor of Biology

Stacey A. Combes, Associate Professor of Organismic and Evolutionary Biology

Charles C. Davis, Professor of Organismic and Evolutionary Biology and Curator of Vascular Plants in the Harvard University Herbaria

Benjamin Lovegren de Bivort, Assistant Professor of Organismic and Evolutionary Biology

Michael Manish Desai, Assistant Professor of Organismic and Evolutionary Biology and of Physics, Thomas D. Cabot Associate Professor of Organismic and Evolutionary Biology

Scott V. Edwards, Professor of Organismic and Evolutionary Biology, Alexander Agassiz

Professor of Zoology in the Museum of Comparative Zoology, and Curator of Ornithology (*on leave 2014-15*)

Cassandra G. Extavour, Professor of Organismic and Evolutionary Biology and of Molecular and Cellular Biology (*on leave 2014-15*)

Brian D. Farrell, Professor of Biology

David R. Foster, Senior Lecturer on Biology

William Friedman, Arnold Professor of Organismic and Evolutionary Biology

Peter R. Girguis, Professor of Organismic and Evolutionary Biology



Gonzalo Giribet, Professor of Organismic and Evolutionary Biology and Curator of Invertebrates in the Museum of Comparative Zoology (*Director of Undergraduate Studies*)  
David A. Haig, George Putnam Professor of Organismic and Evolutionary Biology  
James Hanken, Professor of Biology and Curator of Herpetology, Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology (*on leave fall term*)  
Daniel L. Hartl, Higgins Professor of Biology (FAS) and Professor in the Department of Immunology and Infectious Diseases (*Public Health*)  
Rosanne Healy, Lecturer on Organismic and Evolutionary Biology  
Hopi E. Hoekstra, Professor of Organismic and Evolutionary Biology and Molecular and Cellular Biology, Alexander Agassiz Professor of Zoology in the Museum of Comparative Zoology, Harvard College Professor, and Curator of Mammals in the Museum of Comparative Zoology  
N. Michele Holbrook, Charles Bullard Professor of Forestry  
Robin Hopkins, Assistant Professor of Organismic and Evolutionary Biology  
Collin H. Johnson, Preceptor in Organismic and Evolutionary Biology  
Andrew H. Knoll, Fisher Professor of Natural History and Professor of Earth and Planetary Sciences  
Elena M. Kramer, Bussey Professor of Organismic and Evolutionary Biology (*Director of Graduate Studies*)  
George V. Lauder, Henry Bryant Bigelow Professor of Ichthyology and Curator of Ichthyology in the Museum of Comparative Zoology  
Jonathan Losos, Monique and Philip Lehner Professor for the Study of Latin America and Curator in Herpetology (*on leave 2014-15*)  
L. Mahadevan, Lola England de Valpine Professor of Applied Mathematics, of Organismic and Evolutionary Biology, and of Physics (*on leave 2014-15*)  
James Mallet, Distinguished Lecturer on Organismic and Evolutionary Biology  
Christopher Marx, Visiting Associate Professor of Organismic and Evolutionary Biology  
James J. McCarthy, Professor of Biological Oceanography and Alexander Agassiz Professor of Biological Oceanography  
Paul R. Moorcroft, Professor of Organismic and Evolutionary Biology  
Martin A. Nowak, Professor of Mathematics and of Biology (*on leave fall term*)  
Bence P. Olveczky, John L. Loeb Associate Professor of the Natural Sciences  
Donald H. Pfister, Asa Gray Professor of Systematic Botany and Curator of the Farlow Library and Herbarium (*on leave 2014-15*)  
Naomi E. Pierce, Sidney A. and John H. Hessel Professor of Biology and Curator of Lepidoptera  
Stephanie E. Pierce, Assistant Professor in Organismic and Evolutionary Biology  
Anne E. Pringle, Visiting Associate Professor of Organismic and Evolutionary Biology  
Andrew Richardson, Associate Professor of Organismic and Evolutionary Biology  
Pardis Sabeti, Associate Professor of Organismic and Evolutionary Biology  
Mansi Srivastava, Visiting Assistant Professor of Organismic and Evolutionary Biology  
Elizabeth M. Wolkovich, Assistant Professor of Organismic and Evolutionary Biology  
Robert M. Woollacott, Professor of Biology and Curator of Marine Invertebrates in the Museum of Comparative Zoology  
Yun Zhang, Associate Professor of Organismic and Evolutionary Biology

***Other Faculty Offering Instruction in Organismic and Evolutionary Biology***



William H. Bossert, David B. Arnold, Jr. Professor of Science, Emeritus  
 David T. Johnston, John L. Loeb Associate Professor of the Natural Sciences  
 Anna G. Warrener, Lecturer on Human Evolutionary Biology

### ***Affiliates of the Department of Organismic and Evolutionary Biology***

Arthur L. Lage, Associate Professor of Surgery (*Medical School*)  
 Daniel E. Lieberman, Edwin M. Lerner II Professor of Biological Sciences, Harvard College Professor  
 Maryellen Ruvolo, Professor of Human Evolutionary Biology, Harvard College Professor

### ***Primarily for Undergraduates***

#### **OEB 10. Foundations of Biological Diversity**

Catalog Number: 7967

*Brian D. Farrell, Elena M. Kramer, and Andrew Richardson*

*Half course (fall term). M., W., F., at 12, and two hours of laboratory/discussion section weekly, including field trips to marine and forest environments. EXAM GROUP: 11*

An integrated approach to the diversity of life, emphasizing how chemical, physical, genetic, ecological and geologic processes contribute to the origin and maintenance of biological diversity. Topics to be covered include the evolution of metabolic pathways, multicellularity and structural complexity; causes and consequences of differences in diversity over space and time; the role of species interactions (including symbioses) as an evolutionary force; and the evolution of humans and their impact on the environment.

*Note:* Knowledge of introductory molecular, cellular biology, and genetics is recommended. This course, when taken for a letter grade, meets the General Education requirement for Science of Living Systems.

#### **OEB 50. Genetics and Genomics**

Catalog Number: 72331

*Kirsten Bomblies and Daniel L. Hartl (Public Health)*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Fundamental concepts in genetics and genomics forming a critical foundation for biology approached from two perspectives: (1) as a body of knowledge pertaining to genetic transmission, function, mutation, and evolution in eukaryotes and prokaryotes; and (2) as an experimental approach providing a toolkit for the study of biological processes such as development and behavior. Topics include structure, function, transmission, linkage, mutation, and manipulation of genes; genetic approaches in experimental studies of biological processes; and analysis of genomes in individuals and populations. Related ethical issues also discussed include genetically modified organisms, gene therapy, genetic testing, personalized medicine, and genetic privacy.

#### **OEB 51. 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*

Introduction to invertebrate diversity, will cover the development, adult 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 the Caribbean.

*Note:* Field trip to the Caribbean for research during spring break.

*Prerequisite:* LS1b, OEB 10, OEB 53 or permission of instructor required.

### **OEB 52. Biology of Plants**

Catalog Number: 1343

*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*

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 diversity and an introduction to basic physiological processes.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of Living Systems.

### **OEB 53. Evolutionary Biology**

Catalog Number: 3342

*Andrew J. Berry and James Mallet*

*Half course (spring term). Tu., Th., 11:30-1. EXAM GROUP: 15*

The course covers micro- and macro-evolution, ranging in its focus from population genetics through molecular evolution to the grand patterns of the fossil record. Topics emphasized include both natural and sexual selection, the ecological context of adaptation, genomic and developmental mechanisms of evolutionary innovation, speciation, phylogenetics, and evolutionary approaches to human problems.

*Prerequisite:* Life Sciences 1b or permission of instructor.

### **OEB 54. Biology of the Fungi**

Catalog Number: 9326

*Rosanne Healy*

*Half course (fall term). Tu., Th., 1-2:30, and a weekly laboratory on Tu., 2:30 -5. EXAM GROUP: 8*

This course explores the fascinating diversity of the kingdom fungi, including evolution, ecology and morphology. All of the major groups of fungi, from smuts to molds, will be included. Students use a variety of techniques to learn about these organisms and their activities.

*Note:* There is a weekly laboratory, and several afternoon field trips are required (dates to be announced).

*Prerequisite:* Life Sciences 1a and 1b or permission of instructor.



### **OEB 55. Ecology: Populations, Communities, and Ecosystems**

Catalog Number: 3365

*Paul R. Moorcroft*

*Half course (spring term). M., W., F., at 10, and a weekly discussion section, and two field trips on either Saturdays or Sundays during mid-April to early-May. EXAM GROUP: 6*

This course examines the relationships of organisms to their environment at the individual, population, and community level. The course covers topics in both pure and applied ecology including: adaptations to the physical environment, population dynamics, competition, predator-prey interactions, community ecology, ecosystem structure, stability, and function, the ecology of infectious diseases, and natural resource management.

*Prerequisite:* Mathematics 1a or 1b.

### **OEB 56. Geobiology and the History of Life**

Catalog Number: 22846

*David T. Johnston and Andrew H. Knoll*

*Half course (spring term). M., W., F., at 10, and a weekly three-hour lab to be arranged, and one field trip. EXAM GROUP: 5*

Within our solar system, Earth is distinguished as the planet with life. Life was born of planetary processes, has been sustained for some four billion years by planetary processes, and through time has emerged as a set of planetary processes that is important in its own right. In this course we will investigate the ways that Earth and life interact, focusing in particular on the biogeochemical cycles of major elements. This will provide a framework for interpreting the history of life reconstructed from fossils and phylogeny.

*Note:* OEB 56 is also offered as EPS 56. Students may not take both OEB 56 and EPS 56 for credit.

*Prerequisite:* EPS 21, 22, or Life Sciences 1b; or permission of instructor.

### **OEB 57. Animal Behavior**

Catalog Number: 2539

*Naomi E. Pierce and Bence P. Olveczky*

*Half course (spring term). Tu., Th., at 10; Guest lectures and film screenings W., at 7:30 pm; one hour 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; optimal foraging; evolutionary stable strategies; sexual selection; parental investment and mating systems; selfishness, altruism, and reciprocity; and sociality in vertebrates and invertebrates.

### **OEB 59. Plants and Human Affairs**

Catalog Number: 5281

*Charles C. Davis*

*Half course (fall term). M., W., at 10. EXAM GROUP: 5*

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.

*Prerequisite:* OEB 10 or permission of the instructor.

### **OEB 91r. Supervised Reading**

Catalog Number: 6374

*Gonzalo Giribet and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 16*

Supervised reading on topics not covered by regular courses. For OEB concentrators, work may be supervised by faculty in other departments, provided it is co-sponsored by an OEB faculty member. For non-concentrators, work must be directed by an OEB faculty member. Students must submit a registration request to the OEB Undergraduate Office before enrollment. Students cannot take OEB 91r and 99r simultaneously with the same director.

### **\*OEB 99r. Supervised Research**

Catalog Number: 7744

*Gonzalo Giribet and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*

Course taken in one or more semesters to obtain credit for independent research, including research toward a senior thesis. Work should be directed by an OEB faculty member or have an OEB faculty sponsor. All students must submit registration materials for OEB 99r at the time of enrollment.

*Note:* Laboratory safety session required.

### ***For Undergraduate and Graduates***

#### **[OEB 101. Biology of Mammals] - (New Course)**

Catalog Number: 23148

*Jonathan Losos*

*Half course (fall term). Hours to be arranged, and a weekly three-hour lab on Wednesdays.*

An introduction to the biology of mammals. Lectures and laboratories examine the morphology, systematics, natural history, behavior, ecology, evolutionary relationships, and biogeography of all major taxa.

*Note:* Expected to be given in 2015–16. Freshman only admitted under exceptional circumstances.

*Prerequisite:* OEB 10 is recommended.

#### **[OEB 103. Plant Systematics and Evolution]**

Catalog Number: 8704

*Charles C. Davis*

*Half course (spring term). Tu., Th., 10–11:30, and a four hour lab on Fridays.*

An introduction to the diversity and evolution of vascular plants. The course focuses mainly on flowering plants because of their dominant role on the earth, but lycophytes, ferns, and gymnosperms are studied as well. A phylogeny of vascular plants provides the framework for



their evolution and diversification. Related subjects, including plant habitats, biogeography, phylogenetics, herbaria, nomenclature, and pollination biology are also presented in lecture and laboratory.

*Note:* Expected to be given in 2015–16. There are two midterms, a final, and frequent lab quizzes.

*Prerequisite:* OEB 10 or permission of instructor.

### [OEB 105. Neurobiology of Motor Control]

Catalog Number: 1519

*Bence P. Olveczky*

*Half course (fall term). Tu., Th., 1–2:30.*

This course explores the functional organization and anatomy of motor circuits in the brain and how they control movements, including simple reflex movements, rhythmic movements, and more complex sequences of learned movements.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* MCB 80 or equivalent or permission of instructor.

### [OEB 106. Plant Development and Differentiation]

Catalog Number: 4559

*Elena M. Kramer and Pamela Diggle*

*Half course (fall term). Tu., Th., 1–2:30.*

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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Life Sciences 1b and OEB 52 (formerly OEB 124) or permission of the instructor.

### [OEB 107. Evolution of Plant Life in Geologic Time]

Catalog Number: 1318 Enrollment: OEB 107 is also offered as EPS 107. Students may not take both OEB 107 and EPS 107 for credit.

*Andrew H. Knoll*

*Half course (fall term). M., W., at 10, and a weekly 2-hour lab to be arranged.*

Origin, evolution, dispersal, paleoecology, and geologic history of the major groups of the plant kingdom. Laboratory study of representative groups, living and fossil.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* OEB 10 or permission of instructor.

### OEB 114. Vertebrate Viviparity

Catalog Number: 4953

*David A. Haig*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 18*

Viviparity has evolved many times in vertebrate phylogeny. The course reviews the diversity of parental care in vertebrates and explores the selective forces that have favored the evolution of



live-bearing. The evidence for intergenerational conflicts is considered.

*Prerequisite:* Life Sciences 1b or permission of instructor.

### [OEB 115. Evolutionary Developmental Biology in Animals]

Catalog Number: 9892

*Arkhad Abzhanov*

*Half course (fall term). M., 2–4.*

A lecture course in evolutionary developmental biology. Main principles and mechanisms of development as illustrated on both invertebrate and vertebrate animal model systems. In this course we will discuss how animal embryos develop adult body plans on cellular and molecular level. Particular emphasis will be placed on how knowledge of developmental biology helps us understand major evolutionary transitions and the origin of innovation in animal evolution.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Life Sciences 1a (or LPS A) and 1b, or permission of instructor. OEB 10, MCB 52, and MCB 54 are recommended but not required. Open to students from any concentration.

### [OEB 117. The Mathematics of Evolution]

Catalog Number: 11415

*Michael Manish Desai*

*Half course (fall term). M., W., 1–2:30.*

The quantitative basis of evolutionary theory: models of natural selection, mutations, and genetic drift at a single locus; multilocus problems in evolutionary dynamics including topics such as Muller's ratchet, hitchhiking, quasi-linkage equilibrium and strong linkage approximations; evolution of recombination and mutation rates and other modifiers of evolvability; an introduction to genealogical approaches; inference in population genetics; evolution in structured populations; and interactions between ecology, epidemiology, and evolution.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Mathematics through calculus and familiarity with differential equations and probability.

### OEB 118. Biological Oceanography

Catalog Number: 7752

*James J. McCarthy*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

The ocean as an ecological system, with focus on environmental-organismal interactions that regulate plankton production and transfer to higher trophic levels. Specific topics include bloom events, the limits to fish harvest, and the effects of climate change on ocean systems. Plankton demonstrations and optional coastal research vessel day trip.

*Note:* For biology and other natural science concentrators.

*Prerequisite:* OEB 10, Physical Sciences 1 or permission of instructor.

### [OEB 119. Deep Sea Biology]

Catalog Number: 1397

*Peter R. Girguis*

*Half course (spring term). M., W., 1–2:30.*

The oceans contain 97% of Earth's water, and host the most disparate ecosystems on the planet.



This course provides an introduction to deep ocean habitats, macrofauna and microorganisms. Emphasis is placed on the physiological adaptations of organisms to their environment, as well the role of microbes in mediating oceanic biogeochemical cycles.

*Note:* Expected to be given in 2015–16.

### **OEB 120. Plants and Climate - (New Course)**

Catalog Number: 19816

*N. Michele Holbrook*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

How plants are affected by climate - both spatially across the globe and as climate changes over time - is relevant to understanding patterns of plant evolution, ecosystem structure, and the impact of humans on our planet. This course examines how variation in rainfall, temperature, atmospheric humidity and CO<sub>2</sub> affects the growth and productivity of plants. Topics include photosynthesis, respiration, transpiration, and vascular transport; experimental approaches and measurement techniques will also be covered.

*Prerequisite:* OEB 52, 55 or OEB 10 (or permission of the instructor).

### **\*OEB 121a. Research in Comparative Biomechanics: Seminar**

Catalog Number: 4049

*Andrew A. Biewener, Stacey A. Combes, George V. Lauder, and Anna G. Warrener*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 9*

Introduces students to experimental techniques used to investigate the structure and physiology of animals. 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.

### **[OEB 123. Biology of Symbiosis]**

Catalog Number: 0508

*Colleen M. Cavanaugh*

*Half course (spring term). Hours to be arranged.*

An examination of the major aspects of microbial endosymbiosis with emphasis on mutualisms, 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. The course covers symbiotic interactions among bacteria and archaea with protists, fungi, plants, and animals, including the human microbiome.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Life Sciences 1b, OEB 10, and MCB 52 or equivalent, or permission of instructor.

### **[OEB 125. Molecular Ecology and Evolution]**

Catalog Number: 2691

*Scott V. Edwards*

*Half course (spring term). Tu., Th., 11:30–1.*

A survey of theory and applications of DNA technologies to the study of evolutionary, ecological and behavioral processes in natural populations. Topics to be covered will span a



variety of hierarchical levels, timescales, and taxonomic groups, and will include the evolution of genes, genomes and proteins; the neutral theory of molecular evolution and molecular clocks; population genomics and phylogenetic principles of speciation and phylogeography; metagenomics of microbial communities; relatedness and behavioral ecology; molecular ecology of infectious disease; and conservation genetics.

*Note:* Expected to be given in 2015–16. Weekly computer laboratories will introduce the use of the internet and computational software in DNA sequence alignment and phylogenetic and population genetic analysis.

*Prerequisite:* Life Sciences 1b, OEB 10, OEB 53 or MCB 52.

### **[OEB 130. Biology of Fishes]**

Catalog Number: 4624

*George V. Lauder*

*Half course (spring term). M., W., 11–12:30.*

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.

*Note:* Expected to be given in 2015–16.

### **OEB 131. Neuroethology**

Catalog Number: 31902 Enrollment: Limited to 16.

*Benjamin Lovegren de Bivort*

*Half course (spring term). Lab I: TBD 2 - 5 pm, Lab II: TBD 2-5 pm. Each lab will have a weekly one hour section to be arranged. EXAM GROUP: 14*

The evolutionary success of animals depends on how effectively they respond to external events with useful behaviors. Neuroethology is the study of the neurobiological mechanisms underlying adaptive behaviors. In this laboratory class we will examine the adaptive behaviors of three organisms: fruit flies, flatworms and cockroaches. By following published experimental protocols, and testing novel student-developed hypotheses, we will explore the transformation of external stimuli to behavioral output, the role of neurotransmitter systems and neuromodulatory states, the effect of genetic mutation and genomic background, and the physiology of locomotion. In culmination, students will develop their own multi-week experimental project.

*Note:* Students are encouraged to attend one of two Open Houses; either Monday, January 26, 2 pm, or Thursday, January 29, 2 pm. Students will help determine the two days each week when the course will meet.

*Prerequisite:* MCB 80 or OEB 57 or instructor's permission.

### **OEB 141. Biogeography**

Catalog Number: 85974

*Gonzalo Giribet*

*Half course (spring term). M., W., 2–3:30. EXAM GROUP: 18*

Biogeography aims to explain distributions of organisms through historical and ecological factors. This course will focus on the history of biogeographic research, developments in the area



of historical biogeography, and on ecological processes that affect distributions of whole clades. Topics include plate tectonics and earth history, vicariance and dispersal, areas of endemism, phylogenetic niche conservatism, latitudinal gradients in species richness, and the theory of island biogeography. Software for biogeographical analysis will be discussed and evaluated.  
*Prerequisite:* Two of the following courses: Life Sciences 1b, OEB 10, OEB 51, OEB 52, OEB 53, OEB 54, OEB 55, OEB 181, or permission of the instructor.

### **OEB 145. Genes and Behavior**

Catalog Number: 48436

*Yun Zhang*

*Half course (fall term). M., W., 3–4:30. EXAM GROUP: 6*

Behavior is inheritable and regulated by genes. This lecture course explores the causal links between the genes encoded in the genome and various behaviors, aiming to provide mechanistic understandings on how gene products control and influence behavioral outputs. The topics of the lectures cover both important findings as well as major research approaches in the field. The behavioral traits in discussion include olfaction, mechanosensation, foraging, circadian rhythm, aggression, courtship, sleep, social recognition, learning and memory, etc. The organisms that we will discuss include invertebrates, vertebrates and humans.

*Prerequisite:* Life Science 1a.

### **[OEB 150. Vertebrate Evolution and Development]**

Catalog Number: 62937

*Akhhat Abzhanov*

*Half course (fall term). Tu., Th., 1–2:30.*

A survey of the evolution and development of major groups of vertebrates, integrating the paleontological record of the origin of chordates, diverse fishes, amphibians, reptiles, birds, and mammals with current understanding of the genetic, cellular and developmental mechanisms that underlie these transformations.

*Note:* Expected to be given in 2015–16. Not open to students who have taken OEB 139.

### **OEB 153. Statistics for Biology**

Catalog Number: 49559

*Elizabeth M. Wolkovich and John Wakeley*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

Introduction to probability and statistics, with dual concern for analytical thinking and data analysis. The fundamentals of R will be covered, then this software environment will be used to analyze data and make statistical inferences. Ecological and genetic data will be the primary focus of applications. Analytical thinking modules will cover the theory of probability, statistical distributions, and the principles of statistical inference. You will learn how to defend your claims and not be fooled by quantitative arguments.

*Note:* This is a substantially revised version of this course for 2014-2015. This course is offered every other year.

*Prerequisite:* Mathematics through Calculus.

### **\*OEB 155r. Biology of Insects**

Catalog Number: 2346 Enrollment: Limited to 15.



*Naomi E. Pierce and Michael R. Canfield*

*Half course (fall term). W., F., 1:30–3. EXAM GROUP: 1*

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, medical entomology, and the use of insects in biological control.

*Prerequisite:* With permission of instructor.

### [OEB 157. Global Change Biology]

Catalog Number: 7055

*Paul R. Moorcroft and James J. McCarthy*

*Half course (spring term). Tu., Th., 10–11:30.*

This course examines how natural and anthropogenic changes in the earth system are affecting the composition and the functioning of the world's land and ocean ecosystems. Topics include: the ecological impacts of natural and anthropogenic changes in the earth's physical environment, and the effects of introduced species, species extinctions, land-use change, agriculture, and fishing.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* OEB 10 or OEB 53 and Mathematics 1a required. OEB 55 (formerly BS 55) recommended.

### [OEB 167. Herpetology]

Catalog Number: 4070

*James Hanken and Jonathan Losos*

*Half course (spring term). Tu., Th., 1–2:30; Lab: W., 2:30–5:30.*

An introduction to the biology of amphibians and reptiles. Lectures and laboratories examine the morphology, systematics, natural history, behavior, ecology, evolutionary relationships, and biogeography of all major taxa.

*Note:* Expected to be given in 2015–16. The course is planning an optional week-long field trip during spring break.

### OEB 168r. Sociobotany

Catalog Number: 5092

*David A. Haig and William Friedman*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

A study of the diversity and evolution of plant life cycles, with an emphasis on interactions between the generations. The course this semester will focus on female gametophytes of flowering plants

*Prerequisite:* Permission of instructor.

### [OEB 173. Comparative Biomechanics]

Catalog Number: 9667

*Andrew A. Biewener and Stacey A. Combes*

*Half course (spring term). Tu., Th., 10–11:30.*



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, seminar discussions, and student presentations based on readings, students are introduced to topics related to biomechanical performance.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Mathematics 1b, Physical Science 2 or Physics 11a; Mathematics 21a recommended, or permission of instructor.

### [OEB 181. Systematics]

Catalog Number: 5459

*Gonzalo Giribet*

*Half course (fall term). Tu., Th., 10-11:30; laboratory on Wednesdays with 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 special 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 2015–16.

*Prerequisite:* OEB 53, LS1b or permission of instructor required. Familiarity with computers, especially PC platforms.

### [OEB 185. Genetic Conflict]

Catalog Number: 98102

*Kirsten Bomblies*

*Half course (spring term). Tu., Th., 1–2:30.*

Some genes cheat random inheritance to gain disproportionate representation in progeny. The results for organisms range from beneficial to strongly detrimental; some may even cause extinction. The evolution of selfish elements and their suppressors is a rich drama that unfolds in genomes with important implications for evolution, speciation, human and animal health, and agriculture. This course will explore the mechanisms by which genes or chromosomes cheat, and counterstrategies that evolve to thwart them.

*Note:* Expected to be given in 2015–16.

### [OEB 190. Biology and Diversity of Birds]

Catalog Number: 3870 Enrollment: Limited to 12.

*Scott V. Edwards*

*Half course (spring term). Tu., Th., 11:30-1, and two hours weekly of specimen laboratory.*

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 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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* OEB 10 or OEB 53 or permission of the instructor.



### [OEB 191. Physiological and Biochemical Adaptation]

Catalog Number: 2314

*Peter R. Girguis*

*Half course (spring term). Tu., Th., 10–11:30.*

This course examines how microbes and animals have evolved to maintain function throughout the wide range of extant habitats. Emphasis is on physiological/biochemical evolution in response to environmental conditions, including climate change and life in extreme environments. As the first course in the "genomes to biomes" series, we will examine new approaches to interrogating organismal physiology in nature. Those interested can continue the "genomes to biomes" program via LS 100r.

*Note:* Expected to be given in 2015–16. One lab per week.

*Prerequisite:* OEB 10 or CHEM 27 or permission of the instructor.

### [OEB 192. Microbial Evolution]

Catalog Number: 5019

*Christopher Marx*

*Half course (fall term). M., W., 1–2:30.*

An examination of the evolution of microbes through an integration of lectures and discussion of primary literature. We will focus on a series of broad questions for which we will draw upon knowledge from both lab-based study of experimental microcosms and comparative studies of natural populations. Notably, students will conduct their own experimental evolution projects using 'digital organisms'.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Life Sciences 1a and Life Sciences 1b or equivalent required.

### [OEB 194. Laboratory Techniques in Ecological Physiology]

Catalog Number: 19882

*Peter R. Girguis and Stacey A. Combes*

*Half course (spring term). Hours to be arranged.*

An introduction to laboratory techniques in experimental physiology, this course will utilize a variety of equipment and several model organisms to empirically investigate foundational concepts in physiological and biochemical adaptation. Labs will complement and extend topics discussed in the companion class, OEB191. After demonstrating proficiency with core techniques, students will design independent research projects to explore novel questions in ecological physiology.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Concurrent or previous enrollment in OEB 191, or instructor approval.

*Primarily for Graduates*

### [OEB 209. Oxygen and Life]

Catalog Number: 67224

*Andrew H. Knoll and Peter R. Girguis*

*Half course (fall term). W., 12–2.*

In this seminar, we will explore the molecular and physiological interactions between organisms and oxygen, and use these to shed light on the role of oxygen in modulating evolutionary change



through Earth history.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* One of the following: OEB 191, EPS 181, EPS 186; or permission of instructors

### [\*OEB 210. Writing Scientific Papers]

Catalog Number: 37244 Enrollment: Limited to 12.

*Andrew Richardson*

*Half course (fall term). M., W., 2:30–4.*

You've designed your experiment, made your measurements, and analyzed your data. Now what? How do you write a paper that will not only get accepted, but also get cited? This is a hands-on workshop course targeted at graduate students who are ready to write up their first research paper for submission to a peer-reviewed scientific journal. The class will emphasize the idea that your paper should tell a (nonfiction!) story that engages the reader. By the end of the semester you will have a coherent, well-structured, and polished manuscript.

*Note:* Expected to be given in 2015–16.

### [OEB 212r. Advanced Topics in Plant Physiology]

Catalog Number: 2176

*N. Michele Holbrook*

*Half course (spring term). Hours to be arranged.*

A critical discussion of current research in plant physiology including measurement techniques, modeling, and experimental approaches.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* OEB 120 , OEB 52 or permission of instructor.

### [\*OEB 214. Biology of Acoustic Communities]

Catalog Number: 2422 Enrollment: Limited to 12.

*Brian D. Farrell*

*Half course (spring term). Tu., 11:30–1.*

Four principal animal groups (insects, frogs, birds and mammals) sing and call in habitats around the world. We discuss the ecology, evolution and characteristics of such acoustic communities and the hypothesis that their members compete for "bandwidth". We discuss readings on acoustic ecology and evolution, and listen to (and watch, via spectrum analysis) soundscapes from selected tropical and temperate habitats. The capstone will be a fieldtrip to record natural soundscapes.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* OEB 10 or permission of the instructor.

### OEB 215r. Topics in Ecophysiology

Catalog Number: 99294

*Stacey A. Combes*

*Half course (spring term). W., 11–1. EXAM GROUP: 14*

A discussion based course exploring the physiological processes involved in an organism's interactions with its environment. Readings will focus on adaptation to environmental variability, with an emphasis on responses to climate change and habitat alteration.

*Prerequisite:* OEB 191 or permission of instructor



### **OEB 216. Modern Conservation Biology - (New Course)**

Catalog Number: 32679 Enrollment: Limited to 12.

*Elizabeth M. Wolkovich*

*Half course (fall term). W., 2–3:30. EXAM GROUP: 7*

Readings (mainly from the scientific literature) and discussion of what defines and theoretically underpins the field of conservation biology - though discussion is on the current version of the field, readings will span its development over the last 50+ years.

*Prerequisite:* OEB 55 or permission of instructor

### **\*OEB 220r. Writing fellowship and grant proposals for the biological sciences**

Catalog Number: 15907

*Stacey A. Combes*

*Half course (fall term). Th., 11:30–1:30. EXAM GROUP: 15*

This course will prepare graduate students to write NSF-style proposals through in-class exercises, group analysis of writing samples, talks by former NSF panel members, and writing assignments geared towards meeting November proposal deadlines.

### **[OEB 221. Microbial Diversity]**

Catalog Number: 1234

*Colleen M. Cavanaugh*

*Half course (spring term). Tu., 1:30–4.*

Examines the remarkable diversity of the microbial world, "the unseen majority". Physiological, genetic, ecological, and evolutionary characteristics of Bacteria and Archaea are discussed, as well as the relation of phenotype to phylogeny. The course has strong links to fields ranging from geochemistry and climate change to the human microbiome, and will include discussions with experts in microbial biodiversity.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Background in microbial science and/or permission of instructor.

### **OEB 223. Topics in Neurogenetics**

Catalog Number: 1434

*Yun Zhang*

*Half course (spring term). W., 2–3:30. EXAM GROUP: 18*

We will discuss current literatures related to genetic effects on neural functions, including: (1) mental illness; (2) neurodegenerative diseases; (3) various behaviors; (4) learning and memory.

*Note:* The course is primarily planned for new graduate students, but it is also open to interested senior undergraduates who have taken OEB 57 (formerly BS 57) or MCB 80 and obtained permission from the instructor.

### **[\*OEB 230. Genomics of Species Evolution]**

Catalog Number: 0122

*James Mallet*

*Half course (spring term). Th., 1:30–3:30.*

This discussion-based course will survey modern ideas about speciation, and how they have changed as a result of genomic approaches. As well as readings and discussions in class, the course will utilize live online video sessions with major players in the field of evolutionary



genomics and speciation.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Permission of instructor. Instructor's permission. It is recommended that a basic evolution or population genetics course will have been taken (e.g. OEB 53 or OEB 242).

### [\*OEB 231. Adaptation]

Catalog Number: 95671

*Hopi E. Hoekstra*

*Half course (spring term). M., 2–4.*

This discussion-based course covers the latest advances in the study of adaptation with a focus on controversial issues and integrative approaches. The course combines readings from recent primary literature with discussion with experts via video conferencing.

*Note:* Expected to be given in 2015–16.

### \*OEB 234. Topics in Marine Biology

Catalog Number: 4637

*Robert M. Woollacott*

*Half course (spring term). W., 2:30–5. EXAM GROUP: 18*

Human impacts on marine life and ecosystems of the sea.

*Note:* Weekly class meeting including lectures, class presentations, several laboratories, and one field trip through the course of term.

### OEB 242. Population Genetics

Catalog Number: 0903

*Daniel L. Hartl (Public Health) and Michael Manish Desai*

*Half course (spring term). W., 2–5. EXAM GROUP: 18*

Mathematical theory, experimental data, and history of ideas in the field, including analytical methods to study genetic variation with applications to evolution, demographic history, agriculture, health and disease. Includes lectures, problem sets, and student presentations.

*Prerequisite:* LS1b or permission of the instructor.

### [\*OEB 251. Introduction to Vertebrate Surgery]

Catalog Number: 2075 Enrollment: Limited to 16.

*Arthur L. Lage (Medical School)*

*Half course (fall term). W., 1–3, and a weekly lab, W., 3–6.*

Teaches 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.

*Note:* Expected to be given in 2015–16. Intended for the student interested in the application of surgical technique in higher studies in biology and related disciplines.

*Prerequisite:* Comparative anatomy, Life Sciences 2 (or OEB 102), or equivalent course.

### [OEB 252. Coalescent Theory]

Catalog Number: 0118

*John Wakeley*



*Half course (fall term). M., W., F., at 9.*

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 2015–16.

*Prerequisite:* OEB 242 or permission of instructor: calculus and statistics or probability.

### [OEB 253r. Evolutionary Genetics Seminar]

Catalog Number: 8104

*John Wakeley*

*Half course (spring term). W., at 11.*

Readings and discussion of primary literature in population and evolutionary genetics.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* OEB 152 or permission of instructor.

### [OEB 255. Nature and Regulation of Marine Ecosystems ]

Catalog Number: 7753

*James J. McCarthy and guest lecturers*

*Half course (spring term). F., 1–3.*

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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* OEB 118 or OEB 157.

### [OEB 258. Adaptive Radiation and Macroevolution]

Catalog Number: 68083

*Jonathan Losos*

*Half course (fall term). Tu., 2:30–5.*

A critical examination of the concepts and methods related to the study of adaptive radiation and macroevolutionary diversification. Evolutionary consequences will be studied from both empirical and theoretical perspectives. Emphasis will be placed on current controversies on applying modern conceptual and analytical approaches to long-standing questions.

*Note:* Expected to be given in 2015–16.

### [OEB 261r. Developmental Mechanisms of Evolutionary Change]

Catalog Number: 8451

*Arkhat Abzhanov*

*Half course (spring term). F., 2–4.*

This lecture-seminar course will consider how mechanisms of animal developmental genetics help to explain the scope and patterns of animal diversity. Particular emphasis is placed on major evolutionary transitions and the origin of innovations.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* LS 1A and LS 1B or by permission of the instructor.



### [OEB 264. Sustainability Science: Interactions between Human and Environmental Systems]

Catalog Number: 16239

*William C. Clark (Kennedy School) and N. Michele Holbrook*

*Half course (fall term). Tu., Th., 1:10–2:30.*

A research seminar on how core theories of sustainability science provide a framework for improving the well-being of present and future generations in ways that conserve the planet's life support systems. The seminar will engage in a critical discussion of the underlying theory of the field and evaluate case studies of efforts to manage particular coupled human-environment systems.

*Note:* Expected to be given in 2015–16. Offered jointly with the Kennedy School as IGA-944.

### [OEB 268r. Topics in Plant Developmental Genetics]

Catalog Number: 5020

*Pamela Diggle*

*Half course (fall term). Tu., Th., 1-2:30, with Lab on Thursdays, 3-5.*

This lecture/laboratory covers plant anatomy and development, including the structure and function of cells, tissues, and organs and their developmental origin at the shoot apical meristem. Techniques of histology and microscopy also are covered.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* OEB 106 and Life Sciences 1b or BS 50, or MCB 52 or permission of instructor.

### [OEB 275r. Phylogenomics, Comparative Genomics and Adaptation]

Catalog Number: 5004

*Scott V. Edwards*

*Half course (fall term). Th., 2-4, and occasional computer labs.*

This semester we will explore through readings of the recent literature the ways in which comparative genomics can inform phylogeny and genomic adaptation. In addition to surveying recent methods for harnessing thousands of loci for phylogenetic reconstruction, we will also study how comparing genomes of higher clades can reveal signatures of adaptation, particularly in the noncoding portion of the genome.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* OEB 53, OEB 181, OEB 125 or equivalent.

### \*OEB 277r. In Sickness and in Health: Topics in Symbiosis

Catalog Number: 37264

*Colleen M. Cavanaugh*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

Critical review and discussion of current issues in symbiosis. Emphasis is on microbe-eukaryote symbioses ranging from mutualistic to pathogenic associations. In 2011 the course will focus on the human microbiome and topics selected by faculty and students.

*Prerequisite:* Life Sciences 1a, 1b or equivalent, microbial science, or permission of instructor.

### [\*OEB 278. Ecological Genetics]

Catalog Number: 0732

*Anne E. Pringle*



*Half course (fall term). W., 1–3:30.*

Ecological genetics explores the adjustments and adaptations of wild populations to their environment. We will use the primary literature to explore how diverse organisms are actually evolving in nature, and challenge the traditional divide between evolution and ecology.

*Note:* Expected to be given in 2015–16.

### [OEB 279. Microbial Metabolic Systems]

Catalog Number: 79668

*Christopher Marx*

*Half course (spring term). Hours to be arranged.*

This course covers microbial metabolism, with a focus on quantitative analyses and modeling. Rather than a laundry list of what different microbes can do, we will focus on thinking about metabolism from the more generic point of view of systems of enzymes, concentrations, and fluxes. We will cover empirical, computational, and theoretical approaches, including concepts such as Flux Balance Analysis and Metabolic Control, and focusing upon the selective pressures that operate on metabolism.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* LS1A or equivalent

### [OEB 282. Genomics and Evolution of Infectious Disease (Graduate Seminar in General Education)]

Catalog Number: 43026

*Pardis Sabeti*

*Half course (fall term). Tu., 2–4.*

Infectious diseases rapidly evolve to evade our immune systems, drugs, and vaccines, to remain agents of great morbidity and mortality. We will investigate the genome evolution of these pathogens and our intervention strategies for them past and present, with case examples from avian flu, malaria, TB, lassa fever and more. The seminar will design and develop a General Education course on these themes for undergraduates.

*Note:* Expected to be given in 2015–16.

### \*OEB 290. Microbial Sciences: Chemistry, Ecology and Evolution

Catalog Number: 7185 Enrollment: Limited to 30.

*Michael S. Gilmore (Medical School)*

*Half course (spring term). F., at 8:30, F., 9:45–11:45. EXAM GROUP: 10*

This is an interdisciplinary graduate-level and advanced undergraduate-level course in which students explore topics in molecular microbiology, microbial diversity, and microbially-mediated geochemistry in depth. This course will be taught by faculty from the Microbial Sciences Initiative. Topics include the origins of life, biogeochemical cycles, microbial diversity, and ecology.

*Note:* Also offered as Microbiology 210.

*Prerequisite:* For advanced undergraduates, Life Sciences 1a and 1b are required, or permission of instructor. MCB 52 is recommended.

### [\*OEB 296. Conservation History, Values, and Law]

Catalog Number: 17821



*Jonathan Losos and David R. Foster*

*Half course (fall term). W., 3–5.*

Designed for students in ecology and evolution. Through readings and discussion we examine the history of the conservation/preservationist movements. We focus on how various constituencies value nature, and the legal system for protecting nature.

*Note:* Expected to be given in 2015–16.

### **\*OEB 299r. Forest Practice and Research**

Catalog Number: 6128

*David R. Foster*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*

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*

#### **Earth and Planetary Sciences 181. Historical Geobiology**

**\*Environmental Science and Public Policy 90e. Marine Conservation Biology**

**Human Evolutionary Biology 1420. Human Evolutionary Anatomy**

**\*Human Evolutionary Biology 1463. Molecular Evolution of the Primates**

**Life Sciences 1b. An Integrated Introduction to the Life Sciences: Genetics, Genomics, and Evolution**

**Life Sciences 2. Evolutionary Human Physiology and Anatomy**

[Mathematics 153. Mathematical Biology-Evolutionary Dynamics]

**Mathematics 243. Evolutionary Dynamics**

[\*MCB 162. Major Advances in Understanding Heredity and Evolution]

**MCB 291. Genetics, Genomics and Evolutionary Biology**

### *Graduate Courses of Reading and Research*

#### **\*OEB 303. Theoretical Population Genetics**

Catalog Number: 4248

*John Wakeley 5680*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

#### **\*OEB 304. Mycology**

Catalog Number: 4702

*Donald H. Pfister 4344 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

#### **\*OEB 305. The Fundamental Interconnectedness of All Things**

Catalog Number: 3647

*David A. Haig 1629*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*OEB 307. Biomechanics, Physiology and Musculoskeletal Biology**

Catalog Number: 2831

*Andrew A. Biewener 1446 (on leave fall term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*OEB 308. Evolution of Floral Developmental Mechanisms**

Catalog Number: 5535

*Elena M. Kramer 3791**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*OEB 309. Evolution, Genomics, and Speciation - (New Course)**

Catalog Number: 42246

*James Mallet 2058**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*OEB 310. Metazoan Systematics**

Catalog Number: 3975

*Gonzalo Giribet 3854**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*OEB 311. Ecosystem Ecology**

Catalog Number: 6416

*Paul R. Moorcroft 4174**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*OEB 320. Biomechanics and Evolution of Vertebrates**

Catalog Number: 8915

*George V. Lauder 2375**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8***\*OEB 323. Advanced Vertebrate Anatomy**

Catalog Number: 8188

*Stephanie E. Pierce 7787**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2***\*OEB 324. Molecular Evolution**

Catalog Number: 2356

*Daniel L. Hartl (Public Health) 3278**Half course (fall term; repeated spring term). . EXAM GROUP: 12***\*OEB 325. Marine Biology**

Catalog Number: 4643

*Robert M. Woollacott 4135**Half course (fall term; repeated spring term). . EXAM GROUP: 15*



**\*OEB 334. Behavioral Ecology**

Catalog Number: 8279

*Naomi E. Pierce* 2889

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*OEB 335. Ichthyology and Functional Anatomy of Fishes**

Catalog Number: 4640

*Instructor to be determined*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*OEB 339. Whole-Plant Physiology**

Catalog Number: 5214

*N. Michele Holbrook* 1220

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*OEB 341. Coevolution**

Catalog Number: 2998

*Brian D. Farrell* 1985

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*OEB 343. Microbial Ecology and Symbiosis**

Catalog Number: 1288

*Colleen M. Cavanaugh* 2538

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*OEB 345. Biological Oceanography**

Catalog Number: 4676

*James J. McCarthy* 4343

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*OEB 355. Evolutionary Developmental Biology**

Catalog Number: 9192

*James Hanken* 2719 (*on leave fall term*)

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*OEB 359. Paleobotany**

Catalog Number: 0248

*Andrew H. Knoll* 7425

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*OEB 361. Somatic Evolution of Cancer**

Catalog Number: 5791

*Martin A. Nowak* 4568 (*on leave fall term*)

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

**\*OEB 362. Research in Molecular Evolution**

Catalog Number: 2367

*Scott V. Edwards 5049 (on leave 2014-15)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11***\*OEB 363. Plant Diversity and Evolution**

Catalog Number: 0001

*Charles C. Davis 5263**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7***\*OEB 364. Ecological Physiology of Microbes**

Catalog Number: 0002

*Peter R. Girguis 5264**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*OEB 365. Evolution of Microbes**

Catalog Number: 0003

*Christopher J. Marx 5265**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6***\*OEB 366. Evolution, Ecology, and Fungi**

Catalog Number: 0004

*Anne Pringle 5266**Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*OEB 367. Evolutionary and Ecological Diversity**

Catalog Number: 0420

*Jonathan Losos 5449 (on leave 2014-15)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*OEB 368. Oral Developmental Biology**

Catalog Number: 7087

*Arkhad Abzhanov 5597**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16***\*OEB 369. Molecular Genetics of Neuroscience**

Catalog Number: 5175

*Yun Zhang 5780**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*OEB 370. Mammalian Evolutionary Genetics**

Catalog Number: 3072

*Hopi E. Hoekstra 5814**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*OEB 371. Comparative and Evolutionary Invertebrate Developmental Biology**

Catalog Number: 7188

*Cassandra G. Extavour 6035 (on leave 2014-15)**Half course (fall term; repeated spring term). . EXAM GROUP: 15***\*OEB 372. Neural Basis of Learned Motor Behaviors**

Catalog Number: 8438

*Bence P. Olveczky 6003**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9***\*OEB 373. Plant Population Biology**

Catalog Number: 34452

*Kirsten Bomblies 6337 (on leave spring term)**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1***\*OEB 375. Evolutionary Dynamics and Population Genetics**

Catalog Number: 60662

*Michael Manish Desai 6547**Half course (fall term; repeated spring term). . EXAM GROUP: 3***\*OEB 376. Insect Biomechanics and Behavioral Ecology**

Catalog Number: 75769

*Stacey A. Combes 6030**Half course (fall term; repeated spring term). . EXAM GROUP: 5***\*OEB 378. Terrestrial Ecology**

Catalog Number: 24247

*Andrew Richardson 6562**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14***\*OEB 380. Neurobiological Basis of Behavior**

Catalog Number: 50426

*Benjamin Lovegren de Bivort 7305**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17***\*OEB 385. Natural Selection in Humans and Pathogens**

Catalog Number: 39354

*Pardis Sabeti 6022**Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13***\*OEB 386. Organismic and Evolutionary Plant Biology**

Catalog Number: 55867

*William Friedman 6896**Half course (fall term; repeated spring term). . EXAM GROUP: 3*



**\*OEB 387. Plant Evolution and Speciation - (New Course)**

Catalog Number: 54895

*Robin Hopkins 7622*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*OEB 399. Topics in Organismic and Evolutionary Biology**

Catalog Number: 0764

*Jonathan Losos 5449 (on leave 2014-15)*

*Half course (fall term; repeated spring term). W., 5-7 pm. EXAM GROUP: Fall: 16; Spring: 6*

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.

## Philosophy

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

*Faculty of the Department of Philosophy*

Sean D. Kelly, Teresa G. and Ferdinand F. Martignetti Professor of Philosophy (*Chair*)

Benjamin Bagley, Lecturer on Philosophy

Selim Berker, John L. Loeb Associate Professor of the Humanities

Matthew Boyle, Professor of Philosophy (*on leave 2014-15*)

Cheryl K. Chen, Senior Lecturer on Philosophy (*Associate Head Tutor*)

Warren Goldfarb, Walter Beverly Pearson Professor of Modern Mathematics and Mathematical Logic (*on leave 2014-15*)

Güven Güzeldere, Senior Lecturer on Philosophy and Psychology

Edward J. Hall, Norman E. Vuilleumier Professor of Philosophy

Adam Hosein, Visiting Assistant Professor of Philosophy (*University of Colorado*)

Russell Edward Jones, Assistant Professor of Philosophy

Frances Kamm, Professor of Philosophy

Peter Koellner, Professor of Philosophy

Christine M. Korsgaard, Arthur Kingsley Porter Professor of Philosophy (*on leave 2014-15*)

Jeffrey K. McDonough, Professor of Philosophy

Richard Moran, Brian D. Young Professor of Philosophy (*on leave 2014-15*)

Bernhard Nickel, Professor of Philosophy (*Head Tutor*)

Derek Parfit, Visiting Professor of Philosophy (*All Souls College, Oxford*)

Mark Richard, Professor of Philosophy (*Director of Graduate Studies*)

Susanna Rinard, Assistant Professor of Philosophy



Amelie Rorty, Lecturer on Philosophy

Thomas M. Scanlon, Jr., Alford Professor of Natural Religion, Moral Philosophy, and Civil Polity (*on leave fall term*)

Amartya Sen, Lamont University Professor (*on leave spring term*)

Tommie Shelby, Caldwell Titcomb Professor of African and African American Studies and of Philosophy

Susanna Siegel, Edgar Pierce Professor of Philosophy

Alison Simmons, Samuel H. Wolcott Professor of Philosophy, Harvard College Professor

W. Hugh Woodin, Professor of Philosophy and of Mathematics (*on leave spring term*)

### ***Other Faculty Offering Instruction in Philosophy***

Scott Brewer, Professor of Law (*Law School*)

Richard H. Fallon, Ralph S. Tyler, Jr. Professor in Constitutional Law (*Law School*)

Parimal G. Patil, Professor of Religion and Indian Philosophy

### ***Affiliates of the Department of Philosophy***

Gennaro Chierchia, Haas Foundations Professor of Linguistics

Michael E. Rosen, Professor of Government (*on leave 2014-15*)

### ***Primarily for Undergraduates***

#### **Philosophy 3. Introduction to the Problems of Philosophy**

Catalog Number: 1996

*Bernhard Nickel*

*Half course (fall term). M., W., (F.), at 11, and a weekly section to be arranged. EXAM GROUP: 18*

The course introduces students to philosophical argumentation and writing by investigating the following questions: Does god exist? What makes for good evidence? How ought we to act? What is the relationship between mind and body? Is there free will? Is there life after death, and if not, is death bad for us? We'll pay particular attention to how answers to one question interact with answers to the others. No previous experience with philosophy required. There will be many exercises and activities to develop your philosophical skills.

#### **Philosophy 7. Introduction to Ancient Philosophy**

Catalog Number: 1583

*Russell Edward Jones*

*Half course (spring term). M., W., (F.), at 11. EXAM GROUP: 14*

A survey of ancient Greek philosophy, with an emphasis on Socrates, Plato, and Aristotle. Topics include: the nature of reality, and how we come to know it; the nature and value of wisdom and virtue, and how we might come to attain them; and the good life for human beings, with special attention to the place of justice and friendship in it.

#### **[Philosophy 8. Introduction to Early Modern Philosophy]**

Catalog Number: 8947



*Alison Simmons*

*Half course (spring term). Hours to be arranged.*

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 existence of God, the existence of the external world, the nature and limits of human knowledge, and the changing relationship between science and philosophy.

*Note:* Expected to be given in 2015–16.

### **Philosophy 11. Philosophy of Law - (New Course)**

Catalog Number: 79877

*Adam Hosein (University of Colorado)*

*Half course (spring term). M., W., (F.), at 1. EXAM GROUP: 8*

We will look at moral issues relating to the law, especially U.S. constitutional law. Readings will include important recent and historical court cases alongside philosophical work. Topics to be discussed include the role of judges in a democracy, race and gender equality, freedom of speech, and the rule of law. For example, should judges have such a large voice on the regulation of abortion? Should corporations be allowed to spend unlimited amounts supporting political candidates? And can we put restrictions on violent pornography while respecting freedom of speech?

### **Philosophy 13. Morality and Its Critics - (New Course)**

Catalog Number: 10889

*Benjamin Bagley*

*Half course (fall term). Tu., Th., at 12 (section to be arranged). EXAM GROUP: 13*

An introduction to ethics, focusing on two major views of what it means to be moral and how morality matters. On one (utilitarianism), morality is roughly about doing what best serves the interests of everyone involved; on the other (associated with Immanuel Kant) it instead concerns relating to people on terms that respect their dignity and autonomy. We'll explore these views in the context of both practical issues like animal rights and global poverty, and more personal concerns about well-being, manipulation, and responsibility; and we'll also consider whether both views might seriously exaggerate the place of morality in our lives.

### **Philosophy 19. Introduction to Philosophy of Religion**

Catalog Number: 20223

*Cheryl K. Chen*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 15*

An examination of some central themes in the philosophy of religion. Topics include: arguments for and against the existence of God, divine attributes, the problem of evil, miracles, religious experience, the relation between religion and science, and life and death. Readings from historical and contemporary sources.

### **Philosophy 22. Introduction to Philosophy of Psychology**

Catalog Number: 54404

*Given Güzeldere*

*Half course (spring term). Tu., Th., at 11. EXAM GROUP: 15*

An introduction to philosophical questions in psychology and the cognitive sciences: the nature



of consciousness, the relation between perception, cognition, and introspection, the pertinence of language for rational thought, and the role of memory for personal identity and the self. We also examine related questions, such as how we can study the content of minds in non-human animals and assess the possibility of minds in robots, as well as how certain brain dysfunctions affect the mind and the self.

**[Philosophy 34 ((formerly Humanities 14)). Existentialism in Literature and Film]**

Catalog Number: 60569

*Sean D. Kelly*

*Half course (spring term). M., W., at 11.*

What is it to be a human being? How can human beings live meaningful lives? These questions guide our discussion of theistic and atheistic existentialism and their manifestations in literature and film. Material includes philosophical texts from Pascal, Kierkegaard, Nietzsche, Sartre; literature from Dostoevsky, Kafka, Beckett; films from Jean-Luc Godard, Alain Resnais, Carol Reed.

**\*Philosophy 91r. Supervised Reading and Research**

Catalog Number: 9710

*Bernhard Nickel*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 10*

Graded independent study under faculty supervision. Interested students need approval of head tutor for their topic and must propose a detailed syllabus before the beginning of term.

**\*Philosophy 97. Tutorial I**

Catalog Number: 2435

*Bernhard Nickel*

*Half course (fall term; repeated spring term). Fall: W., at 4. EXAM GROUP: Fall: 17; Spring: 18*

*Note:* Required of all sophomore concentrators, and for the secondary field in philosophy.

**\*Philosophy 98 (formerly \*Philosophy 98hf). Tutorial II**

Catalog Number: 5533

*Bernhard Nickel*

*Half course (fall term; repeated spring term). Fall: M., 4–6. EXAM GROUP: Fall: 17; Spring: 4*

*Note:* Required of all junior concentrators.

**\*Philosophy 99. Tutorial — Senior Year**

Catalog Number: 4396

*Bernhard Nickel and members of the Department.*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*

***Cross-listed Courses***

**Culture and Belief 31. Saints, Heretics, and Atheists: An Historical Introduction to the Philosophy of Religion**



### **Empirical and Mathematical Reasoning 17. Deductive Logic**

[Ethical Reasoning 13. Self, Freedom, and Existence]

[Ethical Reasoning 21. Moral Reasoning about Social Protest]

\***Freshman Seminar 30q. Death and Immortality - (New Course)**

\***Freshman Seminar 33k. Reasoning About God: Exploring Religious Belief in Light of Philosophy and Cognitive Science**

**Humanities 10a. The Humanities Colloquium: Essential Works 1 - (New Course)**

**Humanities 10b. The Humanities Colloquium: Essential Works 2 - (New Course)**

\***Social Studies 10a. Introduction to Social Studies**

### ***For Undergraduates and Graduates***

#### **Philosophy 101. Plato**

Catalog Number: 5374

Russell Edward Jones

Half course (fall term). M., W., (F.), at 12. EXAM GROUP: 11

A survey of Plato's views, with special attention to the nature of philosophical wisdom and its place in the good life. Likely readings include *Apology*, *Gorgias*, *Meno*, and *Protagoras*, with additional selections from *Phaedo*, *Philebus*, *Republic*, and *Theaetetus*. While our primary task is to understand and evaluate the theories expressed in Plato's dialogues, a secondary task is to examine issues of interpretive methodology that arise given that Plato wrote dialogues which predominantly feature a historical figure (Socrates) and which may or may not express a consistent set of views.

#### **[Philosophy 102. Aristotle]**

Catalog Number: 8100

Russell Edward Jones

Half course (fall term). Hours to be arranged.

A survey of some central topics in the work of Aristotle, with attention to his philosophical methodology and his views on nature, substance, change, psychology, and ethics. Readings will include selections from *Categories*, *Analytics*, *Physics*, *Metaphysics*, *De Anima*, and *Nicomachean Ethics*.

Note: Expected to be given in 2015–16.

#### **Philosophy 117. Medieval Philosophy**

Catalog Number: 3897

Jeffrey K. McDonough

Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12

An examination of three great traditions in medieval philosophy, neo-Platonism, Scholastic-Aristotelianism, and Nominalism, through the works of their most important proponents, Augustine, Aquinas, and Ockham. Specific topics will include skepticism, knowledge, human nature, divine nature, language, realism, and conceptualism.

#### **[Philosophy 120. The Rationalists]**

Catalog Number: 2512

Jeffrey K. McDonough



*Half course (fall term). Hours to be arranged.*

The Early Modern Era was dominated by two broad philosophical traditions: British Empiricism and Continental Rationalism. This course examines the development of Continental Rationalism through the works of its three most important proponents, René Descartes, Baruch Spinoza, and G.W. Leibniz. Focusing on their contributions to metaphysics and epistemology, specific topics will include rationalist treatments of philosophical method, skepticism, knowledge, the nature of substance, mind-body relations, and the metaphysical foundations of science. Attention to how the Rationalists reacted to the medieval tradition and their Empiricists rivals, and set the stage for Kant's "Copernican Revolution."

*Note:* Expected to be given in 2015–16.

### **Philosophy 122. British Empiricism**

Catalog Number: 9025

*Alison Simmons*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

The so-called British Empiricists (Locke, Berkeley, and Hume) take us on a journey from very sensible philosophical starting points to rather extravagant sounding philosophical conclusions. We will explore their influential arguments concerning such things as the self, the external world, mind and body, natural kinds, concepts, language, science, skepticism, and the role of philosophy itself.

### **[Philosophy 129. Kant's *Critique of Pure Reason*]**

Catalog Number: 0614

*Matthew Boyle*

*Half course (spring term). Hours to be arranged.*

A careful reading of the work that is the cornerstone of Kant's critical system, his first *Critique*, aiming at a general understanding of the problems that Kant seeks to address and the significance of his doctrine of "transcendental idealism." Topics to include: the role of mind in the constitution of experience; the nature of space and time; the relation between self-knowledge and knowledge of objects; causation; freedom of the will; the relation between appearance and reality; the status of metaphysics.

*Note:* Expected to be given in 2015–16.

### **[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 2015–16.

### **Philosophy 139. Later Heidegger**

Catalog Number: 4546



*Sean D. Kelly*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

A close reading of selected texts from Martin Heidegger's later work, starting from the period after the publication of *Being and Time*. Heidegger's later work rejects the humanism of his own earlier period as well as the humanist existentialism made famous by Sartre. In doing so, it attempts to gather and preserve meaningful possibilities of existence in our "destitute times." Topics will be chosen from among Heidegger's encounter with various figures in the history of philosophy as well as with such topics as thinking, poetry, gods, works of art, science, technology, and things.

**[Philosophy 141. Frege, Russell, and the Early Wittgenstein]**

Catalog Number: 6807

*Warren Goldfarb*

*Half course (fall term). Hours to be arranged.*

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.

*Note:* Expected to be given in 2015–16.

**[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 2015–16.

**Philosophy 145. Modal Logic - (New Course)**

Catalog Number: 34032

*Mark Richard*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

An introduction to the semantics and metatheory of modal logic as well as some of its applications in philosophy and linguistics. Topics drawn from the following: Completeness, frames, and incompleteness for propositional modal logic; semantics for quantificational modal logics; provability interpretations of modal logic; intensional semantics for conditionals and other natural language expressions.

**[Philosophy 147. Philosophy of Language]**

Catalog Number: 8887

*Mark Richard*

*Half course (spring term). Hours to be arranged.*

An introduction to recent philosophical thought about language. Topics to include: relations between meaning and truth; the extent to which meaning is determinate and the extent to which it is shared; conceptions of language use as performative or expressive; the idea that there is a gulf



between factual and evaluative language.

*Note:* Expected to be given in 2015–16.

### [Philosophy 149z. Philosophy of Science]

Catalog Number: 54787

*Edward J. Hall*

*Half course (spring term). Hours to be arranged.*

Survey of 20th century and contemporary views on the nature of scientific knowledge, and related metaphysical issues. Topics include: logical empiricism, Popper and "falsifiability", induction and confirmation, explanation, scientific realism, causation and laws of nature, and the sense (if any) in which "everything reduces to physics".

*Note:* Expected to be given in 2015–16.

### Philosophy 150. Philosophy of Probability - (New Course)

Catalog Number: 11277

*Susanna Rinard*

*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 1*

Probability, remarked Bishop Butler, is "the very guide of life." In this course we will investigate the extent to which probabilistic tools can help answer basic questions like these: How should I choose among my options? What should I believe? How should I revise my beliefs upon acquiring new information? Does it make sense to believe in God? No background in math is necessary; the beginning of the course will cover the essentials of probability theory.

### Philosophy 151z. Philosophy of Quantum Mechanics

Catalog Number: 5465

*Edward J. Hall*

*Half course (spring term). M., W., (F.), at 9. EXAM GROUP: 10*

A crowning achievement of 20th century science, quantum mechanics has raised deeply perplexing questions for physicists and philosophers alike: Does quantum mechanics show that the conscious mind has the power to make the physical world "jump"? That reality itself is constantly "splitting" into alternative versions? That the universe as a whole is in some deep sense "holistic"? And so on. In this course, we will attempt to separate the wheat of genuine mystery from the chaff of philosophical confusion, and along the way use quantum mechanics as an excuse to explore several fascinating and fundamental philosophical questions about science. No prior knowledge of quantum mechanics required.

### Philosophy 156. Philosophy of Mind

Catalog Number: 3410

*Cheryl K. Chen*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

The mind-body problem and proposed solutions to it, including dualism, behaviorism, identity theories, and functionalism. Theories of consciousness, subjective experience, and the mind's representation of the world.

### [\*Philosophy 158. Self, Body, and Other: Proseminar]

Catalog Number: 45486



*Matthew Boyle*

*Half course (fall term). Hours to be arranged.*

An exploration of the distinctive ways in which we know (1) our own minds, (2) our own bodies, (3) the minds of other persons. A central concern will be how each of these kinds of knowledge differs from our knowledge of mere objects. Readings from philosophical sources and from some relevant literature in contemporary psychology and cognitive science.

*Note:* Expected to be given in 2015–16.

### **Philosophy 159s. Skepticism - (New Course)**

Catalog Number: 47696

*Susanna Rinard*

*Half course (fall term). Tu., Th., 1-2pm. EXAM GROUP: 8*

A close examination of arguments for various forms of skepticism, such as: that you lack good evidence for the existence of minds other than your own; that no one knows anything about the external world; that scientific reasoning is fundamentally flawed. Have any philosophers succeeded in rebutting such arguments, or does rationality require us to reconfigure our outlook to accommodate radical skepticism?

### **\*Philosophy 160. Readings in Philosophical Psychology**

Catalog Number: 77411

*Susanna Siegel*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

We will discuss a range of issues related to cognitive architecture. Topics will include some but probably not all of the following: the cognitive underpinnings of implicit bias, Bayesian theories of perceptual processing, the distinctions between perception and sensation, the distinctions between perception and cognition, the perception of agency, and the epistemology of perception.

*Note:* This course fulfills the MBB requirement for the Interdisciplinary Seminar during the junior year

### **[Philosophy 163. Rationality and Irrationality]**

Catalog Number: 83126

*Matthew Boyle*

*Half course (fall term). Hours to be arranged.*

What kind of power is rationality; in what respects does it set humans apart from nonrational creatures? To what extent, if any, is a special form of understanding brought to bear in making sense of rational creatures? Though human beings are capable of rationality, clearly we are often actually irrational: we do what we judge not to be worth doing and believe what we know to be unjustified. How are such phenomena to be understood?

*Note:* Expected to be given in 2015–16.

### **Philosophy 164. Metaphysics**

Catalog Number: 1480

*Edward J. Hall*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

We are going to explore, in the most general possible manner, two questions: What is there? And



what is it (that is, whatever it is that there is) like? We're also going to explore the meta-question of whether and how genuine progress on these two questions can ever be made.

### **[Philosophy 168. Kant's Ethical Theory]**

Catalog Number: 8361

*Christine M. Korsgaard*

*Half course (spring term). Hours to be arranged.*

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:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

### **Philosophy 170. The Philosophy of Bernard Williams - (New Course)**

Catalog Number: 95276

*Benjamin Bagley*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

In a strikingly original and provocative body of work, the British philosopher Bernard Williams argued that traditional approaches to moral philosophy entailed a badly distorted picture of human life and action. This course will study Williams's critique of these approaches and explore what he thought should replace them. Readings will include, among others, Williams's books *Ethics and the Limits of Philosophy* and *Shame and Necessity*, and his essays on character, personal identity, reasons for action, luck, blame, death, and tragedy.

### **[Philosophy 172. The History of Modern Moral Philosophy]**

Catalog Number: 5184

*Christine M. Korsgaard*

*Half course (fall term). Hours to be arranged.*

A study of the development of modern moral philosophy from its origins in the natural law theories of Hobbes and Pufendorf to the emergence of the two most influential theories of the modern period, utilitarianism and Kantianism, in the works of Bentham and Kant. Selections from the works of Hobbes, Clarke, Butler, Hutcheson, Hume, Smith, Price, and others.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

### **Philosophy 173. Metaethics**

Catalog Number: 3541

*Selim Berker*

*Half course (fall term). M., W., F., at 1. EXAM GROUP: 1*

A close examination of three metaethical views that take a deflationary approach toward the moral domain: nihilism, relativism, and expressivism.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

### **Philosophy 175f. Justice and the Family: Proseminar - (New Course)**

Catalog Number: 95839

*Tommie Shelby*



*Half course (fall term). M., 2–4. EXAM GROUP: 7*

Under what conditions is it morally permissible to procreate, and when (if ever) may the state intervene in the lives of citizens to limit procreation? What are the rights and responsibilities of parents, and how does a person come to have these rights and responsibilities? What (if any) legitimate stake does a liberal-democratic state have in the internal structure and dynamics of families? Who has a duty to pay child support, and is this an enforceable duty? What kinds of support (if any) should the state provide for families with children? Should parents and non-parents in a society share the costs of rearing children? What are the limits of family autonomy and parental partiality? We will take up these and related questions through contemporary writings in moral and political philosophy. Feminist perspectives will be considered. We will also read some empirical research on "fragile families," i.e., those that are marked by instability and socioeconomic disadvantage.

### **Philosophy 177x. Moral Theories - (New Course)**

Catalog Number: 82996

*Adam Hosein (University of Colorado)*

*Half course (spring term). M., W., (F.), at 11. EXAM GROUP: 14*

In this course we will consider how one ought to act. We will look at some general moral theories, including Kantianism, consequentialism, and contractualism. And we will consider the implications of these theories for particular issues, such as promising, deception, self-defense, and risk-imposition.

### **Philosophy 178q. Equality and Liberty**

Catalog Number: 77839

*Thomas M. Scanlon, Jr.*

*Half course (spring term). Tu., Th., at 1, and a weekly section to be arranged. EXAM GROUP: 1*  
 Arguments for equality, conceptions of liberty, and the relations between the two.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

### **[Philosophy 187. Aesthetics]**

Catalog Number: 2594

*Richard Moran*

*Half course (spring term). Hours to be arranged.*

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.

*Note:* Expected to be given in 2015–16.

### **[\*Philosophy 191. Philosophy without Borders: India and Europe: Proseminar]**

Catalog Number: 44625

*Alison Simmons and Parimal G. Patil*

*Half course (spring term). Hours to be arranged.*

European and Indian traditions of philosophy are rarely studied together, and yet they grapple



with many of the same fundamental questions: What am I? What can I know? What really exists? Is there a God (or gods)? What is the good life? Working with some classic Buddhist and Western philosophical texts we will launch a conversation between these traditions. At the same time, we will explore what is lost and gained by this sort of philosophical exchange.

*Note:* Expected to be given in 2015–16.

### ***Cross-listed Courses***

#### **African and African American Studies 128. Black Nationalism** **Mathematics 145a. Set Theory I - (New Course)**

##### ***Primarily for Graduates***

#### **\*Philosophy 224. Advanced Topics in British Empiricism**

Catalog Number: 57097

*Alison Simmons and Jeffrey K. McDonough*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

The so-called British Empiricists (Locke, Berkeley, and Hume) take us on a journey from very sensible philosophical starting points to rather extravagant sounding philosophical conclusions. In this course we will look in depth at specific interpretive and philosophical issues that arise in connection with the British Empiricist tradition. Familiarity with the central works of Locke, Berkeley and Hume - such as one might acquire in Phil 122 or a similar course - will be presupposed.

#### **Philosophy 232r. The Art of Living (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 29402

*Sean D. Kelly*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

From its inception in Ancient Greece, Philosophy was conceived of not merely as an intellectual pursuit, but as an entire way of life. Indeed ethics, in the words of the Roman philosopher Cicero, was essentially an *ars vivendi*, an art of living [*De Fin.* 1.42 *et. al.*]. This graduate seminar is devoted to developing a General Education course that approaches philosophical texts from this broad-minded perspective. In the seminar we will pursue intensive reading of figures from Socrates to Foucault, and we will discuss various pedagogical strategies and creative assignments intended to bring to life the art that each of these figures points us toward.

*Note:* The seminar will design and develop a General Education course on these themes for undergraduates.

#### **Philosophy 243. Topics in Philosophy of Mathematics: Seminar - (New Course)**

Catalog Number: 57592

*Peter Koellner and W. Hugh Woodin*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

The topic will be the search for axioms that settle the statements left unsettled by ZFC. Topics include: The nature of justification in mathematics, axioms of infinity, definable determinacy,



the continuum hypothesis, the HOD Conjecture, the search for a 'final' axiom and the candidate  $V = \text{Ultimate-L}$ .

### **Philosophy 252. The Ethics of Belief: Seminar - (New Course)**

Catalog Number: 44306

*Susanna Rinard*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

What should I believe? Can the practical advantages of holding a particular belief contribute to the rationality of that belief-or does rationality always require believing in accordance with the evidence? Do we have voluntary control over our beliefs-and how (if at all) might this be relevant to the ethics of belief? Is there any sense in which belief "aims" at truth, and if so, how is this relevant to the ethics of belief?

### **Philosophy 253. The Epistemic Authority of Science (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 44411

*Edward J. Hall and Scott Brewer (Law School)*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

A systematic examination of the nature and significance of the epistemic authority that our culture currently bequeaths upon science, with emphasis on issues in both the public and private spheres. How, in a democratic society, should scientific expertise be adjudicated, and deployed in decision-making in political and legal settings? To what extent are science and religion in conflict? What is it to adopt a "scientific worldview" - and what difference should this make, if any, to how an individual perceives and conducts her own life?

*Note:* The seminar will design and develop a General Education course on these themes for undergraduates.

### **Philosophy 268v. Normative and Meta-Normative Questions - (New Course)**

Catalog Number: 53751

*Selim Berker and Derek Parfit (All Souls College, Oxford)*

*Half course (spring term). Tu., (F.), 2–4. EXAM GROUP: 11*

We shall discuss some conflicting views about what matters, normative reasons, how it would be best for things to go, and the wrongness of acts. We shall also discuss some conflicting metaethical views about these views. The subjects discussed will partly depend on the preferences of those taking this course.

### **\*Philosophy 271. Political Philosophy: Seminar**

Catalog Number: 14648

*Adam Hosein (University of Colorado)*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

We will look at some theoretical and practical questions about equality and discrimination in both morality and the law. Likely theoretical topics include what makes equality valuable, theories of expressive harm, and the moral status of groups. Likely applications include racial profiling, sex-discrimination in hiring, regulation of pornography, religious endorsement by the state, and amnesties for undocumented migrants. We will read both some legal sources and



various theorists, such as Deborah Hellman, Elizabeth Anderson, T.M. Scanlon, Rae Langton, Richard Banks, and Owen Fiss.

### **\*Philosophy 276x. Bioethics: Seminar**

Catalog Number: 3452

*Frances Kamm*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

Philosophical discussion of selected issues in bioethics, such as allocation of scarce resources, equity in healthcare, death, euthanasia and assisted suicide, abortion, embryonic stem cell research. Readings primarily from contemporary philosophical sources.

*Note:* Offered jointly with the Harvard Kennedy School of Government as LAW-90335A.

### **\*Philosophy 277. Philosophy and Law: Seminar**

Catalog Number: 94967

*Thomas M. Scanlon, Jr. and John C. P. Goldberg (Law School)*

*Half course (spring term). W., 5–7 p.m. EXAM GROUP: 13*

*Note:* Offered jointly with the Law School as 2470.

### **\*Philosophy 299hf. Individual Supervision**

Catalog Number: 8076

*Mark Richard and members of the Department*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

*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 2082. Social Choice Theory]

**\*History of Science 206r. "It's Only a Hypothesis"**

### ***Graduate Courses of Reading and Research***

#### **\*Philosophy 300aa (formerly \*Philosophy 300a). Colloquium**

Catalog Number: 5615

*Bernhard Nickel 5516 and Susanna Siegel 2441*

*Full course (fall term). Hours to be arranged. EXAM GROUP: 2*

An intensive study of selected problems in contemporary philosophy.

*Note:* Limited to first-year graduate students in the Department.

#### **\*Philosophy 300b. Colloquium**

Catalog Number: 6280

*Selim Berker 5514*

*Half course (spring term). M., 4–6. EXAM GROUP: 15*

Continuation of Philosophy 300aa.



### **\*Philosophy 303. Colloquium: Dissertation Presentations**

Catalog Number: 1089

*Susanna Siegel 2441*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

### **\*Philosophy 305. Individual Reading and Research**

Catalog Number: 4462

*Selim Berker 5514, Matthew Boyle 5279 (on leave 2014-15), Warren Goldfarb 4499 (on leave 2014-15), Edward J. Hall 5324, Russell Edward Jones 6777, Frances Kamm 4280, Sean D. Kelly 5515, Peter Koellner 4680, Christine M. Korsgaard 2994 (on leave 2014-15), Douglas Lavin 5091 (spring term only), Jeffrey K. McDonough 5280, Richard Moran 1786 (on leave 2014-15), Bernhard Nickel 5516, Mark Richard 6603, Thomas M. Scanlon, Jr. 7986 (on leave fall term), Amartya Sen 1705 (on leave spring term), Tommie Shelby 3863, Susanna Siegel 2441, and Alison Simmons 1300*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 7; Spring: 18*

### **\*Philosophy 310. Research Seminars**

Catalog Number: 4465

*Selim Berker 5514, Matthew Boyle 5279 (on leave 2014-15), Warren Goldfarb 4499 (on leave 2014-15), Edward J. Hall 5324, Russell Edward Jones 6777, Frances Kamm 4280, Sean D. Kelly 5515, Peter Koellner 4680, Christine M. Korsgaard 2994 (on leave 2014-15), Douglas Lavin 5091 (spring term only), Jeffrey K. McDonough 5280, Richard Moran 1786 (on leave 2014-15), Bernhard Nickel 5516, Mark Richard 6603, Thomas M. Scanlon, Jr. 7986 (on leave fall term), Amartya Sen 1705 (on leave spring term), Tommie Shelby 3863, Susanna Siegel 2441, and Alison Simmons 1300*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 6; Spring: 17*

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

*Selim Berker 5514 (fall term only), Edward J. Hall (spring term only), Adam Hosein (full year)*

*Half course (fall term; repeated spring term). M., 4-6. EXAM GROUP: Fall: 17; Spring: 13*

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

*Mark Richard 6603 (fall term only), Alison Simmons (fall term only), Susanna Siegel 2441 (spring term only), Susanna Rinard (spring term only)*

*Half course (fall term; repeated spring term). Fall: Th., 2-4; Spring: W., 3-5. EXAM GROUP: Fall: 6; Spring: 17*



A forum for the presentation and discussion of work in progress by students in metaphysics and epistemology. Open only to graduate students in the Philosophy Department or by invitation of the instructors.

**\*Philosophy 315hf. Instructional Styles in Philosophy**

Catalog Number: 9781

Bernhard Nickel 5516

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*

Course is required for graduate students in their first year of teaching; optional for students in their second year of teaching.

**\*Philosophy 320. Philosophy in Translation: Latin**

Catalog Number: 44862

Jeffrey K. McDonough 5280

*Half course (fall term). Hours to be arranged. EXAM GROUP: 1*

A close reading of philosophical texts in their original Latin language with the aim of developing reading and translation skills.

**\*Philosophy 320d. Philosophy in Translation: German - (New Course)**

Catalog Number: 38732

Bernhard Nickel 5516

*Half course (fall term). Hours to be arranged. EXAM GROUP: 5*

A close reading of selected philosophical texts in German with the aim of developing and improving reading and translation skills.

**\*Philosophy 320g. Philosophy in Translation: Greek - (New Course)**

Catalog Number: 92174

Russell Edward Jones 6777

*Half course (fall term). Hours to be arranged. EXAM GROUP: 18*

A close reading of philosophical texts in classical Greek, with the aim of developing reading skills as well as making interpretive progress. In AY 14/15, the text will be Plato's *Phaedo*, and there will be visiting scholars leading some sessions and giving associated lectures.

**\*Philosophy 321d. Philosophy in Translation - German - (New Course)**

Catalog Number: 54008

Bernhard Nickel 5516

*Half course (spring term). EXAM GROUP: 11*

A close reading of selected philosophical texts in German with the aim of developing and improving reading and translation skills.

**\*Philosophy 321g. Philosophy in Translation Greek - (New Course)**

Catalog Number: 40841

Russell Edward Jones 6777

*Half course (spring term). EXAM GROUP: 16*

A close reading of philosophical texts in classical Greek, with the aim of developing reading



skills as well as making interpretive progress. There will be visiting scholars leading some sessions and giving associated lectures.

### **\*Philosophy 333. Preparation for the Topical Examination**

Catalog Number: 1967

*Selim Berker 5514, Matthew Boyle 5279 (on leave 2014-15), Warren Goldfarb 4499 (on leave 2014-15), Edward J. Hall 5324, Russell Edward Jones 6777, Frances Kamm 4280, Sean D. Kelly 5515, Peter Koellner 4680, Christine M. Korsgaard 2994 (on leave 2014-15), Douglas Lavin 5091 (spring term only), Jeffrey K. McDonough 5280, Richard Moran 1786 (on leave 2014-15), Bernhard Nickel 5516, Mark Richard 6603, Thomas M. Scanlon, Jr. 7986 (on leave fall term), Amartya Sen 1705 (on leave spring term), Tommie Shelby 3863, Susanna Siegel 2441, and Alison Simmons 1300*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

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

*Selim Berker 5514, Matthew Boyle 5279 (on leave 2014-15), Warren Goldfarb 4499 (on leave 2014-15), Edward J. Hall 5324, Russell Edward Jones 6777, Frances Kamm 4280, Sean D. Kelly 5515, Peter Koellner 4680, Christine M. Korsgaard 2994 (on leave 2014-15), Douglas Lavin 5091 (spring term only), Jeffrey K. McDonough 5280, Richard Moran 1786 (on leave 2014-15), Bernhard Nickel 5516, Mark Richard 6603, Thomas M. Scanlon, Jr. 7986 (on leave fall term), Amartya Sen 1705 (on leave spring term), Tommie Shelby 3863, Susanna Siegel 2441, and Alison Simmons 1300*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

## Physical Sciences

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

The Physical Sciences encompass a broad array of disciplines that focus on quantitative modeling of natural systems, from subatomic particles to cells to galaxies. Physical Sciences courses are jointly organized by faculty in the departments of Astronomy, Chemistry and Chemical Biology, Earth and Planetary Sciences, and Physics, in collaboration with faculty of the School of Engineering and Applied Sciences. Physical Sciences courses fulfill requirements in many concentrations in the sciences and in General Education. Incoming students interested in the physical sciences should take Harvard's online placement tests in Mathematics and Chemistry. Students who take these tests will receive a recommendation for appropriate courses in Mathematics, Chemistry and the Physical Sciences. For more information about Physical Sciences Education, please visit the [Physical Sciences Homepage](#).



## ***Life and Physical Sciences***

### ***Primarily for Undergraduates***

#### **Life and Physical Sciences A. Foundational Chemistry and Biology**

Catalog Number: 3956

*Gregory C. Tucci and Tamara J. Brenner*

*Half course (fall term). M., W., F., at 9, and a weekly one-hour of discussion section, three-hour lab, and one-hour of review session. EXAM GROUP: 10*

This course introduces fundamental concepts in chemistry and biology. Topics in chemistry include stoichiometry, acids and bases, aqueous solutions, gases, thermochemistry, electrons in atoms, and chemical bonding. The course also examines biological molecules, the transfer of information from DNA to RNA to protein, and cell structure and signaling.

*Note:* Students should use their scores on the Chemistry and Biology Placement Tests to determine whether to enroll in Life and Physical Sciences A or Life Sciences 1a. This course assumes fluency with high school algebra. Students who have completed Life Sciences 1a, Physical Sciences 1, Physical Sciences 10, Physical Sciences 11, Chemistry 17 or Chemistry 20 may not take Life and Physical Sciences A for credit. This course, when taken for a letter grade, meets the General Education Requirement for Science of Living Systems.

## ***Physical Sciences***

### ***Primarily for Undergraduates***

#### **Physical Sciences 1. Chemical Bonding, Energy, and Reactivity: An Introduction to the Physical Sciences**

Catalog Number: 2225

*Hongkun Park, Lindsay M. Hinkle, and Sirinya Matchacheep*

*Half course (spring term). M., W., F., at 10. EXAM GROUP: 13*

The course covers the chemistry and physics underlying molecular phenomena in the world. Starting from a single electron, the course will build up to atoms, molecules, and materials. Interactions of molecules are studied through thermochemistry, equilibria, entropy and free energy, acids and bases, electrochemistry, and kinetics. Applications include physical principles in biology, global energy demands, and modern materials and technology.

*Note:* This course is part of an integrated introduction to the physical science intended for students who plan to pursue a concentration in the physical or life sciences and/or to satisfy a pre-medical requirement in general/inorganic chemistry. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or the Core area requirement for Science A. Physical Sciences 1 and Physical Sciences 11 cannot both be taken for credit.

*Prerequisite:* A few operations of calculus are developed and used. Fluency in pre-calculus secondary school mathematics is assumed. Students are expected to have AP or honors level high school chemistry, or have completed Life Sciences 1a or Life and Physical Sciences A (LPS A) with a satisfactory grade.



### **Physical Sciences 2. Mechanics, Elasticity, Fluids, and Diffusion**

Catalog Number: 6053

*Logan S. McCarty*

*Half course (fall term). Tu., Th., 9:30-11, and a weekly section and lab to be arranged. EXAM GROUP: 9*

An introduction to classical mechanics, with special emphasis on the motion of organisms in fluids. Topics covered include: kinematics, Newton's laws of motion, oscillations, elasticity, random walks, diffusion, and fluids. Examples and problem set questions will be drawn from the life sciences and medicine.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

*Prerequisite:* Physical Sciences 1 (or Chemistry 7), Mathematics 1b, or the equivalent.

### **Physical Sciences 3. Electromagnetism, Circuits, Waves, Optics, and Imaging**

Catalog Number: 5262

*Logan S. McCarty*

*Half course (spring term). Tu., Th., 9:30-11, and a weekly section and lab to be arranged. EXAM GROUP: 2*

This course is an introduction to electromagnetism, digital information, waves, optics and sound. Topics covered include: electric and magnetic fields, electrical potential, circuits, simple digital circuits, wave propagation in various media, microscopy, sound and hearing. The course will draw upon a variety of applications to the biological sciences and will use real-world examples to illustrate many of the physical principles described. There are six laboratories.

*Note:* This course is part of an integrated introduction to the physical sciences intended for students who plan to pursue a concentration in the life sciences and/or satisfy pre-medical requirements in Physics. May not ordinarily be taken for credit in addition to Physics 1b, 11b, or 15b. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

*Prerequisite:* Physical Sciences 2 (or Physics 1a or 11a), Mathematics 1b, or equivalent.

### **Physical Sciences 10. Quantum and Statistical Foundations of Chemistry**

Catalog Number: 75544

*Adam E. Cohen*

*Half course (fall term). M., W., F., at 10 and a weekly section and lab to be arranged. EXAM GROUP: 5*

An introduction to the fundamental theories of quantum mechanics and statistical mechanics and their role in governing the behavior of matter. The course begins with the quantum behavior of a single electron and develops the elements of the periodic table, the nature of the chemical bond, and the bulk properties of materials. Applications include semiconductor electronics, solar energy conversion, medical imaging, and the stability and dynamism of living systems. Calculus will be used extensively.

*Note:* Physical Sciences 10 and Physical Sciences 11 may be taken in any order. The general chemistry requirement for medical school can be satisfied with any two of the following courses: Life and Physical Sciences A, Life Sciences 1a, Physical Sciences 1, Physical Sciences 10, or Physical Sciences 11. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.



**Prerequisite:** A strong background in chemistry (Chemistry AP score of 5, or Physical Sciences 1, or equivalent preparation), mathematics at the level of Mathematics 1b (may be taken concurrently), and some familiarity with physics (force, energy, work, and electric charge).

### **Physical Sciences 11. Foundations and Frontiers of Modern Chemistry: A Molecular and Global Perspective**

Catalog Number: 24022

*James G. Anderson and Gregory C. Tucci*

*Half course (spring term). M., W., F., at 10 and a weekly section and lab to be arranged. EXAM GROUP: 5*

The Physical Sciences hold the key to solving unprecedented problems at the intersection of science, technology, and an array of rapidly emerging global scale challenges. The course emphasizes a molecular scale understanding of energy and entropy; free energy in equilibria, acid/base reactivity, and electrochemistry; molecular bonding and kinetics; catalysis in organic and inorganic systems; the union of quantum mechanics, nanostructures, and photovoltaics; and the analysis of nuclear energy. Case studies are used both to develop quantitative reasoning and to directly link these principles to global strategies.

*Note:* Physical Sciences 10 and Physical Sciences 11 may be taken in any order. The general chemistry requirement for medical students can be satisfied with any two of the following courses: Life and Physical Sciences A, Life Sciences 1a, Physical Sciences 1, Physical Sciences 10, or Physical Sciences 11. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe. NOTE: Physical Sciences 1 and Physical Sciences 11 cannot both be taken for credit.

**Prerequisite:** A few operations of calculus are developed and used. Fluency in pre-calculus secondary school mathematics is assumed. Students are expected to have high school chemistry, or have completed Life and Physical Sciences A (LPS A) or Life Sciences 1a (LS 1a), or permission of the instructors.

### **Physical Sciences 12a. Mechanics from an Analytic, Numerical and Experimental Perspective**

Catalog Number: 43244

*Efthimios Kaxiras*

*Half course (spring term). Tu., Th., 9:30–11. EXAM GROUP: 2*

This is the first term of a two-semester introductory physical science and engineering course sequence. The focus is on quantitative scientific reasoning, with the first term's exploration framed in the context of basic mechanics. Students will gain competence in both analytic (using pencil, paper and single-variable calculus) and numerical (using computer modeling) approaches to modeling simple physical systems and for the analysis of experimental data. Topics include kinematics, linear and rotational motion, forces, energy, collisions, gravitation, simple fluids and a brief introduction to waves. Examples are drawn from across the physical sciences and engineering. The course is aimed at first year students who have an interest in pursuing a concentration in the sciences and/or engineering. The course structure includes lecture, discussion and laboratory components.

*Note:* Physical Sciences 12a may not be taken for credit by students who have passed Physics 11a, 15a or 16. This course, when taken for a letter grade, meets the General Education



requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

### **Physical Sciences 12b. Electromagnetism and Statistical Physics from an Analytic, Numerical and Experimental Perspective**

Catalog Number: 82209

*Efthimios Kaxiras*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This is the second term of a two-semester introductory sequence that uses a combination of analytic and numerical methods to understand physical systems, to analyze experimental data, and to compare data to models. Topics include electrostatics and magnetostatics, electromagnetic fields, optics [all topics illustrated with applications to current technological and societal challenges], and an introduction to the physics of many-body systems and their aggregate properties such as entropy, temperature and pressure. The course is aimed at second year students who have an interest in pursuing a concentration in the sciences and/or engineering. The course structure includes lecture, discussion and laboratory components.

*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 General Education requirement for Science of the Physical Universe.

*Prerequisite:* Physical Sciences 12a

## Physics

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### ***Faculty of the Department of Physics***

Masahiro Morii, Professor of Physics (*Chair*)

Jacob Barandes, Lecturer on Physics (*Associate Director of Graduate Studies*)

Howard C. Berg, Herchel Smith Professor of Physics and Professor of Molecular and Cellular Biology (*on leave fall term*)

Michael P. Brenner, Glover Professor of Applied Mathematics and Applied Physics and Professor of Physics, Harvard College Professor,

Adam E. Cohen, Professor of Chemistry and Chemical Biology and of Physics

Eugene A. Demler, Professor of Physics (*on leave spring term*)

Michael Manish Desai, Assistant Professor of Organismic and Evolutionary Biology and of Physics, Thomas D. Cabot Associate Professor of Organismic and Evolutionary Biology

Louis Deslauriers, Preceptor in Physics

John M. Doyle, Professor of Physics



Gary J. Feldman, Frank B. Baird, Jr. Professor of Science (*on leave spring term*)  
 Douglas Finkbeiner, Professor of Astronomy and of Physics (*on leave 2014-15*)  
 Melissa Franklin, Mallinckrodt Professor of Physics (*on leave 2014-15*)  
 Gerald Gabrielse, George Vasmer Leverett Professor of Physics  
 Peter L. Galison, Joseph Pellegrino University Professor (*on leave fall term*)  
 Howard Georgi, Mallinckrodt Professor of Physics (*Director of Undergraduate Studies*)  
 Jene A. Golovchenko, Rumford Professor of Physics and Gordon McKay Professor of Applied Physics  
 Markus Greiner, Professor of Physics  
 Joao Pedro Guimaraes da Costa, Associate Professor of Physics  
 Girma Hailu, Lecturer on Physics, Senior Preceptor  
 Bertrand I. Halperin, Hollis Professor of Mathematics and Natural Philosophy  
 Lene V. Hau, Mallinckrodt Professor of Physics and of Applied Physics  
 Thomas C. Hayes, Lecturer on Physics  
 Eric J. Heller, Abbott and James Lawrence Professor of Chemistry and Professor of Physics  
 Jennifer E. Hoffman, Associate Professor of Physics, Professor of Physics  
 John Huth, Donner Professor of Science  
 Arthur M. Jaffe, Landon T. Clay Professor of Mathematics and Theoretical Science  
 Daniel Louis Jafferis, Assistant Professor of Physics  
 Efthimios Kaxiras, John Hasbrouck Van Vleck Professor of Pure and Applied Physics  
 Randall Kelley, Preceptor in Physics  
 Gregory Michael Kestin, College Fellow in Physics  
 Philip Kim, Professor of Physics and of Applied Physics  
 Erel Levine, Associate Professor of Physics  
 Mikhail D. Lukin, Professor of Physics (*on leave spring term*)  
 Vinodan N. Manoharan, Gordon McKay Professor of Chemical Engineering and Professor of Physics (*Director of Graduate Studies*)  
 Eric Mazur, Balkanski Professor of Physics and Applied Physics, Area Dean for Applied Physics  
 Logan S. McCarty, Lecturer on Chemistry and Chemical Biology, Lecturer on Physics  
 David J. Morin, Lecturer on Physics (*Associate Director of Undergraduate Studies*)  
 Cherry Murray, John A. and Elizabeth S. Armstrong Professor of Engineering and Applied Sciences, and Professor of Physics (*on leave spring term*)  
 Venkatesh Narayananamurti, Benjamin Peirce Professor of Technology and Public Policy (*on leave fall term*)  
 David R. Nelson, Arthur K. Solomon Professor of Biophysics and Professor of Physics and Applied Physics  
 Sang-Joon Pahk, Preceptor in Physics  
 Hongkun Park, Professor of Chemistry and Chemical Biology and of Physics  
 Peter S. Pershan, Frank B. Baird, Jr. Professor of Science (*on leave fall term*)  
 Mara Prentiss, Mallinckrodt Professor of Physics  
 Lisa Randall, Frank B. Baird, Jr. Professor of Science (*on leave fall term*)  
 Matthew Reece, Assistant Professor of Physics  
 Subir Sachdev, Professor of Physics  
 Aravinthan D. T. Samuel, Professor of Physics  
 Matthew D. Schwartz, Associate Professor of Physics  
 Irwin I. Shapiro, Timken University Professor



Isaac F. Silvera, Thomas D. Cabot Professor of the Natural Sciences (*on leave spring term*)

Nils Sorensen, Preceptor in Physics

Matthew Strassler, Visiting Professor of Physics

Andrew Strominger, Gwill E. York Professor of Physics

Christopher Stubbs, Samuel C. Moncher Professor of Physics and of Astronomy, Harvard College Professor (*on leave 2014-15*)

Cumrun Vafa, Donner Professor of Science (*on leave spring term*)

Ronald L. Walsworth, Senior Lecturer on Physics

David A. Weitz, Mallinckrodt Professor of Physics and of Applied Physics

Robert M. Westervelt, Mallinckrodt Professor of Applied Physics and of Physics (*on leave fall term*)

Carey Witkov, Preceptor in Physics

Tai T. Wu, Gordon McKay Professor of Applied Physics and Professor of Physics

Amir Yacoby, Professor of Physics and of Applied Physics

Shing-Tung Yau, William Caspar Graustein Professor of Mathematics and Professor of Physics

Xi Yin, Associate Professor of Physics

Xiaowei Zhuang, David B. Arnold, Jr. Professor of Science

### ***Other Faculty Offering Instruction in the Department of Physics***

James G. Anderson, Philip S. Weld Professor of Atmospheric Chemistry (*on leave fall term*)

Roy J. Glauber, Mallinckrodt Professor of Physics, Emeritus

Lindsay M. Hinkle, Preceptor in Chemistry and Chemical Biology

Gerald Holton, Mallinckrodt Professor of Physics and Professor of the History of Science, Emeritus

Paul Horowitz, Professor of Physics and of Electrical Engineering, Emeritus

Gregory C. Tucci, Senior Lecturer on Chemistry and Chemical Biology

### ***Affiliates of the Department of Physics***

Kang-Kuen Ni, Assistant Professor of Chemistry and Chemical Biology

There are three separate calculus-based sequences of courses covering introductory physics: Physics 15a, 15b, 15c, Physical Sciences 12a, 12b, and Physical Sciences 2, 3. Each of these 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 normally take the Physics 15a,b,c sequence followed by Physics 143a. These four semesters cover mechanics, electromagnetism, waves, and quantum mechanics, respectively. Students with excellent high-school preparation in physics and mathematics 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.

Physical Sciences 12a and 12b constitute a two-semester introductory physical science and engineering course sequence. An emphasis is placed on numerical approaches to physical



systems (using computer modeling) and on the analysis of experimental data. Examples are drawn from across the physical sciences and engineering. Physical Sciences 12a (taught in the spring term) is aimed at first year students who have an interest in pursuing a concentration in the sciences and/or engineering. Students who plan to count Physical Sciences 12a,b for the Physics concentration should contact the director or associate director of undergraduate studies, who will work with them to develop a coherent program.

Physical Sciences 2 and 3 present an introductory treatment of college physics. These courses draw upon a variety of applications to the biological sciences and use real-world examples to illustrate many of the physical principles discussed. The Physical Sciences 2, 3 sequence is designed to meet the two semesters of physics required by all medical schools, and is intended to teach physical concepts in a way that is immediately relevant to students in the life sciences.

Physics 15a,b and Physical Sciences 12a,b also fulfill the two-semester physics requirement for most medical schools. However, students who do not intend to take advanced courses in the mathematical sciences, and especially those concentrating in biology or biochemistry, may find that the Physical Sciences 2, 3 sequence covers a broader range of subject matter, and might more appropriately serve their needs than the Physics 15 or Physical Sciences 12 sequences.

### ***Primarily for Undergraduates***

#### **Physical Sciences 1. Chemical Bonding, Energy, and Reactivity: An Introduction to the Physical Sciences**

Catalog Number: 2225

*Hongkun Park, Lindsay M. Hinkle, and Sirinya Matchacheep*

*Half course (spring term). M., W., F., at 10. EXAM GROUP: 13*

The course covers the chemistry and physics underlying molecular phenomena in the world. Starting from a single electron, the course will build up to atoms, molecules, and materials. Interactions of molecules are studied through thermochemistry, equilibria, entropy and free energy, acids and bases, electrochemistry, and kinetics. Applications include physical principles in biology, global energy demands, and modern materials and technology.

*Note:* This course is part of an integrated introduction to the physical science intended for students who plan to pursue a concentration in the physical or life sciences and/or to satisfy a pre-medical requirement in general/inorganic chemistry. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or the Core area requirement for Science A. Physical Sciences 1 and Physical Sciences 11 cannot both be taken for credit.

*Prerequisite:* A few operations of calculus are developed and used. Fluency in pre-calculus secondary school mathematics is assumed. Students are expected to have AP or honors level high school chemistry, or have completed Life Sciences 1a or Life and Physical Sciences A (LPS A) with a satisfactory grade.

#### **Physical Sciences 2. Mechanics, Elasticity, Fluids, and Diffusion**

Catalog Number: 6053

*Logan S. McCarty*

*Half course (fall term). Tu., Th., 9:30-11, and a weekly section and lab to be arranged. EXAM*



**GROUP: 9**

An introduction to classical mechanics, with special emphasis on the motion of organisms in fluids. Topics covered include: kinematics, Newton's laws of motion, oscillations, elasticity, random walks, diffusion, and fluids. Examples and problem set questions will be drawn from the life sciences and medicine.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

*Prerequisite:* Physical Sciences 1 (or Chemistry 7), Mathematics 1b, or the equivalent.

**Physical Sciences 3. Electromagnetism, Circuits, Waves, Optics, and Imaging**

Catalog Number: 5262

*Logan S. McCarty*

*Half course (spring term). Tu., Th., 9:30-11, and a weekly section and lab to be arranged. EXAM GROUP: 2*

This course is an introduction to electromagnetism, digital information, waves, optics and sound. Topics covered include: electric and magnetic fields, electrical potential, circuits, simple digital circuits, wave propagation in various media, microscopy, sound and hearing. The course will draw upon a variety of applications to the biological sciences and will use real-world examples to illustrate many of the physical principles described. There are six laboratories.

*Note:* This course is part of an integrated introduction to the physical sciences intended for students who plan to pursue a concentration in the life sciences and/or satisfy pre-medical requirements in Physics. May not ordinarily be taken for credit in addition to Physics 1b, 11b, or 15b. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

*Prerequisite:* Physical Sciences 2 (or Physics 1a or 11a), Mathematics 1b, or equivalent.

**Physical Sciences 10. Quantum and Statistical Foundations of Chemistry**

Catalog Number: 75544

*Adam E. Cohen*

*Half course (fall term). M., W., F., at 10 and a weekly section and lab to be arranged. EXAM GROUP: 5*

An introduction to the fundamental theories of quantum mechanics and statistical mechanics and their role in governing the behavior of matter. The course begins with the quantum behavior of a single electron and develops the elements of the periodic table, the nature of the chemical bond, and the bulk properties of materials. Applications include semiconductor electronics, solar energy conversion, medical imaging, and the stability and dynamism of living systems. Calculus will be used extensively.

*Note:* Physical Sciences 10 and Physical Sciences 11 may be taken in any order. The general chemistry requirement for medical school can be satisfied with any two of the following courses: Life and Physical Sciences A, Life Sciences 1a, Physical Sciences 1, Physical Sciences 10, or Physical Sciences 11. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.

*Prerequisite:* A strong background in chemistry (Chemistry AP score of 5, or Physical Sciences 1, or equivalent preparation), mathematics at the level of Mathematics 1b (may be taken concurrently), and some familiarity with physics (force, energy, work, and electric charge).



## **Physical Sciences 11. Foundations and Frontiers of Modern Chemistry: A Molecular and Global Perspective**

Catalog Number: 24022

*James G. Anderson and Gregory C. Tucci*

*Half course (spring term). M., W., F., at 10 and a weekly section and lab to be arranged. EXAM GROUP: 5*

The Physical Sciences hold the key to solving unprecedented problems at the intersection of science, technology, and an array of rapidly emerging global scale challenges. The course emphasizes a molecular scale understanding of energy and entropy; free energy in equilibria, acid/base reactivity, and electrochemistry; molecular bonding and kinetics; catalysis in organic and inorganic systems; the union of quantum mechanics, nanostructures, and photovoltaics; and the analysis of nuclear energy. Case studies are used both to develop quantitative reasoning and to directly link these principles to global strategies.

*Note:* Physical Sciences 10 and Physical Sciences 11 may be taken in any order. The general chemistry requirement for medical students can be satisfied with any two of the following courses: Life and Physical Sciences A, Life Sciences 1a, Physical Sciences 1, Physical Sciences 10, or Physical Sciences 11. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe. NOTE: Physical Sciences 1 and Physical Sciences 11 cannot both be taken for credit.

*Prerequisite:* A few operations of calculus are developed and used. Fluency in pre-calculus secondary school mathematics is assumed. Students are expected to have high school chemistry, or have completed Life and Physical Sciences A (LPS A) or Life Sciences 1a (LS 1a), or permission of the instructors.

## **Physical Sciences 12a. Mechanics from an Analytic, Numerical and Experimental Perspective**

Catalog Number: 43244

*Efthimios Kaxiras*

*Half course (spring term). Tu., Th., 9:30–11. EXAM GROUP: 2*

This is the first term of a two-semester introductory physical science and engineering course sequence. The focus is on quantitative scientific reasoning, with the first term's exploration framed in the context of basic mechanics. Students will gain competence in both analytic (using pencil, paper and single-variable calculus) and numerical (using computer modeling) approaches to modeling simple physical systems and for the analysis of experimental data. Topics include kinematics, linear and rotational motion, forces, energy, collisions, gravitation, simple fluids and a brief introduction to waves. Examples are drawn from across the physical sciences and engineering. The course is aimed at first year students who have an interest in pursuing a concentration in the sciences and/or engineering. The course structure includes lecture, discussion and laboratory components.

*Note:* Physical Sciences 12a may not be taken for credit by students who have passed Physics 11a, 15a or 16. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

## **Physical Sciences 12b. Electromagnetism and Statistical Physics from an Analytic, Numerical and Experimental Perspective**



Catalog Number: 82209

*Efthimios Kaxiras*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This is the second term of a two-semester introductory sequence that uses a combination of analytic and numerical methods to understand physical systems, to analyze experimental data, and to compare data to models. Topics include electrostatics and magnetostatics, electromagnetic fields, optics [all topics illustrated with applications to current technological and societal challenges], and an introduction to the physics of many-body systems and their aggregate properties such as entropy, temperature and pressure. The course is aimed at second year students who have an interest in pursuing a concentration in the sciences and/or engineering. The course structure includes lecture, discussion and laboratory components.

*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 General Education requirement for Science of the Physical Universe.

*Prerequisite:* Physical Sciences 12a

### **Physics 15a. Introductory Mechanics and Relativity**

Catalog Number: 1984

*David J. Morin and Amir Yacoby (fall term), and David J. Morin and Robert M. Westervelt (spring term)*

*Half course (fall term; repeated spring term). Tu., Th., 11:30-1, and a weekly section to be arranged. EXAM GROUP: 15*

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:* Principles of Scientific Inquiry (PSI) is the laboratory component of Physics 15a. Topics include experimental design, model testing, error analysis, basic programming, oral presentations, and scientific writing. PSI will meet weekly throughout the semester. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

*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

*Philip Kim and Mara Prentiss (fall term), and Girma Hailu and Amir Yacoby (spring term)*

*Half course (fall term; repeated spring term). Tu., Th., 11:30-1. EXAM GROUP: 15*

Electricity and magnetism. Topics include electrostatics, electric currents, magnetic field, electromagnetic induction, Maxwell's equations, electromagnetic radiation, and electric and magnetic fields in materials.

*Note:* Principles of Scientific Inquiry (PSI) is the laboratory component of Physics 15b. Topics include experimental design, model testing, error analysis, basic programming, oral presentations, and scientific writing. PSI will meet weekly throughout the semester. This course, when taken for a letter grade, meets the General Education requirement for Science of the



Physical Universe or Empirical and Mathematical Reasoning, but not both.

*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

*Girma Hailu and Markus Greiner (fall term), and Matthew D. Schwartz and Vinothan N.*

*Manoharan (spring term)*

*Half course (fall term; repeated spring term). Tu., Th., 1–2:30. EXAM GROUP: Fall: 8; Spring: 1*

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, and solitons.

*Note:* Principles of Scientific Inquiry (PSI) is the laboratory component of Physics 15c. Topics include experimental design, model testing, error analysis, basic programming, oral presentations, and scientific writing. PSI will meet weekly throughout the semester. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

*Prerequisite:* Physics 15a, Physics 15b, or written permission of the Head Tutor in Physics.

Mathematics preparation at least at the level of Mathematics 21b taken concurrently is required.

Some prior knowledge of complex numbers (for example as taught in Mathematics 1b) is helpful. Linear algebra and differential equations are used extensively. Students taking Mathematics 21b concurrently will likely find that some concepts are introduced in Physics 15c before they have seen them in Mathematics 21b. Some students may wish to postpone Physics 15c until they have completed Mathematics 21b.

### **Physics 16. Mechanics and Special Relativity**

Catalog Number: 2019

*Howard Georgi*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Newtonian mechanics and special relativity for students with good preparation in physics and mathematics at the level of the advanced placement curriculum. Topics include oscillators damped and driven and resonance (how to rock your car out of a snow bank or use a swing), an introduction to Lagrangian mechanics and optimization, symmetries and Noether's theorem, special relativity, collisions and scattering, rotational motion, angular momentum, torque, the moment of inertia tensor (dynamic balance), gravitation, planetary motion, and a quantitative introduction to some of the mind-bending ideas of modern cosmology like inflation and dark energy.

*Note:* Principles of Scientific Inquiry (PSI) is the laboratory component of Physics 16. Topics include experimental design, model testing, error analysis, basic programming, oral



presentations, and scientific writing. PSI will meet weekly throughout the semester. Emphasis is placed on collaborative teaching and learning. Many class materials are Mathematics notebooks. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe or Empirical and Mathematical Reasoning, but not both.

**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. EXAM GROUP: 4*

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.

*Note:* A list of possible faculty sponsors and their fields is available in Lyman 238 and on the Physics Department Web page. Course enrollment forms may be obtained from Lyman 238.

### **\*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. EXAM GROUP: Fall: 7; Spring: 18*

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.

*Note:* A list of possible faculty sponsors and their fields is available in Lyman 238 and on the Physics Department's website. Course enrollment forms may be obtained from Lyman 238.

### **\*Physics 95. Topics in Current Research**

Catalog Number: 2806 Enrollment: Limited to 10.

*Masahiro Morii (fall term) and Matthew Strassler (spring term)*

*Half course (fall term; repeated spring term). Section i: M., 2:45-4:15; Section ii: W., 7 p.m.-9 p.m. EXAM GROUP: Fall: 7; Spring: 18*

The goal of this tutorial is twofold. First, students will learn about a range of modern physics research topics from experts at Harvard as well as from one another. Every Wednesday evening a faculty member speaks on his/her area of research, preceded by assigned reading and a student presentation designed to introduce the basic physics, as well as important developments and burning problems at the frontiers of that particular research area. Second, the tutorial provides



structured activities to help students develop practical skills for their future careers, expanding knowledge on unfamiliar subjects, participating in discussions, presenting and writing clearly about complex topics, and engaging in self and peer evaluation.

*Note:* Primarily for junior and senior concentrators, however interested sophomores are welcome. First class meeting Wednesday, September 3 at 7:30 pm. Monday class time to be rescheduled to fit everyone's schedule.

### ***Cross-listed Courses***

#### **Earth and Planetary Sciences 52. Introduction to Global Geophysics**

**[Science of the Physical Universe 13. Why You Hear What You Hear: The Science of Music and Sound]**

**[Science of the Physical Universe 18. Time]**

**Science of the Physical Universe 20. What is Life? From Quarks to Consciousness**

**Science of the Physical Universe 22. The Unity of Science: From the Big Bang to the Brontosaurus and Beyond**

**Science of the Physical Universe 26. Primitive Navigation**

### ***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 111. Cosmology] - (New Course)**

Catalog Number: 55323

*Matthew Reece*

*Half course (fall term). M., W., 11–12:30.*

This course will introduce cosmology, the study of the large-scale evolution of the universe. Topics include the expanding universe; Friedmann-Robertson-Walker metrics; the evolution of the matter, radiation, and vacuum energy of the universe over time; evidence for dark matter; the Cosmic Microwave Background and its role in determining cosmological parameters; Big-Bang Nucleosynthesis; inflation and how it seeded the universe today; and the formation of structures like galaxies.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Prerequisites: Quantum mechanics (Physics 143a/b or equivalent) and statistical mechanics (Physics 181 or equivalent)

#### **Physics 123. Laboratory Electronics**

Catalog Number: 0864 Enrollment: Limited to 22.

*Thomas C. Hayes*

*Half course (fall term; repeated spring term). Tu., Th., 1:30–5:30. EXAM GROUP: Fall: 8; Spring: 1*

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 (PLDs).

*Note:* Physics 123 is also offered as Engineering Sciences 153. Students may not take both for credit. This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.

### **Physics 125. Widely Applied Physics**

Catalog Number: 6990

*John M. Doyle*

*Half course (spring term). W., F., 1–2:30. EXAM GROUP: 8*

Applies elementary physics to the real world and fundamental phenomena, introducing estimation and calculational techniques that are commonly used by research physicists when addressing new problems. 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 and searches for Earth-like exoplanets; material properties and phase transitions; masers, lasers, and the global positioning system; magnetic resonance imaging and physiology of major organs; Earth properties & human energy use. Example estimation techniques: dimensional analysis, commonly used concepts such as diffusion and the Bloch model, scaling laws, and symmetries and conservation laws.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of the Physical Universe.

*Prerequisite:* Physics 15a,b,c, and mathematics at the level of Mathematics 21a. Physics 143a and 181 are very helpful, and may be taken concurrently.

### **Physics 129. Energy Science**

Catalog Number: 42157

*Lene V. Hau*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Non-fossil energy sources and energy storage are important for our future. We cover four main subjects to which students with a background in physics and physical chemistry could make paradigm changing contributions: photovoltaic cells, nuclear power, batteries, and photosynthesis. Fundamentals of electrodynamics, statistical/thermal physics, and quantum mechanics are taught as needed to give students an understanding of the topics covered.

*Prerequisite:* Physics 15a (or 16), 15b,c or 11a,b. Pre/co-requisite Physics 143a or Chemistry 160 or equivalent.

### **[Physics 136. Physics of Medical Imaging]**

Catalog Number: 0182

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

This course presents the underlying physics of modern medical diagnostic imaging techniques. We will explore the physics of diagnostic imaging from a unified electromagnetics' viewpoint ranging from a simple mapping of radiation attenuation coefficients in X-ray, to resonance absorption in a nuclear magnetic resonance (NMR) induced inhomogeneously broadened RF absorber. The bulk of the course will focus on the powerful technique of NMR imaging.



Flexibility exists to vary the depth of each area depending on background and experience of the students.

*Note:* Expected to be given in 2015–16.

*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 the Physics of Living Systems**

Catalog Number: 5394

*Aravinthan D. T. Samuel*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

We will discuss how theoretical and experimental tools derived from physics - e.g., statistical mechanics, fluid mechanics - have been used to gain insight into molecular and cellular biology including the structure and regulation of DNA, genomes, proteins, the cytoskeleton, and the cell. Students will gain an intensive introduction to biological systems, as well as physical and mathematical modeling.

*Note:* Given in alternate years. Lectures, problem sets, discussions. May not be taken for credit by students who have taken MCB 140.

*Prerequisite:* Physics 15a,b,c.

### **[Physics 141. The Physics of Sensory Systems in Biology]**

Catalog Number: 1284 Enrollment: Limited to 15.

*Erel Levine*

*Half course (spring term). Tu., Th., 2:30–4.*

Living organisms use sensory systems to inform themselves of the sights, sounds, and smells of their surrounding environments. Sensory systems are physical measuring devices, and are therefore subject to certain limits imposed by physics. Here we will consider the physics of sensory measurement and perception, and study ways that biological systems have solved their underlying physical problems. We will discuss specific cases in vision, olfaction, and hearing from a physicist's point of view.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Physics 11a,b or 15 a,b, required.

### **Physics 141a. Physics of Living Systems: Organism, Populations and Evolution - (New Course)**

Catalog Number: 25891

*Erel Levine*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

In this class we introduce discuss physical and quantitative aspects of multi-scale organization in biology. We will study the mechanics, dynamics and statistical physics of embryonic development, and see how physics-based approaches are used in an attempt to understand cancer. We will look at collective animal behaviors, the dynamics of population, ecology and extinction. Finally, we will study models of evolution and population genetics.

*Prerequisite:* Prerequisites: Physics 15a,c (required) Physics 140 and Physics 181 (recommended)



### **Physics 143a. Quantum Mechanics I**

Catalog Number: 1050

*Matthew Reece (fall term) and Subir Sachdev (spring term)*

*Half course (fall term; repeated spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

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

*Girma Hailu*

*Half course (fall term). Tu., Th., 10–11:30 and a weekly section to be arranged. EXAM GROUP: 12*

Introduction to path integrals, identical particles, WKB approximation, time-dependent perturbation theory, photons and atoms, scattering theory, and relativistic quantum mechanics.

*Prerequisite:* Physics 143a.

### **[Physics 144. Symmetries and Geometry in Quantum Mechanics ]**

Catalog Number: 94978

*Eugene A. Demler*

*Half course (spring term). M., W., 1–2:30.*

This course will review the role of symmetries in quantum mechanics. Topics include atomic and molecular symmetries, crystallographic symmetries, spontaneous symmetry breaking and phase transitions, geometrical Berry phases, topological aspects of condensed matter systems.

Mathematical basics of group theory will be taught as needed to give students an understanding of the topics covered.

*Note:* Expected to be given in 2015–16.

### **Physics 145. Elementary Particle Physics**

Catalog Number: 6057

*Gary J. Feldman*

*Half course (fall term). M., W., F., at 10; Tu., Th., 7:30–9 p.m. EXAM GROUP: 5*

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 Higgs 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

*Xi Yin*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*



Fundamental ideas of classical mechanics including contact with modern work and applications. Topics include Lagrange's equations, the role of variational principles, symmetry and conservation laws, Hamilton's equations, Hamilton-Jacobi theory and phase space dynamics. Applications to celestial mechanics, quantum mechanics, the theory of small oscillations and classical fields, and nonlinear oscillations, including chaotic systems presented.

*Prerequisite:* Physics 15a, 15b or written permission of the Head Tutor; Mathematics 21a, b or equivalent.

### **Physics 153. Electrodynamics**

Catalog Number: 0264

*Girma Hailu*

*Half course (spring term). Tu., Th., 9:30–11. EXAM GROUP: 2*

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 15a, b, and c, or written permission of the Head Tutor; Mathematics 21a, b or equivalent.

### **[Physics 165. Modern Atomic, Molecular, and Optical Physics]**

Catalog Number: 16952

*John M. Doyle*

*Half course (fall term). Tu., Th., 1–2:30.*

Includes the use of coherent electromagnetic radiation to probe and control atomic systems, use of traps to isolate atoms, molecules, and elementary particles for studies of ultracold quantum degenerate matter and precision tests of the standard model; resonance methods. Goals of course include acquainting student with these and other modern research topics while providing the foundations of modern atomic, molecular and optical physics research.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Physics 143a and 143b.

### **Physics 175. Laser Physics and Modern Optical Physics**

Catalog Number: 9076

*Markus Greiner*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

Introduction to laser physics and modern optical physics aimed at advanced undergraduates. Review of electromagnetic theory and relevant aspects of quantum mechanics. Wave nature of light. Physics of basic optical elements. Propagation of focused beams, optical resonators, dielectric waveguides. Interaction of light with matter, introduction to quantum optics. Lasers. Physics of specific laser systems. Introduction to nonlinear optics. Modern applications.

*Prerequisite:* Physics 15b, 15c, 143a, or permission of the instructor.

### **Physics 181. Statistical Mechanics and Thermodynamics**

Catalog Number: 6346



*Philip Kim*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

Introduction to thermal physics and statistical mechanics: basic concepts of thermodynamics (energy, heat, work, temperature, and entropy), classical and quantum ensembles and their origins, and distribution functions. Applications include the specific heat of solids, black body radiation; classical and quantum gases; magnetism; phase transitions; propagation of heat and sound.

*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.

*Isaac F. Silvera and Ronald L. Walsworth (fall term), Peter S. Pershan and Jennifer E. Hoffman (spring term)*

*Half course (fall term; repeated spring term). Tu., Th., 1–5. EXAM GROUP: Fall: 8; Spring: 1*

Students carry out three experimental projects selected from those available representing condensed matter, atomic, nuclear, and particle physics. Included are pulsed nuclear magnetic resonance (with MRI), microwave spectroscopy, optical pumping, Raman scattering, scattering of laser light, nitrogen vacancies in diamond, neutron activation of radioactive isotopes, Compton scattering, relativistic mass of the electron, recoil free gamma-ray resonance, lifetime of the muon, studies of superfluid helium, positron annihilation, superconductivity, the quantum Hall effect, properties of semiconductors. The facilities of the laboratory include several computer controlled experiments as well as computers for analysis.

*Note:* A substantial amount of outside reading is expected.

*Prerequisite:* Physics 15a or 16, 15b, 15c. Physics 143a is highly recommended.

**Physics 195. Introduction to Solid State Physics**

Catalog Number: 2978

*Jennifer E. Hoffman*

*Half course (fall term). W., F., 1–2:30. EXAM GROUP: 1*

This course gives a grounding in condensed matter physics, with an emphasis on solid state materials of practical utility. We give a physical & quantitative introduction to crystal structure, band structure, electrons, phonons, thermal properties, optical properties, and magnetic properties. We cover materials including metals, insulators, semiconductors, and superconductors. We include discussion of experimental techniques employed to measure material properties.

*Note:* Designed as a first course in solid state physics for students with knowledge of elementary quantum mechanics. Students who intend to take Applied Physics 295, and who have not previously taken a formal course in solid state physics, are strongly advised to take this course first.

*Prerequisite:* Physics 143a is highly recommended.

***Cross-listed Courses***

**Applied Mathematics 147. Nonlinear Dynamical Systems**

**Astronomy 191. Astrophysics Laboratory**



### [\*\*Astronomy 200 \(formerly Astronomy 150\). Radiative Processes in Astrophysics\*\*](#)

[\*\*Chemistry 160. The Quantum World\*\*](#)

[\*\*Chemistry 161. Statistical Thermodynamics\*\*](#)

[\*\*Chemistry 163. Frontiers in Biophysics\*\*](#)

[\*\*\\*Chemistry 165. Experimental Physical Chemistry\*\*](#)

[Earth and Planetary Sciences 131. Introduction to Physical Oceanography and Climate]

[Earth and Planetary Sciences 135. Physics and Chemistry: In the Context of Energy and Climate at the Global and Molecular Level]

[Earth and Planetary Sciences 161. Planetary Physics and Global Tectonics]

[\*\*Engineering Sciences 120. Introduction to the Mechanics of Solids\*\*](#)

[\*\*Engineering Sciences 123. Introduction to Fluid Mechanics and Transport Processes\*\*](#)

[\*\*Engineering Sciences 154. Electronic Devices and Circuits\*\*](#)

[\*\*Engineering Sciences 173. Introduction to Electronic and Photonic Devices\*\*](#)

[\*\*Engineering Sciences 181. Engineering Thermodynamics\*\*](#)

[\*\*Engineering Sciences 190. Introduction to Materials Science and Engineering\*\*](#)

[\*\*MCB 131. Computational Neuroscience\*\*](#)

### *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

*Jacob Barandes*

*Half course (fall term). W., F., 3–4:30. EXAM GROUP: 6*

An introduction to general relativity: the principle of equivalence, Riemannian geometry, Einstein's field equation, the Schwarzschild solution, the Newtonian limit, experimental tests, black holes.

*Prerequisite:* Physics 151 and 153, and Mathematics 21 or equivalents.

### [\*\*Physics 211r. Black Holes from A to Z\*\*](#)

Catalog Number: 0469

*Andrew Strominger*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

A survey of black holes focusing on the deep puzzles they present concerning the relations between general relativity, quantum mechanics and thermodynamics. Topics include: causal structure, event horizons, Penrose diagrams, the Kerr geometry, the laws of black hole thermodynamics, Hawking radiation, the Bekenstein-Hawking entropy/area law, the information puzzle, microstate counting and holography. Parallel issues for cosmological and deSitter event horizons will also be discussed.

*Prerequisite:* General relativity at level of Physics 210 or equivalent. Physics 253a helpful, but not required.



### **\*Physics 215. Biological Dynamics**

Catalog Number: 90876 Enrollment: Open to undergraduates with instructor permission.

*Aravinthan D. T. Samuel*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Develops theoretical basis for modeling and quantitative analysis of biological problems.

Emphasis on contemporary research topics, including molecular, cellular and tissue dynamics; development and differentiation; signal- and mechano-transduction; individuals, populations and environments.

*Note:* It is suggested that students may wish to take AP215 when this course is bracketed. May not be taken for credit in addition to AP215.

*Prerequisite:* Knowledge of differential equations and statistical mechanics at undergraduate level.

### **Physics 216. Mathematics of Modern Physics**

Catalog Number: 85954

*Arthur M. Jaffe*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Introduction to functional analytic methods relevant for problems in quantum and statistical physics. Properties of linear transformations on Hilbert space. Generators of continuous groups and semigroups. Properties of Green's functions and matrices. Uniqueness and non-uniqueness of ground states and equilibrium states. Heat kernel methods. Index theory, invariants, and related algebraic structure. The KMS condition and its consequences.

*Prerequisite:* Familiarity with quantum theory at an undergraduate level.

### **Physics 218. Advanced Semiclassical Methods for Quantum Mechanics**

Catalog Number: 1362

*Eric J. Heller*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

Semiclassical approaches to quantum systems provide both intuitive understanding of quantum processes and methods for calculations that are vastly simpler than full quantum mechanical simulations. Semiclassical methods are based on classical mechanics including interference and phases computed with classical actions. The course, based on a textbook being written by Prof. Heller (*The Semiclassical Way to Quantum Mechanics*) begins with a review of some salient features of classical physics, followed by an introduction to stationary phase integration and the Feynman Path Integral in the semiclassical limit, including time and energy domains, and the famous Trace Formula. This is followed by a number of widely useful techniques, such as generalized tunneling, applications to classically chaotic systems, semiclassical wave packet dynamics, WKB methods and uniformization. A number of "special topics" will then be taken up, including decoherence, certain forms of spectroscopy, and scattering theory of nanoscale devices.

*Note:* Physics 218 is also offered as Chemistry 218. Only one of the two courses may be taken for credit.

*Prerequisite:* Physics 151 and 143a, b or equivalent; Applied Math 201, 202 or equivalent.

### **Physics 223. Electronics for Scientists**

Catalog Number: 97765 Enrollment: Limited to 22.



*Thomas C. Hayes*

*Half course (fall term; repeated spring term). Tu., Th., 1:30–5:30. EXAM GROUP: Fall: 8; Spring: 1*

An introduction to electronic circuit design intended to develop circuit intuition and debugging skills through daily design exercises, discussion and hands-on lab exercises. The approach is intensely practical, minimizing theory. 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 (PLDs).

### **Physics 232. Advanced Classical Electromagnetism**

Catalog Number: 4885

*Jacob Barandes*

*Half course (spring term). W., F., 1:30–3. EXAM GROUP: 8*

Special relativity, relativistic field theories, gauge invariance, the Maxwell equations, conservation laws, time-independent phenomena, multipole expansions, electrodynamics and radiation theory, radiation from rapidly-moving accelerating charges, scattering and diffraction, and macroscopic averaged fields and propagation in matter. Additional topics may include relativistic particles with spin, coherent states, superconductors, accelerator physics, renormalization, and magnetic monopoles.

*Prerequisite:* Prerequisites: Physics 153 and Physics 143a, or equivalent.

### **\*Physics 247r. Laboratory Course in Contemporary Physics**

Catalog Number: 8665 Enrollment: Together with Physics 191r, limited to a total of 24 students.

*Isaac F. Silvera and Ronald L. Walsworth (fall term), Peter S. Pershan and Jennifer E. Hoffman (spring term)*

*Half course (fall term; repeated spring term). Tu., Th., 1–5. EXAM GROUP: Fall: 8; Spring: 1*

Three experimental projects are selected representing condensed matter, atomic, nuclear, and particle physics. Examples: experiments on pulsed nuclear magnetic resonance, microwave spectroscopy, optical tweezers, and non-linear optics, optical pumping, Raman scattering, scattering of laser light, nitrogen vacancies in diamond, neutron activation of radioactive isotopes, Compton scattering, relativistic mass of the electron, recoil free gamma-ray resonance, lifetime of the muon, studies of superfluid helium, positron annihilation, superconductivity, the quantum Hall effect, properties of semiconductors. The facilities of the laboratory include several computer controlled experiments as well as computers for analysis.

*Note:* A substantial amount of outside reading may be required.

### **[Physics 248r (formerly Physics 248). Phenomena of Elementary Particle Physics ]**

Catalog Number: 5431

*Tai T. Wu*

*Half course (fall term). M., W., F., at 12.*

Recently, the Higgs particle was discovered experimentally by the ATLAS and the CMS Collaborations at CERN; it is the first spin-0 elementary particle ever observed. It is the purpose of this course to discuss various topics related to this particle.



*Note:* Expected to be given in 2015–16.

*Prerequisite:* Prerequisite: Physics 145 or equivalent.

### **Physics 251a. Advanced Quantum Mechanics I**

Catalog Number: 2191

*Cumrun Vafa*

*Half course (fall term). W., F., 1:30–3. EXAM GROUP: 1*

Basic course in nonrelativistic quantum mechanics. Review of wave functions and the Schrödinger Equation; Hilbert space; the WKB approximation; central forces and angular momentum; electron spin; measurement theory; the density matrix; perturbation theory.

*Prerequisite:* Physics 143a, b or equivalent, or permission of instructor.

### **Physics 251b. Advanced Quantum Mechanics II**

Catalog Number: 2689

*Gerald Gabrielse*

*Half course (spring term). M., W., F., 12–1:30. EXAM GROUP: 7*

Potential topics include Heisenberg picture; time-dependent perturbations; inelastic scattering; electrons in a uniform magnetic field; quantized radiation field; absorption and emission of radiation; identical particles and second quantization; nuclear magnetic resonance; Feynman path integrals for quantum spins.

*Prerequisite:* Physics 251a.

### **Physics 253a. Quantum Field Theory I**

Catalog Number: 8050

*Matthew D. Schwartz*

*Half course (fall term). Tu., Th., 1–2:30. EXAM GROUP: 8*

Introduction to relativistic quantum field theory. This course covers quantum electrodynamics. Topics include canonical quantization, Feynman diagrams, spinors, gauge invariance, path integrals, ultraviolet and infrared divergences, renormalization and applications to the quantum theory of the weak and gravitational forces.

*Prerequisite:* Physics 143a,b or equivalents.

### **Physics 253b. Quantum Field Theory II**

Catalog Number: 5250

*Daniel Louis Jafferis*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

A continuation of Physics 253a. Topics include: the renormalization group, implications of unitarity, Yang-Mills theories, spontaneous symmetry breaking, weak interactions, anomalies, and quantum chromodynamics. Additional advanced topics may be covered depending on time and interest.

*Prerequisite:* Physics 253a.

### **[Physics 253cr. Quantum Field Theory III]**

Catalog Number: 4000

*Girma Hailu*

*Half course (fall term). W., F., 10–11:30.*



Introduction to some of the tools for studying the exact nonperturbative dynamics of supersymmetric gauge theories, supergravity, and gauge/gravity duality.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Quantum field theory at the level of Physics 253a.

### **Physics 254. The Standard Model**

Catalog Number: 29114

*Matthew Reece*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

The Standard Model of particle physics: theory and experimental implications. Topics include nonabelian gauge theory, spontaneous symmetry breaking, anomalies, the chiral Lagrangian, QCD and jets, collider physics and simulation, the Higgs at the LHC.

*Prerequisite:* Introductory relativistic field theory, at the level of Physics 253a.

### **[Physics 262. Statistical Physics]**

Catalog Number: 1157

*Erel Levine*

*Half course (fall term). Tu., Th., 10–11:30; W., at 4.*

Basic principles of statistical physics and thermodynamics, with applications including: the equilibrium properties of classical and quantum gases, phase transitions and critical phenomena, as illustrated by the liquid-gas transition and simple magnetic models. Universality, scaling and renormalization group. Introduction to non-equilibrium physics.

*Note:* Expected to be given in 2015–16. Students may wish to take Applied Physics 284 when this course is bracketed.

*Prerequisite:* Physics 143a and Physics 181 or Engineering Sciences 181.

### **[Physics 268r. Special Topics in Condensed Matter Physics. Topological States of Matter]**

Catalog Number: 7951

*Bertrand I. Halperin*

*Half course (fall term). Tu., Th., 2:30–4.*

Notions of topology have been invoked to clarify the properties of a variety of quantum systems and to classify the possible ground states of such systems. We shall explore in depth examples such as two-dimensional quantized Hall states, and topological insulators in two and three dimensions. Discussions will include effects of disorder and localization phenomena, and practical issues of measurement that may have only marginal relation to topological concepts.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Physics 251b, Applied Physics 295a and Physics 262, or equivalents.

### **[Physics 269r. Topics in Statistical Physics and Physical Biology]**

Catalog Number: 6214

*David R. Nelson*

*Half course (spring term). M., W., F., at 11.*

Introduction to strongly interacting soft condensed matter and biophysical systems. We begin with the physics of cells and related single molecule experiments on bio-polymers such as DNA, RNA and proteins. A major part of the course will then focus on genetic engineering, and the non-equilibrium statistical dynamics of genetic circuits and neural networks.



*Note:* Expected to be given in 2015–16.

*Prerequisite:* Physics 262, Applied Physics 284 or equivalent.

### [Physics 270. Mesoscopic Physics and Quantum Information Processing]

Catalog Number: 0788

*Mikhail D. Lukin*

*Half course (fall term). Tu., Th., 2:30–4.*

Introduces the subject of quantum effects in electronic systems, including conductance fluctuations, localization, electron interference, and many-body effects such as the Kondo effect. This year, we will also focus on solid state implementations of quantum information processing systems.

*Note:* Expected to be given in 2015–16. 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. A term paper on a topic within mesoscopic condensed matter physics or quantum information will allow for deeper exploration. Given in alternate years.

*Prerequisite:* Basic familiarity with quantum mechanics and solid state physics at the level of undergraduate courses.

### Physics 271. Topics in the Physics of Quantum Information

Catalog Number: 7647

*Mikhail D. Lukin*

*Half course (fall term). M., W., 10–11:30. EXAM GROUP: 5*

Introduction to physics of quantum information, with emphasis on ideas and experiments ranging from quantum optics to condensed matter physics. Background and theoretical tools will be introduced. The format is a combination of lectures and class presentations.

*Prerequisite:* Quantum mechanics at the level of introductory graduate courses.

### [Physics 283b. Beyond the Standard Model]

Catalog Number: 7153

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

Covers current advances in particle physics beyond the Standard Model. Topics could include supersymmetry, the physics of extra dimensions, experimental searches, including for T violation, and connections between particle physics and cosmology.

*Note:* Expected to be given in 2015–16.

### Physics 284. Strongly Correlated Systems in Atomic and Condensed Matter Physics

Catalog Number: 4673

*Eugene A. Demler*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Explores an emerging interface involving strongly correlated systems in atomic and condensed matter physics. Topics include bosonic and fermionic Hubbard models, strongly interacting systems near Feshbach resonances, magnetism of ultracold atoms, quantum spin systems, low dimensional systems, non-equilibrium coherent dynamics.

*Prerequisite:* Graduate quantum mechanics or permission of instructor.



### **Physics 285a. Modern Atomic and Optical Physics I**

Catalog Number: 8204

*Gerald Gabrielse*

*Half course (fall term). M., W., 12-1:30. EXAM GROUP: 11*

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). M., W., 12-1:30.*

Introduction to quantum optics and modern atomic physics. The basic concepts and theoretical tools will be introduced. Topics will include coherence phenomena, non-classical states of light and matter, 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 2015–16.

*Prerequisite:* A course in electromagnetic theory (Physics 232a or equivalent); one half-course in intermediate or advanced quantum mechanics.

### **Physics 287a. Introduction to String Theory**

Catalog Number: 2012

*Xi Yin*

*Half course (fall term). W., F., 3–4:30. EXAM GROUP: 6*

Introduction to the perturbative formulation of string theories and dualities. Quantization of bosonic and superstrings, perturbative aspects of scattering amplitudes, supergravity, D-branes, T-duality and mirror symmetry. Also a brief overview of recent developments in string theory.

*Prerequisite:* Physics 253a, b or equivalent.

### **Physics 287br. Topics in String Theory**

Catalog Number: 4555

*Xi Yin*

*Half course (spring term). W., F., 1:30–3. EXAM GROUP: 8*

A selection of topics from current areas of research on string theory.

*Prerequisite:* Physics 287a.

### **Physics 289r. Euclidean Random Fields, Relativistic Quantum Fields and Positive Temperature**

Catalog Number: 6400

*Arthur M. Jaffe*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

The course will give the reconstruction of relativistic quantum fields from Euclidean fields as



well as the relation between representations of the Poincaré group to those of Euclidean group. Related topics are reflection positivity and Osterwalder-Schrader quantization, and supersymmetry, some of which will be covered.

*Prerequisite:* Physics 253a

### **Physics 295a. Introduction to Quantum Theory of Solids**

Catalog Number: 10292

*Bertrand I. Halperin*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Electrical, optical, thermal, magnetic, and mechanical properties of solids will be treated based on an atomic scale picture and using the independent electron approximation. Metals, semiconductors, and insulators will be covered, with possible special topics such as superconductivity.

*Prerequisite:* Applied Physics 195 or equivalent, and a graduate level quantum mechanics course similar to Physics 251a. (Physics 251b would be helpful and may be taken concurrently.)

### **Physics 295b. Quantum Theory of Solids**

Catalog Number: 98229

*Subir Sachdev*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Theory of the electron liquid, Fermi liquid theory. Ferromagnetism of metals, BCS theory of superconductivity. Lattice models of correlated electrons: antiferromagnetism. Graphene: semi metals and quantum phase transitions. Non-fermi liquids in correlated metals.

*Note:* Note: Physics 295b is also offered as Applied Physics 295b. Students may not take both for credit. Prerequisite: Physics 251a,b, an introductory course in solid state physics, or permission of instructor.

*Prerequisite:* Physics 251a,b, an introductory course in solid state physics, or permission of instructor.

### ***Cross-listed Courses***

**Applied Mathematics 201. Physical Mathematics I**

**Applied Mathematics 202. Physical Mathematics II**

**Applied Mathematics 205. Advanced Scientific Computing: Numerical Methods**

**Applied Physics 216. Electromagnetic Interactions with Matter**

**Applied Physics 217. Applications of Modern Optics**

**Applied Physics 284. Statistical Thermodynamics**

**Applied Physics 295a. Introduction to Quantum Theory of Solids**

**Applied Physics 295b. Quantum Theory of Solids**

[Applied Physics 298r. Interdisciplinary Chemistry, Engineering and Physics: Seminar]

**Engineering Sciences 220. Fluid Dynamics**

**Engineering Sciences 274 (formerly Quantum Technology I). Quantum Devices**

[Engineering Sciences 275. Nanophotonics]

**MCB 212. Topics in Biophysics**

### ***Graduate Courses of Reading and Research***



Courses of preliminary reading or experimental research are designated by "a." Thesis research are designated by "b" and these courses are to be used only when an instructor has agreed to supervise a student's research for the PhD. 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 301a,301b. Experimental Atomic and Elementary Particle Physics**

Catalog Number: 1735,1736

*Gerald Gabrielse 1768*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Physics 302. Teaching and Communicating Physics**

Catalog Number: 51609 Enrollment: Limited to 36. Priority will be given to first-year graduate students.

*Jacob Barandes 3363*

*Half course (spring term). W., or Th., 4-6. EXAM GROUP: 9*

Hands-on, experienced-based course for graduate students on teaching and communicating physics, conducted through practice, observation, feedback, and discussion. Departmental rules for teaching fellows, section and laboratory teaching, office hours, assignments, grading, and difficult classroom situations.

**\*Physics 303a,303b. Sensory and Behavioral Neuroscience**

Catalog Number: 1727,1792

*Aravinthan D. T. Samuel 4625*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Physics 304a,304b. Topics in Field Theory and String Theory**

Catalog Number: 40521,11572

*Daniel Louis Jafferis 7360*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Physics 305a,305b. Experimental High Energy Physics**

Catalog Number: 7929,0855

*John Huth 3506*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Physics 307a,307b. Atomic/Bio-physics, Quantum Optics**

Catalog Number: 7534,3277

*Lene V. Hau 2151*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*

**\*Physics 309a,309b. Topics in Elementary Particle Theory**

Catalog Number: 4556,4561



*Cumrun Vafa 2069 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Physics 311a,311b. Experimental Atomic, Molecular, and Low-Energy Particle Physics**

Catalog Number: 6839,6838

*John M. Doyle 3507*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Physics 313a,313b. Experimental Condensed Matter Physics**

Catalog Number: 7154,6363

*Amir Yacoby 5596*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Physics 315a,315b. Topics in Theoretical Atomic, Molecular, and Condensed Matter Physics**

Catalog Number: 7387,8871

*Eric J. Heller 1074*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Physics 317a,317b. Topics in Biophysics**

Catalog Number: 8345,0990

*Xiaowei Zhuang 3991*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Physics 319a,319b. Topics in Experimental High Energy Physics**

Catalog Number: 4520,4521

*Melissa Franklin 2500 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Physics 321a,321b. Experimental Soft Condensed Matter Physics**

Catalog Number: 9963,7098

*David A. Weitz 2497*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Physics 327a,327b. Topics in Condensed Matter Physics**

Catalog Number: 5969,6524

*David R. Nelson 5066*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

**\*Physics 329a,329b. Condensed Matter and Statistical Theory**

Catalog Number: 6198,6373

*Bertrand I. Halperin 4755*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Physics 331a,331b. Topics in String Theory**

Catalog Number: 1624,9280



*Xi Yin 6162*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Physics 333a,333b. Experimental Atomic Physics**

Catalog Number: 2902,2904

*Mara Prentiss 2741*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Physics 335a,335b. Topics in the History and Philosophy of Physics**

Catalog Number: 6697,4276

*Gerald Holton 1883*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Physics 337a,337b. Topics in Experimental High Energy Physics**

Catalog Number: 1809,6368

*Masahiro Morii 3798*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

**\*Physics 339a,339b. Condensed Matter and Atomic Physics**

Catalog Number: 5096,6843

*Subir Sachdev 5252*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

**\*Physics 341a,341b. Topics in Experimental Atomic and Condensed Matter Physics**

Catalog Number: 1990,6602

*Markus Greiner 5344*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Physics 343a,343b. Observational Cosmology and Experimental Gravitation**

Catalog Number: 4253,6881

*Christopher Stubbs 4856 (on leave 2014-15)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Physics 345a,345b. Experimental Gravitation: Radio and Radar Astronomy**

Catalog Number: 5067,5072

*Irwin I. Shapiro 7660*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

**\*Physics 347a,347b. Topics in Quantum Optics**

Catalog Number: 8010,1627

*Mikhail D. Lukin 3990 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Physics 349a,349b. Topics in Theoretical Particle Physics**

Catalog Number: 4124,9866



*Matthew D. Schwartz 6194*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Physics 351a,351b. Experimental Soft Condensed Matter and Materials Physics**

Catalog Number: 6533,5661

*Vinothan N. Manoharan 5251*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Physics 353a,353b. Topics in Statistical Physics and Quantitative Molecular Biology**

Catalog Number: 66502,81609

*Erel Levine 6304*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Physics 355a,355b. Theory of Elementary Particles**

Catalog Number: 1213,7654

*Roy J. Glauber 2113*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Physics 357a,357b. Experimental Condensed Matter Physics**

Catalog Number: 4430,5227

*Robert M. Westervelt 6148 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Physics 359a,359b. Topics in Condensed Matter Physics**

Catalog Number: 8238,7560

*Eugene A. Demler 3847 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Physics 361a,361b. Topics in Experimental High Energy Physics**

Catalog Number: 21181,51395

*Joao Pedro Guimaraes da Costa 5698*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Physics 363a,363b. Topics in Condensed Matter Theory**

Catalog Number: 2957,2958

*Efthimios Kaxiras 3050*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Physics 365a,365b. Topics in Mathematical Physics**

Catalog Number: 5170,1567

*Arthur M. Jaffe 2095*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Physics 367a,367b. Experimental Astrophysics**

Catalog Number: 1075,1274



*Paul Horowitz 3537*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**\*Physics 369a,369b. Experimental Condensed Matter: Synchrotron Radiation Studies**

Catalog Number: 1538,1539

*Peter S. Pershan 1105 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Physics 371a,371b. Topics in Experimental High Energy Physics**

Catalog Number: 2519,6461

*Gary J. Feldman 2599 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Physics 373a,373b. Historical and Philosophical Approaches to Modern and Contemporary Physics**

Catalog Number: 6140,6143

*Peter L. Galison 3239 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

**\*Physics 377a,377b. Theoretical High Energy Physics**

Catalog Number: 1436,2007

*Tai T. Wu 1051*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

**\*Physics 379a,379b. Topics in Elementary Particle Research and String Theory**

Catalog Number: 7523,7524

*Andrew Strominger 3700*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

**\*Physics 381a,381b. Experimental Condensed Matter Physics**

Catalog Number: 1281,2355

*Jennifer E. Hoffman 4888*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

**\*Physics 383a,383b. Low Temperature Physics of Quantum Fluids and Solids; Ultra High Pressure Physics**

Catalog Number: 3851,4395

*Isaac F. Silvera 7468 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Physics 385a,385b. Topics in Biophysics**

Catalog Number: 5901,5902

*Howard C. Berg 1377 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 12*



**\*Physics 387a,387b. Applied Photonics**

Catalog Number: 5772,5774

*Eric Mazur 7952*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8*

**\*Physics 389a,389b. Topics in Field Theory: The Standard Model and Beyond**

Catalog Number: 4393,2571

*Lisa Randall 4255 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

**\*Physics 391a,391b. Experimental Atomic Physics, Biophysics, and Soft Matter Physics**

Catalog Number: 1006,2753

*Ronald L. Walsworth 2263*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Physics 393a,393b. Topics in Elementary Particle Theory**

Catalog Number: 6051,6218

*Howard Georgi 4754*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*Physics 395a,395b. Topics in Theoretical High Energy/String Theory**

Catalog Number: 11641,56022

*Matthew Reece 7173*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

**\*Physics 397a,397b. Experimental Condensed Matter Physics**

Catalog Number: 7355,7356

*Jene A. Golovchenko 1986*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

## Political Economy and Government

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

*Faculty of the Committee on Higher Degrees in Political Economy and Government*

Torben Iversen, Harold Hitchings Burbank Professor of Political Economy (*Chair*)

Joseph Edgar Aldy, Assistant Professor of Public Policy (*Kennedy School*)

James E. Alt, Frank G. Thomson Professor of Government (*on leave spring term*)



Daniel P. Carpenter, Allie S. Freed Professor of Government  
 Jeffry Frieden, Stanfield Professor of International Peace  
 Edward L. Glaeser, Fred and Eleanor Glimp Professor of Economics (*on leave spring term*)  
 Michael J. Hiscox, Clarence Dillon Professor of International Affairs (*on leave fall term*)  
 William W. Hogan, Raymond Plank Professor of Global Energy Policy (*Kennedy School*)  
 Horacio Alejandro Larreguy Arbesu, Assistant Professor of Government  
 Sendhil Mullainathan, Professor of Economics  
 Joseph P. Newhouse, John D. MacArthur Professor of Health Policy and Management, Professor of Health Care Policy (*Kennedy School and Public Health, Medical School*)  
 J. Mark Ramseyer, Mitsubishi Professor of Japanese Legal Studies (*Law School*)  
 James Robinson, Wilbur A. Cowett Professor of Government  
 Beth A. Simmons, Clarence Dillon Professor of International Affairs (*fall term*) (*on leave spring term*)  
 Robert N. Stavins, Albert Pratt Professor of Business and Government (*Kennedy School*)  
 Dustin Tingley, Paul Sack Associate Professor of Political Economy (*on leave spring term*)  
 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 and Government, 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 examination. Satisfactory completion of the oral 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 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.hks.harvard.edu](http://www.hks.harvard.edu). Recent scores from the aptitude portion of the Graduate Record Examination (GRE) are required, as are transcripts for all prior study and three 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.hks.harvard.edu/degrees/phd/peg](http://www.hks.harvard.edu/degrees/phd/peg).



# Psychology

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Department of Psychology*

Ken Nakayama, Edgar Pierce Professor of Psychology (*Chair*)

George Angelo Alvarez, John L. Loeb Associate Professor of the Social Sciences

Mahzarin R. Banaji, Richard Clarke Cabot Professor of Social Ethics, Harvard College Professor (*Director of Undergraduate Studies*)

Joshua William Buckholtz, Assistant Professor of Psychology

Randy L. Buckner, Professor of Psychology and of Neuroscience

Alfonso Caramazza, Daniel and Amy Starch Professor of Psychology (*on leave spring term*)

Susan E. Carey, Henry A. Morss, Jr. and Elisabeth W. Morss Professor of Psychology

Mina Cikara, Assistant Professor of Psychology

Fiery Cushman, Assistant Professor of Psychology

Martin V. Day, College Fellow on Psychology

Daniel T. Gilbert, Edgar Pierce Professor of Psychology (*on leave 2014-15*)

Joshua D. Greene, Professor of Psychology

Güven Güzeldere, Senior Lecturer on Philosophy and Psychology

Christine Hooker, Associate Professor of Psychology

Jill M. Hooley, Professor of Psychology

Sasha Y. Kimel, College Fellow in Psychology

Evan M. Kleiman, College Fellow on Psychology

Max Krasnow, Assistant Professor of Psychology

Ellen J. Langer, Professor of Psychology

Patrick Mair, Lecturer on Psychology

Richard J. McNally, Professor of Psychology

Jason P. Mitchell, Professor of Psychology

Matthew K. Nock, Professor of Psychology

Nicole E. Noll, Preceptor in Psychology

Holly A. Parker, Lecturer on Psychology

Steven Pinker, Johnstone Family Professor of Psychology

Katherine E. Powers, College Fellow in Psychology

Lauren Cristina Santucci, Lecturer on Psychology

Daniel L. Schacter, William R. Kenan, Jr. Professor of Psychology

Allison Elizabeth Seitchik, College Fellow in Psychology

James Sidanius, Professor of Psychology and of African and African American Studies

Jesse Snedeker, Professor of Psychology (*Director of Graduate Studies*)



Leah Somerville, Assistant Professor of Psychology (*on leave 2014-15*)  
 Elizabeth S. Spelke, Marshall L. Berkman Professor of Psychology  
 Danielle Truxaw, Lecturer on Psychology  
 Felix Warneken, John L. Loeb Associate Professor of the Social Sciences (*on leave 2014-15*)  
 John R. Weisz, Professor of Psychology (*on leave 2014-15*)  
 Yaoda Xu, Associate Professor of Psychology (*on leave fall term*)

### ***Other Faculty Offering Instruction in the Department of Psychology***

John Beshears, Assistant Professor (*Business School*)  
 Gennaro Chierchia, Haas Foundations Professor of Linguistics  
 Scott E. Lukas, Professor of Psychiatry (*Medical School*)

### ***Affiliates of the Department of Psychology***

Naoshige Uchida, Professor of Molecular and Cellular Biology (*on leave fall term*)

For a list of other courses which automatically count for undergraduate concentration credit, please see the note under the cross-listed courses for Undergraduates and Graduates.

#### ***Primarily for Undergraduates: Introductory Course***

#### **Science of Living Systems 20. Psychological Science**

#### ***Primarily for Undergraduates: Foundational Courses***

##### **MCB 80. Neurobiology of Behavior**

##### **Science of Living Systems 15. Developmental Psychology: Origins of Knowledge**

##### **Psychology 14. Cognitive Neuroscience**

Catalog Number: 5607

*Daniel L. Schacter and George Angelo Alvarez*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

How do our brains give rise to our minds? Specifically, how are mental processes related to neural activity? This course will explore these questions, as well as the methods by which cognitive neuroscience seeks to answer them. We will focus on processes within perception, attention, memory, language, action, emotion, and social cognition, and methods including neuroimaging, neuropsychology, and electrophysiology.

*Note:* This course counts toward foundational requirements for Psychology and should be taken before courses at the 1000 level or higher.

*Prerequisite:* Science of Living Systems 20.

##### **Psychology 15. Social Psychology**

Catalog Number: 4760

*Fiery Cushman (fall term) and Joshua D. Greene (spring term)*

*Half course (fall term; repeated spring term). Fall: M., W., 2:30–4; Spring: M., W., 1–2:30, and a one-hour section to be arranged. EXAM GROUP: Fall: 7; Spring: 8*



An introduction to social psychological research and theory regarding everyday behavior, incorporating methods from the life sciences (neuroscience, genetics, evolutionary biology). Topics include: attitudes and social influence; obedience to authority; stereotyping, prejudice, and intergroup relations; emotion; interpersonal attraction; morality and prosocial behavior; and errors of everyday human judgment

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of Living Systems. This course counts toward the foundational requirement for Psychology and should be taken before courses at the 1000 level or higher.

*Prerequisite:* Science of Living Systems 20, for all freshmen and for all students completing a concentration or secondary field in psychology.

### **Psychology 18. Abnormal Psychology**

Catalog Number: 8560

*Joshua William Buckholtz*

*Half course (fall term). Tu., Th., 1-2:30 and a weekly section to be arranged. EXAM GROUP: 8*  
Introduction to the study of psychological dysfunction. Focuses on abnormal behavior as it relates to the definition, etiology, and treatment of major symptom domains. This course will emphasize critical evaluation of the causes and mechanisms of mental illness, with special attention paid to recent neuroscientific and genetic research on the neurobiology of psychopathology.

*Note:* This course counts toward foundational requirements for Psychology and should be taken before courses at the 1000 level or higher.

*Prerequisite:* Science of Living Systems 20.

### ***Primarily for Undergraduates***

### **\*Psychology 910r. Supervised Research**

Catalog Number: 1472

*Mahzarin R. Banaji and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 13*

Independent empirical research (laboratory or field) conducted under the supervision of a departmental faculty member. Research report or equivalent paper required. May be taken up to three times for College credit; limits on research courses for concentration credit apply.

*Note:* An [Application](#) is required for admission; due to the Psychology Undergraduate Office the day before Study Cards are due.

### **[\*Psychology 950. Psychology Live]**

Catalog Number: 5195 Enrollment: Limited to 25.

*Half course (fall term). Hours to be arranged.*

Faculty will each lecture about their main area of research: its history, methods, and discoveries, focusing on contemporary research topics including perception, memory, cognitive development, animal cognition, social cognition, moral decision-making, consciousness, language, and psychopathology. Includes a view of methods to study the mind, brain and behavior involving neuroscientific techniques, evolutionary psychology, web-based experimentation, traditional



laboratory experiments, and field studies. Emphasis is primarily human, as well as nonhuman primates.

*Note:* Expected to be given in 2016–17.

*Prerequisite:* Science of Living System 20 or equivalent..

### **\*Psychology 971. Contemporary Issues in Psychology: Intensive Cross-level Analyses**

Catalog Number: 3498

*Mahzarin R. Banaji and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 15*

Examines selected issues and phenomena 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 975, is required of concentrators upon entering the concentration, normally in the sophomore year. Letter graded.

*Note:* This course is taught entirely in sections, so a required first meeting of this course will be held the first day of classes; see Registrar's first meeting list for time and location. Students may take this course before formally declaring Psychology as their concentration.

*Prerequisite:* Science of Living Systems 20 (or equivalent) or concurrent enrollment. Stat 101 or PSY 1900 as a pre- or corequisite.

### **\*Psychology 975. Contemporary Issues in Psychology: Intensive Cross-level Analyses for Cognitive Neuroscience and Evolutionary Psychology**

Catalog Number: 9063

*Mahzarin R. Banaji and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 5*

Examines selected issues of relevance to social and cognitive neuroscience addressed in contemporary psychological research, and is normally required for students in the Social and Cognitive Neuroscience track of Psychology. 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. Letter-graded.

*Note:* This course is taught entirely in sections, so a required first meeting of this course will be held the first day of classes; see Registrar's first meeting list for time and location. Students may take this course before formally declaring Psychology as their concentration.

*Prerequisite:* Science of Living Systems 20 (or equivalent) or concurrent enrollment. Stat 101 or PSY 1900 as a pre- or corequisite.

### **\*Psychology 980f. Animal Cognition**

Catalog Number: 89069 Enrollment: Limited to 16.

*Irene Pepperberg*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

This course is an introduction to the study of animal cognition and thought processes. Topics include categorization, memory, number concepts, insight, and language-like behavior. The course requires reading and critiquing original journal articles.

*Note:* Not open to students who have taken PSY 1351.



*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

**\*Psychology 980h. In the Presence of the Enemy: Social-Psychological Approaches to Intergroup Conflict - (New Course)**

Catalog Number: 26091 Enrollment: Limited to 16.

*Mahzarin Banaji and members of the Department.*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

Conflicts begin in human minds -therefore understanding conflict requires the understanding of the influence of social-psychological dynamics-. In this course we will focus on social psychological concepts of intergroup conflict, such as identity, collective memory and stereotypes, and inquire how they propel groups towards conflict. We will also consider how understanding these processes can help prevent and resolve conflicts. For example, we will ask, how individuals reform as one identity group. What role does collective memory play in sustaining conflicts? Can contact and dialogue help to overcome conflict? Which specific circumstances are required for a successful conflict resolution?

*Prerequisite:* Science of Living Systems 20 and PSY 15.

**[\*Psychology 980k. Growing Up and Growing Old: Cognitive Changes in Childhood and Aging]**

Catalog Number: 76843 Enrollment: Limited to 16.

*Mahzarin R. Banaji and members of the Department*

*Half course (fall term). M., 6–8 p.m.*

This seminar will focus on the profound cognitive changes of early childhood and old age. We will be especially interested in what such changes tell us about how the adult mind -- perched between childhood and old age -- is organized. Topics include: theories of development and theories of aging, changes in the neural substrate; the rise and fall of executive functions; conceptual gain and conceptual loss; expertise and wisdom; healthy aging and dementias.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

**[\*Psychology 980n. Nonverbal Communication]**

Catalog Number: 25145 Enrollment: Limited to 16.

*----- and members of the Department*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

**\*Psychology 980o. Perception and Imagination**

Catalog Number: 97975 Enrollment: Limited to 16.

*Justin Anthony Jung*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

Perception is required to have a mind like yours. How does perceiving work? How are streams of sensory input processed into rich and useful models of the world around you? This course will



converge on the 5 senses from many informative angles, explaining how perception tracks and shapes reality, then gives rise to imagination.

*Prerequisite:* Science of Living Systems 20 or its predecessors and one foundational course.

**[\*Psychology 980p. Social Factors in the Development of Psychopathology]**

Catalog Number: 16581 Enrollment: Limited to 16.

*Mahzarin R. Banaji and members of the Department*

*Half course (fall term). Hours to be arranged.*

This course will review the role social factors (social support, social interactions, social functioning, and the broader social context of communities) relate to the development and maintenance of psychopathology. In the context of disorders such as schizophrenia, depression (including suicide), eating disorders, and post-traumatic stress disorder, this course will look at how social factors might contribute to the development of mental illness, as well as how social factors might be indicators of mental illness, and finally how social factors might mediate the severity of or even prevent the development of mental illness.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 and Psychology 18.

**\*Psychology 980s. Cyborg Psychology - (New Course)**

Catalog Number: 67777 Enrollment: Limited to 16.

*Justin Anthony Junge*

*Half course (spring term). W., 6–8 p.m. EXAM GROUP: 13*

Cyborgs are created when biological brains are enhanced with technology. This course will explore a wide range of mind-machine interactions. Are search engines changing the structure of human memory? Is your laptop or smartphone part of your mind? Are human brains flexible enough to update motor and sensory systems, expanding the self to include artificial limbs, exoskeletons, remote-control devices, night vision, wearable computing, etc.? How do experiences in virtual reality impact psychology? As technology advances we are all becoming cyborgs. Now is an exciting time to study the interactive interface of technology and mind.

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 14, PSY 15, PSY 18, MCB 80, or SLS15.

**\*Psychology 980t. To Categorize is Human: How Linguistic, Social, and Perceptual**

**Categories Shape our Experience of the World - (New Course)**

Catalog Number: 88479 Enrollment: Limited to 16.

*Mahzarin R. Banaji members of the Department*

*Half course (spring term). F., 10–12. EXAM GROUP: 5*

How do you draw the line between bluish green and greenish blue? A coat and a jacket? Your own race and another race? How can people judge baseball pitches or facial emotions in fractions of a second? How do we boil down complex mixes of emotional information to make binary decisions, like whether to go on a second date? We face a world full of subtle gradations, but effortlessly place people and things into discrete categories. This course will explore how these categories form, as well as the consequences that arise from the ways we categorize objects, people, and ideas.

*Prerequisite:* SLS-20 and one from PSY 14, PSY 15, SLS-15, or PSY 18.



### **\*Psychology 980u. Psychological Challenges of Adolescence and Early Adulthood - (New Course)**

Catalog Number: 45382 Enrollment: Limited to 16.

*Mahzarin Banaji and members of the Department*

*Half course (fall term). W., 7:30–9:30 p.m. EXAM GROUP: 17*

This seminar will examine research on a wide range of developmental, social, and psychological processes that affect the mental health of adolescents and young adults. We will discuss factors that facilitate resilience during adolescence and the transition to adulthood (such as personality traits and economic resources), as well as risk factors (such as parental maltreatment and exposure to violence). We will also explore questions specific to disorders common during this developmental period, such as whether adolescent mood and anxiety disorders are unidimensional or bidimensional constructs, and how recent social and neurobiological research can enhance our understanding of the unique challenges faced by adolescents and young adults with ADHD. Throughout the course, we will discuss research on emerging trends in media use and Facebook, and the impact of these technologies on depression, anxiety, substance abuse, and cyberbullying.

*Prerequisite:* Science of Living Systems 20 and PSY 18.

### **\*Psychology 985. Junior Tutorial: Honors Thesis Preparation**

Catalog Number: 2343

*Danielle Truxaw and members of the Department*

*Half course (fall term; repeated spring term). M., at 4. EXAM GROUP: 13*

Supervised reading and research with a faculty supervisor normally resulting in a thesis prospectus. Required, supplemental group meetings to discuss topic and supervisor selection, study methodology, prospectus writing, and the prospectus meeting. Graded SAT/UNS. Full prospectus or term paper required.

*Note:* Normally limited to junior psychology concentrators. Admission to course by way of [application](#).

*Prerequisite:* Psychology 1901 or concurrent enrollment.

### ***Senior Tutorial***

### **\*Psychology 990. Senior Tutorial: Honors Thesis in Psychology**

Catalog Number: 3553

*Danielle Truxaw and members of the Department*

*Full course. W., at 9. EXAM GROUP: 10*

Individual supervised thesis research supplemented with occasional group meetings 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.

*Note:* Required of and limited to senior psychology concentrators in the general psychology Honors-eligible thesis track.

*Prerequisite:* Approved thesis application and Psychology 1901.

### **\*Psychology 992. Senior Tutorial: Honors Thesis (Mind/Brain/Behavior)**

Catalog Number: 4990



*Danielle Truxaw and members of the Department*

*Full course. W., at 9. EXAM GROUP: 10*

Individual supervised thesis research supplemented with occasional group meetings 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.

*Note:* Required of and limited to senior psychology concentrators in the Cognitive Science thesis track, who will take this course in lieu of Psychology 990.

*Prerequisite:* Approved thesis application and Psychology 1901.

**\*Psychology 993. Senior Tutorial: Honors Thesis (Cognitive Neuroscience and Evolutionary Psycholgy)**

Catalog Number: 5567

*Danielle Truxaw and members of the Department.*

*Full course. W., at 9. EXAM GROUP: 10*

Individual supervised research supplemented with occasional group meetings 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.

*Note:* Required of and limited to senior honors psychology concentrators in the Cognitive Neuroscience and Evolutionary Psycholgy track, who will take this course in lieu of Psychology 990.

*Prerequisite:* Approved thesis application and Psychology 1901.

**[\*Psychology 995. Senior Seminar: General Psychology]**

Catalog Number: 5201 Enrollment: Limited to 12.

*Elinor Amit*

*Half course (fall term). Hours to be arranged.*

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:* Expected to be given in 2015–16. Designed for senior concentrators not engaged in an honors thesis.

**Cross-listed Courses**

**African and African American Studies 141x. Prejudice and Racism in Modern Society**

**\*Freshman Seminar 49n. Measurements of the Mind: The Creation and Critique of the Psychological Test**

**\*Mind, Brain, and Behavior 980a (formerly Mind, Brain, and Behavior 93). Conscious States: Waking, Sleeping, and Dreaming**

[\*Mind, Brain, and Behavior 980b (formerly Mind, Brain, and Behavior 95). Addiction, Choice, and Motivation]

[\*Mind, Brain, and Behavior 980c (formerly Mind, Brain, and Behavior 96). The Science of Happiness]

**\*Mind, Brain, and Behavior 980d (formerly Mind, Brain, and Behavior 92). Conscious**



### **Perceptual Experience: Image, Space, and the Attentive Self**

**\*Mind, Brain, and Behavior 980e (formerly \*Mind, Brain, and Behavior 91z). Music, Mind, and Brain**

**\*Mind, Brain, and Behavior 980f (formerly \*Mind, Brain, and Behavior 99z). Creativity Research: Madmen, Geniuses, and Harvard Students**

**\*Mind, Brain, and Behavior 980g. The Origins and Evolution of Cognition: A Comparative Study of Human and Nonhuman Abilities**

**\*Mind, Brain, and Behavior 980h. What Disease Teaches about Cognition**

[\*Mind, Brain, and Behavior 980ir. Topics in the Mind/Brain Sciences: How the Mind/Brain Represents the World]

**\*Mind, Brain, and Behavior 980k. Fighting Cancer with the Mind - (New Course)**

### ***For Undergraduates and Graduates***

#### **\*Psychology 1001. The Psychology of Well-being - (New Course)**

Catalog Number: 48518 Enrollment: Limited to 16.

*Martin V. Day*

*Half course (spring term). Tu., 3–5. EXAM GROUP: 16*

This course will critically examine the nature of well-being, happiness and the good life. This course will cover a range of topics such as: optimal functioning, strengths, values, interests, mindfulness, physical health, and happiness. Through group and class discussions, involved exercises, projects, videos, and review of journal articles, students will: (i) gain an understanding of well-being related concepts, (ii) learn to think critically and analytically about issues related to positive psychology, (iii) experience the effects of applying well-being related principles on your own personal growth, (iv) propose an intervention to bring about change in a well-being related behavior.

*Prerequisite:* SLS-20 and one from PSY 14, PSY 15, PSY 18, or SLS 15.

#### **Psychology 1005. Health Psychology**

Catalog Number: 62039

*Ellen J. Langer*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course will examine psychological and physical health from the perspective of Positive Psychology. A major focus will be on mindfulness theory and its relationship to stress/coping; illness/wellness; decision-making; placebos. The medical model, the bio social model, and a unified mind/body model will be compared to examine their relationship to achieving resilience.

*Prerequisite:* SLS 20 and at least one course from Psy 13, Psy 14, Psy 15, Psy 18, or SLS 15.

#### **\*Psychology 1007. Psychology of Peak Performance in Athletics and its Consequences**

Catalog Number: 91486 Enrollment: Limited to 30.

*Allison Elizabeth Seitchik*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 16*

This course seeks to understand the physical and psychological behaviors as well as the mental training components necessary to achieve peak sport performance. Students will also gain an understanding of the physical, affective, and cognitive consequences of competitive sport participation. This includes the psychological factors that influence sport performance (e.g., self-



confidence, arousal), methods for enhancing sport performance (e.g., goal-setting, imagery), and the negative consequences of becoming an elite athlete (e.g., burnout, concussions).

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

**\*Psychology 1008. Impediments to Excelling: Social Threat, Ostracism, Anxiety, and Choking**

Catalog Number: 98611 Enrollment: Limited to 16.

*Allison Elizabeth Seitchik*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

The purpose of the course is to understand the effects of social threat, ostracism, anxiety, and choking on performance, and how to overcome them. This includes understanding the different types of impediments to excelling, how these impediments influence performance, and ultimately, how understanding these impediments lead to interventions to overcome them. Past and present empirical research and theory will be examined.

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

**[Psychology 1009. Psychology of Women]**

Catalog Number: 57367

*Half course (spring term). Hours to be arranged.*

How does being a woman or man affect our behavior, our evaluations of ourselves, and our interactions with others? This course examines psychological science on women and girls in western industrialized societies, addressing such topics as gender stereotypes, girlhood, women and work, relationships, pregnancy and motherhood, mental health, violence against women, and women in later adulthood. We will consider these topics through an understanding of gender as a social construction, being mindful of the intersections of gender, sexuality, class, and race. Although focused on women's lives and experiences, this course is also highly relevant to men.

*Note:* Expected to be given in 2015–16.  
*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15

**[\*Psychology 1051. MATLAB: Introduction to Programming for Behavioral Research]**

Catalog Number: 25165 Enrollment: Limited to 10.

*George Angelo Alvarez*

*Half course (spring term). Hours to be arranged.*

This course will introduce students to the basics of the MATLAB user interface and programming language, for the purpose of using MATLAB to conduct behavioral research. In the first half of the course, you will learn about MATLAB syntax, general programming concepts such as functions, loops, and conditional statements, and how to analyze and visualize data in MATLAB. In the second half of the course, you will learn to program psychology experiments with the Psychophysics toolbox (a set of MATLAB functions), including displaying stimuli (visual and auditory), and collecting responses from participants.

*Note:* Expected to be given in 2015–16. All students are required to bring a laptop computer to class. Open to graduate and undergraduate students with permission of instructor.



### [\*Psychology 1052. The application of fMRI in cognitive neuroscience research]

Catalog Number: 91794 Enrollment: Limited to 18.

*Yaoda Xu*

*Half course (fall term). M., 10–12.*

Functional magnetic resonance imaging (fMRI) is one of the most widely used methods in cognitive neuroscience research. In this course, students will learn the basics of fMRI research and gain hands-on experience in conducting fMRI experiments. In the first part of the course, students will have an overview of the fMRI methods, including how fMRI works, basic designs of fMRI experiments, fMRI data collection, analysis and interpretation, and current applications of fMRI in cognitive neuroscience research. In the second part of the course, students will design and conduct fMRI experiments and analyze fMRI data.

*Note:* Expected to be given in 2015–16. Open to graduate students and advanced undergraduates with permission of instructor.

*Prerequisite:* Science of Living Systems 20 or its predecessors and one foundational course.

### Psychology 1201. Your Brain on Drugs: Psychopharmacology

Catalog Number: 6717

*Scott E. Lukas (Medical School)*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

An introduction to how drugs affect mood, sensation, consciousness, and other psychological and behavioral functions in both healthy and disease states. Introduces concepts in neuroscience and pharmacology to understand how drugs are used to treat drug abuse, psychiatric disorders and why individuals use recreational drugs. Covers all CNS drugs, including antidepressants, antipsychotics, alcohol, and both licit and illicit drugs of abuse. Debates controversial topics such as research with psychiatric populations, diagnosing ADHD, teenage suicide, marijuana legalization, and needle exchange programs.

*Prerequisite:* Science of Living Systems 20 or its predecessors and at least one from Psych 13, Psych 14, Psych 18, or MCB 80.

### \*Psychology 1251. Circuits and Symptoms - (New Course)

Catalog Number: 82538 Enrollment: Limited to 20.

*Joshua William Buckholtz*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

This class will explore the biology of psychological illness. We will ignore artificial diagnostic labels, examining instead the core symptom domains that have plagued humans since the beginning of recorded history. A strong emphasis will be placed on biological mechanisms. In particular, the class will focus on mapping dysfunction in large-scale brain circuits to cognitive, affective, social, and motivational symptom domains, and on understanding how genes and environments act and interact to predispose these symptoms by shaping brain function and development.

*Note:* Preference given to graduate students and to Juniors and Seniors.

*Prerequisite:* SLS-20 and PSY 18 or PSY 14 or MCB 80.

### [\*Psychology 1303. The Human Brain Then and Now]

Catalog Number: 72663 Enrollment: Limited to 20.

*Randy L. Buckner*



*Half course (spring term). Hours to be arranged.*

This course will explore the "mismatch" between our ancestral brain and the modern world. After covering the evolution of the human brain, the bulk of the course will focus on case studies including how drugs hijack the normal function of brain systems, how the Facebook age places stresses on social systems that evolved to handle close-knit groups of 25 or so individuals, and how the brain degenerates as we live unexpectedly long.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 or MCB 80.

### **Psychology 1304. Brain Damage as a Window into the Mind: Cognitive Neuropsychology**

Catalog Number: 2419

*Alfonso Caramazza*

*Half course (fall term). Tu., 1:30–4. EXAM GROUP: 8*

Examines the patterns of perceptual, motor, cognitive, and linguistic impairments resulting from brain damage. The focus is on the implications of the various types of neuropsychological deficits (such as visual neglect, dyslexia, and aphasia) for theories of the mind and the functional organization of the brain.

*Prerequisite:* Science of Living Systems 20 and Psych13, Psych 14, or MCB 80.

### **Psychology 1305. Evolution and Cognition - (New Course)**

Catalog Number: 70479

*Max Krasnow*

*Half course (fall term). M., W., at 11. EXAM GROUP: 18*

The goal of this course is for students to master the foundational logic and theory of evolutionary psychology. Students are exposed to and consider topics covering the range of human experience, including cooperation, mating, friendship, aggression, warfare, collective action, kinship, parenting, social learning, dietary choice, spatial cognition, reasoning, emotions, morality, personality and individual differences, predator avoidance, hazard management, and culture.

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

### **[Psychology 1307. Brain Genomics]**

Catalog Number: 63133

*Randy L. Buckner*

*Half course (spring term). Hours to be arranged.*

Genetics provides a powerful approach for exploring human behavioral variation and learning how dysfunction in neural circuits influences cognition. This course will cover the basics of genetic inheritance and genomic sequencing to understand brain function. Topics include autistic disorders, schizophrenia, and normal cognitive variation. The goals of the class will be (1) to debate the potential of bridging genomics and human neuroscience, and (2) to survey recent successes in brain genomics.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Life Science 1A; MCB 80 or Science of Living Systems 20 desirable.



### **\*Psychology 1352. Foundations of Cognitive Neuroscience Research**

Catalog Number: 9399 Enrollment: Limited to 12.

*Randy L. Buckner*

*Half course (fall term). F., 10–11:30 and a weekly section to be determined. EXAM GROUP: 5*

Intended for undergraduates or those with limited background in cognitive neuroscience.

Students will attend and participate in laboratory research and in a seminar that includes discussion of active scientific projects, recent important journal articles, and didactic lecture on technical aspects of methods central to cognitive neuroscience research. Readings will be assigned that survey basic principles of system neuroscience, cognitive science, and methods including functional MRI, MEG, and single unit physiology.

*Note:* Limited to students involved in research.

*Prerequisite:* Science of Living Systems 20 or its predecessors or MCB 80, or permission of instructor. For graduate students, permission of instructor.

### **[\*Psychology 1354. Classic Papers on Memory (and the Ones that Got Away!)]**

Catalog Number: 5684

*Randy L. Buckner*

*Half course (spring term). Hours to be arranged.*

Classic articles in memory will be discussed in the context of why they are seminal to the field. Topics will include amnesia, LTP, levels of processing, implicit memory, brain imaging, and prospection. Within each topic, articles that are less seminal, but reported earlier, will also be discussed. A goal will be to debate what specifically allowed the classic articles to change the way we think. What sets them apart?

*Note:* Expected to be given in 2015–16.

*Prerequisite:* For undergraduates: Science of Living Systems 20 or its predecessors or MCB 80 required, or permission of instructor. For graduate students, permission of instructor.

### **[\*Psychology 1355. The Adolescent Brain]**

Catalog Number: 30065 Enrollment: Limited to 16.

*Leah Somerville*

*Half course (spring term). Hours to be arranged.*

This course will introduce students to the dynamics of brain development during the second decade of life. This course will examine key changes in structural, functional, connectivity, and neurochemical changes that take place in the brain during adolescence. We will assess how these changes influence several domains of the adolescent mind, including self-control, risky decision making, changes in daily emotions and moods, the onset of psychiatric illnesses (such as mood and anxiety disorders), and sensitivity to social evaluation.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* For undergraduates, Science of Living Systems 20 and one of MCB 80, SLS 15, Psy 13, Psy 14, Psy 15, or Psy 18

### **[\*Psychology 1357. Puzzles of the Mind: Humans, Animals, Robots: Seminar]**

Catalog Number: 87888 Enrollment: Limited to 25.

*Güven Güzeldere*

*Half course (spring term). Hours to be arranged.*

An interdisciplinary comparative study of human, animal, and robot minds. Particular emphasis



on philosophical questions that frame the problems, and recent work in psychology, cognitive science, and neuroscience that attempt to tackle them empirically. Relation between consciousness and cognition, language and thought, conscious versus unconscious information processing, Manifestations of mental capacities in different underlying substrates: the human brain, nervous systems of non-human animals, and silicon-based computational systems. Additional readings from cognitive ethology and artificial intelligence.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 and one from Psychology 13, 14, 15, 16, or 18, or MCB 80, or Science of Living Systems 15, or coursework in philosophy.

**[\*Psychology 1358. Is there more to thought than muscle twitches? Cognitive and neural aspects of object and action knowledge]**

Catalog Number: 83581 Enrollment: Limited to 15.

*Alfonso Caramazza*

*Half course (fall term). Hours to be arranged.*

Knowledge of objects and actions encompasses their perceptual and motor properties as well as more abstract properties such as information about their function (e.g., what they are used for, the goal of an action). In this seminar, we will explore the relationship between the sensory-motor processes involved in the perception of objects and the execution of actions and the organization and representation of the conceptual knowledge associated with objects and actions. We will review critically the relevant behavioral, neuroimaging and neuropsychological research.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 or its predecessors plus Psychology 13 or Psychology 14 or MCB 80, or permission of instructor.

**[Psychology 1430. Human Memory and Amnesia]**

Catalog Number: 8922

*Daniel L. Schacter*

*Half course (spring term). Hours to be arranged.*

Surveys current data and theory concerning human memory and amnesia from cognitive, neuroimaging, and neuropsychological perspectives. Topics considered include short-term memory, encoding and retrieval processes, forgetting, memory distortion, implicit memory, drug effects on memory, amnesic syndromes, and aging memory.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 plus one from Psychology 13, 15, 16, 18, Science B 29 or MCB 80.

**[\*Psychology 1452. The Human Face]**

Catalog Number: 11513 Enrollment: Limited to 25.

*Ken Nakayama*

*Half course (fall term). Hours to be arranged.*

Your face contains a hidden code that instantly communicates who you are, how you're feeling, and what your intentions may be. Whether accurate or inaccurate, human brains extract information in a fraction of a second from faces and use it to make simple and complex judgments about people. Perceived facial attractiveness can be hugely consequential in real



world encounters. The media surrounds us with images of faces and hidden cameras record our own faces many times a day. We will explore "decoding" the human face from computational, psychological and biological perspectives, providing comprehensive review of this highly interdisciplinary field

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

### [Psychology 1453. Consciousness Explored]

Catalog Number: 17059

*Ken Nakayama*

*Half course (spring term). Hours to be arranged.*

In recent decades, the study of consciousness has been pushed to the forefront of scientific investigation. Because of its importance, it provides a unique opportunity for an integrative approach to the study of mind, brain, and behavior. In this course, we will discuss the philosophical debates, the psychological phenomena, and the relevant neurophysiological findings.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 or its predecessors and either MCB 80 or Psychology 14 Cognitive Neuroscience.

### \*Psychology 1454. Neuroscience Fiction: An Introduction to Cutting Edge Neuroscience through the Lens of Film and Television - (New Course)

Catalog Number: 64417 Enrollment: Limited to 12.

*George Angelo Alvarez*

*Half course (spring term). Th. 2-4:30 plus a one-hour section to be determined. EXAM GROUP: 11*

Film and television shows often capture the cutting edge of science, and they sometimes even anticipate future scientific advances. We'll use examples from film and television as an introduction to several hot topics in the field of neuroscience, such as Mind Control, Mind Reading, Smart Pills, and Brain Machine Interfaces, which are all getting closer to reality. Will neuroscientists ever be able to control a person's thoughts, or to know what a person is thinking? Can taking a pill really awaken untapped brain power? Will you ever be able to drive a car without touching a steering wheel? In this course, we will cover the state of the art and the future of these exciting areas of neuroscience (and entertainment). Because these are not textbook topics, this is an advanced course that will focus on reading and discussing the primary literature.

*Prerequisite:* SLS-20 plus either PSY 14 or MCB 80 or permission of instructor..

### \*Psychology 1455. Perceiving People - (New Course)

Catalog Number: 31518 Enrollment: Limited to 20.

*Ken Nakayama*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Our sensory world is filled with people and other creatures and we learn much about them from observation. Animals do similar things with their conspecifics, their prey and enemies. In this seminar course, we probe the psychological and specialized neural mechanisms that underlie



these often hidden and remarkable abilities.

*Prerequisite:* SLS-20 and MCB80 or equivalent.

### **\*Psychology 1502. Cultural Psychology: Exploring Social Identities in the U.S. and Beyond**

Catalog Number: 46453 Enrollment: Limited to 40.

*Sasha Y. Kimel*

*Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7*

How does your nationally, social class, race/ethnicity, gender, faith and politics change the way you think, feel and behave? This course explores how your cultural background shapes your sense of self, emotions, motivation, decision-making and relationships. We will talk about God, sex, politics, violence and how our culture impacts the names we give our children. The goal of this course is to help you gain a better understanding of the ways in which human culture and the human psyche interact while enhancing your ability to promote greater intercultural harmony and to thrive in our increasingly multicultural and globalized world.

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

### **\*Psychology 1503. Psychology of Close Relationships**

Catalog Number: 32801 Enrollment: Limited to 70.

*Holly A. Parker*

*Half course (spring term). M., 7:30–9:30 p.m. EXAM GROUP: 13*

This course is an in-depth exploration of close relationships. Examples of topics to be covered include the biological bases of attraction; relationship formation; the end of relationships through break-up, divorce, or death; relationship satisfaction; deception; gender roles; same-sex relationships; loneliness; relationships and well-being; and public perceptions about relationships. You will have an opportunity to explore these topics primarily through critical examination of the empirical literature as well as through popular press.

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

### **Psychology 1504. Social Cognition: Making Sense of our Social World - (New Course)**

Catalog Number: 32286

*Katherine E. Powers*

*Half course (fall term). Tu., Th., 4–5:30. EXAM GROUP: 16*

As a social species, a significant proportion of our everyday thoughts are devoted to social cognition - thinking about other people and comprehending what they are thinking about us. In this course we will merge theories from social and cognitive psychology to examine how people make sense of each other, social groups, and the surrounding social world. Throughout the course, we will draw on neuroscientific findings to uncover the neural basis of these abilities, as well as examine deficits in these social skills in autism and related disorders.

*Prerequisite:* SLS-20 and one from PSY 14, PSY 15, PSY 18, or SLS-15.

### **\*Psychology 1508. How to Nudge: Using Social Psychology and Decision Science to Change Behavior and Policy - (New Course)**

Catalog Number: 51829 Enrollment: Limited to 40.

*Martin V. Day*



*Half course (fall term; repeated spring term). Fall: M., W., 1–2:30; Spring: M., W., 2:30–4.*

*EXAM GROUP: Fall: 1; Spring: 18*

How do you get people to waste less energy, save more money, and eat healthier? How do you encourage people to vote, stay in school, and drive safer? In this course you will learn relevant social psychology and decision science, as well as a promising new methodology useful for motivating and nudging people's behaviors to reduce or solve specific problems in organizations and society. By succeeding in this class you will gain identifiable skills that are applicable beyond the classroom (e.g., to improve programs, policies, organizational practices), in a variety of settings (e.g., health, education, law, public policy, business, and the environment).

*Prerequisite:* SLS-20 and one from Psy 14, 15, 18 or SLS 15

### **\*Psychology 1515. Psychology of Groups at Work**

Catalog Number: 26285 Enrollment: Limited to 30.

*Allison Elizabeth Seitchik*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course seeks to understand the psychological dynamics of groups in work settings. This includes understanding the cohesion and development of groups (e.g., learning, satisfaction, commitment), interpersonal processes and relationships that occur between group members as they work together (e.g., information sharing, competition and conflict, conformity) and motivational factors that influence group performance (e.g., groupthink, social facilitation). Past and present empirical research and theory will be examined.

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

### **\*Psychology 1553. Social Bonds and Human Connections - (New Course)**

Catalog Number: 39049 Enrollment: Limited to 20.

*Katherine E. Powers*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

As social beings, humans have a fundamental need to affiliate and bond with each other. In this course, we will trace social relationships across the human lifespan, from parent-infant attachment to adolescent peer relationships to pair bonding in adulthood. In doing so, we will discuss the evolutionary benefits of this social motive and the dissolution of social bonds. We will also examine current issues in psychological science especially relevant to social bonds, including online relationships and the role of oxytocin.

*Prerequisite:* SLS-20 and one from PSY 14, PSY 15, PSY 18, and SLS-15.

### **\*Psychology 1556r. Research Seminar in Implicit Social Cognition**

Catalog Number: 78884

*Mahzarin R. Banaji*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*

An introduction to research on implicit social cognition, with special focus on attitudes, beliefs, and identity and in some cases its applications to law, business, medicine, and government.

Students will be paired with individual researchers to work on ongoing projects that can turn into more independent projects. In addition to weekly work in the laboratory, students are expected to attend biweekly discussion groups focusing on current issues and directions in the laboratory as a whole.



### **\*Psychology 1558. The Psychology of Left and Right**

Catalog Number: 61125 Enrollment: Limited to 20.

*Sasha Y. Kimel*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

What are the origins of the culture war between the political Left and Right? How do psychobiology, upbringing, temperament and moral values shape this difference in political orientations? In this course, we will explore the psychological factors underlying political divisions as well as the role of our social networks and desire for group identity in maintaining and widening the divide. The goal of this course is to develop your empirical, theoretical and methodological understandings of psychological research underlying the Left-Right conflict while providing you with tools to detect partisanship and to promote the cooperation and connection necessary for a well-functioning democracy.

*Prerequisite:* SLS 20 and at least one course from Psy 13, Psy 14, Psy 15, Psy 18, or SLS 15.

### **\*Psychology 1559. The Social Brain - (New Course)**

Catalog Number: 92211 Enrollment: Limited to 16.

*Katherine E. Powers*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

Many believe that the human brain evolved to support the complex demands of interacting with other people. In this class, we will explore how our brains are wired to allow us to know ourselves, to know what other people are thinking, and predict what they might do, and to regulate our actions to most effectively interact with others. We will combine theories and findings from social psychology, evolutionary psychology, and neuroscience to work towards an understanding of the brain in a social context.

*Prerequisite:* SLS-20 and one from MCB 80, MCB 90, or PSY 14, or with permission of instructor.

### **\*Psychology 1560. The Psychology of Being Rich or Poor - (New Course)**

Catalog Number: 69335 Enrollment: Limited to 16.

*Sasha Y. Kimel*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

As many strive for the American Dream, the gap between the rich and poor continues to widen. Although economic inequality affects us all, resulting in greater societal dysfunction and lower national happiness, the consequences vary greatly depending on your social class. In this course, we will examine how being rich or poor differentially impacts our sense of self, our morality, our ways of thinking, our sense of being in control, our achievements, the biases that we face, and our health and well-being. We will also consider psychological interventions for reducing the consequences of this wealth gap and for promoting mutual understanding across the divide.

*Note:* Preference will be given to undergraduates.

*Prerequisite:* SLS-20 and at least one from PSY 14, PSY 15, PSY 18, or SLS-15

### **[\*Psychology 1561. Social and Economic Inequality: A Psychological Perspective] - (New Course)**

Catalog Number: 70821 Enrollment: Limited to 20.

*Martin V. Day*

*Half course (spring term). Hours to be arranged.*



This course is designed to heighten your understanding of social and economic inequality using a psychological perspective. We will discuss psychological processes and theories related to inequality, as well as relevant programs and policies. We will also discuss perceptions and consequences of social, gender, and race inequalities, and how economic inequality divides us and undermines our well-being. Promising interventions and strategies to assuage the negative effects of inequality will also be explored.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* SLS-20 and one from PSY 14, PSY 15, PSY 18, or SLS 15.

### **Psychology 1601. Developmental Disabilities**

Catalog Number: 10038

*Jesse Snedeker*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

An introduction to developmental disorders from the perspective of psychology and cognitive neuroscience. We will focus on the most commonly diagnosed developmental difficulties such as autism, ADHD, and specific impairments in language and math. We will take an integrative approach and consider the clinical presentation of each disorder, theoretical frameworks, research on the causes and consequences, and issues in education and treatment.

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

### **[Psychology 1604. Social Development]**

Catalog Number: 92302 Enrollment: Open to graduates and undergraduates.

*Felix Warneken*

*Half course (spring term). Hours to be arranged.*

How do we develop as social beings from infancy to adulthood? What are the biological, cultural, and individual factors that influence this development? How does human social development differ from that of other primates? In exploring these and other questions, this course will take a developmental and evolutionary approach to topics that include: attachment; cultural learning; cooperation and competition; theory of mind; social categorization; moral reasoning; friendship; peers; parent-child interaction.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 plus either Psychology 15 or Science of Living Systems 15.

### **Psychology 1605. Psychology of Language**

Catalog Number: 48568

*Jesse Snedeker and Gennaro Chierchia*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

How do children manage to learn the sounds, the words and the grammar of their native language in three years or less? Does the language that we speak change how we think? What happens in the mind (and brain) that allows us to convert sound into meaning during language comprehension (and meaning into motor movements during language production)? Why are human languages similar to each other in some ways, and what allows them to vary in others? We will explore these questions integrating the perspectives of linguistics, psychology and cognitive neuroscience.



*Note:* This is the same course as Linguistics 160. Only one of the two courses may be taken for credit.

*Prerequisite:* For psychology concentrators, Science of Living Systems 20. For linguistics concentrators: this course may be substituted for Linguistics 83 or Linguistics 101 as a requirement for the concentration.

### **\*Psychology 1651r. Language Development: Undergraduate Laboratory Course: Research Seminar**

Catalog Number: 6484

*Jesse Snedeker*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*  
 Students participate in research on language acquisition, language comprehension, and language production. Each student has responsibility for a project. Weekly meeting to discuss student projects and readings that are relevant to them. Ten hours a week commitment (includes lab meeting).

*Note:* For undergraduates seeking research experience, especially in preparation for undergraduate theses.

*Prerequisite:* Science of Living Systems 20 or its predecessors plus either Psychology 13 or Psychology 16.

### **\*Psychology 1652r. Laboratory in Early Cognitive Development**

Catalog Number: 9913

*Elizabeth S. Spelke*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 18*

This is a laboratory methods course that provides students with hands-on experience in a cognitive development lab. The aim of the course is for students to engage in all aspects of the scientific process - from experimental design to data collection and interpretation - by working in a lab, and by participating in weekly meetings where key questions and findings in the field are discussed.

*Note:* Interested students may contact Lab Coordinator Rosa Guzman, rguzman@fas.harvard.edu

### **\*Psychology 1655r. Conceptual Development: Undergraduate Laboratory Course**

Catalog Number: 1865

*Susan E. Carey*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

Students participate in research on conceptual development and language acquisition. Each student has responsibility for a project. Weekly lab meeting to discuss student projects and readings relevant to them. Ten hours a week commitment (includes lab meeting).

*Note:* Open to undergraduates seeking research experience, especially in preparation for undergraduate theses.

### **[Psychology 1702. The Emotional Mind]**

Catalog Number: 7521

*Leah Somerville*



*Half course (fall term). Hours to be arranged.*

Not only do emotions permeate our everyday lives, they have aided in the survival of the human species. But what are emotions, and what are they good for? What causes us to experience an emotion? And how do emotional responses, in turn, influence our perception, memory, decision-making, and psychological well-being? This course will address these questions by drawing on key advances from historical, philosophical, psychological, and neuroscientific perspectives.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 and one of MCB 80, SLS 15, Psy 13, Psy 14, Psy 15, or Psy 18

### **\*Psychology 1750. Free Will, Responsibility, and Law**

Catalog Number: 7235 Enrollment: Limited to 15.

*Joshua D. Greene*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

Examines the issues of free will and responsibility from philosophical, psychological, and neuroscientific perspectives, with special attention paid to potential legal applications.

*Prerequisite:* For undergraduates: Science of Living Systems 20 or its predecessors; plus Psychology 13, 14, 15, 16, 18, or Science of Living Systems 15.

### **Psychology 1801. Anxiety Disorders**

Catalog Number: 4906

*Richard J. McNally*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*

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:* Science of Living Systems 20 and Psychology 18.

### **[\*Psychology 1851. Clinical Psychology: Science and Practice]**

Catalog Number: 6392 Enrollment: Limited to 15.

*Jill M. Hooley*

*Half course (spring term). Hours to be arranged.*

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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 or its predecessors; Psychology 18; and at least one other course in psychopathology strictly required.

### **\*Psychology 1852. Clinical Psychology in Everyday Life**

Catalog Number: 65987 Enrollment: Limited to 20.

*Lauren Cristina Santucci*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

This course is designed to give you exposure to the types of evidence-based psychological



interventions available for many clinical and non-clinical conditions, such as sadness, anxiety, substance use, insomnia, pain-management, weight-loss, and why your roommate can't stop interrupting you. While the seminar emphasizes intervention research in the context of children and adolescents, the principles are often applicable across age groups. The seminar is not a self-help program or a training program for providing therapeutic services to others. Instead, the weekly discussions, exercises, and assignments will help you view the world through the lens of a scientist-practitioner - and apply those insights to everyday life in a scientific manner.

*Prerequisite:* Science of Living Systems 20 and Psychology 18.

### **\*Psychology 1853. Self-Destructive Behaviors**

Catalog Number: 0615 Enrollment: Limited to 25.

*Matthew K. Nock*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

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:* Science of Living Systems 20 and Psychology 18.

### **[Psychology 1854. Schizophrenia: Seminar]**

Catalog Number: 2771 Enrollment: Limited to 20.

*Jill M. Hooley*

*Half course (spring 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 2015–16.

*Prerequisite:* Science of Living Systems 20 and Psychology 18.

### **Psychology 1855. Mood Disorders - (New Course)**

Catalog Number: 93637

*Evan Kleiman*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 16*

The goal of this course is to give an overview of the major research findings across mood disorders such as major depressive disorder, bipolar disorder, generalized anxiety disorder, and social anxiety disorder. Every class will involve classic and cutting edge research from the literature on mood disorders. The class will also involve discussion of psychological (i.e., therapeutic) and psychiatric (i.e., medical) perspectives on etiology and treatment. By the end of the course, students will understand the etiology, course, and treatment of a variety of mood disorders.

*Prerequisite:* SLS 20 and PSY 18.

### **[\*Psychology 1856. Cognition and Psychopathology] - (New Course)**

Catalog Number: 27495 Enrollment: Limited to 20.

*Evan Kleiman*



*Half course (spring term). Hours to be arranged.*

The goal of this course is to give an in-depth understanding of the role of cognition in psychopathology. This includes a major focus on cognitive vulnerability theories of depression, anxiety, and suicide as well as exploration of the role of cognition in other psychopathology such as schizophrenia and eating disorders. By the end of the course, students will understand the major cognitive components of depression, anxiety, bipolar disorder, schizophrenia, eating disorders, and suicide.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* SLS-20 and PSY 18.

#### **\*Psychology 1858. Stress, Coping, and Resilience - (New Course)**

Catalog Number: 74516 Enrollment: Limited to 20.

*Evan M. Kleiman*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

The goal of this course is to give an in-depth understanding of the theoretical and empirical work on stress (e.g., negative life events, psychological and physiological stress), coping, and resilience. Theories of stress will be discussed from social, cognitive, and biological perspectives. Major focus will be given to the study of resilience to stress and related topics (e.g., psychopathology, self-injury) through the lens of positive psychology. By the end of the course, students will understand the causes, course, and consequences of stress and resilience to stress.

*Prerequisite:* SLS-20 and PSY 18.

#### **[\*Psychology 1861. Developmental Psychopathology]**

Catalog Number: 1325 Enrollment: Limited to 25.

*John R. Weisz*

*Half course (fall term). Hours to be arranged.*

An overview of psychological problems and mental disorders in childhood and adolescence. Topics include internalizing conditions (e.g., anxiety, depression), externalizing conditions (e.g., conduct disorder and ADHD), eating disorders, autism, and child responses to maltreatment and other forms of trauma. Theoretical perspectives, diagnostic criteria, etiology, and treatment approaches are examined.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 and Psychology 18.

#### **Psychology 1900. Introduction to Statistics for the Behavioral Sciences**

Catalog Number: 4016

*Patrick Mair (fall term) and Max Krasnow (spring term)*

*Half course (fall term; repeated spring term). M, W, at 10, and an additional lab to be arranged.*

*EXAM GROUP: 5*

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. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.



### **\*Psychology 1901. Methods of Behavioral Research**

Catalog Number: 99655 Enrollment: Limited to 25.

*Mina Cikara (spring term) and Evan M. Kleiman (fall term)*

*Half course (fall term; repeated spring term). Fall: T. 12-1 and a lab either T. 2:30-5 or T. 7-9:30. Spring: M. 11-12 and a lab either T. 7-9:30 or W. 1:30-4. EXAM GROUP: Fall: 13; Spring: 14*

Theoretical and practical introduction to planning, conducting, reporting, and evaluating psychological research. Topics include experimental design, hypothesis generation and testing, experimental artifacts, and analysis of published research.

*Prerequisite:* One of: Psychology 1900, Statistics 100, 101, 102, 104, or the equivalent.

### **\*Psychology 1950. Intermediate Statistical Analysis in Psychology**

Catalog Number: 4889

*Patrick Mair*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

This course offers intense, foundational exposure to psychological statistics, focusing heavily on analysis of variance (one-way, factorial, repeated-measures, mixed-model). Other topics include: exploratory data analysis, sampling distributions, null hypothesis significance testing, t-tests, fixed versus random effects, post hoc and planned comparisons, correlation, simple regression, the general linear model, chi-square tests, nonparametric statistics, confidence intervals, and meta-analysis.

*Note:* Required of doctoral students in Psychology.

*Prerequisite:* Psychology 1900 or the equivalent.

### **\*Psychology 1952. Multivariate Analysis in Psychology**

Catalog Number: 6191

*James Sidanius*

*Half course (spring term). Lecture: M., W., 12-1:30; Lab: Th., 6:30 - 8. EXAM GROUP: 7*

This course introduces the empirical measurement of abstract constructs and multivariate analysis. Topics include: reliability and validity, multiple regression, exploratory and confirmatory factor analyses, discriminant function analysis and structural equation modeling.

*Prerequisite:* Psychology 1900.

### ***Cross-listed Courses***

#### **African and African American Studies 141x. Prejudice and Racism in Modern Society** **[Linguistics 132. Psychosemantics]**

#### ***Primarily for Graduates***

### **\*Psychology 2010. Contemporary Topics in Psychological Research**

Catalog Number: 6515

*Ken Nakayama*

*Half course (fall term). M., Th., 4–6. EXAM GROUP: 17*

Advanced survey of research topics in cognition/brain/behavior, development, experimental



psychopathology, clinical 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

*Steven Pinker and members of the Department*

*Full course (spring term). Tu., Th., 9:30–11:30. EXAM GROUP: 2*

Advanced survey of research topics in cognition, brain, and behavior.

*Note:* Limited to first-year doctoral students in Psychology.

### **[\*Psychology 2040. Contemporary Topics in Psychopathology ]**

Catalog Number: 4628

*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 2015–16. Required of first- or second-year graduate students in clinical. Doctoral students in clinical psychology only.

### **\*Psychology 2050. History of Psychology: Seminar**

Catalog Number: 3378

*Richard J. McNally*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

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:* Open to undergraduates with permission of instructor.

*Prerequisite:* For undergraduates: SLS-20 or its predecessors plus any foundational course.

### **[\*Psychology 2060. Reward and Self Control]**

Catalog Number: 13358 Enrollment: Limited to 15. For graduate students and upper-level undergraduates with permission of instructor.

*Joshua William Buckholtz*

*Half course (spring term). Hours to be arranged.*

What's stopping you from doing absolutely everything that your devious heart desires? The ability to flexibly control our behavior - particularly when it comes to rewarding things like food, sex, and drugs - has huge consequences for our long-term happiness and success. Though we are reasonably good at this as a species, dramatic individual differences in the capacity for self-control are readily apparent. In this class, we will examine the cognitive construct of self-control, its neurobiological underpinnings and sources of individual variation, and relationships to psychopathology.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 and at least one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS15.

### **[\*Psychology 2145. Developmental Cognitive Neuroscience]**

Catalog Number: 27567 Enrollment: Undergraduates admitted only by permission of instructor.



*Susan E. Carey*

*Half course (spring term). Hours to be arranged.*

This course uses neuroscience methods to study the cognitive development of human infants and children. Case studies draw from research on face recognition, language, executive function, representations of objects, number and theory of mind.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 or its predecessors and one foundational course.

**\*Psychology 2150r. Social Cognitive Development: Research Seminar**

Catalog Number: 29628

*Felix Warneken*

*Half course (fall term; repeated spring term). Spring: Th., 2–3:30. EXAM GROUP: Fall: 14; Spring: 11*

Year-long lab course on children's social-cognitive development and the study of cooperation. Students develop and pilot experiments with children or participate in ongoing projects. In addition, students read and discuss papers on social cognition, understanding of norms, and cooperation from developmental and evolutionary psychology.

*Note:* Open to all undergraduates with permission of instructor.

*Prerequisite:* For undergraduates: SLS-20 and one from PSY 13, PSY 14, PSY 15, PSY 18, or SLS 15.

**[\*Psychology 2151. Empirical and computational approaches to early cognitive development]**

Catalog Number: 63063 Enrollment: Limited to 18.

*Susan E. Carey and Elizabeth S. Spelke*

*Half course (spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 plus any foundational course.

**Psychology 2155. Seminar in Cognitive Development - (New Course)**

Catalog Number: 26577

*Elizabeth S. Spelke with Joshua Tenenbaum and Laura Schulz from MIT*

*Half course (spring term). W., 2:30–5. EXAM GROUP: 18*

This seminar, organized in coordination with the Center for Brains, Minds and Machines, will focus on the development of knowledge in the first five years. Drawing on behavioral research on infants and young children, as well as research in cognitive neuroscience, research using controlled rearing methods with animal models, and research developing and testing computational models, we consider both the starting points for human cognitive development and the ways in which early knowledge grows. Topics will be chosen in accord with student interests and likely will include early developing knowledge of objects and their mechanical interactions, of animate beings and their behavior and intentions, of social beings and their communication and relationships, as well as the development of abstract concepts (e.g., causal concepts, mathematical concepts) that apply to all these entities. In addition, we will look at how infants and children learn to represent their own abilities and utilities and how these emerging self-representations support and constrain their learning about the world.

*Note:* Preference given to graduate students. For exact times and locations please see the course



website. The classes 2/18, 3/11, and 4/8 will be rescheduled. Meetings alternate between Harvard and MIT.

### **\*Psychology 2160r. Laboratory for Affective and Developmental Neuroscience**

Catalog Number: 23846

*Leah Somerville*

*Half course (fall term; repeated spring term). Fall: F., 11:30–1; Spring: Th., 2:30–4. EXAM GROUP: Fall: 18; Spring: 11*

Conduct research on emotion processing and/or adolescent socioemotional development, incorporating methods of cognitive neuroscience including functional brain imaging (fMRI). Read and discuss current issues in the fields of affective, cognitive, and developmental neuroscience.

*Prerequisite:* Science of Living Systems 20 or its prerequisites, and a foundational course.

### **\*Psychology 2170. Developmental Proseminar**

Catalog Number: 6883

*Elizabeth S. Spelke and members of the Department*

*Half course (fall term). W., 10–1. EXAM GROUP: 5*

Proseminar in conceptual development and language acquisition.

*Note:* Open to all graduate students in the department and counts as one of the required two major survey courses. Open to others by permission of the instructor.

### **[\*Psychology 2190. Topics in Language Acquisition]**

Catalog Number: 2529

*Jesse Snedeker*

*Half course (fall term). Hours to be arranged.*

Seminar examining alternate theories of language acquisition and assessing their empirical validity. Focuses on speech perception, word learning, semantic and early syntactic development, interactions between language acquisition and cognitive development, and children's online language comprehension.

*Note:* Expected to be given in 2015–16.

### **[\*Psychology 2310. Brain Mystery: What is so Special about the Primate Frontal Cortex]**

Catalog Number: 85397

*Yaoda Xu*

*Half course (spring term). Hours to be arranged.*

Read and discuss papers to understand how the primate frontal cortex supports a wide range of cognitive operations, including attention, working memory, executive control functions, and decision making.

*Note:* Expected to be given in 2015–16. Advanced graduate course not open to undergraduates. This course will only be given in spring 2014 and will not be offered again.

### **\*Psychology 2335r. Concepts, Actions, Objects (CAOs): Research Seminar**

Catalog Number: 5121

*Alfonso Caramazza*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 13;*



*Spring: 9*

Discussion of current research on the organization of conceptual and lexical knowledge. We will also discuss ongoing research by participants in the seminar.

*Note:* Open to graduate and undergraduate students involved in research in language. Open to undergraduates with permission of instructor.

**\*Psychology 2351. Construction and Function of Memory: Seminar**

Catalog Number: 3512 Enrollment: Limited to 20.

*Daniel L. Schacter and Randy L. Buckner*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

What is memory for? We examine issues of memory structure in light of questions concerning memory function, including errors and distortions and the ways memory informs decisions about future reactions.

*Prerequisite:* For psychology concentrators: Science of Living Systems 20 and one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS 15; or permission of instructors.

**\*Psychology 2352r. Laboratory for Social Cognitive Neuroscience**

Catalog Number: 6187

*Jason P. Mitchell*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 5*

Provides instruction and experience in conducting research on social cognition via the methods of cognitive neuroscience. Special focus on issues of mental state inference, stereotyping, and the self.

*Note:* Open to graduate and undergraduate students working in the instructor's laboratory.

**[\*Psychology 2353. Case Studies of Cognitive and Neural Models]**

Catalog Number: 46791 Enrollment: Limited to 12. Undergraduates admitted with permission of instructor.

*George Angelo Alvarez*

*Half course (spring term). Hours to be arranged.*

What makes a successful cognitive or neural model? In this seminar, we will do a series of in depth case studies to address this question, exploring several of the more successful cognitive and neural models. While many examples will be drawn from the literature on human vision, the course will also draw on examples from language, development, and higher-level reasoning.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 or its predecessors plus Psychology 13 or Psychology 14 or MCB 80, or permission of instructor.

**\*Psychology 2354r. Advanced Laboratory in Cognitive Neuroscience**

Catalog Number: 0838

*Randy L. Buckner*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*

Students work directly on a research project and get hands-on experience with neuroimaging and cognitive neuroscience techniques, including functional MRI. MRI laboratory training consists of safety, instruction on running the scanner, and paradigm design. In addition to laboratory work, students attend a weekly research seminar where ongoing and proposed research projects



are discusses.

*Note:* Open to graduate and undergraduate students working in the instructor's laboratory.

### **\*Psychology 2356r. Visual Cognition: Research Seminar**

Catalog Number: 4407 Enrollment: Limited enrollment.

*Yaoda Xu, George Angelo Alvarez, and Ken Nakayama*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 15*

Discussion of current research on visual cognition (how we perceive, attend to, and remember visual information). We will also discuss ongoing research by participants in the seminar.

*Note:* Open to graduate and undergraduates.

### **Psychology 2357r. Evolution of Human Cooperation: Research Seminar**

Catalog Number: 30323

*Max Krasnow*

*Half course (fall term; repeated spring term). Fall: W., 2:30–4; Spring: W., 2:30–5. EXAM GROUP: Fall: 7; Spring: 18*

Seminar on current research on the evolution of human cooperation and its cognitive basis. Includes readings, seminar discussion, and training in relevant research methodologies.

*Note:* Open to graduate and undergraduate students working in the instructor's laboratory.

### **\*Psychology 2358r. Memory: Research Seminar**

Catalog Number: 0141

*Daniel L. Schacter*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*

Topic to be announced.

*Note:* Limited to students involved in research.

### **[\*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:* Expected to be given in 2015–16. Limited to graduate students.

### **Psychology 2410r. Laboratory Research on Emotional Disorders**

Catalog Number: 12616

*Richard J. McNally*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 14; Spring: 11*

Involves readings, seminar discussion, and research on emotional disorders conducted in the instructor's laboratory (e.g., social anxiety disorder, complicated grief, obsessive-compulsive disorder).

*Note:* Open to graduate and undergraduate students working in the instructor's laboratory.



### **\*Psychology 2420. Cognitive-Behavioral Treatment of Psychological Disorders**

Catalog Number: 8446

*Jill M. Hooley*

*Half course (fall term). W., 11–1. EXAM GROUP: 18*

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 and Individual Diversity]**

Catalog Number: 9756

*Matthew K. Nock*

*Half course (fall term). Hours to be arranged.*

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:* Expected to be given in 2015–16. Limited to Harvard doctoral students in clinical psychology.

### **\*Psychology 2436r. Social Neuroscience and Psychopathology Laboratory**

Catalog Number: 9962

*Christine Hooker*

*Half course (fall term; repeated spring term). W., 2:30–4. EXAM GROUP: Fall: 1; Spring: 18*

Provides instruction and experience in conducting research on social cognitive processes as they relate to psychopathology. Cognitive neuroscience methods, such as fMRI, are emphasized.

*Prerequisite:* Psychology 18

### **[\*Psychology 2445. Psychological Treatment Research]**

Catalog Number: 1835

*Matthew K. Nock*

*Half course (fall term). Hours to be arranged.*

Review theories of behavior change, methods of studying such change (single-case research designs, randomized clinical trials, etc.), and current evidence-based approaches to assessing and treating psychopathology. Examines historical, ethical, and cultural issues.

*Note:* Expected to be given in 2015–16. Open to undergraduates with permission of instructor.

*Prerequisite:* SLS-20 or its predecessors and Psychology 18.

### **Psychology 2446r. Clinical Research Laboratory**

Catalog Number: 5628

*Jill M. Hooley*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 12*

Provides instruction and experience conducting clinical research in laboratory and clinical settings, with a special focus on severe psychopathology. Topics will include: Self-Injurious behaviors, depression, and adult attachment patterns in close relationships.

*Note:* Open to graduate and undergraduate students working in the instructor's laboratory.



### **\*Psychology 2450. Affective and Social Neuroscience**

Catalog Number: 9796

*Christine Hooker*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

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:* Open to advanced undergraduates with permission of instructor.

*Prerequisite:* SLS-20 or its predecessors plus any foundational course.

### **\*Psychology 2460. Diagnostic Interviewing**

Catalog Number: 4157 Enrollment: Limited to 12.

*Jill M. Hooley*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 17*

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. EXAM GROUP: Fall: 9; Spring: 2*

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 2464r. Research Methods in Child & Adolescent Clinical Psychology**

Catalog Number: 4638

*John R. Weisz*

*Half course (fall term). M., 1:30–3. EXAM GROUP: 1*

Advanced laboratory methods seminar on designing and conducting research related to child and adolescent mental health problems and interventions, especially in school and mental health care settings. Problem areas include depression, anxiety, and disruptive conduct.

*Note:* Organizational meeting Tues., Sept. 3 at 4 p.m. in the Wm. James 10th floor conference room.

### **\*Psychology 2475r. Laboratory for the Systems Neuroscience of Psychopathology**

Catalog Number: 46912 Enrollment: Open to graduate and undergraduate students working in the instructor's laboratory.

*Joshua William Buckholtz*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

Research seminar examines the neurobiology of disinhibitory psychopathology (aggression,



antisocial behavior, substance abuse). Students participate first-hand in personality/behavioral testing and brain imaging, and in weekly discussions of the genetics and cellular/systems/cognitive neuroscience of disinhibitory psychopathology.

**[\*Psychology 2480. Human Neuropsychology/Neuroanatomy: Seminar]**

Catalog Number: 4335 Enrollment: Limited to 20.

*Christine Hooker*

*Half course (spring term). Hours to be arranged.*

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:* Expected to be given in 2015–16. Preference given to graduate students who have completed Psychology 2010; if space is available, qualified undergraduates may enroll with permission of instructor.

*Prerequisite:* For undergraduates: Science of Living Systems 20 and at least one course from Psy 13, Psy 14, Psy 15, Psy 18, or SLS 15. MCB 80 is recommended but not required.

**[\*Psychology 2500. Proseminar in Social Psychology]**

Catalog Number: 5094

*Mahzarin R. Banaji*

*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 2015–16. For doctoral students only.

**[\*Psychology 2550. The Psychology of Learning and Teaching]**

Catalog Number: 26673 Enrollment: Limited to 18. Undergraduates may enroll with permission from the instructor and some prior coursework in psychology or education.

*Instructor to be determined*

*Half course (spring term). Hours to be arranged.*

As the pedagogical paradigms and practices of higher education are innovated at Harvard and beyond, what claims or assumptions about cognitive and social psychology are being tested? How can concepts, principles, and evidence from the psychological sciences inform university-level learning and teaching, and how can applied educational research inform our basic understanding of mental and social processes? In this seminar, the varied phenomena of higher education today—from MOOCs and flipped classrooms to grading and procrastination—will be used as a proving ground for understanding and evaluating major ideas and evidence from psychology.

*Note:* Expected to be given in 2015–16. This course is intended for graduate students from any discipline who are interested in understanding the science behind teaching and learning.

**\*Psychology 2553r. Behavioral Insights Group Research Seminar**

Catalog Number: 4679

*Francesca Gino (Business School) and Todd T. Rogers (Kennedy School) (Kennedy School)*



*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

This seminar provides lab experience in behavioral approaches to decision making and negotiation.

*Note:* Open to students working on research in the instructors' laboratories. Offered jointly with the Business School as 4425.

#### **\*Psychology 2554r. Moral Cognition: Research Seminar**

Catalog Number: 9481

*Joshua D. Greene*

*Half course (fall term; repeated spring term). Th., 3:30–5. EXAM GROUP: Fall: 2; Spring: 16*

Year-long lab course for students engaged in research on moral cognition.

#### **\*Psychology 2560r. Laboratory in Social Cognition - (New Course)**

Catalog Number: 56263 Enrollment: Open to graduate and undergraduate students working in the instructor's laboratory. Two-semester commitment; may commence in spring or fall term.

*Fiery Cushman*

*Half course (fall term; repeated spring term). Th., 3:30–5. EXAM GROUP: Fall: 2; Spring: 16*

Laboratory methods and research seminar on social cognition, with emphasis on moral judgment and attributional processes. Provides experience with behavioral, formal and neuroscientific research methods.

#### **\*Psychology 2570r. Intergroup Relations: Research Seminar**

Catalog Number: 4440

*James Sidanius*

*Half course (fall term; repeated spring term). Fall: Tu., 2:30–4; Spring: Hours to be determined.*

*EXAM GROUP: Fall: 14; Spring: 11*

The seminar provides students with research experience concerning different forms of intergroup relations, including the social psychology of interracial and interethnic conflict and prejudice. Graduate and undergraduate students meet on a weekly basis to discuss ongoing research on psychological mechanisms involved in power, stereotyping, inequality, identity, and ideology. Undergraduate enrollees will work under the supervision of a graduate student in the design and conduct of lab-based and survey experiments, and the input, coding and early analysis of empirical data. Undergraduate enrollees will also attend biweekly critical discussions of research articles in the field, and will have the opportunity to develop and receive feedback on their own research ideas.

#### **\*Psychology 2580r. Affective Forecasting: Research Seminar**

Catalog Number: 4262

*Daniel T. Gilbert*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 5*

Topic to be announced.

*Note:* Open to students working on research in the instructor's laboratory.

#### **\*Psychology 2620r. Research Seminar in Intergroup Neuroscience - (New Course)**

Catalog Number: 10127



*Mina Cikara*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*  
 Year-long lab course exploring how cognition, affect, neural responses, and behavior change when social relations shift from "me and you" to "us and them." Students will participate in experiment development and data collection employing methods ranging from standard laboratory experiments, implicit and explicit self-reports, and behavioral measures, to fMRI and psychophysiology. Students will also read and discuss papers on intergroup relations in our weekly meetings.

*Prerequisite:* SLS 20 and at least one course from Psy 13, Psy 14, Psy 15, Psy 18, or SLS 15.

**\*Psychology 2640r. The Understand Seminar**

Catalog Number: 7865

*Mahzarin R. Banaji*

*Half course (fall term; repeated spring term). W., 2:30–4:30. EXAM GROUP: Fall: 7; Spring: 18*

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

*Francesca Gino (Business School) and Amy J. C. Cuddy (Business School)*

*Half course (fall term). Hours to be arranged.*

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:* Expected to be given in 2015–16. 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 2651. Social Cognition from a Developmental and Evolutionary Perspective]**

Catalog Number: 31825 Enrollment: Limited to 15.

*Felix Warneken*

*Half course (fall term). Hours to be arranged.*

The course addresses traditional questions about the role of social cognition in human evolution and development, integrating the newest findings from comparative and developmental psychology. The course is structured around three themes (cultural learning, cooperation, and competition), corresponding to the three main theoretical approaches that have given rise to the study of social cognition from an evolutionary perspective. This course is discussion-based, bringing some new ideas (your ideas!) to bear on tricky questions that are still unresolved in the field.

*Note:* Expected to be given in 2015–16. Open to advanced undergraduates with permission of instructor.

**[Psychology 2652. The Psychology of Cooperation]**

Catalog Number: 52745 Enrollment: Open to advanced undergraduates with permission of



instructor.

*Felix Warneken*

*Half course (fall term). Hours to be arranged.*

Why and how do humans cooperate? What are the origins of these behaviors in human development and evolution? In this course we discuss how research in psychology, behavioral economics and primatology can provide insight into the foundation of human cooperation. This includes the study of empathy, altruism, fairness, and collaboration.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Science of Living Systems 20 and one course from PSY 13, PSY 14, PSY 15, PSY 18, or SLS 15.

### **Psychology 2653. Experimental Methods for Behavioral Research**

Catalog Number: 44307

*Francesca Gino (Business School), John Beshears (Business School), and Amy J. C. Cuddy (Business School)*

*Half course (fall term). M., 11:30–2:45. EXAM GROUP: 18*

This course is aimed at doctoral students who intend to conduct experimental and quasi-experimental research for the study of individuals' behavior in business (e.g., marketing, organizational behavior) and related disciplines (e.g., psychology). The primary objective of the course is to provide students with the concepts and tools needed for planning and designing laboratory experiments, and for collecting and analyzing behavioral data. The course will also discuss other methodologies that may be helpful when working with field sites (namely, field experiments and surveys). A secondary objective is to provide students the foundations for the methodological evaluation of other behavioral researchers' work - a skill that will be helpful in their role as future academic reviewers. The course thus covers the designs and analyses that are most often used by experimental researchers in psychology, organizational behavior, and also marketing. The course will be hands-on and oriented towards providing technical skills for the design and implementation of laboratory experiments, including overcoming possible pitfalls and common barriers. The course assignment will be for students to write a proposal outlining the theory, design, power analyses, and proposed analysis for a laboratory experiment. Our hope is that the students will conduct the research during the course or afterwards, and that this course will help design and conduct impactful and rigorous behavioral research. Overall goal The overall goal of the course is for students to understand that how they design their experiment (all aspects of it) has a large role in whether they can answer their research questions. Please note that the course will begin on Monday, September 8th.

*Note:* Open to doctoral students only. Offered jointly with the Business School as 4435.

### **\*Psychology 2660r. Research Seminar in Mindfulness Theory**

Catalog Number: 4909

*Ellen J. Langer*

*Half course (fall term; repeated spring term). Tu., 1:30–3:30. EXAM GROUP: Fall: 8; Spring: 1*

Mindlessness/mindfulness theory is compared/contrasted to relevant theories in social psychology, psychopathology, and cognitive psychology.

*Note:* Open to students doing research with Prof. Langer.



### **\*Psychology 2661r. Research Seminar in Nonverbal Behavior, Social Perception, and Psychophysiology**

Catalog Number: 63561

*Amy J. C. Cuddy (Business School)*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 18; Spring: 14*

Students will gain human subject research skills and experience in the lab and online. We will cover a range of topics in social psychology, including but not limited to: nonverbal behavior, social perception, personal power, hormones, emotions, and performance in stressful situations. In biweekly meetings, students will have the opportunity to provide and receive feedback on the work of the lab as well as discuss relevant papers. In addition, monthly trainings will be held covering research tools such as eye-trackers, physiological measures, Qualtrics, and Mechanical Turk.

*Prerequisite:* Science of Living Systems 20 plus one from Psychology 13, 15, 16, 18, Science B 29 or MCB 80.

### **\*Psychology 2670a. Decision Making and the Psychology of Possibility**

Catalog Number: 1193 Enrollment: Limited to 15.

*Ellen J. Langer*

*Half course (fall term). W., 9:30–11:30. EXAM GROUP: 10*

Topics in decision making such as rationality, risk-taking, helplessness, and health are examined through the lens of mindfulness theory. Special emphasis given to the psychology of possibility in applied settings.

*Note:* Open to qualified undergraduates.

*Prerequisite:* An introductory psychology course and a foundational course.

### **\*Psychology 2670b. Decision Making and the Psychology of Possibility II**

Catalog Number: 3434

*Ellen J. Langer*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 5*

A deeper exploration into the theoretical and experimental issues pertaining to decision making and the psychology of possibility, raised in Psychology 2670a.

*Note:* Open to qualified undergraduates. The course requires permission of instructor. Interested students are encouraged to e-mail the instructor in advance at langer@wjh.harvard.edu.

*Prerequisite:* Psychology 2670a.

### ***Cross-listed Courses***

#### ***Graduate Courses of Reading and Research***

##### **\*Psychology 3010. Special Reading and Research**

Catalog Number: 7858

*George Angelo Alvarez 6093, Mahzarin R. Banaji 4258, Randy L. Buckner 5370, Alfonso Caramazza 1871 (on leave spring term), Susan E. Carey 4113, Fiery Cushman 7632, Daniel T. Gilbert 2359 (on leave 2014-15), Joshua D. Greene 5594, Christine Hooker 5768, Jill M. Hooley 1191, Max Krasnow 7252, Ellen J. Langer 4967, Richard J. McNally 2978, Jason P. Mitchell*



5481, Ken Nakayama 2558, Matthew K. Nock 4645, Steven Pinker 4733, Daniel L. Schacter 2805, James Sidanius 5371, Jesse Snedeker 4118, Leah Somerville 7050 (on leave 2014-15), Elizabeth S. Spelke 3850, Felix Warneken 6303 (on leave 2014-15), John R. Weisz 6001 (on leave 2014-15), and Yaoda Xu 6094 (on leave fall term)

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1

**\*Psychology 3020. Direction of Doctoral Dissertations**

Catalog Number: 4492

*Members of the Department and others listed under Psychology 3010*

Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 1; Spring: 8

**\*Psychology 3050. Clinical Practicum**

Catalog Number: 6299

*Jill M. Hooley 1191, Richard J. McNally 2978 and members of the clinical faculty.*

Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 5

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, Richard J. McNally 2978 and members of the clinical faculty.*

Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 14; Spring: 11

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 3200. Research Seminar in Clinical Science**

Catalog Number: 6455

*Matthew K. Nock 4645*

Half course (fall term; repeated spring term). W., 4–5:30. EXAM GROUP: Fall: 16; Spring: 6

Provides a forum for presenting and discussing current research in experimental psychopathology/clinical psychology. Presenters include graduate students, faculty, and outside speakers.

**\*Psychology 3220. Developmental Studies: Seminar**

Catalog Number: 4672

*Elizabeth S. Spelke 3850 (fall term) and Susan E. Carey 4113 (spring term)*

Half course (fall term; repeated spring term). M., 2:30–4. EXAM GROUP: Fall: 8; Spring: 1

Research seminar open to graduate students conducting research in cognitive development.

**\*Psychology 3240. Research Seminar in Cognitive Development**

Catalog Number: 5142

*Elizabeth S. Spelke 3850*



*Half course (fall term; repeated spring term). Fall: Tu., 2–3:30; Spring: Tu., 2:30–4. EXAM GROUP: 12*

**\*Psychology 3250. Psychological Testing**

Catalog Number: 7164

*Christine Hooker 5768*

*Half course (spring term). Tu., 10–1. EXAM GROUP: 18*

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:* Open to Harvard doctoral students in clinical psychology.

**\*Psychology 3260. Conceptual Development: Research Seminar**

Catalog Number: 6601

*Susan E. Carey 4113*

*Half course (fall term; repeated spring term). Fall: Tu., 3:30–5; Spring: M., 4–5:30. EXAM GROUP: Fall: 11; Spring: 7*

Covers research methods for the study of conceptual development throughout the life span. All students must be currently engaged in experimental research.

**\*Psychology 3270. Language Acquisition: Research Seminar**

Catalog Number: 0770

*Jesse Snedeker 4118*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

Covers research methods for language acquisition and language comprehension throughout the life span. All students must be currently engaged in experimental research.

**\*Psychology 3340. Research Seminar in Cognition, Brain, and Behavior**

Catalog Number: 1754

*Yaoda Xu 6094 (fall term only) and Max Krasnow 7252 (spring term only)*

*Half course (fall term; repeated spring term). Th., 12–1:30. EXAM GROUP: Fall: 9; Spring: 2*

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

*George Angelo Alvarez 6093, Ken Nakayama 2558, and Yaoda Xu 6094 (on leave fall term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*Psychology 3420. Research Workshop in Social Psychology**

Catalog Number: 7610

*Mina Cikara 7637 and Fiery Cushman 7632*

*Half course (fall term; repeated spring term). Tu., 12–1:30. EXAM GROUP: Fall: 9; Spring: 2*



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.

**\*Psychology 3450. Statistical Learning - (New Course)**

Catalog Number: 98935 Enrollment: Limited to 20.

*Patrick Mair 7427*

*Half course (spring term). W., 9:30–12. EXAM GROUP: 12*

This course is all about Statistical Learning techniques in Psychology and related fields. Statistical Learning is a modern discipline of Statistics which involves developments from the fields of Statistics (obviously), Machine Learning, Computer and Data Science. Overall it refers to a vast set of tools for understanding complex data. The first series of lectures covers basic regression techniques for categorical data (ordinal and multinomial logit models) as well as advanced techniques such as causal models (propensity score matching), spatial regression, censored regression (tobit), nonlinear regression (generalized additive models), regularization and shrinkage methods (Ridge, LASSO), and generalized estimation equation (GEE) for longitudinal/correlational data. Another lecture series deals with clustering techniques such as hierarchical clustering, k-means, BIRCH, and mixture models (e.g. latent class analysis). The mixture model approach will then be embedded into a regression context in order to estimate regression models with unobserved heterogeneity (latent class regression). Finally, there will be a unit on functional data analysis (FDA) where each single observation is described by a function (e.g. eye tracking data, brain imaging data).

**[\*Psychology 3490. Advanced Statistical Modeling and Psychometrics Using R]**

Catalog Number: 8235

*Patrick Mair 7427*

*Half course (spring term). .*

This course introduces advanced statistical and modern psychometric methods such as Bayesian approaches (inference, predictions, MCMC), causal modeling (inference, moderator/mediator, graphical models), social network analysis (SNA measures, subgroups, visualization), multivariate exploratory methods (biplots, correspondence analysis, multidimensional scaling), item response theory, meta analysis, and machine/statistical learning (clustering, discriminant analysis support vector machines). All topics covered will be supported by corresponding computations in R. Lab sections will focus on Web Scraping, Text Mining, and data visualization.

*Note:* Expected to be given in 2015–16.

**\*Psychology 3500. Psychological Science: Talking Points**

Catalog Number: 5341

*Steven Pinker 4733*

*Half course (spring term). Tu., Th., 4–6. EXAM GROUP: 1*

A graduate companion course to "Psychological Science," which explores the theories and controversies in greater depth. Topics include genetics, evolution, cognitive neuroscience, perception, development, consciousness, social psychology, personality, psychopathology, violence, sex, and morality.

*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

*Mahzarin R. Banaji 4258*

*Half course (fall term; repeated spring term). M., at 12. EXAM GROUP: 12*

*Note:* Limited to and required of Sophomore Tutors.

### **\*Psychology 3555. Instructional Styles in Psychology**

Catalog Number: 6831

*Jesse Snedeker 4118 and members of the Department.*

*Half course (fall term; repeated spring term). Tu., 4–5:30. EXAM GROUP: Fall: 2; Spring: 16*

*Note:* Normally required of and limited to department graduate students who are first-time teaching fellows.

### **\*Psychology 3560. Professional Development - (New Course)**

Catalog Number: 93521

*Jason P. Mitchell 5481 and Matthew K. Nock 4645*

*Half course (spring term). Tu., 10–12. EXAM GROUP: 15*

This seminar is intended to help graduate students develop the professional skills needed to navigate life during\*and especially after\*graduate school. We will discuss basic career skills not typically covered in other parts of the curriculum, including: tips for writing and publishing; how to prepare a research and teaching statement; advice for interviewing and negotiating the terms of your first job; tips for grant-writing; strategies for balancing competing academic and personal demands; how to be a good departmental citizen; and other topics. The presenters in this seminar series will be departmental faculty, graduate students, and departmental alumni who have recently (and successfully!) navigated these topics. This seminar series is open to all current graduate students.

### **[\*Psychology 3600. The Origins of Knowledge: Talking Points]**

Catalog Number: 0489

*Susan E. Carey 4113*

*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:* Expected to be given in 2015–16. Limited to students in the Psychology Department or to those who have obtained permission of the instructor.

### **[\*Psychology 3800. Psychometric Theory]**

Catalog Number: 0607

*Richard J. McNally 2978*

*Half course (fall term). Hours to be arranged.*

Covers basic psychometric theory and methods essential for reliable and valid measurement. Also covers conceptual issues in the assessment of individual differences (e.g., intelligence, personality).



*Note:* Expected to be given in 2015–16. Limited to Harvard graduate students in clinical psychology.

**[\*Psychology 3900. Professional Ethics]**

Catalog Number: 6702

*Jill M. Hooley 1191*

*Half course (spring term). .*

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 2015–16. Limited to graduate students.

## Public Policy

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### *Faculty of the Committee on Higher Degrees in Public Policy*

Robert N. Stavins, Albert Pratt Professor of Business and Government (*Kennedy School*) (*Chair*)

Alberto Abadie, Professor of Public Policy at the John F. Kennedy School of Government

(*Kennedy School*)

Joseph Edgar Aldy, Assistant Professor of Public Policy (*Kennedy School*)

Arthur I. Applbaum, Adams Professor of Political Leadership and Democratic Values at the John F. Kennedy School of Government (*Kennedy School*)

Matthew A. Baum, Marvin Kalb Professor of Global Communications (*Kennedy School*)

Iris Bohnet, Professor of Public Policy at the John F. Kennedy School of Government, and Director, Women and Public Policy Program (*Kennedy School*)

Amitabh Chandra, Professor of Public Policy (*Kennedy School*)

William C. Clark, Harvey Brooks Professor of International Science, Public Policy and Human Development, John F. Kennedy School of Government (*Kennedy School*)

Jeffrey A. Frankel, James W. Harpel Professor of Capital Formation and Growth at the John F. Kennedy School of Government (*Kennedy School*)

Ricardo Hausmann, Professor of the Practice of Economic Development at the John F. Kennedy School of Government (*Kennedy School*)

William W. Hogan, Raymond Plank Professor of Global Energy Policy (*Kennedy School*)

Dale W. Jorgenson, Samuel W. Morris University Professor

Asim I. Khwaja, Sumitomo-Foundation for Advanced Studies on International Development



Professor of International Finance and Development (*Kennedy School*)  
Jennifer Lerner, Professor of Public Policy and Management (*Kennedy School*)  
Brigitte C. Madrian, Aetna Professor of Public Policy and Corporate Management (*Kennedy School*)  
Rohini Pande, Mohamed Kamal Professor of Public Policy (*Kennedy School*)  
Ryan Sheely, Associate Professor of Public Policy (*Kennedy School*)  
Kenneth A. Shepsle, George D. Markham Professor of Government  
Stephen Martin Walt, Robert and Renee Belfer Professor of International Affairs at the John F. Kennedy School of Government (*Kennedy School*)  
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 six 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 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.hks.harvard.edu/degrees/phd](http://www.hks.harvard.edu/degrees/phd)

## The Study of Religion

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

*Faculty of the Committee on the Study of Religion*



Michael J. Puett, Walter C. Klein Professor of Chinese History (*Chair*)  
 Ryūichi Abé, Reischauer Institute Professor of Japanese Religions (*fall term*) (*on leave spring term*)  
 Ali S. Asani, Professor of Indo-Muslim and Islamic Religion and Cultures  
 Catherine A. Brekus, Charles Warren Professor of the History of Religion in America (*Divinity*)  
 Shaye J.D. Cohen, Nathan Littauer Professor of Hebrew Literature and Philosophy  
 Diana L. Eck, Fredric Wertham Professor of Law and Psychiatry in Society, Harvard College Professor  
 Marla F. Frederick, Professor of African and African American Studies and of Religion  
 Luis M. Girón Negrón, Professor of Romance Languages and Literatures and of Comparative Literature  
 William Albert Graham, Murray A. Albertson Professor of Middle Eastern Studies, Harvard University Distinguished Service Professor (*on leave spring term*)  
 Janet Gyatso, Hershey Professor of Buddhist Studies (*Divinity School*)  
 David Neil Hempton, Dean of the Faculty of Divinity, and John Lord O'Brian Professor of Divinity, Alonzo L. McDonald Family Professor of Evangelical Theological Studies (*Divinity School*)  
 Mark D. Jordan, Andrew W. Mellon Professor of Christian Thought in the Faculty of Divinity, and Professor of Studies of Women, Gender, and Sexuality in the Faculty of Arts and Sciences (*Divinity School*)  
 Ousmane Kane, Professor of Near Eastern Languages and Civilizations, and Prince Alwaleed Bin Talal Professor of Contemporary Islamic Religion and Society (*Divinity School*)  
 Racha Kirakosian, Assistant Professor of Germanic Languages and Literatures and of the Study of Religion  
 Courtney Bickel Lamberth, Lecturer on the Study of Religion, Director of Undergraduate Studies  
 David Lamberth, Professor of Philosophy and Theology (*Divinity School*)  
 Kevin J. Madigan, Winn Professor of Ecclesiastical History, Harvard Divinity School (*Divinity School*)  
 Anne E. Monius, Professor of South Asian Religions, Acting Director, Center for the Study of World Religions (*Divinity School*)  
 Laura S. Nasrallah, Professor of New Testament and Early Christianity (*Divinity School*)  
 Jacob Olupona, Professor of African and African American Studies and Professor of African Religious Traditions  
 Parimal G. Patil, Professor of Religion and Indian Philosophy  
 Jonathan Lee Walton, Pusey Minister in the Memorial Church, Plummer Professor of Christian Morals, and Professor of African American Religions (*Divinity School*)  
 Malika Zeghal, Prince Alwaleed Bin Talal Professor in Contemporary Islamic Thought and Life

### ***Other Faculty Offering Instruction in the Study of Religion***

M. Shahab Ahmed, Lecturer on Law (*Law School*)  
 Janet Browne, Aramont Professor of the History of Science, Harvard College Professor  
 Davíd L. Carrasco, Neil L. Rudenstine Professor for the Study of Latin America (*Divinity School and Faculty of Arts and Sciences*)  
 Nancy F. Cott, Jonathan Trumbull Professor of American History  
 Helen Hardacre, Reischauer Institute Professor of Japanese Religions and Society (*on leave*)



2014-15)

Jay M. Harris, Dean of Undergraduate Education, and Harry Austryn Wolfson Professor of Jewish Studies

Albert Henrichs, Eliot Professor of Greek Literature

Evelyn Brooks Higginbotham, Victor S. Thomas Professor of History and of African and African American Studies

Arthur Kleinman, Esther and Sidney Rabb Professor of Anthropology in the Faculty of Arts and Sciences and Professor of Medical Anthropology in the Faculty of Medicine, Harvard College Professor

James T. Kloppenberg, Charles Warren Professor of American History

Shenghai Li, College Fellow in the Department of South Asian Studies and ACLS New Faculty Fellow

Charles Evans Lockwood, College Fellow in the Committee on the Study of Religion

Peter Machinist, Hancock Professor of Hebrew and Other Oriental Languages

Everett I. Mendelsohn, Professor of the History of Science, Emeritus

David G. Mitten, James Loeb Professor of Classical Art and Archaeology, Emeritus

Roy Mottahedeh, Gurney Professor of History (*on leave spring term*)

P. Oktor Skjaervo, Aga Khan Professor of Iranian (*on leave fall term*)

Roberto Mangabeira Unger, Roscoe Pound Professor of Law (*Law School*)

Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies (*on leave spring term*)

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 Director of Undergraduate Studies, 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.

All courses cross-listed from General Education are found in the Primarily for Undergraduates Cross-listed Courses sections. These courses, with some exceptions, may be taken by graduate students.

Courses numbered 10–999 are Primarily for Undergraduates; 1000–1999, For Undergraduates and Graduates; and 2000–2999, Primarily for Graduates. Courses numbered 11-20 are specially designed introductory courses to the Study of Religion, for potential concentrators and declared concentrators. Declared concentrators are required to complete one of these courses.



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

400–499 Christianity

500–599 Modern Western/Religions of the Americas

600–699 Hinduism and South Asia

700–799 Buddhism

800–899 Islam

900–949 African and Afro-Atlantic Religions

950–999 Chinese and Japanese Religions

### ***Tutorials in the Comparative Study of Religion***

#### ***Primarily for Undergraduates***

##### **\*Religion 91r. Supervised Reading and Research**

Catalog Number: 8046

*Courtney Bickel Lamberth*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 16*

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 by Director of Undergraduate Studies required.

##### **\*Religion 97. Tutorial — Sophomore Year**

Catalog Number: 2313

*Diana L. Eck*

*Half course (spring term). F., 10–12. EXAM GROUP: 5*

Introduction to methods and theories in the study of religion, including major themes and arguments that have defined the field. Course emphasizes critical thinking and writing skills.

*Note:* Required of concentrators.



### **\*Religion 98a. Tutorial — Junior Year**

Catalog Number: 2832

*Courtney Bickel Lamberth*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 5*

Part of the sequence of small seminars focused on critical thinking and writing skills for concentrators, this course provides in-depth study of selected themes, texts, traditions or time periods.

*Note:* Required of concentrators.

### **\*Religion 98b. Tutorial — Junior Year**

Catalog Number: 2922

*Courtney Bickel Lamberth*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*

Part of the sequence of small seminars focused on critical thinking and writing skills for concentrators, this course provides in-depth study of selected themes, texts, traditions or time periods.

*Note:* Required of concentrators.

### **\*Religion 99. Tutorial — Senior Year**

Catalog Number: 6498

*Courtney Bickel Lamberth*

*Full course. W., 2–4. EXAM GROUP: Fall: 7; Spring: 18*

A required component of the senior year tutorial is a biweekly seminar, led by the Assistant Director of Undergraduate Studies. Covers research methods and strategies in thesis writing.

*Note:* Required of concentrators writing a thesis.

## ***Introductory Courses***

### ***Primarily for Undergraduates***

#### **[Religion 12. Critical Issues in the Comparative Study of Religion]**

Catalog Number: 55486

*Charles Lockwood*

*Half course (spring term). Tu., Th., 11:30–1.*

The aim of this course is to introduce students to key categories in the study of religion, both within a comparative context and with significant attention to theoretical and methodological issues in the field. The specific topic of the course will vary from year to year. Topic examples include: scripture, ethics, ritual, body and practice, art, violence, gender and sexuality.

*Note:* Expected to be given in 2015–16.

#### **Religion 13. Scriptures and Classics**

Catalog Number: 54506

*William Albert Graham*

*Half course (fall term). M., W., at 10 and an hour to be arranged. EXAM GROUP: 5*

An introduction to the history of religion through selective reading in significant, iconic texts from diverse religious and cultural traditions. Considers important themes (e.g., suffering, death,



love, community, transcendence) as well as problems of method and definition as they present themselves in the sources considered. Readings from texts such as the *Upanisads*, *Bhagavad Gita*, *Dhammapada*, *Lotus Sutra*, *Analects*, *Chuang Tzu*, *Gilgamesh*, *Black Elk Speaks*, *Aeneid*, *Torah*, *Talmud*, *New Testament*, and *Qur'an*.

*Note:* Offered jointly with the Divinity School as 3225.

### **Religion 19. The Children of Abraham: An Introduction to Judaism, Christianity, and Islam - (New Course)**

Catalog Number: 79503

*Charles Lockwood*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This course provides an introduction to the study of Judaism, Christianity, and Islam, often referred as the "Abrahamic" traditions. The course considers key moments in the history of these interrelated traditions, while also attending to how boundaries have been negotiated within and between traditions. Significant themes include scripture and authority; the role of history, revelation, and reason; law, ethics, and community; and the rise of modernity. The course will also consider the interpretive issues at stake in referring to these traditions as "Abrahamic" faiths.

### **\*Religion 20. Ethnographies of Religion, Texts and Contexts**

Catalog Number: 46043 Enrollment: Limited to 20.

*Marla F. Frederick*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

The course presents ethnographic works on Religion in the humanities and social sciences and introduces students to the concept and practice of ethnography.

### **[Religion 25. Judaism: Text and Tradition]**

Catalog Number: 34366 Enrollment: Open only to undergraduates.

*Jon D. Levenson (Divinity School)*

*Half course (spring term). Tu., Th., 11:30–1.*

An exploration of the Jewish religious tradition, from its inception in biblical Israel through its rabbinic, medieval, and modern iterations, with a focus on central theological claims and religious practices. Readings concentrate on classical sources and their various modes of interpretation but also include modern restatements, reformulations, and critiques of tradition.

*Note:* Expected to be given in 2015–16.

### **Religion 40. Incarnation and Desire: An Introduction to Christianity**

Catalog Number: 22186

*Courtney Bickel Lamberth*

*Half course (fall term). M., W., at 1 and an hour to be arranged. EXAM GROUP: 1*

The course offers an introduction to Christian thought by considering major texts, figures and ideas from the first century to the present in their changing cultural contexts. Central themes include the categories of body, flesh and soul; free will, desire and sin in relation to divine grace; and the meaning of incarnation. Texts include canonical and non-canonical early Christian literatures, Patristic and medieval texts, Reformation theologies, as well as modern and contemporary authors. Students will develop a sense of the distinguishing features of the Christian world view, while gaining an appreciation for the significant diversity across the



tradition

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Religion 46 (formerly Religion 1413). The Letters of Paul: Ethnicity, Sex, Ethics, and the End of the World**

Catalog Number: 8015 Enrollment: This course will include scheduled meetings at the Fogg Museum.

*Laura S. Nasrallah (Divinity School)*

*Half course (fall term). M., W., at 11 and an hour to be arranged. EXAM GROUP: 18*

This introductory course focuses on 1) the Pauline epistles in their first-century sociopolitical context, and their earliest interpretations; 2) recent trends in Pauline studies, including feminist and postcolonial interpretation, the New Perspective, and European philosophical treatments (Badiou, Zizek). Special attention will be given to ideas of the gendered/enslaved body and its potential for transformation and pollution, ethnicity in the Roman world, the relations of communities to Roman imperial power, and views of time and the impending eschaton.

*Note:* Offered jointly with the Divinity School as 1544. Former course title: Paul's Letters and Their Interpreters: Ethnicity, Empire, the Body, and the End of the World. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **Religion 47. Christian Ethics and Modern Society - (New Course)**

Catalog Number: 39331

*Charles Lockwood*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

This course provides an introduction to Christian conceptions of conduct, character, and community, as well as modern disputes over their interpretation and application. How are Christian principles related to modern ideals of freedom, equality, and democracy? What do Christian principles imply for contemporary issues related to religious pluralism, secularism, feminism, racism, and globalization? Readings will provide historical background and highlight a variety of contemporary perspectives and approaches to Christian ethics. Special emphasis will be given to current moral and political challenges, including war and peace, the environment, capitalism and consumption, abortion and euthanasia, and love, sexuality, and marriage.

### **Religion 48 (formerly Religion 1484). Catholicism Faces Modernity: Classics of Twentieth Century Roman Catholicism**

Catalog Number: 50272

*Francis Fiorenza (Divinity School)*

*Half course (spring term). W., 2–4 and an hour to be arranged. EXAM GROUP: 18*

This lecture course will deal with the major challenges of modernity that the Catholic Church faced in the Twentieth Century through an analysis of some theological classics of the century. Among the challenges to be considered are: the impact of historical critical studies on the understanding of Christianity, the philosophical critique of metaphysics and classical proofs for God's existence, the impact of the Protestant Reformation, the challenge of religious pluralism



and religious freedom, the challenge of the modern world with its technological, communicative, and economic development, the changed relation of the church and state and to the claims of human rights. It will discuss these problems in relation to the writings of Maurice Blondel, Alfred Loisy, Jacques Maritain, Henri de Lubac, Yves Congar, Bernard Lonergan, John Courtney Murray, Karl Rahner, Documents of Vatican II, Gustavo Gutierrez, and select Papal Documents.

*Note:* Offered jointly with the Divinity School as 2477.

### **Religion 52. Religion, Secularism, and Modernity - (New Course)**

Catalog Number: 53034 Enrollment: Limited to 20.

*Charles Lockwood*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

This course considers how lines between the *religious* and the *secular* have been drawn from the Enlightenment to the present. Although modernity has often been associated with critiques of religion and predictions of religious decline, such predictions have come under serious challenge, calling into question the possibility of drawing a clear distinction between tradition and modernity. Moreover, it has increasingly been argued that the category of *religion* (along with that of the *secular*) is itself a modern creation. Readings will offer historical and contemporary perspectives on how distinctions between religious and secular, traditional and modern, have developed and been challenged over the past several centuries, by religious adherents and critics alike.

### **Religion 57. Faith and Authenticity: Religion, Existentialism and the Human Condition**

Catalog Number: 44656

*Courtney Bickel Lamberth*

*Half course (spring term). M., W., at 1. EXAM GROUP: 8*

What is an authentic individual life? How does one find meaning in light of modern challenges to claims about the nature of God, revelation and the soul? Is religious faith compatible with an understanding of historicity and the threat of nihilism? This course introduces central questions in Western philosophy of religion through close reading of fundamental texts in existentialism with some attention to their Christian theological sources. Reading and participatory discussion of text by Plato, Paul, Luther, Kierkegaard, Nietzsche, Dostoevsky, Sartre, de Beauvoir, Camus, Heidegger, Bultmann and Tillich.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

### ***Cross-listed Courses***

**[Aesthetic and Interpretive Understanding 30. Love In A Dead Language: Classical Indian Literature and Its Theorists]**

**[Aesthetic and Interpretive Understanding 54 (formerly Culture and Belief 12). For the Love of God and His Prophet: Religion, Literature, and the Arts in Muslim Cultures]**

**Anthropology 1400. Quests for Wisdom: Religious, Moral and Aesthetic Experiences in the Art of Living**

**Culture and Belief 16. Performance, Tradition and Cultural Studies: An Introduction to Folklore and Mythology**



[\*\*Culture and Belief 19. Understanding Islam and Contemporary Muslim Societies\*\*](#)

[\*\*Culture and Belief 25. Studying Buddhism, Across Place and Time\*\*](#)

[Culture and Belief 28. Hindu Worlds of Art and Culture]

[\*\*Culture and Belief 31. Saints, Heretics, and Atheists: An Historical Introduction to the Philosophy of Religion\*\*](#)

[Culture and Belief 32. Back Roads to Far Places: Literature of Journey and Quest]

[Culture and Belief 57. Animated Spirituality: Japanese Religion in *Anime, Manga, and Film*]

[\*\*Culture and Belief 60. Religion in India: Texts and Traditions in a Complex Society - \(New Course\)\*\*](#)

[\*\*Ethical Reasoning 17. Ethics, Religion, and Violence in Comparative Perspective\*\*](#)

[\*\*\\*Freshman Seminar 30w. Engaging the New Atheism: Why Religion Remains - \(New Course\)\*\*](#)

[\*\*\\*Freshman Seminar 37y. Muslim Voices in Contemporary World Literatures\*\*](#)

[\*\*\\*Freshman Seminar 43m. Psychology of Religion\*\*](#)

[Societies of the World 22. Asia in the Making of the Modern World]

*General: Comparative and Methodological*

*Primarily for Undergraduates*

*Cross-listed Courses*

[Aesthetic and Interpretive Understanding 54 (formerly Culture and Belief 12). For the Love of God and His Prophet: Religion, Literature, and the Arts in Muslim Cultures]

[Culture and Belief 13. The Contested Bible: The Sacred-Secular Dance]

[Culture and Belief 14. Human Being and the Sacred in the History of the West]

[\*\*Culture and Belief 23. From the Hebrew Bible to Judaism, From the Old Testament to Christianity\*\*](#)

[Culture and Belief 28. Hindu Worlds of Art and Culture]

[Culture and Belief 32. Back Roads to Far Places: Literature of Journey and Quest]

[\*\*Culture and Belief 39. The Hebrew Bible\*\*](#)

[Ethical Reasoning 20. Self, Serenity, and Vulnerability: West and East]

[\*\*\\*Freshman Seminar 42k. Comparative Law and Religion\*\*](#)

[German 146 (formerly Ethical Reasoning 26). The Ethics of Atheism: Marx, Nietzsche, Freud]

[\*\*\\*Social Studies 98li. Protest and Conflict in Asia\*\*](#)

[\*\*United States in the World 32. The World's Religions in Multicultural America: Case Studies in Religious Pluralism\*\*](#)

[\*\*United States in the World 33. Religion and Social Change\*\*](#)

*For Undergraduates and Graduates*

[\*\*Religion 1009. Religion, Gender, and Politics in Transnational Perspective\*\*](#)

Catalog Number: 9774

*Ann D. Braude (Divinity School) and Leila N. Ahmed (Divinity School)*



*Half course (spring term). W., 1–4. EXAM GROUP: 8*

The course follows key themes in religion and gender as these were shaped and reshaped through the colonial and post-colonial eras. In particular, the religious history of American women and the history of women in Islam primarily in relation to the Middle East (professors Braude's and Ahmed's fields respectively) are intertwined and brought into conversation. The interaction of religion, gender and sexuality and the turns and complexities imparted to these by the politics of imperialism, race, resistance, and the politics of class, are examined in the context of the emergence of modernity, nationalism, feminism and the globalization of religions in the wake of empire and Christian mission.

*Note:* Offered jointly with Divinity school as 3223.

### **Religion 1012. Religion and Archaeology - (New Course)**

Catalog Number: 83511 Enrollment: Limited to 15. Application required at the first course meeting.

*Kimberley C. Patton (Divinity School)*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

This seminar will introduce students to approaches and selected case studies in the archaeology of religion, including current research in the material evidence for sanctuaries, shamanism, and ritual, as well as challenges in identification and interpretation.

*Note:* Offered jointly with the Divinity School as 3109.

### **[Religion 1018. African American Religions: An Introduction]**

Catalog Number: 99892

*Jonathan Lee Walton (Divinity School)*

*Half course (spring term). Hours to be arranged.*

The purpose of this course is to introduce students to the religious practices, beliefs, and movements of African Americans from 17th century to present. Topics include, but not limited to, black religions in North America under slavery, black churches, black Muslims, Jews and conjuring traditions, the civil rights movement, and the relation of African American religion to literature and music. Readings will include Albert Raboteau, Michael Gomez, Evelyn Brooks-Higginbotham, Barbara Diane-Savage, Karen McCarthy Brown and others.

*Note:* Expected to be given in 2015–16. Expected to be given in 2015–16. Offered jointly with the Divinity School as 3200.

### **Religion 1019. Women, Gender and Religion in Colonial North America and the United States - (New Course)**

Catalog Number: 63761

*Catherine A. Brekus (Divinity)*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course is an introduction to the history of women, gender, and religion in America. We will ask several related questions. How have religious communities shaped understandings of gender and sexuality? How have individuals used religious beliefs, texts, and practices to defend or criticize gender norms? Why has religion in America often been perceived as "feminine"?

Among other topics, we will discuss conceptions of femininity and masculinity in early America, the ideology of "Republican motherhood" during the American Revolution, controversies over female preaching in the nineteenth century, Fundamentalist attitudes toward gender, and



twentieth-century debates over contraception, women's ordination, and homosexuality. We will discuss a wide variety of religious communities in the United States, including Protestants, Catholics, Mormons, Spiritualists, Jews, Muslims, and Buddhists.

*Note:* Offered jointly with the Divinity School 2181.

**[Religion 1025a. Anthropology of "the Religious" Part 1: Theory]**

Catalog Number: 57625

*Aisha Mahina Beliso-De Jesus (Divinity School)*

*Half course (fall term). Hours to be arranged.*

Conducting fieldwork with groups and people based on their religious/spiritual beliefs requires a complex understanding as well as critical knowledge of both the theory and methods of the "field research" process. This year-long course will provide students interested in conducting anthropological style "field research" with religious/spiritual groups/peoples, an in-depth and critical survey of theory and methodological approaches towards an anthropology of "the religious." The first semester will focus primarily on the theoretical questions/problems in the study of religion in anthropology, including what is a field site, how is it constituted, and how do we understand our own research and theory in relation other academic projects? The second semester is a methodological workshop, where students will be required to conduct method-intensive weekly projects. Through different methodological modalities, students will be required to think about what their research means to the communities they intend to work with as well as questions of positionality, the divide between participant/observer, new forms of research methods and other problematics of research.

*Note:* Offered jointly with the Divinity School as 3103.

**[\*Religion 1025b. Anthropology of "the Religious" Part 2: Methods]**

Catalog Number: 72732 Enrollment: Limited to 15.

*Aisha Mahina Beliso-De Jesus (Divinity School)*

*Half course (spring term). Hours to be arranged.*

See description for Religion 1025a.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3104.

*Prerequisite:* Satisfactory completion of Religion 1025a.

**Religion 1026. Introduction to Human Rights and Justice**

Catalog Number: 69236

*Francis Fiorenza (Divinity School)*

*Half course (fall term). W., 1–4. EXAM GROUP: I*

This course seeks to give an introduction to contemporary discussions about justice, human rights, and religion. It will survey the conceptions of rights within political theology and within contemporary theories of justice. Special attention will be given to the work of Rawls, Habermas, Nussbaum, Sen, Walzer, Sandel, Motlmann, Woltersdorf, and Schmitt. It will seek to show how a conception of human rights relates to religion with the framework of a discourse ethics.

*Note:* Offered jointly with the Divinity School as 2801.

**[Religion 1042. Religious Tourism]**

Catalog Number: 82663 Enrollment: Limited to 20.



*Aisha Mahina Beliso-De Jesus (Divinity School)*

*Half course (fall term). Hours to be arranged.*

This seminar will explore the relationship between "religion" and "tourisms." We will examine theories of "the tour" and the production of touristic moments in relation to contemporary modernist movements and subjectivities including cosmopolitanisms, emigration, travelogues and the notion of "the tourist." This engagement will juxtapose conceptions of "religion" encompassed broadly within ritual, spiritual, diasporic and esoteric practices-as-tours. We will read ethnographies of religious tourisms in different trans-local sites, exploring the engagement with issues of commodification and religion, religion and the state, religion and nationalisms, and the inciting of touristic desires.

*Note:* Expected to be given in 2015–16. Expected to be given in 2015–16. Offered jointly with the Divinity School as 3105.

**[Religion 1043. The Self Writing the Self: Autobiography and Religion]**

Catalog Number: 27714

*Janet Gyatso (Divinity School)*

*Half course (spring term). Hours to be arranged.*

This course explores the nature of selfhood as it is constituted in the writing of autobiography. Our questions include: What do autobiographies tell us about the relationship of personal identity, individuality, subjectivity, and alienation to religious truth? What can we say about the relationship of the lived life to what is remembered and written in autobiography? To whom are autobiographers telling their self-stories, and why? What constitutes such critical experiences as moments of conversion, enlightenment, or self-consciousness? Our interpretive methodology will draw from literary theory on autobiographical writing. Autobiographical writings to be studied include those by Augustine, Teresa of Avila, a Tibetan Buddhist hermitess, a Jewish Kabbalist mystic, a contemporary Chinese-American novelist, a 17th century Venetian Rabbi, an American freed slave, a Japanese pilgrim poet, and James Joyce.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3721.

Students will keep autobiographical journals for the course, as an exercise in the practice of this genre of writing.

**Religion 1046. Introduction to Religion and Ecology - (New Course)**

Catalog Number: 16547

*Daniel P. McKanan (Divinity School)*

*Half course (spring term). M., W., at 10 and hour to be arranged. EXAM GROUP: 5*

This course will explore the intersection between religious traditions and ecological activism, with special attention to current conversations about "ethical eating." We will consider both the resources that religious traditions provide to ecological activists and the ways these activists have challenges aspects of traditional religion. The course will also function as a general introduction to the multiple ways of knowing that comprise the scholarly study of religion, with attention to scriptural interpretation, history, ethnography, theology, ethics, and comparative studies.

*Note:* Expected to be offered again in spring of 2017. Offered jointly with the Divinity School as 2798.

**Religion 1056. Secularism, Pluralism, and the Category of Religion - (New Course)**

Catalog Number: 41941 Enrollment: Limited to 15.



*K. Healan Gaston*

*Half course (spring term). (Tu.), 4–6. EXAM GROUP: 6*

This course will explore how secularism and pluralism have figured in recent scholarship on the construction of the category of religion. We will begin by asking how prominent theorists of secularization and pluralization have described these processes and their relation to one another, before turning to the question of how these processes relate to the -isms they inspire: secularism and pluralism. After laying these foundations, we will consider how historians of American religion have portrayed secularism, pluralism, and the relationship between the two, with an eye to the historical metanarratives their treatments imply. Does a robust defense of religious pluralism require an embrace of secularism or antagonism to it? Do secularism's claims to neutrality undermine religious pluralism or allow it to flourish? Are secularism and pluralism opposed to one another, or are they closely related concepts?

*Note:* Offered jointly with the Divinity School.

**Religion 1060. Hindu Goddesses and the Virgin Mary**

Catalog Number: 3293

*Francis X. Clooney (Divinity School)*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course explores gender and divinity by reading hymns praising Hindu goddesses Lakshmi, Maha Devi, Apirami, Kali while asking how feminine divinity is constructed in an environment where gods and goddesses flourish. The course simultaneously explores the cult of the Virgin Mary, theologically, historically, through key texts. This approach is sharpened by attention to performative, social, visual dimensions, and through contemporary feminist and theological insights. Not a survey, but an in-depth introduction.

*Note:* Offered jointly with the Divinity School as 3760.

**\*Religion 1080. Modern States and Religion**

Catalog Number: 74187

*Malika Zeghal*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

This seminar examines the relationships between modern states and religion with particular attention to Islam in Muslim majority countries and beyond. We will analyze institutional arrangements from separation to establishment, and we will examine the meaning of secularism as a modern project. We will explore what the formation of the modern state owes to religion, but also how the modern state transforms religion. More broadly, the seminar will analyze the general consequences of the modern states' engagement with religion, and will explore new potential research paths. Readings will include historical, anthropological, theoretical, as well as quantitative perspectives.

*Prerequisite:* Approval of instructor required for freshmen.

***Cross-listed Courses***

**African and African American Studies 187. African Religions**

**Anthropology 1400. Quests for Wisdom: Religious, Moral and Aesthetic Experiences in the Art of Living**

[Anthropology 1935. Secularism in Question: Seminar]



### **History of Science 101. Communities of Knowledge: Science, Religion, and Culture in Medieval Europe and the Lands of Islam**

[\***Islamic Civilizations 174. Migration and Religion in Comparative Perspective**] - (New Course)

**Literature 193. "What's Love Got to Do With It"; Love Poetry of the Middle Ages and Early Modernity**

*Primarily for Graduates*

#### **\*Religion 2001. The History of the Study of Religion**

Catalog Number: 0644 Enrollment: Limited to first-year Ph.D. and Th.D. students under the Committee on the Study of Religion.

*William Albert Graham and Kimberley C. Patton (Divinity School)*

*Half course (fall term). Th., 4–7 p.m. EXAM GROUP: 16*

An examination of the study of religion from early modernity to the present, with attention to key thinkers, methods, and theories.

*Note:* Offered jointly with the Divinity School as 4599.

#### **\*Religion 2002. Contemporary Conversations in the Study of Religion: Seminar**

Catalog Number: 0803 Enrollment: Limited to 15.

*Anne E. Monius (Divinity School)*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

An engagement with the theoretical and methodological issues that scholars of religion deem to be the most urgent and compelling in the discipline today, across the various research areas.

*Note:* Offered jointly with the Divinity School as 4600. Limited to second-year doctoral students in the Study of Religion.

#### **Religion 2015. Secular Death - (New Course)**

Catalog Number: 97329

*Amy Hollywood (Divinity School)*

*Half course (spring term). W., 2–4; W., 4–6. EXAM GROUP: 4*

If secularism privileges the temporal over the eternal, what are the ramifications for how death is thought by those who live within a secular frame? We will explore the question as it is posed and answered, however provisionally, within modern Western philosophy, literature, and the visual arts. Material will include work by Henry James, William James, Sigmund Freud, Martin Heidegger, Herbert Marcuse, Carole Maso, Janet Kauffman, and Susan Howe.

*Note:* Offered jointly with the Divinity School as 2762.

#### **[Religion 2030. Thinking About History in South Asia: Seminar]**

Catalog Number: 0070 Enrollment: Limited to 15. Limited to doctoral students and advanced masters-level students.

*Anne E. Monius (Divinity School)*

*Half course (spring term). Hours to be arranged.*

This seminar offers an intensive examination of Euro-American and South Asian approaches to time and history and considers their importance for the study of South Asian religions.



*Note:* Expected to be given in 2015–16. Expected to be given in 2015–16. Offered jointly with Divinity School as 3930.

### ***Cross-listed Courses***

- [Anthropology 2085. Archaeology of Ritual and Religion]**
- [Comparative Literature 211. Mysticism and Literature]**
- Comparative Literature 252. The Literatures of Medieval Iberia**

### ***Graduate Courses of Reading and Research***

#### **\*Religion 3005. Doctoral Colloquium in Religion, Gender, and Culture**

Catalog Number: 8016 Enrollment: Limited by instructor permission.

*Aisha Mahina Beliso-De Jesus (Divinity School) 6426*

*Half course (spring term). Th., 4–6. EXAM GROUP: 12*

The Religion, Gender, and Culture Colloquium explores the intersections of feminist theory with feminist theologies and gender studies in religion.

*Note:* Required for doctoral students in Religion, Gender, and Culture. Interested ThM, MTS, and MDiv students please contact the instructor. May be taken on a Sat/Unsat basis only. Offered jointly with the Divinity School as 2690.

### ***Ancient Near Eastern and Israelite***

#### ***Primarily for Undergraduates***

### ***Cross-listed Courses***

#### **Culture and Belief 48. God, Justice, and the Book of Job**

#### ***For Undergraduates and Graduates***

### ***Cross-listed Courses***

#### **Ancient Near East 100. History of the Ancient Near East**

#### **Ancient Near East 102. Introduction to Mesopotamian Religion**

[Ancient Near East 111. Law in the World of the Bible]

#### **Ancient Near East 120. Introduction to the Hebrew Scriptures - (New Course)**

[Ancient Near East 120a. Introduction to the Hebrew Bible/Old Testament 1: Pentateuch and Former Prophets]

[Ancient Near East 120b. Introduction to the Hebrew Bible/Old Testament 2: Latter Prophets and Writings]

#### **Ancient Near East 126. History of the Religion of Ancient Israel**

#### **Ancient Near East 132. Ancient Jewish Wisdom Literature**

#### **Ancient Near East 134. Genesis: Narrative Artistry and Theological Meanings**

#### **Ancient Near East 142. The Bible Uncensored: Journeys into Texts Dark and Daring from the Hebrew Bible - (New Course)**



[Anthropology 1065. The Ancient Near East]

[Anthropology 1155. The Archaeology of Cities in Ancient Mesopotamia](#)

[Sumerian 146. Sumerian Religious Literature]

*Primarily for Graduates*

*Cross-listed Courses*

[Ancient Near East 225. The Greek Bible in History and Theology: Seminar]

[Comparative Literature 211. Mysticism and Literature]

[\\*Hebrew 200r. Problems in the Literature, History, and Religion of Ancient Israel: Seminar](#)

*Judaic*

*Primarily for Undergraduates*

*Cross-listed Courses*

[Aesthetic and Interpretive Understanding 29. Modern Jewish Literature]

[Culture and Belief 23. From the Hebrew Bible to Judaism, From the Old Testament to Christianity](#)

[Culture and Belief 27. Among the Nations: Jewish History in Pagan, Christian and Muslim Context](#)

[Culture and Belief 39. The Hebrew Bible](#)

[Culture and Belief 48. God, Justice, and the Book of Job](#)

[\\*Freshman Seminar 49g. The Holocaust, History and Reaction](#)

[Societies of the World 35. Conditional Equality: The Case of the Jews of Europe in Modern Times]

*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 2016–17. Expected to be given in 2015–16. Offered jointly with the Divinity School as 1667a.



**[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 2016–17. Expected to be given in 2015–16. Offered jointly with the Divinity School as 1667b.

*Prerequisite:* Religion 1212a.

**[Religion 1255. Selected Works of Twentieth Century Jewish Theology]**

Catalog Number: 49889

*Jon D. Levenson (Divinity School)*

*Half course (fall term). Hours to be arranged.*

A close reading of selected works of Jewish theology from the twentieth century, with special attention to the questions of God, Torah, and Israel in light of modernity and to the thinkers' understanding of Christianity in relation to Judaism. Authors read will be drawn mostly from the following: Baeck, Buber, Rosenzweig, Kaplan, Soloveitchik, Berkovitz, Heschel, Fackenheim, and Wyschogrod.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3668.

*Cross-listed Courses*

**Ancient Near East 126. History of the Religion of Ancient Israel**

**Ancient Near East 142. The Bible Uncensored: Journeys into Texts Dark and Daring from the Hebrew Bible - (New Course)**

**[Jewish Studies 149. Topics in the Dead Sea Scrolls: Exegesis at Qumran]**

**[\*Jewish Studies 170. Job and the Problem of Suffering]**

*Primarily for Graduates*

*Cross-listed Courses*

**[Comparative Literature 211. Mysticism and Literature]**

**\*Hebrew 200r. Problems in the Literature, History, and Religion of Ancient Israel: Seminar**

**[Hebrew 208r. Literature of Israel: Seminar]**

**[Hebrew 218. Joseph and Esther: Seminar]**

**Hebrew 235. The Binding of Isaac (*Aqedah*): Seminar**

**[Hebrew 236. Song at the Sea: Seminar]**

**[Jewish Studies 207. Rewriting Scripture in Jewish Antiquity: Seminar]**

*Greek, Hellenistic, Roman*

*Primarily for Undergraduates*

*Cross-listed Courses*



## Culture and Belief 22. The Ancient Greek Hero

*For Undergraduates and Graduates*

### Religion 1325. Ancient Greek Sanctuaries: Mysteries of Initiation - (New Course)

Catalog Number: 42834

*Kimberley C. Patton (Divinity School)*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

Using three renowned sanctuaries at - Brauron, Eleusis, and Samothrace - as foci, this course will consider the role of initiation in ancient Greece in the wider context of mystery cults. We will attend to the archaeological and literary evidence as well as to relevant secondary scholarship.

*Note:* Offered jointly with the Divinity School as 3110.

*Cross-listed Courses*

*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)*

*Full course (spring term). Th., 1:30–4. EXAM GROUP: 1*

The first portion of the course will introduce students to working with archaeological data from the Greco-Roman world (inscriptions, architecture, sculpture, coins). The second portion consists of seminars in Greece and Turkey during May, including some meetings with archaeologists and other scholars abroad.

*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 instructor.

*Christianity*

For additional courses on Christian Studies, see the catalog of the Divinity School.

*Primarily for Undergraduates*

*Cross-listed Courses*

### Culture and Belief 31. Saints, Heretics, and Atheists: An Historical Introduction to the Philosophy of Religion

[Culture and Belief 38. Apocalypse Then! Forging the Culture of Medieval Rus'](#)

[Culture and Belief 39. The Hebrew Bible](#)

[Culture and Belief 48. God, Justice, and the Book of Job](#)

[\\*Freshman Seminar 31n. Beauty and Christianity](#)

*For Undergraduates and Graduates*



### **Religion 1400. Introduction to the New Testament**

Catalog Number: 4486 Enrollment: This course will include scheduled meetings at the Fogg Museum.

*Laura S. Nasrallah (Divinity School)*

*Half course (spring term). Tu., Th., 11:30–1 and hour to be arranged. EXAM GROUP: 15*

The texts of the New Testament emerged in the diverse social and complex political context of the Roman empire. This course 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. Students will also consider the vibrant and controversial contemporary contexts in which they and others interpret the New Testament.

*Note:* Offered jointly with the Divinity School as 1202.

### **[Religion 1401. Early Christian Thought 1: The Greek Tradition]**

Catalog Number: 4950

*Charles Stang (Divinity School)*

*Half course (fall term). Tu., Th., 11:30–1 and hour to be arranged.*

This introductory course will focus on the major Greek authors of the late antique Christian East (third through eighth centuries). Authors will include Origen, Antony the Great, Athanasius, Basil of Caesarea, Gregory of Nazianzus, Gregory of Nyssa, Evagrius of Pontus, Cyril of Alexandria, Pseudo-Dionysius the Areopagite, Maximus the Confessor, and John of Damascus.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1749.

### **[Religion 1402. Early Christian Thought 2: The Latin Tradition]**

Catalog Number: 2577

*Charles Stang (Divinity School)*

*Half course (spring term). Tu., Th., 11:30–1 and hour to be arranged.*

This introductory course will focus on the major Latin authors of the late antique Christian West (second through ninth centuries). Authors will include Tertullian, Ambrose, Jerome, Augustine, Cassian, Gregory the Great, Boethius, and John Scottus Eriugena.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1750.

### **[\*Religion 1408. Martyrdom: Bodies, Death and Life in Ancient Christianity]**

Catalog Number: 9871 Enrollment: Limited to 20.

*Karen L. King (Divinity School)*

*Half course (spring term). Tu., 2–5.*

This course will consider newly discovered works, as well as engage critical readings of well-known sources, around such topics as the politics of martyrdom, performance and ritual, gender, and intra-Christian controversies.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1501.

### **Religion 1414. Gospel Stories of Wo/men**

Catalog Number: 6902

*Elisabeth Schüssler Fiorenza (Divinity School)*

*Half course (spring term). Tu., 12–2 and hour to be arranged. EXAM GROUP: 9*



This course will engage a critical feminist reading of NT texts in order to assess whether they are *good news* for wo/men. Special attention will be given to a feminist hermeneutics of imagination. Discussion will focus on the significance of social location, critical methods, and historical imagination for the interpretation and significance of these stories about Jewish wo/men, 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.

### **Religion 1419. Jesus of Nazareth and the Gospels**

Catalog Number: 9164

*Helmut H. Koester (Divinity School)*

*Half course (fall term). Th., 2-4, and hour to be arranged. EXAM GROUP: 14*

An investigation of the Gospels of the New Testament (Matthew, Mark, Luke, John) and other ancient Christian Gospel literature (Gospel of Thomas, Dialogue of the Savior); discussion of the developments from the oral traditions about Jesus to their written fixation and of the theological and communal concerns that influenced this process. Discussion of the question of the “historical Jesus.”

*Note:* Offered jointly with the Divinity School as 1500.

### **Religion 1427. Orthodoxy and Heresy in Ancient Christianity**

Catalog Number: 3574 Enrollment: Limited to 25.

*Karen L. King (Divinity School)*

*Half course (spring term). W., 1-4. EXAM GROUP: 8*

An examination of the dynamics in the shaping of early Christianity, including the development of discourses of orthodoxy and heresy, practices of interpreting Scripture, selected theological disputes, martyrdom, sex/gender, and categories of religious identity. The course will focus on reading ancient literature, including *The Gospel of Thomas*, *The Gospel of Mark*, *Luke-Acts*, *The Gospel of Mary*, *The Gospel of Truth*, *The Secret Revelation of John*), and works ascribed to Irenaeus, Tertullian, and Eusebius.

*Note:* Offered jointly with the Divinity School as 1700.

*Prerequisite:* Introduction to the New Testament or History of Ancient Christianity, or the equivalent.

### **[Religion 1429. Augustine and His Heretics]**

Catalog Number: 59969 Enrollment: Limited to 15.

*Charles Stang (Divinity School)*

*Half course (spring term). Th., 4-6.*

This course will survey Augustine of Hippo’s theological career through the lens of his encounters with three “heresies” of Roman North Africa: Manichaeism, Donatism, and Pelagianism. Particular attention will be paid to following themes: evil, freedom, the will, and selfhood.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1752.

### **Religion 1434. History of Western Christianity, 150-1100**

Catalog Number: 5783

*Kevin J. Madigan (Divinity School)*



*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course is designed to provide a historical overview of the Church and society in western Europe from the fourth through the twelfth century. Thus, this course will investigate late-antique and early medieval Christianity in its social and its cultural context. Narrative and theological story lines to be pursued will include the varieties of early Christianity; relations with the Roman state (including persecution of Christians by it); the emergence of normative or "early Catholic" Christianity; early and early medieval monasticism; the search for the Christian doctrine of God and Christ; early Christian architecture, piety and worship; Christianity and other world religions (especially Judaism and Islam); western and eastern Christianity; the emergence of the Roman primacy; the Christianization of the north of Europe; the nature of parochial Christianity; the emergence of the pope, in the eleventh century, as an international religious force; the crusades; and early medieval piety. We will also be strengthening our skills as interpreters of primary sources. Some attention will be paid to major historiographical issues.  
*Note:* Offered jointly with the Divinity School as 2230.

### **Religion 1437. History of Western Christianity: 1100–1500**

Catalog Number: 5997

*Kevin J. Madigan (Divinity School)*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course is designed to provide a historical overview of the Church and society in western Europe from the eleventh through the fifteenth centuries. Thus, this course will investigate high and late medieval Christianity in its social and its cultural context. Narrative and theological story lines to be pursued will include medieval monasticism and other new forms of religious life; heresy and its repression; scholasticism, the university and Gothic architecture; the bid for papal monarchy; means of Christianization; saints, relics, pilgrimage and other forms of popular devotion; the decline of the late-medieval papacy and conciliarism; late-medieval heresy; Christianity and other world religions (especially Judaism and Islam); and late-medieval attempts at reform. We will also be strengthening our skills as interpreters of primary sources. Some attention will be paid to major historiographical issues.

*Note:* Offered jointly with the Divinity School as 2250.

### **Religion 1439 (Religion 1415). How Do You Read? Introduction to Biblical Interpretation**

Catalog Number: 66265

*Elisabeth Schüssler Fiorenza (Divinity School)*

*Half course (fall term). Tu., 12–2 and hour to be arranged. EXAM GROUP: 13*

This course is a basic introduction to how we make meaning when reading the Bible. We will explore the different paradigms of interpretation which scholars have developed and explore their meaning-making capacities in terms of an ethics of interpretation. Special attention will be given to new approaches such as *Signifying Scriptures*, *Scriptural Reasoning*, or *Bibliodrama*. The course process seeks to embody a democratic ethos of study and deliberation, of knowledge and socio-cultural religious location. Reflection papers, group-discussions, and working with texts provide opportunities for such collaboration.

*Note:* Offered jointly with the Divinity School as 1242.

### **\*Religion 1441. Greek Exegesis of 1 Corinthians**

Catalog Number: 84499 Enrollment: This course also fulfills the study of fourth-semester Greek.



*Laura S. Nasrallah (Divinity School)*

*Half course (fall term). W., 1-3 and hour to be arranged. EXAM GROUP: 1*

The course is devoted to close reading and interpretation of 1 Corinthians. Discussion of the Greek text of 1 Corinthians will focus on literary style, use of rhetoric, philology, and the social and theological issues of the text.

*Note:* Offered jointly with the Divinity School as 1551.

**Religion 1442. "That God May Be All in All": Origen of Alexandria and the Roots of Christian Universalism - (New Course)**

Catalog Number: 39602 Enrollment: Limited to 15.

*Charles Stang (Divinity School)*

*Half course (spring term). M., 4-6. EXAM GROUP: 13*

This course will survey the life and writings of the third-century Christian writer, Origen of Alexandria, widely regarded as one of the greatest and most influential theologians of late antiquity. Much attention will be given to his overall cosmological frame, including such notions as double creation, salvation understood as pedagogy or embodied rehabilitation, and universal salvation understood as *apokatastasis* or the *restoration of all things*. Attention will also be paid to his scriptural exegesis, and how the practice of biblical interpretation fits into his overall cosmology and soteriology.

*Note:* Offered jointly with the Divinity School as 1756.

**Religion 1444. God and Money - (New Course)**

Catalog Number: 77836 Enrollment: Limited to 20.

*Harvey G. Cox, Jr. (Divinity School)*

*Half course (fall term). Tu., 4-6. EXAM GROUP: 16*

What Is the spiritual significance of money? Wealth and poverty have posed controversial questions for faith since the attacks by the Hebrew prophets; Jesus' warnings to the rich about the eye of the needle; and the sharp objections raised by monastics, St. Francis and reformers. These themes persist in current disputes, sparked in part by Pope Francis's statements about inequality, and by controversies around the prosperity gospel and liberation theology's "preferential option for the poor." This course will explore biblical, theological and ethical dimensions of these issues and will include some comparative discussion of how other religions approach them.

*Note:* Offered jointly with the Divinity School as 2190.

**Religion 1447. From Saint to Witch: Female Spirituality in the European Middle Ages - (New Course)**

Catalog Number: 11685 Enrollment: Limited to 15.

*Racha Kirakosian*

*Half course (spring term). Th., 2-4. EXAM GROUP: 11*

This course discusses the forms of spirituality that were associated with women in the Middle Ages. It deals in particular with mysticism but also looks at other forms of religious life (for example service in the hospital). This course also covers the question of the gender of the soul and therefore considers male-dominated debates of female models of spirituality and sanctity. Primary sources (with translations) include Meister Eckhardt, Mechthild von Magdeburg,



Bridget of Sweden and Jean Gerson.

*Note:* Offered jointly with the Divinity School as 2003.

### **Religion 1448. Mystical Theology - (New Course)**

Catalog Number: 16899

*Charles Stang (Divinity School) and Amy Hollywood (Divinity School)*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

This course will examine the history of mystical theology in early and medieval traditions of Christianity. Through a close reading of primary texts in translation students will engage questions of divine mystery, transcendence, and hiddenness; the practice of affirmation (kataphasis) and negation (apophasis); mystical union; and the limits of language.

*Note:* Offered jointly with the Divinity School as 2003.

### **Religion 1450. History of Christian Thought: The Medieval West**

Catalog Number: 8878

*Amy Hollywood (Divinity School)*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

The course will survey the main features of Christian theology from the 11th through the 15th centuries. We will focus on the particular genres, modes of argumentation, questions, and goals of theology as it emerges in multiple contexts within the medieval West.

*Note:* Offered jointly with the Divinity School as 2629.

### **[Religion 1460. Christianity and Slavery in America, 1619-1865] - (New Course)**

Catalog Number: 99266

*Catherine Brekus*

*Half course (spring term). Tu., Th., 10–11:30.*

This course will explore the relationship between Christianity and slavery from 1619, when the first African slaves arrived in Virginia, to the Emancipation Proclamation of 1865. We will discuss biblical defenses of slavery, "scientific" racism, plantation missions, slave resistance and rebellion, abolitionism, and slave worship and theology. Readings include African-American memoirs, fugitive slave narratives, proslavery sermons, abolitionist newspapers, and interviews with ex-slaves. Students will also analyze visual representations of slavery and listen to slave spirituals.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School.

### **[Religion 1467. Historical Jesus]**

Catalog Number: 61179

*Giovanni Battista Bazzana (Divinity School)*

*Half course (spring term). M., W., at 10.*

The course will introduce the students to the history of the quest for the historical Jesus by examining the most relevant methodological issues and by reviewing the ideological and socio-political stakes in this enterprise that has been intertwined to the cultural history of the western world from the XVIII to the XXI century.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1277.



### **Religion 1472. The Ethical and Religious Thought of Martin Luther King, Jr.**

Catalog Number: 8761

*Preston N. Williams (Divinity School)*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

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:* Expected to be offered annually. Offered jointly with the Divinity School as 2721.

### **Religion 1489. Christianity, Capitalism, and Consumerism in Colonial North America and the United States - (New Course)**

Catalog Number: 29823

*Catherine A. Brekus (Divinity)*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

This course asks how Christianity has both shaped and reflected economic developments in America from the eighteenth century to the present. Besides examining diverse Christian attitudes toward consumerism and capitalism, we will ask how economic developments have shaped understandings of God and the self. Among other topics, we will explore the rise of the consumer revolution in the eighteenth century, the relationship between capitalism and slavery, Christian responses to industrial capitalism, Christian marketing techniques, and the popularity of the prosperity gospel in modern-day America.

*Note:* Offered jointly with the Divinity School 2183.

### **[Religion 1490. Christianity and Capitalism]**

Catalog Number: 45769 Enrollment: Limited to 12.

*Marla F. Frederick*

*Half course (spring term). Hours to be arranged.*

Using history and anthropology, this course explores the role of Capitalism in the growth and development of Christianity in the 20th and 21st centuries.

*Note:* Expected to be given in 2015–16.

### **Religion 1491. Power and Piety: Evangelicals and Politics in the Contemporary U.S. - (New Course)**

Catalog Number: 64741

*Jonathan Lee Walton (Divinity School) and Marla F. Frederick*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

This course will examine the history, beliefs, practices and aesthetics of evangelical Christians in the United States, paying particular attention to the relationship between evangelical theology and national politics since the American Civil War. Topics covered will include: the development of the Social Gospel; the Niebuhr Brothers and neo-orthodox theology; women's suffrage and Civil Rights; the "Southern Strategy" and the rise of the so-called Religious Right; as well as Christian Reconstructionism.

*Note:* Offered jointly with the Divinity School as 2193.

### **[Religion 1493. Contemporary Roman Catholic Theology]**

Catalog Number: 6926 Enrollment: Last hour of course is a required discussion section.



*Francis Fiorenza (Divinity School)*

*Half course (spring term). W., 1–4.*

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 2015–16. Expected to be given in 2015–16. Offered jointly with the Divinity School as 2479.

**Religion 1494. Feminist Theory and The\*logy: Seminar**

Catalog Number: 29657 Enrollment: Limited to 12.

*Elisabeth Schüssler Fiorenza (Divinity School)*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

This seminar seeks to provide a space for exploring the intersections of feminist theory with feminist the\*logy and Feminist Studies in Religion. We will focus on different feminist categories of analysis, discuss different feminist the\*logical directions and explore how their theoretical frameworks, methods and visions are shaped by their different socio-cultural-religious locations and struggles. In so doing we will engage in a participatory democratic style of learning.

*Note:* Offered jointly with the Divinity School as 2689.

**Religion 1496. Histories, Theologies and Practices of Christianity**

Catalog Number: 46072

*Daniel P. McKanan (Divinity School) and Emily Ann Click (Divinity School)*

*Half course (fall term). M., W., at 9 and an hour to be arranged. EXAM GROUP: 10*

This course offers a historical, theological, and practice-based introduction to Christianity. We will explore key episodes in Christian history and central themes of Christian theology, highlighting the diversities of culture, ideology, gender, and practice that have characterized Christianity throughout its history. We will use integrative case studies as well as readings from the disciplines of church history, systematic theology, and practical theology to discover the many insights that emerge at the intersections of these disciplines.

*Note:* Offered jointly with the Divinity School as 2600.

**[Religion 1497. Evangelicalism in America] - (New Course)**

Catalog Number: 10836

*Catherine Brekus*

*Half course (spring term). Th., 2–4.*

This course focuses on the American evangelical movement from the 1740s to the present. Beginning with the rise of transatlantic evangelicalism in the eighteenth century, we will explore the role of evangelicals in the American Revolution, the revivals of the Second Great Awakening, the crisis caused by slavery, the Fundamentalist-Modernist controversy in the early twentieth century, the emergence of Pentecostalism and the Charismatic Movement, the controversies created by neo-evangelicalism in the 1940s, the relationship between evangelicalism and the civil rights movement, the political activism of the Christian Right, and contemporary evangelical attitudes toward gender and sexuality. Readings will introduce students to both evangelical ideas and practices. Throughout the course, we will focus on the



historical development of evangelicalism and the relationship between evangelicals and American culture.

*Note:* Expected to be given in 2016–17. Offered jointly with the Divinity School.

### *Cross-listed Courses*

#### **Ancient Near East 126. History of the Religion of Ancient Israel**

#### **Ancient Near East 142. The Bible Uncensored: Journeys into Texts Dark and Daring from the Hebrew Bible - (New Course)**

[Celtic 151. The Literature of Medieval Celtic Christianity: The Hagiographical Tradition]

### *Primarily for Graduates*

#### **[\*Religion 2420. Papyrology and the New Testament]**

Catalog Number: 76286 Enrollment: Limited to 10.

*Giovanni Battista Bazzana (Divinity School)*

*Half course (fall term). Th., 12–2.*

The course will introduce students to papyrology through the reading of literary and documentary papyri, with a particular emphasis placed on materials pertaining to religious history in the Greco-Roman world.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1534.

*Prerequisite:* Three semesters of Greek are required.

#### **[Religion 2422. Witchcraft in Early Christianity]**

Catalog Number: 44557 Enrollment: Limited to 15.

*Giovanni Battista Bazzana (Divinity School)*

*Half course (fall term). Hours to be arranged.*

The course will examine the phenomena of witchcraft in selected early Christian texts to explore its socio-cultural and rhetorical implications by positing them within the broader context of Greco-Roman culture and society.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1555.

*Prerequisite:* Two semesters of Greek are required.

#### **[\*Religion 2424. Greek Exegesis of Mark]**

Catalog Number: 17034 Enrollment: Limited to 15.

*Giovanni Battista Bazzana (Divinity School)*

*Half course (spring term). Hours to be arranged.*

The course will be devoted to a close reading and interpretation of the Gospel of Mark. The Greek text will be discussed with specific attention paid to literary structures, textual critical issues, historical context, and history of interpretation.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1527.

*Prerequisite:* Two semesters of Greek are required. The course might fulfill the requirement for a fourth semester of Greek.

#### **[Religion 2428. Apocalyptic Literature of the Second Temple Period]**

Catalog Number: 51709



*Giovanni Battista Bazzana (Divinity School)*

*Half course (spring term). M., W., at 10 and hour to be arranged.*

The main focus of this course will be on the apocalyptic literature of the Second Temple and early Christian periods through the close reading in translation of four representative texts (1 Enoch, Daniel, the Apocalypse of John, and 4 Ezra). The course will not be limited to the reading of apocalyptic texts, but it intends to address the main themes that characterize historical research on and the exegesis of this subject, as the definition of the apocalyptic genre, the counter-hegemonic elements in the texts, or the role of violence, which often informs apocalyptic imagery.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 1536.

**[Religion 2442. Dante and his World: Poetry, Politics and Piety] - (New Course)**

Catalog Number: 64786 Enrollment: Limited to 15.

*Kevin J. Madigan (Divinity School)*

*Half course (spring term). Tu., Th., at 9.*

This seminar is designed to provide a historical overview of the ecclesiastical and political society in which Dante was nourished and from which he was exiled in order better to understand this great fourteenth century Christian epic, known originally simply as the Commedia, the poem in three large parts we will spend our time reading critically against that background. We will be using some of Dante's minor works and his own biography to appreciate the poem more deeply. Among the medieval ecclesiastical and political themes we will be studying include the medieval mystical and neoplatonic tradition of journeys (itineraria) to God; the influence of scholastic, especially Thomistic theology; the four-fold sense of scriptural interpretation; the late-medieval papacy; the strife between Guelfs and Ghibellines; the influence of Roman epic; the inspiration of St. Francis and the Franciscans; the rise of the city; numerical patterns, especially threes, in pre-modern Christian thought; the medieval cosmos; and the literary afterlife of the poem.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2468.

*Prerequisite:* An introductory course in the medieval period ca. 1100-1500 (such as HDS 2250) is required. We will read the poem in English translation; but some Italian and some Latin are highly desirable.

**Religion 2450. New Testament Ethics and Theology**

Catalog Number: 97093 Enrollment: Limited to 10.

*Elisabeth Schüssler Fiorenza (Divinity School)*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

The seminar will focus on both ethical discourses in the NT and on the ethics of interpretation. Special attention will be given to the rhetoric of subordination and empire and how they have shaped the theological vision, symbolic worlds and rhetorical practices of NT writings. We also will explore how the theoethical discourses of the NT have shaped and still shape religious communities and society today. The seminar will engage in a collaborative style of learning.

*Note:* Offered jointly with the Divinity School as 1882.

**Religion 2454. God and Modern Writing - (New Course)**

Catalog Number: 86071

*Mark D. Jordan (Divinity School)*



*Half course (fall term). Tu., 12–2 and an hour to be arranged. EXAM GROUP: 13*

Whatever else the word *modern* means, it has named a crisis in European and American styles or a crisis of inheritance for traditional forms--a crisis of confidence about form as such. Histories of modern arts or literatures tell familiar stories about how the crisis played itself out by defacing the old or improvising the new. It is not so obvious what story could be told about modern Christian theology. Indeed, it may not be clear how much *modern theology* there has been in this sense--namely, theology written as deliberate response to a general crisis of form. This course will pose the question, what modernity means for writing about God. It will look within and beyond theology's academic boundaries to a selection of formally deliberate texts in a variety of genres, from scriptural commentary to massmarket fiction. These texts will include works by Kierkegaard, Nietzsche, Barth, Dorothy Day, Simone Weil, Leo Strauss, and Michel Foucault, among others.

*Note:* Offered jointly with the Divinity School as 2374.

### **Religion 2455. Aquinas: Incarnation, Narration, Sacrament - (New Course)**

Catalog Number: 79976

*Mark D. Jordan (Divinity School)*

*Half course (spring term). W., 10–12. EXAM GROUP: 5*

At the center of the *Summa of Theology*, the reader finds a broad analysis of the motives and purposes of human action. But the analysis remains incomplete until Thomas takes up the incarnation, narrated life, and memorial sacraments of the Christ. Incarnation is the pedagogical principle that makes moral formation possible. It also justifies the teaching of Christian theology, not least in a *summa*. This course will read selected questions from Thomas's *Summa*. It will seek to understand the logic of divine teaching that explains God's choice to become incarnate, the events of Jesus's life, and the legacy of sacramental scenes of instruction. It will then ask how this logic was already at work in Thomas's description of moral life, perhaps especially in his treatments of the passions, the succession of laws, and vocation to a way of life.

*Note:* Offered jointly with the Divinity School as 2609.

### **[Religion 2460. Theologies and Images] - (New Course)**

Catalog Number: 71253 Enrollment: Limited to 15.

*Mark D. Jordan (Divinity School)*

*Half course (fall term). W., 4–6.*

Christian theology has long relied on notions about images to declare its central doctrines. Human beings are said to be made in the image of God, and Jesus Christ is the image of the one he called Father. But Christian theology has also both explained and regulated images in more ordinary cases, whether of experience or of art. This seminar will read a selection of theological works in order to think about the theology of images. It will begin with earlier Christian texts and their philosophical conversation-partners. It will then juxtapose recent works of Christian theology with contemporary philosophical critiques of images and their viewers.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School.

### **[Religion 2471 (formerly Religion 1471). Christian Ethics, Persuasion, and Power I]**

Catalog Number: 48719

*Mark D. Jordan (Divinity School)*

*Half course (fall term). Tu., 12–2 and an hour to be arranged.*



Early Christians wrote their ethical teaching not only in response to existing religious law or rite, but in competition with philosophical programs for soul-shaping. The religious traditions and the philosophic schools alike wanted to discipline bodily actions and passions, but even more to elicit certain roles or characters. This course reads some ancient philosophical examples of ethical persuasion before turning to early and medieval Christian texts that want to surpass them in power to shape lives.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2393.

**[Religion 2474 (formerly Religion 1474). Christian Ethics, Persuasion, and Power II]**

Catalog Number: 64129

*Mark D. Jordan (Divinity School)*

*Half course (spring term). Tu., 12–2 and hour to be arranged.*

Whatever else it might be, European "modernity" is a transformation in Christian projects for ethics. Controversies over Reformation can conceal how far both Protestant and Roman Catholic writers begin to make modern assumptions about moral learning or to exercise modern forms of control over moral subjects. The course will try to trace some of this transformation and the increasingly radical reactions to it without pretending to any completion. Readings will include major texts from the Reformation through the 19th century.

*Note:* Expected to be given in 2015–16. Expected to be given in subsequent spring semesters of odd-numbered years. Offered jointly with the Divinity School as 2394.

**[Religion 2477. God]**

Catalog Number: 8838 Enrollment: Limited to 12.

*Francis Fiorenza (Divinity School)*

*Half course (fall term). Hours to be arranged.*

An analysis of select theologians in their approach to the knowledge and the nature of God. Special attention will be paid to their theological method and philosophical presuppositions.

*Note:* Expected to be given in 2015–16. Expected to be given in 2015–16. Offered jointly with the Divinity School as 2634.

**\*Religion 2482. Facism, the Churches and Antisemitism, 1919-1945 - (New Course)**

Catalog Number: 68631 Enrollment: Limited to 15.

*Kevin J. Madigan (Divinity School)*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

In this course we will examine the emergence in the interwar period in Europe, especially in Italy and Germany of fascist and totalitarian regimes. The focus of the course will be on the relationship of the churches to these regimes and to the importance and effects of antisemitism in these regimes. Note: Minimum of one year of European history, preferably in the post-medieval period.

*Note:* Offered jointly with the Divinity School as 2467.

*Prerequisite:* At least one year of European history, preferably in the post-medieval period.

**Religion 2484. Christianity and Contemporary American Fiction - (New Course)**

Catalog Number: 60522

*Matthew Lawrence Potts (Divinity School)*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*



This course will study the role of Christian images, theologies, traditions, histories, and identities in contemporary American fiction. The course will seek to ask what it might mean for a literary text to bear religious meaning in contemporary America. What does it mean for a text (or a person, for that matter) to be religious in America today? We will pursue these questions primarily through the study of literary texts (novels and short stories) published within the last twenty years, with authors to include Cormac McCarthy, Toni Morrison, Louise Erdrich, and Lorrie Moore, among others.

*Note:* Offered jointly with the Divinity School as 2176.

### **Religion 2488 (formerly Religion 1485). Queer Theology, Queer Religions**

Catalog Number: 69539

*Mark D. Jordan (Divinity School)*

*Half course (fall term). W., 4–6 and an hour to be arranged. EXAM GROUP: 16*

According to one narrative, the encounter or collision of feminist, liberationist, and erotic theologies mainly within Christianity has produced something called queer theology. Wherever it comes from, whatever its exact genealogy, queer theology has attracted or claimed writers working on the whole range of theological topics, from scriptural exegesis or doctrines of God to ethics and liturgy. This course will attempt both to sample what has been written and to speculate about what might be written next.

*Note:* Offered jointly with the Divinity School as 2709.

### ***Cross-listed Courses***

**[Comparative Literature 211. Mysticism and Literature]**

**[\*History 2340hf. Readings in American Intellectual History]**

**\*Medieval Studies 202. Latin Palaeography and Manuscript Culture: Seminar**

**Medieval Studies 227. Hildegard of Bingen and the Gospels: Seminar**

### ***Graduate Courses of Reading and Research***

**\*Religion 3420hf. Seminar for Advanced New Testament Students**

Catalog Number: 6026 Enrollment: Limited to 10.

*Karen L. King (Divinity School) 4217*

*Half course (throughout the year). Tu., 12–2 meets biweekly. EXAM GROUP: 4*

Topic for 2014-15: Authors, Books, Religion: Ancient Christianity. The course will consider material, social, economic, and political practices with regard to Christians' production and use of books. The goals of the course are to introduce students to current work being done on these issues, to bring the results of this work to bear on early Christian literature, and to examine the implications of these shifts in understanding about the nature and inter-relationship of *authors, writing(s), and religion*.

*Note:* A course available to Th.M., Th.D., and Ph.D. candidates, and qualified MTS and M.Div. students with permission of the instructor. Required for Th.M. candidates in the field and for Th.D. and Ph.D. candidates until the term following successful completion of general exams. Offered jointly with the Divinity School as 1980.

*Prerequisite:* Intermediate competency in at least one of the following ancient languages is required: Greek, Latin, Coptic.



### **\*Religion 3425hf. New Testament Seminar for Doctoral Dissertations**

Catalog Number: 8507 Enrollment: Required for Ph.D. and Th.D. students in New Testament and Early Christianity.

*Karen L. King (Divinity School) 4217*

*Half course (throughout the year). Tu., 2–4, meets biweekly. EXAM GROUP: Fall: 11; Spring: 7*  
 Biweekly presentation of research projects.

*Note:* Offered jointly with the Divinity School as 1995.

### ***Modern Western/Religions of the Americas***

#### ***Primarily for Undergraduates***

#### ***Cross-listed Courses***

**[Culture and Belief 20. Reason and Faith in the West]**

**Ethical Reasoning 15. “If There is No God, All is Permitted:” Theism and Moral Reasoning**

**[German 146 (formerly Ethical Reasoning 26). The Ethics of Atheism: Marx, Nietzsche, Freud]**

**Societies of the World 30. Moctezuma’s Mexico: Then and Now (2012)!**

**United States in the World 32. The World’s Religions in Multicultural America: Case**

**Studies in Religious Pluralism**

**United States in the World 33. Religion and Social Change**

#### ***For Undergraduates and Graduates***

### **Religion 1502. The Philosophical Reinvention of Christianity - (New Course)**

Catalog Number: 83938

*David Lamberth (Divinity School) and Roberto Mangabeira Unger (Law School)*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

A study of how some of the major philosophers of the West -- many of whom considered themselves Christians -- interpreted Christianity. Through the lens of the philosophical account of Christianity, we consider the content of the Christian message and its implications for the conduct of life and the organization of society. We also explore, from this perspective, the nature of religious experience and its relation to the ambitions of philosophy. Readings drawn from the works of Aquinas, Nicholas of Cusa, Kant, Hegel, Kierkegaard, Nietzsche, and others as well as from the writings of twentieth-century theologians who have worked across the contested frontier between philosophy and theology.

*Note:* Offered jointly with the Divinity School as 2399 and the Harvard Law School as 2713. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief.

### **Religion 1512. Cities on a Hill: Images of America as a Redeemer Nation, 1630-present - (New Course)**

Catalog Number: 91883

*Catherine A. Brekus (Divinity)*

*Half course (fall term). Th., 12–2. EXAM GROUP: 13*



Beginning with John Winthrop's 1630 speech, "A Model of Christian Charity," and ending with the 2012 presidential election, we will examine images of America as a city on a hill. We will ask several questions: How and why have Americans conceived of the nation in sacred terms? How have religious images of the nation developed and changed over time? What are the implications of America's "civil religion"? We will discuss the Puritan idea of a national covenant, the millennial rhetoric of the American Revolution, defenses of manifest destiny, the sacrificial theology of the Civil War, religious and political rationales for global missions, the rise of the Christian Right, and presidential invocations of America as a city on a hill. We will also examine how women's rights leaders, abolitionists, and civil rights activists both critiqued and appropriated the image of America as a city on a hill.

*Note:* Offered jointly with the Divinity School as 2180.

**Religion 1513. Harvard's History and Evolving Religious Identity (formerly History of Harvard and Its Presidents)**

Catalog Number: 1233

*Stephen Paul Shoemaker*

*Half course (spring term). W., F., at 11, and hour to be arranged. EXAM GROUP: 14*

An examination of the intellectual and institutional history of the University that leads students through a chronological exploration of key events and significant presidents. Among themes to be considered are European antecedents, developments in faculty, changes in student life, curricular alterations, as well as the maturation of the built environment. Significant attention is paid to the evolution of the religious context of the school, which was a vital component of the University's identity for several centuries.

*Note:* Offered jointly with the Divinity School as 2297.

**[Religion 1518. American Religious History to 1865]**

Catalog Number: 96883

*Catherine Brekus (Divinity School)*

*Half course (fall term). Tu., Th., 10–11:30.*

Beginning with the religious cultures of Native Americans, and concluding with the religious implications of the American Civil War, this course will survey four centuries of religious history. It will focus on the evolutions of religious thought, the interplay of religious practice with secular culture, religious lives in both mainstream and marginalized groups, and the relationship of church and state. It will also consider the denominational development of numerous movements (e.g., Congregationalists, Friends, Baptists, Shakers, Disciples of Christ, Seventh-day Adventists).

*Note:* Expected to be given in 2016–17. Offered jointly with the Divinity School as 2367.

**[Religion 1519. American Religious History Since 1865]**

Catalog Number: 40372

*Half course (spring term). Tu., Th., 10–11:30 and an hour to be arranged.*

This course is a survey of American religion from Reconstruction to the present. We will ask several related questions. How did religious communities shape social and political movements like women's suffrage, the anti-lynching campaign, the Civil Rights Movement, and second-wave feminism? How did religious communities respond to developments like urbanization,



segregation, industrialization, the Great Depression, and the creation of new media? How did ordinary people practice their faith? We will discuss a wide variety of religious communities and movements, including the Social Gospel, Catholicism, Fundamentalism, Judaism, Pentecostalism, New Thought, and the Christian Right. We will also discuss the transformation of the American religious landscape after the 1965 Immigration and Nationality Act. In addition to reading major scholarly accounts, we will consult a wide variety of primary sources, including memoirs, sermons, religious periodicals, speeches, and music.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2376.

### **[Religion 1520. Introduction to Hermeneutics and Theology]**

Catalog Number: 6184

*Francis Fiorenza (Divinity School)*

*Half course (fall term). M., at 11.*

General introduction to hermeneutical theory and theology. It surveys the development of theories of interpretation from classical to modern and contemporary times and shows the relation between the theory of interpretation and the understanding of theology. The course will especially attend to the influence of nineteenth and twentieth century theories of interpretation upon sacred texts, the diverse approaches to theology, and key theological categories such as revelation, experience, method, foundations, classics, community, and practice. It introduces students to some of the modern debates about the importance of interpretation for religious and theological studies.

*Note:* Expected to be given in 2015–16. Expected to be given in 2015–16. Offered jointly with the Divinity School as 2410.

### **[Religion 1533. Attention and Engagement in Contemporary American Poetry]**

Catalog Number: 68875 Enrollment: Limited to 12.

*Amy Hollywood (Divinity School)*

*Half course (fall term). Hours to be arranged.*

An exploration of the interplay of aesthetics, politics, and religion in contemporary American poetry. Poets to be read will likely include Juliana Spahr, Claudia Rankine, Susan Howe, Dan Beachy-Quick, C.D. Wright, Elizabeth Robinson, Lisa Robertson, Anne Carson, Jorie Graham, Myung Mi Kim, and Harryette Mullen.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2611.

### **Religion 1536. Theology, Religion, and Culture: Seminar**

Catalog Number: 1908 Enrollment: Limited to 12.

*Francis Fiorenza (Divinity School)*

*Half course (fall term). Tu., 12–2. EXAM GROUP: 13*

This course explores some of the recent literature on the relation between religion, theology, and culture. Specific attention will be given to issues of method, tradition, and the intersection of theology and culture, and the relation between faith and critical inquiry. Authors to be considered include: Niebuhr, Tanner, Geertz, Rorty, Stout, Benhabib, and Fraser.

*Note:* Offered jointly with the Divinity School as 2403.

### **Religion 1537 (formerly Political Theology, Justice, and Rights). Political Theology**

Catalog Number: 5652 Enrollment: Limited to 12.



*Francis Fiorenza (Divinity School)*

*Half course (spring term). Tu., 12–2. EXAM GROUP: 9*

This seminar examines will explore major figures and issues within political theology. The focus will be on the relation between religion and society, especially public and political life. The seminar will consider the relation between the development of diverse modern political theologies and their contrasting interpretations of modernity. It will also focus on relation between political theology and the notions political justice, law, and human rights. Special emphasis to the work of Schmitt, Agamben, Metz, Moltmann, Charles and Mark Taylor, Wolterstorff, Nancy Fraser, Iris Young, Amartya Senn, Martha Nussbaum, and Jürgen Habermas.

*Note:* Offered jointly with the Divinity School as 2632.

**[Religion 1538. Liberal and Liberation Theologies in Dialogue]**

Catalog Number: 33612

*Daniel P. McKanan (Divinity School)*

*Half course (spring term). Tu., Th., 10–11:30.*

This course will explore the possibilities for fruitful interchange between classic liberal theologies and contemporary theologies of liberation. We will begin with major texts of American liberal theology (Channing, Emerson, Bushnell, Rauschenbusch), then turn to the defining liberationist texts (Gutierrez, Cone, Daly), and conclude with several attempts to integrate the traditions.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2415.

**[Religion 1543. 19th-Century Religious Thought: Theology and the Critique of Religion]**

Catalog Number: 5065

*David Lamberth (Divinity School)*

*Half course (fall term). Tu., Th., 10–11:30 and an hour to be arranged.*

The nineteenth century formulated many of the questions and frameworks that continue to dominate theology and religious reflection in the West. This course considers the developing interplay between modern Christian theology (primarily continental) and the principal philosophical and social critiques of religion in the nineteenth century. Topics include human nature, religion, the divine-human relationship, religious knowledge, the social, and historicity. Readings from Lessing, Kant, Schleiermacher, Hegel, Marx, Feuerbach, Kierkegaard, Nietzsche, Harnack, and Troeltsch.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2431.

**[Religion 1544. Unitarian and Universalist Thought in the Nineteenth Century]**

Catalog Number: 38993

*Daniel P. McKanan (Divinity School)*

*Half course (spring term). W., 1–4.*

This seminar will explore the intellectual shapers of the Unitarian and Universalist traditions in the nineteenth century, with special attention to the founders and formative theologians of each tradition, the challenges of Transcendentalism and Spiritualism, and the interactions of Unitarianism and Universalism with broader currents of religious liberalism in the United States. Male and female, lay and ordained, elite and popular thinkers will all be represented. Featured writers may include John Murray, Judith Sargent Murray, Hosea Ballou, Joseph Priestley,



William Ellery Channing, Andrews Norton, Hannah Adams, Ralph Waldo Emerson, Margaret Fuller, Theodore Parker, Lydia Maria Child, Adin Ballou, James Freeman Clarke, Lucy Stone, Francis E. Abbot, Frances Ellen Watkins Harper, and Celia Parker Woolley.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2770.

### [Religion 1551. Journeys]

Catalog Number: 33991 Enrollment: Limited to 12.

*Leila N. Ahmed (Divinity School)*

*Half course (fall term). Th., 2–4.*

A growing number of books have appeared recently recounting personal journeys of faith — faith searched for, wrestled with, lost, found, abandoned, affirmed, re-imagined, understood in new ways — or any combination of these. We will read contemporary works in this genre exploring, among others, themes of religion, gender and identity. Our readings will include Sarah Sentilles, *Breaking Up with God*, Joanna Brooks, *The Book of Mormon Girl*, Sheila Weinberg, *Surprisingly Happy*, Tariq Ramadan, *What I Believe*, Chris Stedman, *Faithiest*, Colleen Carroll Campbell, *My Sisters the Saints*, and Lauren Winner, *Still: Notes on a Mid-Faith Crisis*.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3107.

### \*Religion 1554 (formerly \*Religion 2501). The Religious History of American Women: Seminar

Catalog Number: 6508

*Ann D. Braude (Divinity School)*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

Takes the numerical dominance of women in most religious groups as the point of departure for an exploration of American history focusing on the interrelation of gender systems and religious world views. Topics include witchcraft, African American women evangelists, ideologies of domesticity, and the relation of gender to religious dissent, among others. The course emphasizes historical research methodology using gender as a category of analysis.

*Note:* Offered jointly with the Divinity School as 2325.

*Prerequisite:* Previous work in American religious history or women's studies.

### Religion 1556 (Classical Pragmatism and Religion). Pragmatism and Religion: Peirce, James, Royce and Dewey

Catalog Number: 70437

*David Lamberth (Divinity School)*

*Half course (fall term). M., W., at 11, and an hour to be arranged. EXAM GROUP: 18*

This course considers the classical figures in the American pragmatic tradition, seeking both to understand the genesis and claims of "pragmatism" and its relation to and implications for religion. Ordered chronologically, the course begins with Charles Sanders Pierce, but give particular attention to the writings of William James and John Dewey. Topics include belief, human experience, truth, action, ethics, rationality, and the nature and role (socially and individually) of religion.

*Note:* This is a new version of Religion 1546. *Religion and the American Pragmatic Tradition*, therefore, students who have taken Religion 1546 may not repeat this course for credit. Offered jointly with the Divinity School as 2671.

*Prerequisite:* Prior work in theology or philosophy recommended but not required.



### [Religion 1557. Unitarian and Universalist History in the United States]

Catalog Number: 85134

*Daniel P. McKanan (Divinity School)*

*Half course (spring term). W., 1–4.*

This survey course will trace the history of both Unitarianism and Universalism from their eighteenth-century origins to the present. Focusing especially on the experiences of local congregations, we will explore the diverse starting points of liberal religion in the United States; the challenges of Transcendentalism, spiritualism, and humanism; the interplay between liberal religion and social reform; and the experience of consolidation in the twentieth century.

*Note:* Expected to be given in 2015–16. Expected to be given in 2015–16. Offered jointly with the Divinity School as 2776.

### Religion 1559. Unitarian and Universalist Thought in the Twentieth Century

Catalog Number: 39813

*Daniel P. McKanan (Divinity School)*

*Half course (fall term). W., 1–4. EXAM GROUP: I*

This seminar will explore the major shapers of the Unitarian and Universalist traditions in the twentieth century, with special attention to the influence of the social gospel, religious humanism, process thought, and liberation theology. Featured writers will include Francis Greenwood Peabody, Clarence Skinner, John Haynes Holmes, Charlotte Perkins Gilman, Curtis Reese, Frederick May Eliot, James Luther Adams, Sophia Fahs, Henry Nelson Wieman, Charles Hartshorne, A. Powell Davies, Kenneth Patton, William R. Jones, and Rebecca Parker.

*Note:* Offered jointly with the Divinity School as 2772.

### [Religion 1562. Alternative Spiritualities in the United States]

Catalog Number: 54285

*Daniel P. McKanan (Divinity School)*

*Half course (fall term). W., 1–4.*

This course surveys spiritual practices and movements that have been labeled as "metaphysical," "esoteric," "occult," "harmonial," or "New Age." Beginning with colonial practices of astrology, alchemy, and spirit possession, we will consider Swedenborgianism, Spiritualism, Theosophy, New Thought, and their myriad descendants in the twentieth and twenty-first centuries.

*Note:* Expected to be given in 2015–16. The course will also feature field trips to two or three spiritual communities. Offered jointly with the Divinity School as 2360.

### [Religion 1572. Sex, Gender and Sexuality]

Catalog Number: 6407

*Amy Hollywood (Divinity School)*

*Half course (fall term). Hours to be arranged.*

The course will explore the theoretical articulation of sex, gender, and sexuality in twentieth-century theory, particularly in psychoanalysis, philosophy, and feminist and queer theory. Readings will include texts by Sigmund Freud, Simone de Beauvoir, Jacques Lacan, Michel Foucault, Gayle Rubin, Julia Kristeva, Monique Wittig, Judith Butler, Moira Gatens, and others.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2692.



**[\*Religion 1574. Life in Theology and Philosophy] - (New Course)**

Catalog Number: 42658 Enrollment: Limited to 15.

*Mayra Rivera Rivera (Divinity School)*

*Half course (spring term). Tu., 12–2.*

This course analyzes the resurgence of vitalisms in contemporary philosophy and theology, in its relationship with the developments in science and technology that motivate it.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School.

**Religion 1582. The Niebuhr Brothers and Their World - (New Course)**

Catalog Number: 11707 Enrollment: Limited to 15.

*K. Healan Gaston*

*Half course (spring term). Th., 4–6. EXAM GROUP: 6*

This course will explore the lives and works of the Protestant theologians and ethicists Reinhold Niebuhr (1892–1971) and H. Richard Niebuhr (1894–1962). Throughout their long careers, the Niebuhr brothers carried on a remarkable intellectual dialogue in both their published and unpublished writings and their private correspondence. In addition to surveying the similarities and differences between the brothers and their intellectual projects, we will also consider how their thought was shaped by various interlocutors, including Max Weber, Ernst Troeltsch, William James, Karl Barth, Paul Tillich, Emil Brunner, John Dewey, and Will Herberg, and by the broader historical contexts in which they lived and worked. We will pay particular attention to how the Niebuhr brothers viewed God and human nature, democracy and politics, secularism and pluralism, church-state relations, and the meaning and character of history.

*Note:* Offered jointly with the Divinity School as 2318.

**[Religion 1584. Twentieth Century Theological Method: An Introduction]**

Catalog Number: 94955

*David Lamberth (Divinity School)*

*Half course (spring term). Tu., Th., 10–11:30.*

The question how one goes about thinking theologically—in light of the situated-ness of language, human experience, other domains of knowledge, and a deepening understanding of the contextual location of theological expression—is a dominant concern for Christian theology in the twentieth and twenty first centuries. This course provides an introduction to the contemporary context for theological reflection by exploring conversations around method and the nature of theology in selected key twentieth century figures, such as Barth, Bultmann, Tillich, Daly, Cone, Kaufman, Tracy, Schüssler Fiorenza, Lindbeck, Grant, Milbank.

*Note:* Expected to be given in 2015–16. Expected to be given in 2015–16. Offered jointly with the Divinity School as 2382.

*Prerequisite:* The course is introductory, and has no prerequisites.

**[Religion 1590. Issues in the Study of Native American Religion]**

Catalog Number: 74695

*Ann D. Braude (Divinity School)*

*Half course (fall term). Hours to be arranged.*

Based around a series of traditionalist guest speakers, this course interrogates the study of religion in general and of Native American traditions in particular in light of indigenous religious experiences, perspectives and histories. Questions of appropriation, repatriation and religious



freedom will be approached through legal as well as cultural frameworks.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 2345.

### ***Cross-listed Courses***

**[African and African American Studies 180x. Race, Class and the Making of American Religion]**

**[Anthropology 1158. Maya Narratives: Gods, Lords, and Courts]**

**[Culture and Belief 52 (formerly History 1213). The American Evangelical Tradition from Jonathan Edwards to Jerry Falwell]**

**History 1445. Science and Religion in American History**

**Literature 113. Existential Fictions: From Saint Augustine to Jean-Paul Sartre and Beyond**

### ***Primarily for Graduates***

**[Religion 2510. Narratives of American Religion: The Canon and Its Revisions] - (New Course)**

Catalog Number: 32783 Enrollment: Limited to 15.

*David Frank Holland (Divinity School) and Catherine Brekus (Divinity School)*

*Half course (spring term). W., 1–4.*

This course will examine the writing of American religious history from the nineteenth century until the present. In the first part of the course, we will trace the creation of an American religious historical canon. Readings will include Robert Baird's *Religion in America* (1844), William Warren Sweet's *The Story of Religions in America* (1930) and Sydney E. Ahlstrom's *A Religious History of the American People* (1972). In the second part of the course, we will explore the transformation of the field of American religious history since the 1970s. In addition to reading textbooks such as Catherine Albanese's *America: Religion and Religions* (1981) and George Marsden's *Religion and American Culture* (1990), we will read case studies of new approaches and methodologies. Our goal is to assess the strengths and weaknesses of both the canon and the new religious history that has taken its place.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School.

**[Religion 2520. Postcolonialism and Religion] - (New Course)**

Catalog Number: 87208

*Mayra Rivera Rivera (Divinity School)*

*Half course (spring term). Th., 2–4.*

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School.

**Religion 2541. Religious Experience: Seminar**

Catalog Number: 9647 Enrollment: Limited to 12.

*David Lamberth (Divinity School)*

*Half course (spring term). Th., 4–6. EXAM GROUP: 6*

An in-depth analysis of the investigation into and construction and critique of "religious experience" in philosophy of religion, theology, critical religious thought and contemporary neuroscience. Issues will include asking what is at stake in the appeal to experience, what experience is or might be, and what evidence for such experiences currently looks like. Authors



will include Edwards, James, Katz, Otto, Proudfoot, Schleiermacher, as well as contemporary neuroscientists.

*Note:* Offered jointly with the Divinity School as 2675.

*Prerequisite:* Previous work in theology or philosophy recommended.

### [Religion 2542. Kant: Seminar]

Catalog Number: 5295 Enrollment: Limited to 12.

*David Lamberth (Divinity School)*

*Half course (spring term). F., 12–2.*

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:* Expected to be given in 2015–16. Expected to be given in 2015–16. Offered jointly with the Divinity School as 2674.

*Prerequisite:* Advanced work in theology or philosophy of religion.

### [Religion 2550. Piety and Protest: Women and Religion in Contemporary America]

Catalog Number: 8927

*Ann D. Braude (Divinity School)*

*Half course (fall term). Hours to be arranged.*

Practices of piety that are also acts of protest provide access to contemporary developments relating religion, gender and sexuality. This course historicizes current women's cultures of protest within, against and on behalf of their religious faiths. Case studies drawn primarily from Judaism, Christianity and Islam include ecological critiques; the resurgence of the veil in Islam; the ordination of women; the return to orthodoxy in Judaism; as well as consolidations of heterosexuality. The course concludes by interrogating international iconoclastic political protests in light of earlier feminist art work in which the female body is a site of piety and protest, such as Judy Chicago's The Dinner Party.

*Note:* Expected to be given in 2016–17. Expected to be given in 2015–16. Offered jointly with the Divinity School as 2328.

### \*Religion 2555. Readings in Twentieth and Twenty-first Century Theory

Catalog Number: 66638 Enrollment: Limited to 15.

*Amy Hollywood (Divinity School)*

*Half course (fall term). Tu., 4–7 p.m. EXAM GROUP: 16*

Readings will vary each year. 2014-15 Topic: Hysteria, Trauma, Melancholy.

*Note:* Offered jointly with the Divinity School as 2759.

### \*Religion 2570. Merleau-Ponty and his Readers - (New Course)

Catalog Number: 26794 Enrollment: Limited to 15.

*Mayra Rivera Rivera (Divinity School)*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

This advanced level seminar engages on selected works by Maurice Merleau-Ponty. It focuses on the influence of Christian ideas on his work and the relationship between philosophy and theology. It also engages the works of thinkers influenced by Merleau-Ponty, including Franz



Fanon, Judith Butler, and others.

*Note:* Offered jointly with the Divinity School as 2386.

### ***Cross-listed Courses***

#### **[Anthropology 1062 \(formerly Anthropology 2062\). Religions of Latin America: Mexico, Peru, El Caribe](#)**

**[Anthropology 2085. Archaeology of Ritual and Religion]**

### ***Graduate Courses of Reading and Research***

#### **\*Religion 3505hfr. Colloquium in American Religious History**

Catalog Number: 6445 Enrollment: Limited to 20.

*David Neil Hempton (Divinity School) 5974, Instructor to be determined (spring term)*

*Half course (throughout the year). Spring: Tu., 7–9 p.m. EXAM GROUP: Fall: 16; Spring: 6*

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 and South Asia***

#### ***Primarily for Undergraduates***

### ***Cross-listed Courses***

#### **[\[Aesthetic and Interpretive Understanding 30. Love In A Dead Language: Classical Indian Literature and Its Theorists\]](#)**

**[Culture and Belief 28. Hindu Worlds of Art and Culture]**

**[Culture and Belief 60. Religion in India: Texts and Traditions in a Complex Society - \(New Course\)](#)**

### ***For Undergraduates and Graduates***

#### **[\[Religion 1600. Introduction to the Hindu Traditions of India\]](#)**

Catalog Number: 9700

*Anne E. Monius (Divinity School)*

*Half course (fall term). M., W., at 10, and hour to be arranged.*

An introduction to the many distinct yet interrelated religious traditions of South Asia that are often labeled "Hinduism." This course considers 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:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3404.

#### **[Religion 1602. Lived Religion in South Asia - \(New Course\)](#)**

Catalog Number: 70028

*Anne E. Monius (Divinity School)*



*Half course (fall term). M., W., at 10 and an hour to be arranged. EXAM GROUP: 5*

This course explores the lives, practices, and experiences of contemporary South Asians from Hindu, Muslim, Jain, and Sikh perspectives. Concepts central to South Asian worldviews will be carefully considered in the context of both rural and urban day-to-day activities, rituals, and family life. Readings are drawn from a wide range of ethnographic literatures, and films documenting a diverse range of religious, cultural, and social settings from across South Asia will frequently be shown.

*Note:* Offered jointly with the Divinity School as 3461.

### **Religion 1610. Householders and Ascetics: An Introduction to Religions of South Asia**

Catalog Number: 48595 Enrollment: Limited to 30.

*Shenghai Li*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This course introduces the remarkable diversity of religious literature, philosophical thought, ritual and contemplative practices, and cultural forms that have emerged on the South Asian subcontinent. Focusing on Hinduism, Buddhism, and Jainism, the course examines common South Asian religious patterns in the areas of textual practices, social institutions, and contemplative traditions. We will explore intellectual achievements and religious experiences lived by householders and ascetics alike. By engaging with South Asian materials and becoming familiar with the scholarship in the field, students will gain refined perspectives on religions in the world.

### **Religion 1615. The Bhagavad Gita and Its Commentators**

Catalog Number: 2171

*Francis X. Clooney (Divinity School)*

*Half course (spring term). Tu., 2–4:30. EXAM GROUP: 11*

Bhagavad Gita, a Hindu classic of devotion and theology, has received extensive classical and contemporary commentary. The seminar explores selectively the interpretations of classical commentators (Sankara, Ramanuja, and Madhusudana Sarasvati), and 20th century interpreters (B. G. Tilak, Mohandas Gandhi, Bede Griffiths). Part of the series, Reading Hindu Texts Interreligiously, meant for students interested in closely reading Indian/Hindu texts, with attention to textual analogues from other religions.

*Note:* Offered jointly with the Divinity School as 3750.

*Prerequisite:* No Sanskrit required.

### **[Religion 1631. Hindu Traditions of Devotion]**

Catalog Number: 9423

*Anne E. 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, this course will explore a variety of devotional literature in English translation and consider the enduring significance and use of that deeply emotional poetry in the lives of Hindus today.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3406.



**[\*Religion 1635. Reading Pre-Modern Hindu Narrative Literature: Seminar]**

Catalog Number: 0073 Enrollment: Limited to 15.

*Anne E. Monius (Divinity School)*

*Half course (spring term). Tu., 2–4.*

Focusing on the genres of *itihasa*, *purana*, and *katha*, this seminar explores the relevance of both classical Indic and contemporary Euro-American literary theories for the understanding of pre-modern South Asian narrative.

*Note:* Expected to be given in 2016–17. Expected to be given in 2016–17. Offered jointly with the Divinity School as 3926.

*Prerequisite:* Although all primary source readings will be in English translation, previous study of South Asian religions is required.

**\*Religion 2640 (formerly Religion 1640). New Directions in Hindu Studies**

Catalog Number: 8084 Enrollment: Limited to 15.

*Anne E. Monius (Divinity School)*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

What does it mean to study South Asian religions in a postcolonial context, in the wake of scathing critique, in light of the work of Said, Chakrabarty, Inden, Pollock, and others?

Through careful examination of recent works in the field, this seminar explores the current state of Hindu Studies and assesses possible directions for future work.

*Note:* Offered jointly with the Divinity school as 3924.

*Prerequisite:* Previous study of South Asian religions.

***Cross-listed Courses***

**Islamic Civilizations 178 (formerly \*Religion 1820). Muslim Societies in South Asia: Religion, Culture, and Identity**

[South Asian Studies 124. Introduction to World Mythology]

South Asian Studies 196. Capitalism and Cosmology in Modern India

***Primarily for Graduates***

***Cross-listed Courses***

**Sanskrit 200br. Advanced Literary Sanskrit**

[Sanskrit 201br. Advanced Philosophical Sanskrit]

***Buddhism***

***Primarily for Undergraduates***

***Cross-listed Courses***

[Aesthetic and Interpretive Understanding 36. Buddhism and Japanese Culture]

Culture and Belief 25. Studying Buddhism, Across Place and Time



### ***For Undergraduates and Graduates***

#### **[Religion 1701. Introduction to Buddhist Scriptures and Their Critical Interpretations]**

Catalog Number: 5996

*Charles Hallisey (Divinity School)*

*Half course (spring term). Tu., Th., 8:30–10.*

An introduction to basic issues in the contemporary understanding of textuality, history, and interpretation and their relevance to the study of Buddhist scriptures. Examples of Buddhist scriptures will be drawn primarily from the Mahayana traditions.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3836.

#### **[Religion 1705. Tibetan Religions]**

Catalog Number: 7192

*Janet Gyatso (Divinity School)*

*Half course (fall term). Hours to be arranged.*

A close look at practices and cultural productions of Tibetan Buddhism and other religious traditions in light of their distinctive historical contexts in Tibet. Topics include: yogic, lay, and monastic religions; visionary practices; religion, magic and the state; Buddhism in literature and art; medicine and Buddhism; death and reincarnation practices; the creation of sacred landscape; and certain distinctive literary genres including "mind training," "advice" writings, self-revelatory autobiography; and religious historiography. Throughout the course we will be considering a number of new publications that have recently enriched our understanding of Tibetan religious cultures and institutions.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3563.

#### **[Religion 1706. 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 2015–16. Offered jointly with the Divinity School as 3536.

#### **Religion 1709. Introduction to Buddhist Scriptural Anthologies and their Critical Interpretations**

Catalog Number: 34998

*Charles Hallisey (Divinity School)*

*Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 9*

An introduction to basic issues in reading Buddhist Scriptural Anthologies, both historical and hermeneutic. Special emphasis will be given to issues of intertextuality that the formation of scriptural anthologies generates. Examples of Buddhist scriptural anthologies will be drawn from across the Buddhist world.

*Note:* Offered jointly with the Divinity School as 3800.



### **Religion 1722. Buddhist Ethics**

Catalog Number: 38661 Enrollment: Limited to 30.

*Charles Hallisey (Divinity School)*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

A systematic exploration of Buddhist views of moral anthropology and the place of moral reflection in Buddhist thought and practice. The scope of the course is wide, with examples drawn from the whole Buddhist world, but the emphasis will be given to the particularity of different Buddhist visions of human flourishing. Attention will also be given to the challenges and promises of describing Buddhist ethics in a comparative perspective.

*Note:* Offered jointly with the Divinity School as 3576.

### **Religion 1742. Introduction to Buddhist Narrative and Story Literature**

Catalog Number: 90183

*Charles Hallisey (Divinity School)*

*Half course (spring term). Tu., Th., 8:30–10. EXAM GROUP: 2*

An introduction to the study of narrative and story literature in the Buddhist world. A primary focus will be on the narrative and story literature found in Buddhist scriptures and commentaries, but there will also be consideration of examples of narrative and story literature that circulated independently. Examples will be drawn from across the Buddhist world.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3776.

### **[\*Religion 1752. Buddhist Logic and Epistemology: In the Wake of Dignaga]**

Catalog Number: 2905 Enrollment: Limited to 12.

*Parimal G. Patil*

*Half course (fall term). Th., 2–4.*

An advanced introduction to the roughly 800 year history of the Buddhist Epistemological tradition in India through a reading of primary sources in translation and recent secondary scholarship.

*Note:* Expected to be given in 2015–16.

### ***Cross-listed Courses***

#### **East Asian Studies 108. Sages, Saints, and Shamans: An Introduction to Korean Religions - (New Course)**

#### **[East Asian Studies 191. Zen: History, Culture, and Critique]**

### ***Primarily for Graduates***

#### **Religion 2730. Agency, Spontaneity, and the Education of the Emotions: Buddhist Path**

#### **Writing and Meditation Theory - (New Course)**

Catalog Number: 66127

*Janet Gyatso (Divinity School)*

*Half course (spring term). W., 4–6 and an hour to be arranged. EXAM GROUP: 13*

The first section of this course will study writings that exhort us to take up the Buddhist path. The second part will turn to meditation theory. The third section will consider how study of the modes of being encouraged in path writings can shed light on the relationship between



meditation practice and breakthrough. The course readings, all in English translation, will be chapters from Visuddhimagga, Abhidharmakośa, Abhisamayālamkāra, and Indo-Tibetan path literature.

*Note:* Offered jointly with the Divinity School.

### *Cross-listed Courses*

#### **East Asian Buddhist Studies 240r. Japanese Buddhist Doctrine and Monastic Culture: Seminar**

[**East Asian Buddhist Studies 245r. Ritual and Text in Japanese Buddhist Literature**]

#### **East Asian Buddhist Studies 255. Readings on Chinese Religions: Recent Scholarship on Chinese Buddhism and Daoism: Seminar**

#### **East Asian Buddhist Studies 256r (formerly East Asian Buddhist Studies 256). Chinese Buddhist Texts--Readings in Medieval Buddho-Daoist Documents: Seminar**

[**Tibetan 219r. Tibetan Religious Literature: Seminar**]

### *Islam*

#### *Primarily for Undergraduates*

### *Cross-listed Courses*

[**Aesthetic and Interpretive Understanding 54 (formerly Culture and Belief 12). For the Love of God and His Prophet: Religion, Literature, and the Arts in Muslim Cultures**]

#### **Culture and Belief 19. Understanding Islam and Contemporary Muslim Societies**

[**Culture and Belief 41. Gender, Islam, and Nation in the Middle East and North Africa**]

#### **\*Freshman Seminar 37v. Muslim Voices in Contemporary World Literatures**

[**Societies of the World 46. The Anthropology of Arabia**]

#### **Societies of the World 54 (formerly Religion 1832). Islam and Politics in the Modern Middle East**

### *For Undergraduates and Graduates*

#### **Religion 1802. Introduction to Islamic Mysticism: The Sufi Tradition**

Catalog Number: 3830

*Ali S. Asani*

*Half course (spring term). W., 12–2. EXAM GROUP: 7*

Introductory survey of Sufism, focusing on its fundamental concepts, ritual practices, institutions, and its impact on literary and sociopolitical life in different Muslim societies.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past. Offered jointly with the Divinity School as 3620.

*Prerequisite:* An introductory course in Islam or equivalent helpful but not essential.



### **[Religion 1816. Ismaili History and Thought]**

Catalog Number: 18808

*Ali S. Asani*

*Half course (spring term). Hours to be arranged.*

This course explores the doctrines and practices of the Ismailis, adherents of a minority branch of Shia Islam that recognizes the continuation of religious authority after the Prophet Muhammad through a particular line of his descendants known as the Imams. Focusing on their historical evolution and manifestations in diverse political, cultural and social contexts, the course will consider three major communities: the Nizari Ismailis (in Syria, Iran, Central Asia, and South Asia); the Tayyibi (Daudi Bohra) Ismailis (in Yemen and South Asia) and the Druze (in Syria and Lebanon). Principal themes to be considered include conceptions of the Imamah and notions of authority, messianic doctrines, philosophy, ritual practice and devotional traditions. The course will also briefly consider the contemporary situation of these communities as minorities in North America and Europe.

*Note:* Expected to be given in 2015–16. Offered jointly with the Divinity School as 3939.

*Prerequisite:* Introductory course on Islam or permission of instructor.

### **Religion 1829. Readings in Islam and the History of Islam in the U.S. and Europe**

Catalog Number: 66716 Enrollment: Limited to 25.

*Leila N. Ahmed (Divinity School)*

*Half course (fall term). W., 1–4. EXAM GROUP: I*

We will read contemporary works in the history of Islam in the U.S. and Europe in the 20th and 21st centuries.

*Note:* Offered jointly with the Divinity School as 3582.

### **Religion 1842. Religion, Gender, Identity: Readings in Arab and Muslim Autobiography: Seminar**

Catalog Number: 4518 Enrollment: Limited to 12.

*Leila N. Ahmed (Divinity School)*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

We will read autobiographical works mainly by 20th century 'Arab' writers, Muslim, Christian and Jewish, paying particular attention to issues of religion, gender and identity, exploring how these are at play in the texts and in authorial constructions of self, history, and meaning.

*Note:* Offered jointly with the Divinity School as 3616.

### ***Cross-listed Courses***

**History 1877 (formerly \*History 1977a). History of Middle East, 600-1055**

**History of Science 108. Bodies, Sexualities, and Medicine in the Medieval Middle East**

**History of Science 109. Science and Islam: Agents, Places, and Controversies - (New Course)**

**[History of Science 113. Crusades, Plagues and Hospitals: Medicine and Society in the Islamic Middle Ages]**

**[Islamic Civilizations 145a. Introduction to Islamic Philosophy and Theology: Formative and Classical Periods (8th to 17th C.)]**

**\*Islamic Civilizations 170. Islam, Modernity and Politics**



**[\\*Islamic Civilizations 171. Religion and Political Violence in North Africa and the Sahel - \(New Course\)](#)**

**[\\*Islamic Civilizations 172. Knowledge and Authority in Muslim Societies - \(New Course\)](#)**

[\*[Islamic Civilizations 174. Migration and Religion in Comparative Perspective\] - \(New Course\)](#)

**[Islamic Civilizations 175. Islam in African History](#)**

[[Islamic Civilizations 176. Islam in Modern West Africa](#)]

**[Islamic Civilizations 178 \(formerly \\*Religion 1820\). Muslim Societies in South Asia: Religion, Culture, and Identity](#)**

[[Islamic Civilizations 183. Reform and Revival in Modern Islam, 19th -20th centuries](#)]

**[Islamic Civilizations 185r. Ulama, Religious Institutions, and Islamic Education in the Middle East](#)**

[[The Modern Middle East 120. The Arab Revolutions: popular uprisings and political transformations](#)]

*Primarily for Graduates*

**[Religion 2840. Twenty-First Century Middle Eastern Diasporic Memoirs in the West - \(New Course\)](#)**

Catalog Number: 39858 Enrollment: Limited to 12.

*Leila N. Ahmed (Divinity School)*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

We will read contemporary autobiographical works by Western authors of 'Arab' and Iranian heritage - Christian, Jewish, and Muslim. - paying particular attention to issues of religion, gender and identity, and to exploring how these are at play in the texts and in authorial constructions of self, history, and meaning.

*Note:* Offered jointly with the Divinity School as 3583.

*Cross-listed Courses*

[[Comparative Literature 211. Mysticism and Literature](#)]

**[History of Science 209. Science, Religion and Culture: Debates, Methods and Controversies](#)**

**[Islamic Civilizations 210. Introduction to Islamic Law](#)**

[\*[Islamic Civilizations 213. Theological and Legal Conceptions of Human Nature in Islam\] - \(New Course\)](#)

**[\\*Islamic Civilizations 214. Concepts of Innovation \(\*tajdīd\*\) in Classical Islam \(9th-12th centuries\) - \(New Course\)](#)**

[\*[Islamic Civilizations 217. The Construction of Gendered Spheres in Islamic Law: Ritual, Family, Kinship, Court Procedures\] - \(New Course\)](#)

**[\\*Islamic Civilizations 230. Islamic Modernism \(1\): 1700-1800](#)**

**[\\*Islamic Civilizations 232 \(formerly \\*Religion 2835\). Islamic Modernism \(2\): 1870-1970](#)**

[\*[Islamic Civilizations 233. Islamic Modernism \(3\): 1970-2014\]](#)

**[\\*Islamic Civilizations 241r. Approaches to Studying Indo-Muslim Culture and South Asian Islam](#)**

*African and Afro-Atlantic Religions*



*For Undergraduates and Graduates*

*Cross-listed Courses*

[African and African American Studies 136. Black Religion and Economic Thought]

[\*\*African and African American Studies 160. Christianity, Identity, and Civil Society in Africa\*\*](#)

[African and African American Studies 161. Religion, Diaspora, and Migration: Seminar]

[\*\*African and African American Studies 162. Indigenous Religious Traditions and Modernity: Seminar\*\*](#)

[\*\*African and African American Studies 187. African Religions\*\*](#)

[African and African American Studies 192x. Religion and Society in Nigeria]

[\*\*\\*Islamic Civilizations 171. Religion and Political Violence in North Africa and the Sahel - \(New Course\)\*\*](#)

[\*\*Islamic Civilizations 175. Islam in African History\*\*](#)

[Islamic Civilizations 176. Islam in Modern West Africa]

*Primarily for Graduates*

*Cross-listed Courses*

*Chinese and Japanese Religions*

*Primarily for Undergraduates*

*Cross-listed Courses*

[Aesthetic and Interpretive Understanding 36. Buddhism and Japanese Culture]

[\*\*Culture and Belief 33. Introduction to the Study of East Asian Religions\*\*](#)

[Culture and Belief 57. Animated Spirituality: Japanese Religion in *Anime, Manga, and Film*]

[\*\*Ethical Reasoning 18. Classical Chinese Ethical and Political Theory\*\*](#)

[\*\*Societies of the World 12. China\*\*](#)

[Societies of the World 13. Japan in Asia and the World]

*For Undergraduates and Graduates*

*Cross-listed Courses*

[\*\*Anthropology 1400. Quests for Wisdom: Religious, Moral and Aesthetic Experiences in the Art of Living\*\*](#)

[\*\*Anthropology 1996. Angels, Ghosts, and Hustlers: Bangkok Live\*\*](#)

[\*\*East Asian Studies 108. Sages, Saints, and Shamans: An Introduction to Korean Religions - \(New Course\)\*\*](#)

[\*\*East Asian Studies 140. Major Religious Texts of East Asia\*\*](#)

[Japanese History 115. Religion and Society in Edo and Meiji Japan]



- [Japanese History 117. Japanese Folk Religion: Conference Course]  
[Japanese History 120. Religion and Society in Twentieth-Century Japan]  
[Japanese History 126. Shinto: Conference Course]

*Primarily for Graduates*

*Cross-listed Courses*

[\*\*East Asian Buddhist Studies 240r. Japanese Buddhist Doctrine and Monastic Culture: Seminar\*\*](#)

[[East Asian Buddhist Studies 245r. Ritual and Text in Japanese Buddhist Literature](#)]

[\*\*East Asian Buddhist Studies 255. Readings on Chinese Religions: Recent Scholarship on Chinese Buddhism and Daoism: Seminar\*\*](#)

[\*\*East Asian Buddhist Studies 256r \(formerly East Asian Buddhist Studies 256\). Chinese Buddhist Texts--Readings in Medieval Buddho-Daoist Documents: Seminar\*\*](#)

[[Japanese History 256. The Ise Shrines: Seminar](#)]

*Graduate Courses of Reading and Research*

**\*Religion 3000. Direction of Doctoral Dissertations**

Catalog Number: 1933

*Ryūichi Abé 4974 (on leave spring term), M. Shahab Ahmed (Law School) 5273, Ali S. Asani 7739, Giovanni Battista Bazzana (Divinity School) 6873, Janet Browne 5511, David L. Carrasco (Divinity School and Faculty of Arts and Sciences) 4213, Francis X. Clooney (Divinity School) 1785, Nancy F. Cott 4261, Diana L. Eck 4514, Francis Fiorenza (Divinity School) 2735, Marla F. Frederick 4728, Luis M. Girón Negrón 3060, William Albert Graham 4156 (on leave spring term), Janet Gyatso (Divinity School) 4243, David D. Hall (Divinity School) 2510, Helen Hardacre 3191 (on leave 2014-15), David Neil Hempton (Divinity School) 5974, Albert Henrichs 4085, Evelyn Brooks Higginbotham 3517, Amy Hollywood (Divinity School) 5547, Baber Johansen (Divinity School) 5295, Beverly M. Kienzle (Divinity School) 2452, Karen L. King (Divinity School) 4217, Arthur Kleinman 7473, James T. Kloppenberg 3157, David Lamberth (Divinity School) 3714, Jon D. Levenson (Divinity School) 2264, Peter Machinist 2812, Kevin J. Madigan (Divinity School) 4287, Everett I. Mendelsohn 2700, Anne E. Monius (Divinity School) 4489, Roy Mottahedeh 1454 (on leave spring term), Laura S. Nasrallah (Divinity School) 4834, Jacob Olupona 5608, Parimal G. Patil 4478, Kimberley C. Patton (Divinity School) 3306, Michael J. Puett 1227, Elisabeth Schüssler Fiorenza (Divinity School) 3193, P. Oktor Skjaervo 2869 (on leave fall term), Charles Stang (Divinity School) 6204, Jonathan Lee Walton (Divinity School) 6462, Malika Zeghal 6744, and Leonard W. J. van der Kuijp 1556 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

*Note:* May also be taken with other instructors, when authorized by the Chair.

**\*Religion 3001. Reading and Research**

Catalog Number: 7954

*Ryūichi Abé 4974 (on leave spring term), M. Shahab Ahmed (Law School) 5273, Ali S. Asani 7739, Giovanni Battista Bazzana (Divinity School) 6873, Catherine A. Brekus (Divinity) 7718,*



*Janet Browne 5511, David L. Carrasco (Divinity School and Faculty of Arts and Sciences) 4213, Francis X. Clooney (Divinity School) 1785, Nancy F. Cott 4261, Harvey G. Cox, Jr. (Divinity School) 3479, Diana L. Eck 4514, Francis Fiorenza (Divinity School) 2735, Marla F. Frederick 4728, Luis M. Girón Negrón 3060, William Albert Graham 4156 (on leave spring term), Janet Gyatso (Divinity School) 4243, David D. Hall (Divinity School) 2510, Charles Hallisey (Divinity School) 3032, Helen Hardacre 3191 (on leave 2014-15), Jay M. Harris 2266, David Neil Hempton (Divinity School) 5974, Evelyn Brooks Higginbotham 3517, Amy Hollywood (Divinity School) 5547, Michael D. Jackson (Divinity School) 5524, Baber Johansen (Divinity School) 5295, Beverly M. Kienzle (Divinity School) 2452, Karen L. King (Divinity School) 4217, Arthur Kleinman 7473, James T. Kloppenberg 3157, Helmut H. Koester (Divinity School) 3477, David Lamberth (Divinity School) 3714, Jon D. Levenson (Divinity School) 2264, Peter Machinist 2812, Kevin J. Madigan (Divinity School) 4287, Daniel P. McKanan (Divinity School) 6387, Everett I. Mendelsohn 2700, David G. Mitten 1290, Anne E. Monius (Divinity School) 4489, Roy Mottahedeh 1454 (on leave spring term), Laura S. Nasrallah (Divinity School) 4834, Jacob Olupona 5608, Parimal G. Patil 4478, Kimberley C. Patton (Divinity School) 3306, Stephanie A. Paulsell (Divinity School) 5382, Michael J. Puett 1227, Mayra Rivera Rivera (Divinity School) 6897, Elisabeth Schüssler Fiorenza (Divinity School) 3193, Charles Stang (Divinity School) 6204, D. Andrew Teeter (Divinity School) 6111, Jonathan Lee Walton (Divinity School) 6462, Malika Zeghal 6744, and Leonard W. J. van der Kuijp 1556 (on leave spring term)*  
*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*  
*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*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

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*



Francesco Erspamer, Professor of Romance Languages and Literatures (*Chair, fall term, and Italian Section Head*)

Virginie Greene, Professor of Romance Languages and Literatures (*Chair, spring term*) (*on leave fall term*)

Daniel Aguirre Oteiza, Assistant Professor of Romance Languages and Literatures

Janet Beizer, Professor of Romance Languages and Literatures (*Director of Graduate Studies*)

Carole Bergin, Preceptor in Romance Languages and Literatures

Hélène Bilis, Visiting Assistant Professor of Romance Languages and Literatures

Josiah Blackmore, Nancy Clark Smith Professor of the Language and Literature of Portugal (*Portuguese Section Head and Undergraduate Advisor in Portuguese*)

Stephen Bocskay, Lecturer on Romance Languages and Literatures

Emmanuel Bouju, Visiting Professor of Romance Languages and Literatures

Stacey Bourns, Senior Lecturer on Romance Languages and Literatures (*Language Programs Director*)

Aurélie Chevant, Preceptor in Romance Languages and Literatures

Tom Conley, Abbott Lawrence Lowell Professor of Romance Languages and Literatures and of Visual and Environmental Studies (*French Section Head*)

Verena A. Conley, Visiting Professor of Comparative Literature and of Romance Languages and Literatures (*Undergraduate Advisor in French*)

Everton Vargas da Costa, Visiting Lecturer on Romance Languages and Literatures

Sergio Delgado, Associate Professor of Romance Languages and Literatures (*on leave 2014-15*)

Elvira G. DiFabio, Senior Preceptor in Romance Languages and Literatures (*Associate Director of Undergraduate Studies and Undergraduate Advisor in Italian*)

Luis Fernández-Cifuentes, Robert S. and Ilse Friend Professor of Romance Languages and Literatures

Lorgia H. García Peña, Assistant Professor of Romance Languages and Literatures and of History and Literature

Mary M. Gaylord, Sosland Family Professor of Romance Languages and Literatures (*Director of Undergraduate Studies*)

Luis M. Girón Negrón, Professor of Romance Languages and Literatures and of Comparative Literature (*Undergraduate Advisor in Romance Studies*)

Viviane Gontijo, Preceptor in Romance Languages and Literatures

Eloi Grasset Morell, Lecturer on Literature

Adriana Gutiérrez, Senior Preceptor in Romance Languages and Literatures

Sylvaine Guyot, Roy G. Clouse Associate Professor of Romance Languages and Literatures (*on leave 2014-15*)

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 (*on leave spring term*)

Nicole Delia Legnani, College Fellow in the Department of Romance Languages and Literatures

Johanna Damgaard Liander, Senior Preceptor in Romance Languages and Literatures (*Undergraduate Advisor in Spanish*)

Maria Grazia Lolla, Lecturer on Romance Languages and Literatures

Rodrigo Lopes de Barros, Visiting Assistant Professor of Romance Languages and Literatures

Christie McDonald, Smith Professor of French Language and Literature and of Comparative



*Literature (on leave fall term)*

Nicole Mills, Senior Preceptor in Romance Languages and Literatures

Maria celeste Moreno palmero, Preceptor in Romance Languages and Literatures

Adam Muri-Rosenthal, Lecturer on Romance Languages and Literatures

Maria Luisa Parra-Velasco, Senior Preceptor in Romance Languages and Literatures

Federica G. Pedriali, Visiting Professor of Romance Languages and Literatures (*University of Edinburgh*)

Lino Pertile, Carl A. Pescosolido Professor of Romance Languages and Literatures

Jeffrey Schnapp, Professor of Romance Languages and Literatures and of Comparative Literature

Mariano Siskind, John L. Loeb Associate Professor of the Humanities (*Undergraduate Advisor in Latin American Studies*)

Doris Sommer, Ira Jewell Williams, Jr. Professor of Romance Languages and Literatures and of African and African American Studies (*Spanish Section Head*)

Diana Sorensen, Dean of Arts and Humanities, and James F. Rothenberg Professor of Romance Languages and Literatures and of Comparative Literature

Susan R. Suleiman, C. Douglas Dillon Professor of the Civilization of France and Professor of Comparative Literature (*on leave 2014-15*)

***Other Faculty Offering Instruction in the Department of Romance Languages and Literatures***

Franco Fido, Carl A. Pescosolido Professor of Romance Languages and Literatures, Emeritus

John T. Hamilton, William R. Kenan, Jr. Professor of Comparative Literature and of Germanic Languages and Literatures

***Affiliates of the Department of Romance Languages and Literatures***

Mayra Rivera Rivera, Associate Professor of Theology and Latina/o Studies, Affiliate of the Department of Romance Languages and Literatures (*Divinity School*)

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 30-99 indicate courses designed primarily for undergraduates. Courses numbered 100-199 are open to both undergraduates and graduate students. 200-level courses 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. Courses number 59 combine language study and engagement with living language communities in the Boston area.

**GROUP II:** Courses designed to introduce students to systematic study of literature and culture.



Courses 60-69 offer effective bridges between the studies of language, culture, and literature. 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. Courses numbered 60-99 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 General Education, the Freshman Seminar program, the Department of Literature and Comparative Literature, Visual and Environmental Studies, and in Studies of Women, Gender, and Sexuality, among others. For further offerings in general and comparative Romance literatures, see listings of the Department of Literature and Comparative Literature.

Students interested in earning a foreign language citation in a Romance language should read carefully the sections on Catalan, 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 C 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 can normally be taken for citation credit, but students should consult with the Director of Language Programs in Romance Languages and Literatures for exact information.

Several members of the Romance Languages and Literatures faculty offer intensive courses through the Harvard Summer Abroad Program. These courses count for Harvard undergraduate degree credit, and may count for Romance Languages and Literatures concentration credit. For more information please see <http://www.fas.harvard.edu/~rll/undergraduate/study—abroad.html>.

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 only with permission of the course head. No auditors are allowed in lettered language courses or in courses numbered 30 to 69. No one may enter A level courses after the eighth meeting of the class, Acd, Bab, or Dab classes after the first meeting, or C or 30 level courses after the sixth meeting.

### ***Catalan***

***Primarily for Undergraduates***



### **Catalan Ba. Introduction to Catalan**

Catalog Number: 2153

*Stacey Bourns and members of the Department*

*Half course (fall term). Tu., Th., 3–5. EXAM GROUP: 4*

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. Native Catalan speakers include Antonio Gaudí, Salvador Dalí, Joan Miró, Antoni Tàpies, Mercè Rodoreda, and Pau Casals. Emphasizing oral communication, reading, and writing, offers students contact with contemporary Catalan culture.

*Note:* Conducted in Catalan. Knowledge of another Romance language is useful but not essential. Not open to auditors. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students.

### **Catalan 20. Catalan Language and Culture: a Multimedia Approach**

Catalog Number: 2559

*Eloi Grasset Morell and members of the Department*

*Half course (spring term). Tu., Th., 3–4:30. EXAM GROUP: 16*

Intermediate course introducing students to Catalan culture and boosting their oral and written skills through a wide range of resources, such as Internet, television, radio, and press. Students will get a taste of various aspects of Catalan culture: art, cinema, music, literature, traditions, cuisine, history, and more.

*Note:* Conducted in Catalan. Not open to auditors. May not be taken Pass/Fail by undergraduates, but may be taken Sat/Unsat by GSAS students.

*Prerequisite:* Catalan Ba, basic knowledge of Catalan, or permission of course head.

### **\*Catalan 91r. Supervised Reading and Research**

Catalog Number: 2578

*Stacey Bourns (fall term), Eloi Grasset Morell (spring term) and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*

Tutorial supervision of research on subjects not treated in regular courses. May be used for further language study after Catalan Ba or 20.

## ***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 or Language are admitted directly into French courses numbered in the 40s, 50s, and 60s or 70a, 70b, or 70c, with permission of course head, and also into 100-level courses of French literature with permission of 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 Aa. Beginning French I: French Identity through Visual Media**

Catalog Number: 12968

*Nicole Mills and members of the Department*

*Half course (fall term; repeated spring term). Fall: M. through Th., sections at 9, 10, 11, 12, or 1. Spring: M. through Th., sections at 10 or 1. EXAM GROUP: 4*

This elementary French course provides an introduction to French with emphasis on interpersonal communication and the interpretation and production of language in written and oral forms. Students engage in interactive communicative activities, both online and in the classroom, that provide rich exposure to the French and francophone language and culture. The course addresses the theme of identity through engagement in the discussion and interpretation of various French visual media including video, images, and film.

*Note:* French Aa is an elementary French course for students with little or no knowledge of French. French Aa may count toward the language requirement. Open to students who have not previously studied French or who have scored below 300 on the Harvard placement exam. Students who have studied French for two years or more in secondary school must begin at French Ab or higher. May not be taken Pass/Fail. Not open to auditors. Graduate students at GSAS may take the course Sat/Unsat with permission of course head. Section on-line on the French Aa iSite.

#### **French Ab. Beginning French II: Exploring Parisian Life and Identity**

Catalog Number: 28075

*Nicole Mills and members of the Department*

*Half course (fall term; repeated spring term). Fall: M. through Th., sections at 10 or 12. Spring: M. through Th., sections at 9, 10, 11, 12, or 1. EXAM GROUP: 4*

In the second course in the Elementary French sequence, students will engage in an online simulation of life in Paris while exploring diverse facets of Parisian identity. Through the interpretation and analysis of Parisian texts, film, paintings, and photography, students will actively engage in oral and written communication in the past, present, and future. Students will learn to make suggestions, express emotions and opinions, extend invitations, and convey hypothetical situations.

*Note:* French Ab may count towards the language requirement. May not be taken Pass/Fail. Not open to auditors. Graduate students at the GSAS may take the course Sat/Unsat with the permission of course head. Section on-line on the French Ab iSite.

*Prerequisite:* Completion of French Aa, or a score no lower than 301 and no higher than 450 on the SAT II test or the Harvard Placement test.

#### **\*French Acad. Intensive Beginning French: Parisian Identity through Visual Media**

Catalog Number: 8780

*Nicole Mills and members of the Department*

*Full course (fall term; repeated spring term). M. through F., at 10 and Tu., Th., at 11. EXAM GROUP: 4*

This intensive Beginning French course provides an accelerated introduction to Beginning French with intensive work on interpersonal communication and interpreting and producing language in written and oral forms. Students explore diverse facets of Parisian identity through



the interpretation of various forms of visual media. Students learn to speak and write in the past, present, and future, make descriptions, ask questions, make comparisons, accept and refuse invitations, give advice, and express hypothetical situations, emotions, and opinions.

*Note:* May not be used to fulfill the language requirement and may not be taken Pass/Fail or Sat/Unsat. Not open to auditors. Students must participate in an interview with the French Acd course head and receive permission to enroll in the course. The on-line request form is available on the French Acd iSite and must be submitted by August 26, 2014 (Fall Term) and January 15, 2015 (Spring Term).

*Prerequisite:* An advanced knowledge of at least one foreign language but no previous study of French.

### **French Ax. Reading Modern French**

Catalog Number: 2763

*Stacey Bourne and members of the Department*

*Half course (fall term). Tu., Th., 11:30–1; Tu., Th., 8:30–10. EXAM GROUP: 4*

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. 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 those 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. See details and 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 C. Intermediate French**

Catalog Number: 58289

*Carole Bergin (fall term), Stacey Bourne (spring term) and members of the Department*

*Half course (fall term; repeated spring term). Fall: M. through Th., sections at 9, 10, 11 or 12; Spring: M. through Th., sections at 9 or 11. EXAM GROUP: 4*

In this intermediate level language course, students will study and discuss issues faced in contemporary France and other francophone countries. Students will interpret French and francophone culture, in particular the different customs surrounding food and friendship, through a variety of texts, films, and multimedia resources, while participating in a range of oral and written communicative activities. Students will also review and refine their knowledge of various grammatical structures.

*Note:* Conducted in French. May count toward the language requirement. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the French C website.

*Prerequisite:* A score no lower than 451 and no higher than 600 on the SAT II test or the



Harvard Placement Test; 3 years of French in high school; French A, Ab, Acd, or Bab; or permission of course head.

### **French 30. Advanced Language Review**

Catalog Number: 36981

*Carole Bergin (fall term), Stacey Bourns (spring term) and members of the Department*  
*Half course (fall term; repeated spring term). Section I: Tu., Th., 10-11:30; Section II: Tu., Th., 11:30-1. EXAM GROUP: 4*

An advanced language course focusing on current events in France and other francophone countries as they are represented in various types of media. Students will engage in discussions and interactive written and oral activities around these current events, while using the necessary discourse strategies, vocabulary and idiomatic expressions. Through analyzing and interpreting the topics presented by the media, students will also reflect on the issues of perspective, objectivity and freedom of expression in all media.

*Note:* Conducted in French. May not be audited or taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. See details and section on-line on the French 30 website.

*Prerequisite:* A score no lower than 601 and no higher than 680 on the SAT II test or the Harvard Placement test; French C, Ca, Cb; or 25; or permission of course head

### **French 40. Upper-level French I: The Contemporary Francophone World Through Cinema**

Catalog Number: 74519

*Aurélie Chevant and members of the Department*  
*Half course (fall term; repeated spring term). Tu., Th., 10-11:30; Tu., Th., 11:30-1. EXAM GROUP: 4*

An advanced French language and culture course designed to enhance all language skills. Using contemporary Francophone movies, students will study various cultural issues relevant to Francophone identity such as immigration, education, the workplace, regional differences, sexuality, relationships, etc. Students will participate in a range of written and oral activities from blog entries to short skits in class, and will produce their own short film as a final project.

*Note:* Conducted in French. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the French 40 website.

*Prerequisite:* French 30, 681-720 on the SAT II test or the Harvard Placement test; or permission of course head.

### **French 50. Upper-level French II: Recounting the Francophone Experience: Love, Loss, and Rebellion**

Catalog Number: 22997

*Aurélie Chevant and members of the Department*  
*Half course (fall term; repeated spring term). Tu., Th., 10-11:30; Tu., Th., 11:30-1. EXAM GROUP: 4*

This course builds on the interpersonal, interpretive, and presentational skills acquired in French 40, with a particular emphasis on honing students' writing proficiency. Students will read a broad range of stories, poems and essays, as well as view films and videos that explore timeless, ever-resonant themes: love and loss, culture and identity, and tradition and rebellion in the Francophone world. Using these texts, students will study and reproduce various genres of



written and spoken French (description, portrait, film critique, etc.)

*Note:* Conducted in French. Students may take no more than two courses numbered in the 50s. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the French 50 website.

*Prerequisite:* French 40; a score of 721-750 on the SAT II test or the Harvard Placement test; or permission of course head.

### **French 55. Business French: Cultural and Communicative Foundations**

Catalog Number: 7122

*Aurélie Chevant and members of the Department*

*Half course (spring term). Section I, Tu., Th., 10-11:30; Section II, Tu., Th., 11:30-1. EXAM*

*GROUP: 4*

This course focuses on the cultural knowledge, vocabulary, and linguistic skills and tools that are needed to work and succeed in an international French-speaking setting. It provides an overview of the organization and culture of French companies, highlighting important aspects of conducting business in France, such as attitudes, customs, written and unwritten laws, as well as economic and geographical factors. Moreover, students learn specialized French business terminology and acquire the language skills needed to understand and discuss, in speaking and writing, topics within a professional environment.

*Note:* Conducted in French. May not be audited or taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Students may take no more than two courses numbered in the 50s. See details and section on-line on the French 55 website.

*Prerequisite:* A score of 721-750 on the SAT II test or the Harvard Placement test; French 40 or 50; or permission of course head.

### **\*French 59. French and the Community**

Catalog Number: 13398

*Carole Bergin*

*Half course (fall term). Tu., Th., 11:30-1:00. EXAM GROUP: 4*

An advanced French language course, where students will explore Haitian culture in the classroom and in the community. In class students will work on interactive oral and written activities using a variety of texts and media. In the community, through teaching French to Haitian-American children in community organizations within the Greater Boston area, students will develop their oral communication skills and acquire first-hand insights into Haitian culture. Introduces students to some methods for teaching a foreign language.

*Note:* Interested students must apply in writing no later than August 28, 2012 to Carole Bergin. More information can be found on the French 59 website. Students may take no more than two courses numbered in the 50s.

*Prerequisite:* French 40 or 50; a placement score of 721-750 on the SAT II test or the Harvard Placement test; or permission of course head.

### **\*French 61c. The New Wave: Reinventing French Cinema**

Catalog Number: 81858

*Stacey Bourns and members of the Department*

*Half course (fall term). Tu., Th., 11:30-1. EXAM GROUP: 15*

In this introductory course about the Nouvelle Vague, students gain a unique perspective on



French society, culture, and film in the 1950s and 1960s by studying the works of Jean-Luc Godard, François Truffaut, Éric Rohmer, Jacques Rivette, and Claude Chabrol (among others). Students develop their writing and reading skills through film analysis and hone their speaking ability and listening comprehension through film screenings, examination of dialogue, and class discussions.

*Note:* Conducted in French. Not open to auditors. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Students may take no more than two courses at the 60-level.

*Prerequisite:* French 50 or another French course at the 50-level; 751-780 on the SAT II or the Harvard placement test; or permission of the course head.

### **French 61g. French Grammar and Phonetics - (New Course)**

Catalog Number: 63936 Enrollment: Limited to 15.

*Stacey Bourns*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 4*

This course is designed for students who wish to refine their command of French grammar and pronunciation before enrolling in upper-level French classes. The course provides an intensive review of French grammar in its various written and spoken contexts, as well as an introduction to French phonetics. Students studying stylistic differences between French and English, the rules of written French grammar, the conventions of spoken French, and the correspondence between written forms and their pronunciation.

*Note:* Conducted in French. Not open to auditors. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Students may take no more than two courses at the 60 level.

*Prerequisite:* French 50 or another French course at the 50 level; 751-780 on the SAT II or the Harvard placement test; or permission of course head.

### **\*French 61h. Being French: Historical and Societal Considerations**

Catalog Number: 89626

*Stacey Bourns and members of the Department*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 4*

This course examines the concept of a "French identity" from the principles of the Enlightenment to the contemporary debates and political controversies about national identity. Through the exploration of historical, literary, sociological and philosophical texts, as well as film and multimedia resources, we will focus on individuals, symbolic places, ideological discourses and narratives that have contributed to the formation and questioning of a French national identity.

*Note:* Conducted entirely in French. Not open to auditors. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Students may take no more than two courses at the 60-level in French.

*Prerequisite:* French 50 or another French course at the 50 level; 751-780 on the SAT II or the Harvard placement test; or permission of course head.

### **\*French 61m. Modern Stories about Paris**

Catalog Number: 0575

*Stacey Bourns*

*Half course (spring term). Tu., Th., 11:30–1; Tu., Th., 11:30–1. EXAM GROUP: 4*

This course examines contemporary narratives set in Paris. Students explore writers' and filmmakers' perceptions of Paris and analyze the different ways in which the Parisian experience



is presented. By reading and viewing stories about Paris, students gain insights into methods of narration and integrate various techniques into their own writing and speaking. They also develop a sophisticated understanding of how the French language is evolving, especially in its spoken form.

*Note:* Conducted in French. Not open to auditors. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Students may take no more than two courses at the 60 level. Not open to students who have already taken French 51.

*Prerequisite:* French 50 or another French course at the 50 level; 751-780 on the SAT II or the Harvard placement test; or permission of course head.

### **French 70a. Introduction to French Literature I: From the Middle Ages to Eighteenth Century**

Catalog Number: 2865

*Tom Conley*

*Half course (fall term). M., W., at 11, and an additional weekly section hour to be arranged.*

*EXAM GROUP: 18*

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:* A 50- or 60-level course in French; a score above 780 on the SAT II test or the Harvard Placement test; equivalent preparation; or permission of course head.

### **French 70b. Introduction to French Literature II. 19th and 20th Centuries: Tales of Identity**

Catalog Number: 6720

*Janet Beizer*

*Half course (spring term). Tu., Th., at 11, and an additional weekly section hour to be arranged.*

*EXAM GROUP: 15*

How do we know ourselves? Traditional definitions of the self have been founded on family, gender, race, religion, nationality. We'll read a number of texts from the 19th-21st centuries that pose questions and complicate answers to questions of identity. Readings include works by Claire de Duras, Balzac, George Sand, Merimee, Colette, Nothomb, and LeClezio.

*Note:* Conducted in French; third hour devoted to discussion of texts studied.

*Prerequisite:* A 50- or 60-level course in French; a score above 780 on the SAT II test or the Harvard Placement test, equivalent preparation, or permission of course head.

### **[\*French 71a. Classicism and Modernity: An Introduction to Performance]**

Catalog Number: 65809 Enrollment: Limited to 15.

*Sylvaine Guyot*

*Half course (fall term). Tu., Th., 11–12:30.*

Is the stage of the past the "other" of modern theater? We will explore the relationship between classicism and modernity by considering a set of plays representative of central trends in French drama from the early modern age to contemporary times. Readings include the most famous playwrights of both the 17th (Molière, Corneille, Racine) and the 20th-21st centuries (Sartre, Badiou, Lagarce, N'Diaye). Special emphasis paid to the ideological power of images through



theatrical workshops and video versions of recent productions. The final project consists of an excerpt to be performed in French.

*Note:* Expected to be given in 2015–16. Conducted in French. May not be taken for credit by students who have previously taken French 61a.

*Prerequisite:* A 50- or 60-level course in French; a score above 780 on the SAT II test or the Harvard Placement test, equivalent preparation, or permission of course head. Interested students must apply in writing to Professor Guyot no later than September 3, 2013.

### **\*French 91r. Supervised Reading and Research**

Catalog Number: 3954

*Verena A. Conley and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 13; Spring: 9*

Tutorial supervision of research on subjects not treated in regular courses.

*Note:* Limited to juniors and seniors. Students wishing to enroll must petition the Undergraduate Adviser in French for approval, stating the proposed project, and must have the consent of the proposed instructor. Ordinarily, students are required to have taken some coursework in the area as background for their project. May not be taken more than twice, and only once for concentration credit.

### **\*French 97. Tutorial—Sophomore Year: The Politics of Poetics: An Introduction to Literary and Cultural Analysis**

Catalog Number: 0173

*Alice Jardine*

*Half course (spring term). W., 4–6. EXAM GROUP: 13*

An introduction to literary and cultural interpretation as it has evolved in French Studies since World War II. 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 French and Francophone Studies in their sophomore year. May also be taken as the Sophomore Tutorial by concentrators in Romance Studies. Open to non-concentrators with permission of course head.

### **\*French 98. Tutorial—Junior Year**

Catalog Number: 0879

*Verena A. Conley and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 14; Spring: 11*

Weekly individual instruction for juniors pursuing a thesis honors track in French and Francophone Studies, culminating in the writing of a 20-25 page research paper in French.

*Note:* Successful completion of one term of French 98 or equivalent is required of all thesis-track honors concentrators in French and Francophone Studies.

### **\*French 99. Tutorial—Senior Year**

Catalog Number: 2836

*Verena A. Conley and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 9; Spring: 2*



Weekly individual instruction for students writing a senior thesis.

*Note:* For honors seniors writing a thesis. Successful completion of two terms of French 99 is required of all thesis-track honors concentrators. 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.

*Prerequisite:* Satisfactory completion of a junior tutorial and faculty approval of proposed thesis topic.

### ***Cross-listed Courses***

#### ***For Undergraduates and Graduates***

Open to students with 800 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 102. Introduction to Medieval Literature and Old French]**

Catalog Number: 9929

*Virginie Greene*

*Half course (spring term). Tu., Th., 11:30–1.*

Provides students with literary and cultural means of exploring French medieval literature. We will study verse and prose works from the 12th to the 15th century, using editions in Old French and translations in modern French.

*Note:* Expected to be given in 2015–16. Conducted in French.

#### **French 105. Marie de France and Chrétien de Troyes or the Beginning of Modern Fiction - (New Course)**

Catalog Number: 34804

*Virginie Greene*

*Half course (spring term). M., W., 11:30–1. EXAM GROUP: 4*

We will read the complete works of the most famous French authors of the twelfth century: Marie de France's Lais, Fables, and Purgatory of St. Patrick; Chrétien de Troyes's five Arthurian romances, two love songs, and adaptation of Ovid's story of Philomela. We will also read other contemporary narrative works, helping us to reflect on the role of fiction in medieval culture and in our own culture.

*Note:* Course in French. Reading in Modern French.

#### **\*French 127. Talking About Food**

Catalog Number: 63702

*Janet Beizer*

*Half course (fall term). Tu. 1-3, and one hour to be arranged. EXAM GROUP: 8*

In the 19th century food became an object of aesthetic discourse, a focus of gustatory enjoyment and verbal pleasure. Readings include 19th-century food writers and novelists, and contemporary historians, commentators, and theorists.

*Note:* Excellent reading knowledge of French required; class discussions in English or French, to be decided.



### [French 130. Re-Imagining the Early Modern Subject]

Catalog Number: 11489

*Christie McDonald and Sylvaine Guyot*

*Half course (spring term). Tu., 1–3.*

Analysis of connections between sensibility and the rational in literary, artistic, philosophical and political discourses of the French 17th and 18th Century. Discussion of works by La Bruyere, Descartes, Mme de Lafayette, Poussin, Racine, Chardin, Diderot, Prévost, Rousseau, among others, in the transition from absolutism to the Revolution .

*Note:* Expected to be given in 2015–16.

### French 134. Comedic Timing: Laughter on the Pre-Revolutionary Stage - (New Course)

Catalog Number: 19429

*Hélène Bilis*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

This course examines the evolution of the French comedic genre by inviting students to reflect upon their own sense of the comical and compare it to that of pre-revolutionary audiences. Early modern theories of comedy will inform our discussions alongside present day scholarship on humor, satire, and the science of laughter. Molière and Marivaux will anchor our exploration of the formal conventions, linguistic registers, themes, tropes, and character-types of comedy, while Corneille and Racine will enable us to draw out convergences between the comedic and tragic genres of the ancien régime. Questions of timing—the pacing of a plot, the delivery of a joke, and the staging of the unexpected—will guide our investigations as we ponder whether comedy is defined by a unique temporality. Finally, twenty-first century film and comedic routines will demonstrate the lasting influence early-modern playwrights have had on French humor.

### [French 136. A La Française: French Feminisms Today]

Catalog Number: 3845

*Alice Jardine*

*Half course (fall term). Tu., Th., at 12; .*

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. In particular, we will focus on fifty years of dialogue between postwar theory in France and feminist practice in the United States. Writers considered include Cixous, Duras, Hyvrard, Irigaray, Kristeva, and Wittig as well as Deleuze, Derrida, and Lacan.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Excellent reading knowledge of French.

### French 139b. The 18th Century: Ethical Dilemmas

Catalog Number: 28098

*Christie McDonald*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

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. This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

**[French 143. Vision and Violence in 17th Century France]**

Catalog Number: 23944

*Sylvaine Guyot*

*Half course (spring term). Hours to be arranged.*

Explores early modern ways of depicting and showing violence (physical, political, domestic, supernatural). The spectacle of violence represents a site of cultural conflict during the 17th century, since it implies both the pleasure taken by the viewer and the risk of imitation. Readings include plays, tragic histories, utopian and travel literature, historical and theoretical texts (Foucault, Rancière, Marin, Elias, Lyotard), and the analysis of images (paintings, frontispieces).

*Note:* Conducted entirely in French. Expected to be given in 2015–16.

**[French 148c. Performing in French: A Production of a Modern Tragedy]**

Catalog Number: 82781 Enrollment: Limited to 15.

*Sylvaine Guyot*

*Half course (spring term). Tu., at 11; Th., 1–3.*

This course focuses on the preparation of a student-led production of a contemporary French play, and concludes with a performance in French at the end of the semester. To react to the challenges we will face in staging a "modern tragedy", we will examine the diversity of tragic forms and motifs since the 17th century up to our days through the close readings of a given set of plays, as well as the main trends in the contemporary staging, through the viewing and discussion of video versions of recent productions.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* A 60-level course in French, French 71a, or permission of instructor. Interested students must apply in writing to Professor Guyot no later than January 28, 2014.

**[French 157. The Hermaphroditic Imagination]**

Catalog Number: 1338

*Janet Beizer*

*Half course (spring term). Hours to be arranged.*

While official scientific and social positions in the nineteenth century uphold rigid distinctions between women and men, the imaginary life of the period is haunted by the hermaphrodite and other figures that play on the margins of sexual division, challenging the separation of the spheres. We'll read and discuss hermaphroditic fictions chosen from Balzac, George Sand, Gautier, Flaubert, Zola, and Rachilde.

*Note:* Expected to be given in 2015–16. Conducted in French.

**[French 165. Marcel Proust]**

Catalog Number: 4620 Enrollment: Limited to 20.

*Christie McDonald*

*Half course (spring term). W., 1-3, and an additional weekly section hour to be arranged.*

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? Readings include selections from each tome of the novel and significant critical texts.



Offered in conjunction with the interdisciplinary conference "Proust and the Arts" (April 2013). Students will attend related exhibits and performances, and may submit a creative final project.  
*Note:* Expected to be given in 2015–16. The language of class discussion (French or English) will be determined.

*Prerequisite:* An excellent reading knowledge of French.

### [French 167. Parisian Cityscapes: 1960-Present]

Catalog Number: 7641

Verena A. Conley

*Half course (fall term). M., 3–5; W., at 7 p.m.*

Focuses on the transformations of Paris and the very concept of city under the impact of globalization and decolonization. By way of film, fiction, music, architecture and critical texts studies the effects of modernization and architectural reconstruction on the city's inhabitants. Also explores tensions between traditional and urban cultures, between the inner city and the banlieue.

*Note:* Expected to be given in 2015–16. Conducted in French.

### French 174. MEDITERRANEAN CROSSINGS: Exiles, Migrants and Refugees - (New Course)

Catalog Number: 26523

Verena A. Conley

*Half course (spring term). M., 3–5. EXAM GROUP: 17*

The Mediterranean has long been the locus of a turbulent history and of vast population movements. This course will focus specifically on the period since the middle of the twentieth century, that is, since decolonization in North Africa and the Middle East. Civil wars, political strife and economic hardship push many into voluntary, forced or even metaphoric exile, lead to massive migrations and produce refugees in record numbers. This course will study some of these movements with a triple focus on exiles, migrants and refugees, as seen through literary works and film. We will ask what artistic practices contribute and how they mediate these contexts.

### [French 177. Poetic Revolutions]

Catalog Number: 31502

Verena A. Conley

*Half course (spring term). M., 3–5.*

Focuses on major poets of the 19th-21st centuries (Hugo, Nerval, Baudelaire, Rimbaud, Mallarmé, Apollinaire, Char, Michaux, Glissant, Cixous, Deguy and others) whose revolutionary aesthetics bear on ethics and politics.

*Note:* Expected to be given in 2015–16. Conducted in French.

### French 180. "The Words to Say It": Women Writing in French from Colette to Satrapi

Catalog Number: 4566

Alice Jardine

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

Motherhood, romantic love, independence, sexuality, citizenship, fantasy, death: these are just some of the themes explored in women's novels, written in French, in the twentieth century. We



will read eight novels together, exploring how they have finally become classics, even given what they say about life and what it means for women to write about it.

**French 189. "Re: History" Memory and Imagination from Camus to Annie Ernaux - (New Course)**

Catalog Number: 42841

*Emmanuel Bouju*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

We will consider the specific link between memory and imagination in the French novel dealing with History during the second half of the 20th century til today. Readings include major authors (Camus, Antelme, Duras, Perec, Simon, Semprun, Modiano, Ernaux) as well as historical and theoretical texts (Ginzburg, Sontag, Certeau, Rothberg, Agamben...). We'll thus explore the way of "transcribing History, by recording it (Rec:), rewinding it (Rew:), reviewing it and replying to it (Re: History).

***Cross-listed Courses***

**History 1324. French Social Thought, Durkheim to Foucault**

[\*Literature 104. On Theory]

**Literature 113. Existential Fictions: From Saint Augustine to Jean-Paul Sartre and Beyond**

[Literature 129. Reading the 18th Century Through 21st-Century Eyes]

**\*Literature 146. Space and Place: The Environment in Film**

[Literature 150. Colonial and Post-Colonial Spaces: France-North Africa]

[Literature 157. From Type to Self in the Middle Ages]

[Literature 173. Politics of Aesthetics: Worlds, Objects, Matter, Sensation]

[\*Studies of Women, Gender, and Sexuality 1127. Beyond the Sound Bite: Women, Gender, and Sexuality in The Daily News]

[Visual and Environmental Studies 183. Cinema and the Auteur]

**Visual and Environmental Studies 192. Cinema and French Culture from 1896 to the Present**

[Visual and Environmental Studies 193. Fortunes of a Genre: The Western]

***Primarily for Graduates***

**[French 213. In Search of a Medieval Subject]**

Catalog Number: 0952

*Virginie Greene*

*Half course (fall term). M., 1–3.*

We will read various medieval authors ranging from Augustine to Christine de Pizan to identify a medieval subjectivity. Modern texts on subjectivity will be used as a counterpoint.

*Note:* Expected to be given in 2015–16. Conducted in French. Open to qualified undergraduates with permission of the instructor.

**[French 216. The Romance of the Rose]**

Catalog Number: 80366

*Virginie Greene*



*Half course (fall term). W., 10–12.*

Merging courtly love with Aristotelian quest for knowledge, the *Roman de la Rose* is one of the most influential medieval texts. We will read the Rose in company of related classical and medieval texts, such as Boethius' *Consolation of Philosophy*, troubadours poetry or the exchange of letters between Christine de Pizan and literati of her time about the Rose. We will also take into consideration manuscript illustration. .

*Note:* Expected to be given in 2015–16. Conducted in French or English, to be determined by class composition. Readings in French

**[French 225. How to Read Drama. Theater History/Theories of Representation]**

Catalog Number: 20449

*Sylvaine Guyot*

*Half course (fall term). M., 3–5.*

Examines French drama from the early-modern stage to post-dramatic theater from literary, theoretical, historical, and visual culture perspectives. We read dramatic texts (16th-21st century), theories of performance, visual sources, treatises on acting.

*Note:* Conducted in French. Expected to be given in 2015–16.

**[French 226. Tragic Bodies. French Classicism Revisited]**

Catalog Number: 92736

*Sylvaine Guyot*

*Half course (fall term). Th., 2–4.*

French neoclassical tragedies are typically known for their de-emphasis of the body's presence. This seminar seeks to address this neglected topic by considering the incarnation on stage of heroism, the (re)presentation of loss and violence, and the emerging ideal of tenderness and gallantry in the drama of Corneille and Racine, as well as of few other playwrights. Special emphasis paid to the political, philosophical and aesthetic contexts. Intersection of drama, dance, and painting will be explored. Theoretical readings include Agamben, Barthes, Certeau, Didi-Huberman, Foucault, Marin, Rancière.

*Note:* Expected to be given in 2015–16. Conducted in French. Open to qualified undergraduates with permission of the instructor.

**French 240. Rabelais - (New Course)**

Catalog Number: 22074

*Tom Conley*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

Studies five books of Pantagruel and Gargantua with emphasis on creative energy in the facétie and comic genres. Accounts for new critical currents and projects in theater, music and cinema.

**[French 255. Metamorphoses of the Vampire]**

Catalog Number: 49177

*Janet Beizer*

*Half course (spring term). Th., 3–5.*

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:* Expected to be given in 2015–16. Conducted in French or English.

### **French 259. The Culture of Hysteria: From Nineteenth-Century France to Here and Now**

Catalog Number: 3349

*Janet Beizer*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

As we read nineteenth-century medical, literary, and cultural texts with contemporary analogues, we ask why hysteria flourished in that time and place, and now this one, and trace the diagnosis as symptom of a broader cultural malaise.

### **French 271. Legacies of Poststructuralism: Ecology French Style**

Catalog Number: 8448

*Verena A. Conley*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

Focuses on how the environment is inscribed in works drawing on concepts from poststructuralist theories. Texts by Guattari, Latour, Nancy, Balibar, Ranciere, Stengers, Haraway, Heise, and others. Students are encouraged to pair their readings with fictional texts and other media.

*Note:* Language of class discussion (French or English) to be determined.

### **French 280. Lightness and Energy: the 21st Century French Fiction - (New Course)**

Catalog Number: 80674

*Emmanuel Bouju*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

What can French novel be/do/hope for today? We will consider the possible answers to this question, by reinterpreting notions as "lightness" and "energy" and discussing the idea of contemporary times. Readings include a series of very recent fictional and autobiographical novels, as well as theoretical texts (Barthes, Deleuze, Calvino, Hartog, Agamben, Svetlana Boym, Hartmut Rosa...).

### ***Cross-listed Courses***

#### **[Comparative Literature 278. Failure and Change (Graduate Seminar in General Education)]**

**\*Visual and Environmental Studies 270. Proseminar in Film and Visual Studies: History**

**\*Visual and Environmental Studies 271. Proseminar in Film and Visual Studies: Theory**

### ***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, Virginie Greene 1007 (on leave fall term), Sylvaine Guyot 6320 (on leave 2014-15), Alice Jardine 7457, Christie McDonald 1160 (on leave fall term), and Susan R. Suleiman 7234 (on leave 2014-15)*  
*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 8; Spring: 1*

### \*French 330. Direction of Doctoral Dissertations

Catalog Number: 7843

*Janet Beizer 3957, Tom Conley 1908, Verena A. Conley 2250, Virginie Greene 1007 (on leave fall term), Sylvaine Guyot 6320 (on leave 2014-15), Alice Jardine 7457, Christie McDonald 1160 (on leave fall term), and Susan R. Suleiman 7234 (on leave 2014-15)*  
*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 14; Spring: 11*

## ***Italian***

All students with some previous Italian in secondary school are required to take the placement test if they have not taken the SAT II, AP, or IB examinations in Italian. The term "placement score" or "placement test" hereafter refers to the Harvard Italian placement test. For information about signing up for the Harvard Placement Exam, visit <http://placement-info.fas.harvard.edu>.

Students who receive a grade of 5 in the College Board Advanced Placement Examinations in Italian are admitted directly into Italian courses numbered in the 30s or higher, 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***

#### **Italian Aa. Beginning Italian I: Pathways to Italy**

Catalog Number: 4309

*Elvira G. DiFabio and members of the Department*

*Half course (fall term; repeated spring term). Fall: M. through Th., sections at 9, 10, 11, 12.  
 Spring: M. through Th., at 12. EXAM GROUP: 4*

For students with little or no knowledge of Italian. Aims at achieving basic communication skills and vocabulary. Emphasis on oral expression and listening comprehension. The cultural component examines everyday life through a comparative perspective: families, shopping, food culture. This course will give you the language you need to communicate effectively in Italy, and is the best way to prepare for a summer study in Italy. Course materials include workbook, audio-lab, and video.

*Note:* Conducted in Italian. Students whose placement score does not entitle them to enter a more advanced course are assigned to Italian Aa. Students who have studied Italian for two years or more in secondary school must begin at Italian Ab or higher. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Section on-line. Not open to auditors.

#### **Italian Ab. Beginning Italian II: The Art and Craft of Italy**

Catalog Number: 7029

*Elvira G. DiFabio and members of the Department*

*Half course (fall term; repeated spring term). Fall: M. through Th., at 12. Spring: M. through*



*Th., sections at 9, 10, or 12. EXAM GROUP: 4*

Continuation of Italian Aa, second semester beginning level. Increasing emphasis on reading and writing. The cultural component includes units on fashion, music, literature and film, as well as capsules on the history of modern Italy, through select readings and a feature-length film. Course materials include workbook, audio-lab and video.

*Note:* May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Section online. Not open to auditors.

*Prerequisite:* Italian Aa, or a score of 450 or less on the SAT II test or the Harvard Placement test, or a score of 3 or less on the AP Italian exam, or two years of high school Italian, or permission of course head.

### **\*Italian Acad. Intensive Beginning Italian: Special Course: Gateway to Italy**

Catalog Number: 3065 Enrollment: Limited to 15.

*Elvira G. DiFabio and members of the Department*

*Full course (spring term). M., W., F., at 10, and Tu., Th., 10-11:30. . EXAM GROUP: 4*

A complete first-year course in one term for students with no knowledge of Italian, focused on developing all four communicative skills. Students are introduced to contemporary Italian culture through a variety of topics from everyday life (family, shopping, food, fashion) to the arts (music, literature, cinema). Materials include films and cultural readings that present capsules on the history of modern Italy. Excellent choice for students planning to study in Italy.

*Note:* May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Students who have not placed out of the language requirement must take one full year of a language. Italian Acad taken alone may not be used to fulfill the language requirement. However, there are ways to combine Italian Acad with another course in order to fulfill the language requirement. Consult Dr. Elvira DiFabio or the Undergraduate Adviser in Italian for details. Conducted in Italian. Not open to auditors.

*Prerequisite:* An advanced knowledge of at least one foreign language, preferably a modern Romance language, but no previous study of Italian.

### **[Italian Ax. Reading Italian]**

Catalog Number: 4015

*Elvira G. DiFabio and members of the Department*

*Half course (spring term). Tu., Th., 1-2:30.*

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:* Expected to be given in 2015–16. 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.

*Prerequisite:* Some previous study of a Romance language helpful but not necessary. Fluency in English required.

### **Italian C. Intermediate Italian: Romance! Mystery? Noir...**

Catalog Number: 29891 Enrollment:

*Elvira G. DiFabio and members of the Department*

*Half course (fall term; repeated spring term). Fall term, repeated spring term: M. through Th.,*

**at 9. EXAM GROUP: 4**

Discover the "colors" or Italian pop lit, from romance to crime stories to graphic novels. This course aims to build reading skills, and includes a structured review of grammar. Course materials include multi-media projects that increase language proficiency and cultural awareness.

*Note:* Conducted in Italian. May count toward the language requirement. May not be taken by students who have previously taken Italian Ca, Cb or Dab. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Section on-line on the Italian C website. Not open to auditors.

*Prerequisite:* A score of 451-600 on the SAT II test or the Harvard Placement test; Italian Ab, Acd, or Bab; or permission of course head.

**Italian 30. Upper-Level Italian: Italian Through Art**

Catalog Number: 44998 Enrollment:

*Elvira G. DiFabio and members of the Department*

***Half course (fall term; repeated spring term). M. through Th., at 12. EXAM GROUP: 4***

Revisiting structures and refining speaking and writing skills through an arts interface. Students work closely with the collection at the Harvard Art Museum for assignments that build on receptive and productive communicative skills. Course materials may include films, popular music, operatic libretti and literary texts. Consult course website for current semester topics.

*Note:* Conducted in Italian. May not be taken by students who have previously taken Italian 35 or 36. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors.

*Prerequisite:* Italian C, Ca, Cb, or Dab; a score of 601-680 on the SAT II test or the Harvard Placement test; or permission of course head.

**Italian 40. Advanced Oral Expression and Performance**

Catalog Number: 0804 Enrollment: Limited to 12.

*Elvira G. DiFabio and members of the Department*

***Half course (fall term; repeated spring term). Tu., Th., 1-2:30. EXAM GROUP: 4***

*Ciak, si parla!* Students develop oral expression and communication skills through the close reading of texts that are meant for performance, such as plays, film scripts, poetry, and music. Variation in diction and presentation techniques culminates in the adaptation and production of one or more of these texts for a public performance at the end of the term. Consult course website for current semester topics.

*Note:* Conducted in Italian. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Appropriate for concentrators electing the Italian Studies or Romance Studies track. Not open to auditors.

*Prerequisite:* A score of 681-720 on the SAT II or the Harvard Placement Test; Italian 30, 35 or 36; equivalent preparation; or permission of course head.

**Italian 50. Advanced Written Expression. Italy in Other Words**

Catalog Number: 26649

*Elvira G. DiFabio (fall term), Maria Grazia Lolla (spring term), and members of the Department*

***Half course (fall term; repeated spring term). Tu., Th., 1-2:30. EXAM GROUP: 4***

*Italia scritta e descritta.* A theme-based course designed to develop advanced competence in



written expression through guided examination of stylistics and pragmatics. The course includes readings from a variety of literary genres, films, workshops, and a series of guest lectures by our faculty on design, women and society, cinema, fiction, and other subjects. Consult the course website for current semester topics.

*Note:* Conducted in Italian. Appropriate for concentrators electing the Italian Studies or Romance Studies track. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors.

*Prerequisite:* A score between 721-750 on the SAT II or on the Harvard Placement Test; Italian 40; or permission of course head.

### **\*Italian 91r. Supervised Reading and Research**

Catalog Number: 2287

*Elvira G. DiFabio and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 7; Spring: 18*

Tutorial supervision of research on subjects not treated in regular courses.

*Note:* Limited to juniors and seniors. Students wishing to enroll must petition the Undergraduate Adviser in Italian 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 in the area as background for their project. May not be taken more than twice, and only once for concentration credit.

### **\*Italian 96r. Italian and the Community: Italy. Academic Internships in Italian Language and Culture: Special Course**

Catalog Number: 3749

*Elvira G. DiFabio and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

An opportunity to engage in the practical applications of Italian language and culture in an immersion environment. Internships may include placement in a variety of sectors, including public education, the media and the arts. Students must submit a written proposal to Dr. DiFabio by August 31, 2014 for Fall term enrollment and by January 23, 2015 for Spring term enrollment.

*Note:* Though academic internships may be arranged in the Greater Boston area, this course can be proposed as integral to a study abroad program in Italy, the details of which are to be coordinated in consultation with the course head and the Office of International Education. Students are expected to produce substantial research papers based on relevant class work and field placements. The student, under the guidance of faculty and study abroad advisers, is responsible for arranging the terms of the internship.

*Prerequisite:* Italian 50 or the consent of the course head.

### **\*Italian 98. Tutorial—Junior Year**

Catalog Number: 1167

*Elvira G. DiFabio and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 16*



Weekly individual instruction for juniors pursuing a thesis honors track in Italian Studies, culminating in the writing of a 20-25 page research paper in Italian.

*Note:* Successful completion of one term of Italian 98 (or equivalent) is required of all thesis-track honors concentrators in Italian Studies.

### **\*Italian 99. Tutorial — Senior Year**

Catalog Number: 7840

*Elvira G. DiFabio and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: 15*

Weekly individual instruction for students writing a senior thesis in Italian.

*Note:* For honors seniors writing a thesis. Successful completion of two terms of Italian 99 is required of all thesis-track honors concentrators. 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.

*Prerequisite:* Satisfactory completion of a junior tutorial and faculty approval of proposed thesis topic.

### ***Cross-listed Courses***

#### ***For Undergraduates and Graduates***

##### **[Italian 103. Italian Travels]**

Catalog Number: 55887

*Elvira G. DiFabio*

*Half course (fall term). Tu., Th., 10–11:30.*

An exploration of the identities of Italy through travel, including that of Italians living abroad and non-Italians in contemporary Italy. Students will investigate these issues from a wide variety of sources, including literary and historical voyages, sociological texts, news reports and feature films. Frequent oral and written assignments.

*Note:* Expected to be given in 2015–16. Conducted in Italian. Appropriate for concentrators in the Italian Studies and Romance Studies tracks, as well as for students pursuing a secondary field in Italian.

*Prerequisite:* Italian 50; a score above 750 on the SAT II test or on the Harvard Placement test; or permission of course head.

##### **[\*Italian 104 (formerly Italian 44). *Effetto Commedia: What Makes Italians Laugh?*]**

Catalog Number: 5776

*Elvira G. DiFabio*

*Half course (fall term). Tu., Th., 10–11:30.*

Comedy Italian-style in cinema and its origins, from Totò to Benigni. Presents students with another dimension of Italian culture, while increasing communicative effectiveness.

Presentational skills addressed through weekly written assignments and oral reports; grammar review in context. Weekly feature-length film.

*Note:* Expected to be given in 2015–16. Conducted in Italian. Appropriate for concentrators in the Italian Studies and Romance Studies tracks, as well as for undergraduates pursuing a secondary field in Italian.

*Prerequisite:* Italian 50; or permission of course head.



### **Italian 105. From the Book to the Kitchen Table - (New Course)**

Catalog Number: 67032

*Elvira G. DiFabio*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Percorsi tra letteratura e cucina. An exploration of the ideas and identities of Italy through food, beginning with Pellegrino Artusi's seminal gastronomic writing, and moving through historical, linguistic, sociological pathways. In addition to various texts, students will engage in hands-on kitchen experiences. Frequent oral and written assignments reinforce language skills and academic literacy in the target language.

*Note:* Conducted in Italian. Appropriate for concentrators in the Italian Studies and Romance Studies tracks, as well as for students pursuing a secondary field in Italian.

*Prerequisite:* Italian 50; a score above 750 on the SAT II test or on the Harvard Placement test; or permission of course head.

### **Italian 110. Italian Mysteries - (New Course)**

Catalog Number: 16318

*Maria Grazia Lolla*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

The single best-selling genre in modern times, the mystery has been embraced by Italian novelists and academics alike. Whether the goal was searching for the motive or the culprit of a crime or redressing a past or present injustice, or questioning the limits of our investigations of the past, the mystery has attracted the attention of internationally renowned figures such as Umberto Eco, Leonardo Sciascia, Carlo Ginzburg, Andrea Camilleri, Michelangelo Antonioni and Alessandro Manzoni. Beginning with contemporary best-sellers, the course will cover a variety of genres - novels, comic books, films, historical writing - from the nineteenth century to the present.

*Prerequisite:* Excellent reading knowledge of Italian required; class discussions in English or Italian, to be decided.

### **Italian 115. Italian Cinema and the Poetics of Refuse - (New Course)**

Catalog Number: 80262

*Adam Muri-Rosenthal*

*Half course (spring term). M., 1–3, plus film screening to be arranged. EXAM GROUP: 8*

A journey through some of Italy's most canonical films from Neorealism to the present, focusing specifically on filmmakers' depiction of garbage, garbage collectors and the residual. While for Neorealist directors, this depiction is synecdochic of an artistic vision that endeavors to capture reality at its most unprepared, subsequently, it comes to represent the increasing complexity of the mimetic undertaking in an Italian society thrust rapidly into the late stages of capitalism. Filmmakers studied include De Sica, Antonioni, Fellini, Garrone, Rohrwacher and others.

*Note:* Conducted in English.

### **Italian 132 (formerly Italian 89). Deconstructing Rome - (New Course)**

Catalog Number: 14159

*Federica G. Pedriali (University of Edinburgh)*

*Half course (fall term). M., W., 10–11:30. EXAM GROUP: 5*

The course uses Paolo Sorrentino's latest Roman films "Il divo" (2008) and "La grande bellezza"



(2013) to frame a selective deconstruction of the Eternal City. Units of work include Genius of Rome (broadly based on a long view of the city's primary logistics: place and time), Grand Narratives (focussing on an evolving Roman mythology driven by polarised qualifiers and tags), Individual Trajectories (looking at the impact made by Rome on travellers from different periods) and The Hope of Rome: Resurrection vs Resurgence (Tackling the city's role in and since the Risorgimento and particularly under fascism). An additional feature of this main menu will be ample selections from films and works of fiction inspired by Rome, involving films by Rossellini, Fellini, Germi, Antonioni, De Sica, and Pasolini and novels by Moravia, Pasolini, Gadda, and Morante. In a fitting methodological twist, the continuing centrality of Rome in the age of globalisation will emerge from the application of key theoretical readings by contemporary thinkers and planners.

### **Italian 133 (formerly Italian 87). New Course: Italy: The Seven Deadly Sins**

Catalog Number: 27937

*Federica G. Pedriali (University of Edinburgh)*

*Half course (spring term). M., W., 10–11:30. EXAM GROUP: 5*

The course complements other RLL Catalog offerings on the collective construction of national identities. Classes will be structured around polarised provocations based on samples of good and bad international PR since the early modern period, including politics, wars, the European Union, public figures, migration, stereotypes and a variety of globally recognised Italian icons such as mafia, Pinocchio, fascism and the Vespa. Classics of the ageless debate on Italy (e.g., Leopardi and Madame de Stael), her beauty and femininity (Gundle 2007), her virtue as sin or her sin as virtue (drawing primarily but not exclusively from Machiavelli), will feed into a present-day people profile organised in seven units/deadly accidents of Italianness: Beauty, Distinction, Genius, Heart, Mobility, Stamina and Voice.

### **[Italian 141. Renaissance Epic: War, Identity, Desire]**

Catalog Number: 5328

*Francesco Ersamer*

*Half course (spring term). Tu., 1–3.*

We analyze the driving forces behind epic in the classic and medieval world—war, identity, and desire—and their transformation at the dawn of modernity. In order to prepare for the close reading of Torquato Tasso's *Jerusalem Delivered*, we will study and discuss selected cantos from the *Iliad*, the *Odyssey*, the *Aeneid*, the *Chanson de Roland*, Dante's *Divine Comedy*, Boiardo's *Orlando innamorato* and Ariosto's *Orlando Furioso*.

*Note:* Expected to be given in 2015–16. Conducted in Italian.

### **[Italian 171. Cultural History and Nation-Making: 1870-1920]**

Catalog Number: 75661

*Maria Grazia Lolla*

*Half course (spring term). W., 1–3.*

Introduction to the cultural history of Italy from the Risorgimento to the dawn of Fascism: war, work, education, music, fashion, festivals and cooking. Students will explore the interaction between literary texts and other cultural forms.

*Note:* Expected to be given in 2015–16. Conducted in Italian or English depending on enrollments.



### [Italian 180. Making Italians: Poetry and Novel in the 19th Century]

Catalog Number: 40641

*Francesco Ersperer*

*Half course (fall term). Tu., 1–3.*

The course discusses the two masterpieces of modern Italian literature, Giacomo Leopardi's *Canti* (Poems) and Alessandro Manzoni's *I promessi sposi* (The Betrothed), against the background of Risorgimento, the unification of Italy, and the affirmation of modernity.

*Note:* Expected to be given in 2015–16. Conducted in English with sections in English and Italian (students can choose among the two sections).

### Italian 184. Italian Women Filmmakers in the New Millennium - (New Course)

Catalog Number: 99335

*Stefania Benini*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

One of the most promising trends of the New Italian Cinema is the recent cinematic production of Italian women filmmakers. We will explore how these women directors have developed stylistically and thematically the historical legacy of their "maestre" and "maestri," from Lina Wertmüller and Liliana Cavani to Michelangelo Antonioni, Federico Fellini, and Pier Paolo Pasolini. We will discuss space and subjectivity in Marina Spada's cinema, time and coming of age in Susanna Nicchiarelli's films, the sacred in Roberta Torre and Alice Rohrwacher's movies, personal and generational legacies in the cinematic production of Alina Marazzi and the Comencini sisters, and queer desire in the films of Donatella Maiorca and Laura Muscardin. We will consider these Italian filmmakers through the lens of feminist film theory within the context of Italian post-feminist culture and in relation to national and transnational cinematic traditions.

*Note:* The course will be taught in Italian.

### ***Cross-listed Courses***

#### Linguistics 101. The Science of Language: An Introduction

*Primarily for Graduates*

### Italian 201r. Italian Studies Colloquium

Catalog Number: 6124

*Francesco Ersperer*

*Half course (spring term). M., 5-7pm. EXAM GROUP: 13*

Current scholars in the field of Italian Studies present their most recent works on literature, art and architecture, history, and the social sciences. Students also learn how to conduct video interviews and write book reviews.

*Note:* Conducted in Italian and English.

### Italian 240. Gadda Goes to War: Provocations around the State-Stage - (New Course)

Catalog Number: 44372

*Federica G. Pedriali (University of Edinburgh)*

*Half course (fall term). Tu., 10–12. EXAM GROUP: 12*

This course explores Fabrizio Gifuni's recent stage adaptation of the WWI diaries and anti-



Mussolini writings by Italy's greatest modernist writer, Carlo Emilio Gadda (1893-1973). The play, which took Italy by storm at the time of the 2011 political elections, will allow us to focus on the subject at war with the state from the perspective of the global negatives resulting from the management of the country as spectacle. As part of a close reading of this powerful intersemiotic critique of Italy as today's Denmark, for today's Hamlets, we will look into what, in the context of present day media regimes, continues to give stage performance the edge over other forms of creative critical citizenship. Extensive selected passages from Gadda's major works will inform plenary seminars and student presentations encouraging intersections with other Catalogue courses via theory (from Agamben to Zizek), context (Italy in the 20thc, during the WWS, under facism and today) and content (individual resistance to imagined, coming and present communities).

### **Italian 242. Locating Utopos - (New Course)**

Catalog Number: 62775

*Federica G. Pedriali (University of Edinburgh)*

*Half course (spring term). Tu., 10–12. EXAM GROUP: 12*

The course problematises utopian thought across a variety of platforms, focusing on text, architecture and film, and using the totalitarian regimes of 20thc Europe for additional case study verification. Units of work will range from Foundational Texts (e.g., Plato's "Republic", Thomas More's "Utopia" and Campanella's "Città del sole") to Current Theory (e.g., the various applications of Utopian Studies in combination with Gender Studies), encouraging students to locate Utopos (the hero without name, story or place) within key anthropological needs (primarily, safety in numbers and hope in a just future). Classes will be conducted in English, and will consist of a mix of seminar presentations, plenary discussion and editorial work, this as part of the publication project supplementing the coursework.

*Note:* Conducted in English.

### **[Italian 262. About Time: Nostalgia, Apocalypse, and Change in Italian Culture]**

Catalog Number: 3847

*Francesco Ersamer*

*Half course (fall term). Tu., 1–3.*

Studies the development of the concept of time in modern thought, with examples drawn mostly from Italian literature. Readings include Galileo, Vico, Leopardi, Verga, Pirandello, Tomasi di Lampedusa, Buzzati.

*Note:* Expected to be given in 2015–16. Conducted in Italian.

### ***Cross-listed Courses***

### **History 2113. Dante in Contexts: Seminar - (New Course)**

### ***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



*Francesco Ersperer 5074, Franco Fido 2446, Maria Grazia Lolla 5826, Giuliana Minghelli 4442, Federica G. Pedriali (University of Edinburgh) 3629, Lino Pertile 3416, and Jeffrey Schnapp 6277*  
*Half course (fall term; repeated spring term). EXAM GROUP: 3*

**\*Italian 330. Direction of Doctoral Dissertations**

Catalog Number: 3679

*Francesco Ersperer 5074, Franco Fido 2446, Lino Pertile 3416, and Jeffrey Schnapp 6277*  
*Half course (fall term; repeated spring term). EXAM GROUP: 3*

***Latin American Studies***

Latin American Studies is an interdisciplinary concentration administered through Romance Languages and Literatures (RLL). Literature, History, Government, and Anthropology are among the sites where Latin American specialists offer a range of methods and materials to approach a complex cultural space. For additional courses offered in RLL in the field of Latin American Studies, see listings under Portuguese and Spanish.

***Primarily for Undergraduates***

**Latin American Studies 70. Modernity, Culture and Politics in Latin America**

Catalog Number: 3379

*Mariano Siskind*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

Introduces students to central debates and problems that have shaped Latin American culture. We address questions of cultural identity, gender, race, politics, economics and aesthetics by looking at historical and literary texts, films, visual arts and urban development from an interdisciplinary perspective. We analyze colonial encounters; revolutions; US-Latin American relations; popular cultures from tango and samba to football and *carnaval*; Latin American cities and slums; and memory, trauma and traces of the region's dictatorships.

*Note:* Conducted in Spanish. Readings in Spanish and English.

**Latin American Studies 91r. Supervised Reading and Research**

Catalog Number: 17128

*Mariano Siskind and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 9; Spring: 2*

Tutorial supervision of research on subjects not treated in regular courses.

*Note:* Limited to juniors and seniors. Students wishing to enroll must petition the Undergraduate Adviser in Latin American Studies 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 in the area as background for their project. May not be taken more than twice, and only once for concentration credit.

**\*Latin American Studies 98. Tutorial—Junior Year**

Catalog Number: 1224



*Mariano Siskind and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*

Weekly individual instruction for juniors pursuing a thesis honors track in Latin American Studies, culminating in the writing of a 20-25 page research paper in either Spanish or Portuguese.

*Note:* Successful completion of one term of Latin American Studies 98 (or equivalent) is required of all thesis-track honors concentrators in Latin American Studies in their junior year.

**\*Latin American Studies 99. Tutorial—Senior Year**

Catalog Number: 7959

*Mariano Siskind and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*

Weekly individual instruction for honors seniors writing a thesis.

*Note:* For honors seniors writing a thesis. Successful completion of two terms of Latin American Studies 99 is required of all thesis-track honors concentrators. Students who not complete a thesis are required to submit a substantial paper in order to receive either half course or full course credit.

*Prerequisite:* Satisfactory completion of a junior tutorial and faculty approval of proposed thesis topic.

***For Undergraduates and Graduates***

***Cross-listed Courses***

***Portuguese***

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 Aa. Beginning Portuguese I**

Catalog Number: 7130

*Viviane Gontijo and members of the Department*

*Half course (fall term). M., T., W., Th., at 11, 12 or 1. EXAM GROUP: 4*

An introductory course designed to introduce the student with little or no knowledge of the language to the Portuguese-speaking world. Focuses on fundamental communication skills -- listening, speaking, reading, and writing -- and, at the same time, provides exposure to Portuguese-speaking cultures through media broadcasts, literature, films, music, and videos.

*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 Aa website. Students who have studied Portuguese for two years or more in secondary school must begin at Portuguese Ab or higher. Students with an advanced knowledge of Spanish should enroll in Portuguese Ac instead of Portuguese Aa.



## **Portuguese Ab. Beginning Portuguese II**

Catalog Number: 30145

*Viviane Gontijo and members of the Department*

*Half course (spring term). M., T., W., Th., at 9 or 3:30. EXAM GROUP: 4*

This course is a continuation of Portuguese Aa. By the end of the course, students should be able to communicate with native speakers about a wide range of topics, and they should have acquired insights into 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 Ab website. Students with an advanced knowledge of Spanish should enroll in Portuguese Ad instead of Portuguese Ab.

*Prerequisite:* Portuguese Aa or permission of course head.

## **Portuguese Ac. Beginning Portuguese for Spanish Speakers I**

Catalog Number: 0430

*Viviane Gontijo*

*Half course (fall term). M., W., F., at 11; M., W., F., at 12; M., W., F., at 1; M., W., F., at 2; M., W., F., at 11; M., W., F., at 12. EXAM GROUP: 4*

An introductory language course designed for Spanish-speakers. 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. Requires a solid knowledge of but not necessarily native proficiency in Spanish. 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 Ac website.

*Prerequisite:* 750 on the Spanish SAT II or the Harvard Placement test; 5 on the Spanish AP test; or a 40s level Spanish course.

## **\*Portuguese Acd. Intensive Beginning Portuguese - (New Course)**

Catalog Number: 77849 Enrollment: Interview required. See Note below.

*Viviane Gontijo and members of the Department*

*Full course (spring term). M., W., 3:30-5 and Tu., Th., 3:30-5:30. EXAM GROUP: 17*

This intensive Beginning Portuguese course provides an accelerated introduction to Portuguese with emphasis on interpersonal communication and interpreting and producing language in written and oral forms. Goals include building students' vocabulary, fluency, proficiency, and confidence. Students are exposed to Brazilian Portuguese and culture through music, cinema, and various media sources. The course covers the equivalent of a full first-year of Portuguese language study.

*Note:* May not be used to fulfill the language requirement and may not be taken Pass/Fail or Sat/Unsat. Not open to auditors. Students must participate in an interview with the Portuguese Acd course head and receive permission to enroll in the course. The on-line request form is available on the Portuguese Acd iSite and must be submitted by January 15, 2015.

*Prerequisite:* An advanced knowledge of at least one other foreign language but no knowledge of Portuguese.



## **Portuguese Ad. Beginning Portuguese for Spanish Speakers II**

Catalog Number: 1315

*Viviane Gontijo and members of the Department*

*Half course (spring term). M., W., F., at 11 am, 12 or 1 pm. EXAM GROUP: 4*

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 or permission of course head.

## **[Portuguese Ba. Introduction to Portuguese]**

Catalog Number: 0514

*Clémence Jouët-Pastré and members of the Department*

*Half course (spring term). Section I, M., W., 3-5; Section II, Tu., Th., 3-5.*

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:* Expected to be given in 2015–16. 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 C. Intermediate Portuguese**

Catalog Number: 7692

*Clémence Jouët-Pastré (fall term) and Everton Vargas da Costa (spring term)*

*Half course (fall term; repeated spring term). Fall: M. through Th., at 11; M. through Th., at 1; Spring: M. through Th., at 11. EXAM GROUP: 4*

An intermediate course for students interested in expanding and strengthening their Portuguese language 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 videos.

*Note:* Conducted in Portuguese. Recommended for students who wish to improve their ability to speak and write Portuguese. Not open to auditors. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Section on-line on the Portuguese C website.

*Prerequisite:* Portuguese Ab, Ad, or permission of course head.

## **Portuguese 30 (formerly Portuguese 37). Brasil hoje: Contemporary Brazilian Culture through Media**

Catalog Number: 5024

*Clémence Jouët-Pastré (fall term), Viviane Gontijo (spring term), and members of the Department*

*Half course (fall term; repeated spring term). Tu., Th., 11:30–1. EXAM GROUP: 4*

Engages in systematic grammar review, along with practice in writing and vocabulary enrichment, while examining contemporary Brazil as presented in Portuguese-language press, television, literature, and film. Analyzes the ways Brazilians and non-Brazilians construct



different and conflicting images of Brazil and "Brazilianess." Issues of race relations, national identity, ethnicity, and gender addressed. Discussions based on historical and literary texts, advertisements, films, videotapes of Brazilian television, and current issues of newspapers and magazines.

*Note:* Conducted in Portuguese. Not open to auditors. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students.

*Prerequisite:* Portuguese C, S-Dx, or permission of course head.

### **Portuguese 40. Images of Brazil: Contemporary Brazilian Cinema**

Catalog Number: 8893

*Clémence Jouët-Pastré (fall term), Viviane Gontijo (spring term) and members of the Department*

*Half course (fall term; repeated spring term). Fall: Tu., Th., 2:30–4; Spring: M., W., 2:30–4.*

*EXAM GROUP: 4*

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. Not open to auditors. Section on-line on the Portuguese 40 website.

*Prerequisite:* Portuguese C, 30, 37, or permission of course head.

### **\*Portuguese 59. Portuguese and the Community**

Catalog Number: 3322

*Viviane Gontijo and members of the Department*

*Half course (spring term). Tu., Th., 4–5:30. EXAM GROUP: 4*

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 Luso-African-Brazilians and specific uses of Portuguese language from these communities. Authors include D. Macedo, Braga Martes, Margolis, Sales, Albues, and Villas Boas.

*Note:* Conducted in Portuguese. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors.

*Prerequisite:* Portuguese 30, 37, 40, or 44; a score of 100 on the Harvard Placement Test; or permission of the course head.

### **\*Portuguese 61. Performing Arts in The Portuguese-Speaking World**

Catalog Number: 96774

*Stephen Bocskay*

*Half course (fall term). Tu., Th., 1-2:30. EXAM GROUP: 8*

Through plays, visual media, poetry, songs, and other cultural creations, this course discusses historic and cultural connections between Portuguese-speaking countries (Angola, Brazil, Cape Verde, East Timor, Guinea-Bissau, Mozambique, Portugal, and São Tomé and Príncipe). The course uses the performing arts as a point of departure for cultural and linguistic development, having class discussions and student presentations as a basis for journal entries, essay writing,



and performance. Grammar review and stylistic analysis are integrated with activities and projects throughout the course.

*Note:* Conducted in Portuguese. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors.

*Prerequisite:* Portuguese 30, 37, 40, or 44; a score of 100 on the Harvard Placement Test; or permission of course head.

### **Portuguese 90ml. Brazilian Popular Music and Literature - (New Course)**

Catalog Number: 91296

*Stephen Bocskay*

*Half course (fall term). Tu., Th., 3–4:30. EXAM GROUP: 2*

Explores the relationship between Brazilian popular music traditions and literature.

*Note:* Conducted in Portuguese.

### **\*Portuguese 91r. Supervised Reading and Research**

Catalog Number: 5589

*Josiah Blackmore and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 16*

Tutorial supervision of research on subjects not covered in regular courses.

*Note:* Limited to juniors and seniors. Students wishing to enroll must petition the Undergraduate Adviser in Portuguese 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 in the area as background for their project. May not be taken more than twice, and only once for concentration credit.

### **\*Portuguese 97. Tutorial—Sophomore Year: O Novíssimo Cinema Brasileiro**

Catalog Number: 5769

*Stephen Bocskay*

*Half course (spring term). Tu., Th., 1–2:30. EXAM GROUP: 1*

What exactly is the Novíssimo Cinema Brasileiro? Does it entail a new aesthetics and politics of Brazilian society? In this course, we will explore the interplay between social movements, politics and culture and the most recent developments in Brazilian cinema and literature.

Students will be expected to engage actively with literary works and films through essays and oral presentations. Some of the writers and filmmakers discussed are Bernardo Carvalho, Fernando Coimbra, Kleber Mendonça Filho, Jorge Furtado, Daniel Galera, Ricardo Lísias, Gabriel Mascaro, José Luiz Passos, Darcy Ribeiro and Adirley Queirós. Critical readings include works by Giorgio Agamben, Alain Badiou, David Bordwell, Vilém Flusser, Frederic Jameson, Randal Johnson, Ann Kaplan, Laura Marks, Karl Marx, Gilles Mouëllie, Silviano Santiago, Roberto Schwarz, Ismail Xavier, and Slavoj Žižek.

*Note:* Conducted in Portuguese. Successful completion of Portuguese 97 is required of all concentrators in Portuguese and Brazilian Studies in their sophomore year. May also be taken as the Sophomore Tutorial by concentrators in Latin American Studies and Romance Studies. May not be taken Pass/Fail. Open to non-concentrators with the permission of the course head.



### **\*Portuguese 98. Tutorial—Junior Year**

Catalog Number: 8667

*Josiah Blackmore and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

Weekly individual instruction for juniors pursuing a thesis honors track in Portuguese and Brazilian Studies, culminating in the writing of a 20-25 page research paper in Portuguese. *Note:* Successful completion of Portuguese 98 (or equivalent) is required of all thesis-track honors concentrators in Portuguese-Brazilian Studies. To enroll see course head.

### **\*Portuguese 99. Tutorial—Senior Year**

Catalog Number: 8753

*Josiah Blackmore and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 14; Spring: 11*

For honors seniors writing a thesis.

*Note:* For honors seniors writing a thesis. Successful completion of two terms of Portuguese 99 is required of all thesis-track honors concentrators. 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.

*Prerequisite:* Satisfactory completion of a junior tutorial and faculty approval of proposed thesis topic. Successful completion of one term of Portuguese 99 is required of all honors concentrators. To enroll, see course head.

### ***For Undergraduates and Graduates***

#### **Portuguese 105. New Perspectives on Brazilian Poetry - (New Course)**

Catalog Number: 78472

*Stephen Bocskay*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

This course explores the works of major poets and songwriters associated with the following key literary movements: Romanticism, Realism, Symbolism, Pre-Modernism, Modernism, Concretism, Neo-Concretism, and Postmodernism. Students will be expected to engage actively with poetry through written work and oral presentations, among other scholarly projects. Poetic texts featured include Castro Alves, Carlos Drummond de Andrade, Mário de Andrade, Augusto and Haroldo de Campos, Mário Faustino, Chico Buarque de Hollanda, Jorge de Lima, Salgado Maranhão, Cecília Meireles, Vinícius de Morães, Milton Nascimento, Torquato Neto, Adélia Prado, Sousândrade, and Caetano Veloso. Some of the critical readings discussed are Roland Barthes, Homi Bhabha, Antônio Cândido, Jonathan Culler, Gilberto Freyre, Sérgio Buarque de Hollanda, Walter Mignolo, Mário Pedrosa, and Roberto Schwarz.

*Note:* Language of class discussion will be based on the composition of the class.

*Prerequisite:* Reading knowledge of Portuguese; language of discussion to be determined by class composition.

#### **Portuguese 123a. Portuguese Literary Studies I - (New Course)**

Catalog Number: 40681

*Josiah Blackmore*

*Half course (fall term). M., 2-4. EXAM GROUP: 7*



An overview of the literature of Portugal centering on its major figures and aesthetic movements, with attention given to selected moments in cultural history through the eighteenth century.

Readings and discussions will include analyses of specific texts and considerations of topics such as gender, sexuality, race, and globalization in the Portuguese context.

*Note:* Discussions will be in Portuguese or in English, depending on class composition.

*Prerequisite:* Excellent reading knowledge of Portuguese.

### **Portuguese 123b. Portuguese Literary Studies II - (New Course)**

Catalog Number: 78372

*Josiah Blackmore*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

A continuation of Portuguese 123a, with an emphasis on the nineteenth century and modernity.

*Note:* Discussions will be in Portuguese or in English, depending on class composition.

*Prerequisite:* Excellent reading knowledge of Portuguese.

### **[Portuguese 182. The Worlds of Camões]**

Catalog Number: 85047

*Josiah Blackmore*

*Half course (spring term). M., 2–4.*

A study of the Renaissance Portuguese imagination through the work of Luís de Camões. The course will center on the epic and lyric poetry of Camões as a way to think broadly about the literary and intellectual currents of the 16th century. Empire, the structure of the cosmos, and mythography will figure into our analyses. To promote an understanding of the international culture of letters and humanism, authors from Spain, Italy, and France will also be included.

*Prerequisite:* Reading knowledge of Portuguese.

*Note:* Expected to be given in 2015–16. Conducted in Portuguese or English, depending on class composition.

*Prerequisite:* Reading knowledge of Portuguese.

### ***Cross-listed courses***

#### ***Primarily for Graduates***

### **[Portuguese 220. Theorists of the Sea]**

Catalog Number: 44112

*Josiah Blackmore*

*Half course (spring term). Tu., 1–3.*

An inquiry into the ocean as literary and cultural principle in Portugal. We will study maritime texts across many genres and periods (with an emphasis on earlier works), and supplement our readings and discussions with the holdings of Houghton Library.

*Note:* Expected to be given in 2015–16. Conducted in Portuguese.

### **Portuguese 246. Modernism and Voodoo: African Diaspora Cosmogonies and the Brazilian Avant-gardes - (New Course)**

Catalog Number: 18353

*Rodrigo Lopes de Barros*



*Half course (spring term). Tu., 5–7 p.m. EXAM GROUP: 6*

The purpose of this course is to analyze the role and influence that African-derived religions had on the construction of the 20th century avant-gardes in Brazil. African Art and Religions influenced many defining figures of Brazilian culture from literature to visual arts and music, becoming a remarkable phenomenon that touches many fields of knowledge such as art history, anthropology, political science, cinema, philosophy, urbanism, literary criticism, ethnomusicology, folklore and religion. During this course, it will be proposed to use the dialectical image of Brazilian modernist movements and African-derived religions as an episode with a focus on Brazil as a model to approach the cultural tensions under aesthetic and political agendas, revolutionary and conservative social thoughts, cosmopolitan and national claims of modernity, and utopian propositions to the transformation of art and society.

*Note:* Conducted in English or Portuguese, based on enrollment of the class.

#### **Portuguese 264. Colonial Brazil - (New Course)**

Catalog Number: 56372

*Josiah Blackmore*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

We will study the literary culture of colonial Brazil, with consideration of Brazil's place in transatlantic enterprise.

*Note:* Conducted in Portuguese.

#### ***Graduate Courses of Reading and Research***

See Note to Graduate Courses of Reading and Research in French.

#### **\*Portuguese 321. Literature of Brazil: Supervised Reading and Research**

Catalog Number: 5933

*Josiah Blackmore 3750*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 8; Spring: 1*

#### **\*Portuguese 322. Literature of Portugal: Supervised Reading and Research - (New Course)**

Catalog Number: 63297

*Josiah Blackmore 3750 (spring term only)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 7; Spring: 18*

*Note:* By permission of instructor only.

#### **\*Portuguese 330. Direction of Doctoral Dissertations**

Catalog Number: 4072

*Josiah Blackmore 3750, Sergio Delgado 6724 (on leave 2014-15), Luis Fernández-Cifuentes*

*2091, Mary M. Gaylord 2632, Mariano Siskind 5530, and Doris Sommer 2744*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

#### ***Romance Languages***

See also courses in Linguistics.



### ***Primarily for Graduates***

#### ***Cross-listed Courses***

##### **Linguistics 200. Second Language Acquisition**

#### ***Graduate Courses of Reading and Research***

##### **[\*Romance Languages 300. Seminar for Dissertation Writing in the Romance Literatures]**

Catalog Number: 9758

*Mary M. Gaylord* 2632

*Half course (fall term; repeated spring term). W., 3–5.*

Addresses audience, voice, and ethics of critical writing (quotation, acknowledgement, controversy); and practical strategies for prospectus preparation, chapter organization, conference and job talks, publication. Meetings use manuscript work-shopping, reading, oral presentations, and guest lectures.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Completion or imminent completion of PhD general examinations.

### ***Romance Studies***

#### ***Primarily for Undergraduates***

##### **[Romance Studies 79. Romance Languages and Cultures in Comparative Perspective]**

Catalog Number: 8713

*Elvira G. DiFabio and members of the Department*

*Half course (fall term). Hours to be arranged.*

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:* Expected to be given in 2015–16. 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 course head.

##### **\*Romance Studies 91r. Supervised Reading and Research**

Catalog Number: 8210

*Luis M. Girón Negrón and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*

Tutorial supervision of research in subjects not treated in regular courses.

*Note:* Limited to juniors and seniors. Students wishing to enroll must petition the Undergraduate Adviser in Romance Studies 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 in the area as background for their project. May not be taken more than twice, and only once for concentration credit.

### **\*Romance Studies 98. Tutorial-Junior Year**

Catalog Number: 5203

*Luis M. Girón Negrón and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

Weekly individual instruction for juniors pursuing a thesis honors track in Romance Studies, culminating in the writing of a 20-25 page research paper in a Romance language.

*Note:* Successful completion of one term of Romance Studies 98 (or equivalent) is required of all thesis-track honors concentrators in Romance Studies in their junior year.

### **\*Romance Studies 99. Tutorial-Senior Year**

Catalog Number: 1067

*Luis M. Girón Negrón and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 13*

Weekly individual instruction for students writing a senior thesis in Romance Studies.

*Note:* For honors seniors writing a thesis. Successful completion of two terms of Romance Studies 99 is required of all thesis-track honors concentrators. 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.

*Prerequisite:* Satisfactory completion of a junior tutorial and faculty approval of proposed thesis topic.

### ***Cross-listed Courses***

#### **Aesthetic and Interpretive Understanding 13. Cultural Agents**

#### **Aesthetic and Interpretive Understanding 51 (formerly Italian 131). The Cosmos of the Comedy**

### ***For Undergraduates and Graduates***

#### **[\*Romance Studies 101. Romance Translation: Theory and Practice]**

Catalog Number: 89225

*Elvira G. DiFabio*

*Half course (spring term). Tu., Th., 1–2:30.*

Translating for art's sake, or to form a national literature? Better yet, to foster ideological debate. And what about all those bad translations? Do you even need to know the original language? Come explore the theory and practice of translation in and from the Romance languages. Includes workshops on a variety of styles, literary devices, pragmatics, semantic and cultural distinctions.

*Note:* Expected to be given in 2015–16. Conducted in English.

*Prerequisite:* An intermediate to advanced knowledge of at least one Romance language.



### **Romance Studies 109. The Global Game: Soccer, Politics, and Popular Culture**

Catalog Number: 69265

*Francesco Ersamer and Mariano Siskind*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

Soccer is not only the sport of the world, but a most socially significant practice. In Latin America and Europe it is a staple feature of popular culture, closely connected with national politics. The course will make use of filmic, visual, literary, theoretical, and historical materials to analyze the relationship of soccer to social movements, colonialism, violence, gender, architecture, music, and the star system (Pelé, Maradona, Zidane, Totti, Cristiano Ronaldo, Messi).

*Note:* Conducted in English.

### **[Romance Studies 111. The World of Romance Language Cinemas: A Classical Age]**

Catalog Number: 73327

*Tom Conley*

*Half course (fall term). Tu., 1–3, and a weekly film screening M., 1–3.*

Studies early and classical cinemas in France, Italy, and Spain through comparative and close analysis. Includes films by Renoir, Vigo, Melville; Rossellini, de Sica, Visconti; Buñuel, García Berlanga, Erice.

*Note:* Expected to be given in 2015–16. Conducted in English.

*Prerequisite:* An excellent reading knowledge of at least one Romance language.

### ***Cross-listed Courses***

#### **Literature 138. Subversive Renaissance: Books that Changed the World - (New Course)**

#### **Literature 193. "What's Love Got to Do With It"; Love Poetry of the Middle Ages and Early Modernity**

### ***Primarily for Graduates***

### **Romance Studies 201. Questions of Theory**

Catalog Number: 0934

*Jeffrey Schnapp and John T. Hamilton*

*Half course (fall term). F., 1–3. EXAM GROUP: 1*

The seminar is built around a sequence of fundamental questions regarding the literary disciplines, their history and epistemology. Discussions are instigated by readings in philology, stylistics, the history of ideas, semiotics, structuralism, psychoanalysis, post-structuralism, film theory, genetic criticism, literary sociology, cultural studies, and digital humanities.

*Note:* Conducted in English. Required of all graduate students in Romance Languages and Literatures.

### **Romance Studies 205. Civic Humanities**

Catalog Number: 33387

*Doris Sommer and Francesco Ersamer*

*Half course (fall term). M., 11–12:30. EXAM GROUP: 18*

An introduction to a developing field, Civic Humanities explores the arts and humanistic



interpretation through a centuries-long tradition of civic engagement. Here the humanities are a site for promoting innovation and skills for active citizenship. Democracy and aesthetic judgment developed together to project citizens as co-artists of social constructions. Readings in this tradition of enlightened aesthetics include Kant, Schiller, Dewey, Freire, Gramsci, Ranciere, Mockus, Boal, Kester, Elster, Florida, Nussbaum, and Pasolini. Guest lectures by doctors, lawyers, political leaders, business experts, and public artists will develop specific areas of innovation and represent potential mentors for students as they design original projects.

*Note:* Conducted in English. Students are required to attend the lectures of Aesthetics and Interpretive Understanding 13 (Cultural Agents).

**[\*Romance Studies 219. Digital Humanities 2.0: a metaLAB(at)Harvard seminar]**

Catalog Number: 71716

*Jeffrey Schnapp*

*Half course (fall term). Hours to be arranged.*

A seminar and workshop for the development of semester-long projects, the course provides an introduction to new scholarly models in the arts and humanities via readings, case studies and conversations with expert practitioners.

*Note:* Expected to be given in 2015–16. Conducted in English. Not open to students currently enrolled in Literature 110.

**[Romance Studies 220. Fragments of a Material History of Literature]**

Catalog Number: 21805

*Jeffrey Schnapp*

*Half course (fall term). M., 3–5.*

Literary studies examined from the perspective of the practices that have shaped ideas concerning literature, writing, speech, and communication: from scrolls and codices to the rise of printing and typewriting to digital writing.

*Note:* Expected to be given in 2015–16. Conducted in English.

**Romance Studies 242. Graduate Seminar: Transatlantic Poetics - (New Course)**

Catalog Number: 76665

*Mary M. Gaylord and Josiah Blackmore*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

The seminar studies transatlantic enterprises of Spain and Portugal through their prolific cultures of textuality. Epic, chronicles, lyric and other 15th to 17th-century genres will be scrutinized for influences of Atlantic itineraries, real and imagined, on projects of poetic "making". Authors include Garcilaso, Caminha, Ercilla, Camões, Góngora, Cervantes, Lope, Alarcón, Quevedo, Zurara, and others.

*Note:* Class discussions will be in English, with primary sources available in the original languages and in English translation.

***Cross-listed Courses***

**Comparative Literature 249. Cartography and Early Modern Literature**

***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 score of 5 in the College Board Advanced Placement Examinations in Spanish allows students to take Spanish courses numbered 40 to 90 or, if recommended, 100-level courses. 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 Aa. Beginning Spanish I**

Catalog Number: 0507

*Maria celeste Moreno palmero (spring term), Maria Luisa Parra-Velasco (fall term) and members of the Department*

*Half course (fall term; repeated spring term). Fall: M., through Th., at 9, 10, 11, 1, or 2. Spring: M., through Th., at 9, 10, or 2. EXAM GROUP: 4*

A basic beginning semester course for students with no previous study of Spanish. Emphasis on speaking, writing, reading, and listening, as the basis for the development of all three Communication Modes (Interpersonal, Interpretive, and Presentational). Hispanic cultures will be introduced through a variety of texts, including readings, music, art, and film.

*Note:* Conducted in Spanish. Open to students who have not previously studied Spanish or who have scored below 300 on the Harvard placement test. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the Spanish Aa website. Students who have studied Spanish for two years or more in secondary school must begin at Spanish Ab or higher.

#### **Spanish Ab. Beginning Spanish II**

Catalog Number: 3328

*Maria celeste Moreno palmero (fall term), Maria Luisa Parra-Velasco (spring term) and members of the Department*

*Half course (fall term; repeated spring term). M., through Th., 9, 10, 11, 1, or 2, and a weekly discussion section to be arranged. EXAM GROUP: 4*

For students with the equivalent of one semester previous study of Spanish. Emphasis on strengthening students' interpersonal, interpretive, and presentational skills in both oral and written Spanish. Hispanic cultures are presented through a variety of authentic texts, including short pieces of literature, essays, and newspaper articles. Music, art, and film are also included. After Spanish Aa and Ab, students should be able to engage in everyday conversations with native speakers, and read straightforward texts, both fiction and non-fiction, with relative ease.

*Note:* Conducted in Spanish. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the Spanish Ab website. Students who have studied Spanish for two years or more in secondary school must begin at Spanish Ab or higher. Upon the recommendation of the course head, students who have performed at a superior level in this course may enroll in any course for which they are linguistically prepared.



*Prerequisite:* A score between 301-450 on the SAT II test or on the Harvard Placement Test, Spanish Aa, or permission of course head.

### **\*Spanish Acd. Intensive Beginning Spanish: Special Course**

Catalog Number: 5577

*Johanna Damgaard Liander (fall term), Maria celeste Moreno palmero (spring term) and members of the Department*

*Full course (fall term; repeated spring term). M. through F., at 9 and Tu., Th., at 10. EXAM GROUP: 4*

A beginning class 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 and film.

*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. Interested students should contact Dr. Liander by e-mail no later than August 25, 2014 for fall term enrollment and no later than December 9, 2014 for spring term enrollment. Upon the recommendation of the course head, students who have performed at a superior level in this course may enroll in any course for which they are linguistically prepared.

### **Spanish Ax. Reading Spanish**

Catalog Number: 5318

*Adriana Gutiérrez and members of the Department*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 4*

An introduction to reading and translating modern Spanish texts for students who require only a basic knowledge of Spanish for research purposes. Spanish Ax presents the principal structures of Spanish 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 on the SAT II Spanish test, to those with more than one year of undergraduate Spanish, 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.

### **Spanish C. Intermediate Spanish**

Catalog Number: 5819

*Adriana Gutiérrez and members of the Department*

*Half course (fall term; repeated spring term). Sections M. through Th., at 9, 10, 11, or 1. EXAM GROUP: 4*

An intermediate language and culture class that aims to consolidate and expand the skills of listening comprehension, speaking, reading and writing in Spanish. Includes a comprehensive review of the grammar and reinforces linguistic acquisition through texts, movies, art and multi-media projects to acquaint students with cultural issues relevant to the Spanish-speaking world.

*Note:* Conducted in Spanish. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the Spanish C website. Upon the recommendation of the course head, students who have performed at a superior level in this course may enroll in any course for which they are linguistically prepared.



*Prerequisite:* Spanish Ab, Acd, 451-600 on the SAT II test or on the Harvard Placement Test, or permission of course head.

### **Spanish 30. Advanced Spanish Language I: Four Countries and their Cultures**

Catalog Number: 0479

*Johanna Damgaard Liander and members of the Department*

*Half course (fall term; repeated spring term). Sections M. through Th., at 9, 10, 11, or 12. EXAM GROUP: 4*

An advanced language class that reinforces the practice of oral and written communication in Spanish through topics in contemporary cultural materials from Spain and Latin America. Students will focus on improving proficiency, refining pronunciation and acquiring vocabulary. In addition to in-class discussions, course work involves grammar review and practice in writing. Consult course website for current semester topics.

*Note:* Conducted in Spanish. May not be taken Pass/Fail but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the Spanish 30 website. Upon the recommendation of the course head, students who have performed at a superior level in this course may enroll in any course for which they are linguistically prepared.

*Prerequisite:* A score between 601-680 on the SAT II test or on the Harvard Placement Test, Spanish C, or permission of course head.

### **Spanish 35. Spanish for Latino Students**

Catalog Number: 75125 Enrollment: Limited to 15.

*Maria Luisa Parra-Velasco and members of the Department*

*Half course (fall term). M. through Th., at 1. EXAM GROUP: 1*

Designed for Latino students, this course builds on students' previous knowledge of Spanish to expand and strengthen their oral and written interpersonal, interpretive and presentational communicative skills. Spanish grammar is reviewed using a functional approach to highlight differences found in informal and academic contexts. Students explore the topics of language, cultures and identity in the U.S and in the Spanish-speaking world , using a variety of texts and genres, music, videos, films and visual arts.

### **Spanish 40. Advanced Spanish Language II: Viewing the Hispanic World**

Catalog Number: 9393

*Johanna Damgaard Liander and members of the Department*

*Half course (fall term; repeated spring term). Sections Tu., Th., at 8:30, 10, or 1. EXAM GROUP: 4*

An advanced language and culture class that further develops linguistic competence using a region or regions of the Hispanic world as a focus for class discussion, grammar review, and an introduction to Hispanic social contexts and texts. Course materials may also include films, interviews, paintings, photography, music, selections from the press, as well as literary or historical readings. Frequent written and oral assignments, and a thorough review of grammar. Consult course website for current semester topics.

*Note:* Conducted in Spanish. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the Spanish 40 website. Upon the recommendation of the course head, students who have performed at a superior level in this course may enroll in any course for which they are linguistically prepared.



*Prerequisite:* A score between 681-720 on the SAT II test or on the Harvard Placement Test, AP 5, Spanish 30, or permission of course head.

### **Spanish 50. Writing and Performance**

Catalog Number: 6794

*Maria Luisa Parra-Velasco and members of the Department*

*Half course (fall term; repeated spring term). Section I: Tu., Th., 10-11:30; Section II: Tu., Th., 11:30-1; Section III: Tu., Th., 1-2:30. EXAM GROUP: 4*

An advanced language course designed to strengthen and develop competence in written expression. Close reading of texts in literary and non-literary genres will help students refine personal style. The performance of short excerpts of plays, combined with advanced work on oral expression and phonetics, will help students increase their fluency and ease of expression.  
*Note:* Conducted in Spanish. Recommended for concentrators. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students. Not open to auditors. Section on-line on the Spanish 50 website.

*Prerequisite:* A score between 721-750 on the SAT II test or on the Harvard Placement Test, Spanish 40, or permission of course head.

### **\*Spanish 59. Spanish and the Community**

Catalog Number: 8789 Enrollment: Limited to 12.

*Maria Luisa Parra-Velasco and members of the Department*

*Half course (fall term; repeated spring term). Tu., Th., 10-11:30, and four hours of activities-based learning per week. EXAM GROUP: 4*

An advanced language course that examines the richness and complexity of the Latino experience in the US while promoting community engagement as a vehicle for greater linguistic fluency and cultural understanding. Students are placed with community organizations within the Boston area and volunteer for four hours a week. Class work focuses on expanding students' oral and written proficiency in Spanish through discussing and analyzing readings, arts, and films by and about Latinos in the US.

*Note:* Not open to auditors.

*Prerequisite:* A score between 721-750 on the SAT II test or on the Harvard Placement Test, Spanish 40 or permission of course head.

### **Spanish 59h. Spanish for Latino Students II: Connecting with Communities - (New Course)**

Catalog Number: 23711

*Maria Luisa Parra-Velasco*

*Half course (spring term). Tu., Th., 1-2:30. EXAM GROUP: 1*

An advanced language course for Spanish heritage learners that aims to: strengthen students' oral and written linguistic range, with emphasis on Spanish use for academic contexts; and to further develop students' critical language and social awareness around important issues for Latinos in our globalized era: Spanish as global language, identity, language rights, global migration and labor, U.S.-Latino America relations, food and environment, the 'war on drugs'. Students explore these topics through various genres (newspapers and academic articles, debates, literary essays, short novels, poetry, visual art, film and music) and through 4 hours a week of community service.



### **\*Spanish 61n. Advanced Spanish Language and Culture: The Ethics of Business**

Catalog Number: 17538 Enrollment: Limited to 30.

*Mary M. Gaylord and members of the Department*

*Half course (fall term; repeated spring term). Section I: Tu., Th., 10-11:30; Section II: Tu., Th., 11:30-1. EXAM GROUP: 4*

An advanced language and culture class that examines literature and films portraying the political, sociological, financial and environmental impact of multinational companies doing business in Latin America. Students' linguistic competency is developed through discussion of the ethics of business, grammar reviews, and weekly writing assignments. Students will also choose a specific project for a business in Latin America and research its possible outcome and social, political, and environmental consequences.

*Note:* Interested students must apply in writing to Dr. Gutiérrez no later than August 21, 2013 (Fall Term) or January 15, 2014 (Spring Term). Not open to auditors. May not be taken Pass/Fail, but may be taken Sat/Unsat by GSAS students.

*Prerequisite:* A score between 751 and 780 on the SAT II test or Harvard Placement test, a Spanish 50-level course, or permission of course head. Students are allowed to take a maximum of two courses at the 60-level in Spanish, not including Spanish 60.

### **Spanish 70a. Heroes, Rogues, Lovers, Rebels, Saints: Voices from Medieval and Early Modern Spain**

Catalog Number: 1587

*Mary M. Gaylord and members of the Department*

*Half course (fall term). Tu., Th., 1-2:30. EXAM GROUP: 8*

Who are the Cid, Lazarillo, Rosaura and Segismundo? As we explore the texts and historical contexts that produced iconic figures like the matamoros, the sentimental Moor, the picaro, the soldier-poet, the mystic, the rebellious vassal and the cross-dressed woman, we bring their voices to life through dramatic reading and performance.

*Note:* Conducted in Spanish. This course includes student art-making as part of the Harvard Arts Initiative.

*Prerequisite:* A score above 780 on the SAT II or the Harvard Placement test; a 40-, 50-, or 60-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

*Daniel Aguirre Oteiza*

*Half course (spring term). M., W., 1-2:30.*

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:* Expected to be given in 2015–16. Conducted in Spanish.

*Prerequisite:* A score above 780 on the SAT II or the Harvard Placement test; a 50- or 60-level course in Spanish; or permission of course head.



**[Spanish 71a. Continuity and Discontinuity in Colonial Latin America]**

Catalog Number: 4319

*To Be Determined*

*Half course (fall term). M., W., at 11; F., at 2.*

An overview of literary and cultural production in the Americas before and after the Spanish invasion. Topics include pre-Columbian visual and verbal expressions; discovery, invention, conquest, and resistance; the historiography of the New World; native depictions of the colonial world.

*Note:* Expected to be given in 2015–16. Conducted in Spanish. Required for concentrators in the Hispanic Studies track (as an alternative to Spanish 71b), and for all concentrators in Latin American Studies.

*Prerequisite:* A score above 780 on the SAT II or the Harvard Placement test; a 50- or 60-level course in Spanish; or permission of course head.

**[Spanish 71b. Introduction to Modern Latin American Literature]**

Catalog Number: 6700

*Mariano Siskind and members of the Department*

*Half course (spring term). M., W., at 12, and an additional weekly section hour to be arranged.*

This course is a survey of Latin American Literature from the last decades of the 19th century to the present. It offers an overview of the most salient moments in modern Latin American cultural history, placing emphasis on the ways in which specific literary works relate to the social and political developments that have shaped the region since the late 19th century. Readings by Machado de Assis, Rulfo, Borges, Gioconda Belli, Bellatin, Pizarnik, and others.

*Note:* Expected to be given in 2015–16. Conducted in Spanish.

*Prerequisite:* A score above 780 on the SAT II or on the Harvard Placement test; a 50-, or 60-level course in Spanish; or permission of course head.

**Spanish 71cb. Modern Survey: Civilization and Barbarism in Latin American Literature - (New Course)**

Catalog Number: 31989

*Nicole Delia Legnani*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

In Latin American literature, the opposition between civilization and barbarism has defined America since its "discovery" by Columbus. With a focus on the intersections of time, space, language and violence in seminal texts, we look at ways their authors position the Americas and their peoples in universal history. We will also consider the role of the public intellectual and writer as political figure and founder of new national movements. Authors include Columbus, Las Casas, Teresa de Mier, Sarmiento, Martí, Darío, Gallegos, César Vallejo, Borges, Arguedas, Vargas Llosa, Fernando Vallejo and Bolaño.

*Note:* May be taken in lieu of Spanish 71b for concentration credit.

**\*Spanish 80t (formerly \*Spanish 62). Words of Which History is Made: Translation Workshop on 20th-Century Spain**

Catalog Number: 99782 Enrollment: Limited to 15.

*Daniel Aguirre Oteiza*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*



Through close readings and translations centering on 20th-century Spanish history, culture, and society, students hone their linguistic, grammatical, and stylistic skills, and acquire the interpretive skills required to comprehend and analyze increasingly complex literary and cultural texts. Course materials include short stories, newspaper articles, memoirs, travel journals, and historical essays.

*Note:* Conducted in Spanish.

*Prerequisite:* 800 on the SAT II test or on the Harvard Placement test, a previous course in Spanish at the 70-level, or permission of course head.

### [Spanish 90dq. Who is Don Quixote?]

Catalog Number: 78806

*Mary M. Gaylord*

*Half course (spring term). Tu., Th., 10–11:30.*

Get to know the man who says, "I know who I am", his friends and loves, his models and rivals. This introduction to central episodes of Cervantes' masterpiece asks what it is about Don Quixote's actions, words, convictions and contradictions that makes him ubiquitous in literary and artistic imagination. Course materials include film, music, and visual arts.

*Note:* Expected to be given in 2015–16. Conducted in Spanish. Not open to students who have already taken Spanish 124; may be taken as preparation for Spanish 124.

### [Spanish 90n. Border Flux and Border Subjects: Cultural Practices of the US-Mexico Border]

Catalog Number: 27284

*Sergio Delgado*

*Half course (fall term). Tu., Th., 11–12:30.*

This course is structured around a set of art and literary works that engage the US-Mexico border. It seeks to understand the fluid nature of the border region along with its recurring themes and dynamics, focusing on the complex links between literary texts, artistic practices, and the increasingly pressing social and political issues of the region. Materials include works by Monsivais, Bolano, Anzaldua, Daniel Sada, Gomez-Pena, Amy Sara Carroll, Ricardo Dominguez.

*Note:* Expected to be given in 2015–16. Conducted in Spanish.

*Prerequisite:* : A score above 780 on the SAT II or on the Harvard Placement test; a 40-, 50-, or 60-level course in Spanish; or permission of course head.

### Spanish 90np. Invaders as Ancestors, Gods and Vampires - (New Course)

Catalog Number: 17903

*Nicole Delia Legnani*

*Half course (fall term). M, W at 11 and additional Friday section to be arranged. EXAM*

*GROUP: 18*

In Latin American literature, familiar and unfamiliar beings, under the guise of gods, ancestors or vampire-like creatures, dominate representations of conquest and invasion. Drawing on texts by Indian and Spanish authors alike, we examine the reception of these mythic beings and their place in historical narratives of the conquest of Mexico, the American Southwest, and the Andes. As part of our exploration of the genres of indigenous historiography, students may present a



graphic essay or performance with an accompanying "Scholar-Artist Statement" as their final project.

**[Spanish 90p (formerly Spanish 61a). Pre-Textos: Las artes interpretan]**

Catalog Number: 17743

*Doris Sommer and Adriana Gutiérrez*

*Half course (spring term). Tu., 1–3.*

Texts become prompts for art-making in this class. By inspiring painting, dance, play, music, sculpture, costumes, texts lead to deep and daring interpretations. Latin American classics that might otherwise seem difficult become raw material for creativity as students stretch their command of Spanish. They learn that arts interpret and explore meanings and that theory is a user-friendly afterthought. This training prepares facilitation of Pre-Texts workshops in Boston and abroad.

*Note:* Expected to be given in 2015–16. Conducted in Spanish. Students are allowed to take a maximum of two courses at the 60-level in Spanish, not including Spanish 60.

*Prerequisite:* A score above 750 on the SAT II test or Harvard Placement test.

**\*Spanish 91r. Supervised Reading and Research**

Catalog Number: 1586

*Johanna Damgaard Liander and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

Tutorial supervision of research on subjects not treated in regular courses.

*Note:* Limited to juniors and seniors. Students wishing to enroll must petition the Undergraduate Adviser in Spanish 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 in the area as background for their project. May not be taken more than twice, and only once for concentration credit.

**\*Spanish 97. Tutorial—Sophomore Year**

Catalog Number: 2315

*Luis Fernández-Cifuentes*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Theory in Praxis: Students will read, write, and speak about different modes of analysis of poetry, narrative prose, and cinema (stylistics, semiotics, psychoanalysis, deconstruction, gender studies, etc.), as practiced by a variety of pioneering scholars and artists, from Yuri Lotman and Barbara Johnson to Sergei Eisenstein and Laura Mulvey. Students will in turn put to work those modes of analysis on a number of Spanish and Latin American texts and films.

*Note:* Conducted in Spanish. Requirements include short weekly papers and regular participation in class discussions. Required for all concentrators in Hispanic Studies in their sophomore year, but open to others. May also be taken as the Sophomore tutorial for concentrators in Latin American Studies and Romance Studies.

*Prerequisite:* 800 on the Harvard Placement test; a 50-, 60-, or 70-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*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*

Weekly individual instruction for juniors pursuing a thesis honors track in Hispanic Studies, culminating in the writing of a 20-25 page research paper in Spanish.

*Note:* Letter-graded. Successful completion of one term of Spanish 98 (or equivalent) is required of all thesis-track honors concentrators in Hispanic Studies in their junior year.

### **\*Spanish 99. Tutorial—Senior Year**

Catalog Number: 5867

*Johanna Damgaard Liander and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

Weekly individual instruction for honors seniors writing a thesis. Completion of two terms of Spanish 99 is required of all seniors pursuing a thesis honors track.

*Note:* For honors seniors writing a thesis. Successful completion of two terms of Spanish 99 is required of all thesis-track honors concentrators. 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.

*Prerequisite:* Satisfactory completion of a junior tutorial and faculty approval of proposed thesis topic.

### ***Cross-listed Courses***

#### **Aesthetic and Interpretive Understanding 13. Cultural Agents**

#### **\*Freshman Seminar 32m. Food for Thought: Culinary Culture in Spain and Latin America**

#### **\*Government 94es. Spain 40 Years Later: From Franco Dictatorship to the Indignados Movement - (New Course)**

#### **\*History and Literature 90be. Tropical Fantasies: The Hispanic Caribbean and Haiti in the Global Imaginary - (New Course)**

### ***For Undergraduates and Graduates***

Open to students with 800 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 109 (formerly \*Spanish 90tv). Displacing Spain: Workshop on 20th and 21st-Century Transatlantic Poetry**

Catalog Number: 54744

*Daniel Aguirre Oteiza*

*Half course (fall term). M., W., 12–1:30. EXAM GROUP: 11*

We will read, listen to, and play with poems dealing with transatlantic perspectives on and from modern Spain. Close attention paid to the relation between poetry and identity, motherland, exile, and nomadism in Spanish and Latin American poets such as Bolaño, Cernuda, Darío,



García Lorca, Neruda, Peri Rossi, and Vallejo, among others. Includes formal and thematic analysis of poems and hands-on work with texts in Spanish through translation.

*Note:* Conducted in Spanish.

*Prerequisite:* Coursework in Spanish at the 90-, or 100-level; or permission of the course head.

### [Spanish 110. Hispanic Literature: The Middle Ages]

Catalog Number: 9402

*Luis M. Girón Negrón*

*Half course (fall term). M., W., at 10.*

Introduction to Old Spanish literature from origins through 15th century. Close reading of works in historical context, including: *Cantar de Mío Cid* and *La Celestina*. Includes critical approaches and overarching themes in medieval Iberian literatures.

*Note:* Expected to be given in 2015–16. Conducted in Spanish. Additional readings and alternate requirements for graduate students seeking to fulfill their General Exam in Medieval Spanish for Non-Specialists.

### \*Spanish 112 (formerly \*Spanish 90gc). You Will Win, But You Won't Convince: Discussing the Spanish Civil War

Catalog Number: 14423

*Daniel Aguirre Oteiza*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

Examines the Spanish Civil War (1936–39) as a key event for understanding the "causes" that have shaped 20th- and 21st-century Spanish culture and society within the context of recent Western history. Focus on the relation between memory, history, and representation in cultural works ranging from the years prior to the conflict up to the present (narrative, poetry, testimonies, memoirs, film, visual arts, etc.).

*Note:* Conducted in Spanish.

*Prerequisite:* 800 on the SAT II test or on the Harvard Placement test, a previous course in Spanish at the 80- or 90-level, or permission of the course head.

### Spanish 120. Medieval Spain in the Poem of the Cid

Catalog Number: 1579

*Luis M. Girón Negrón*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

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:* Conducted in Spanish.

### Spanish 122. Figures and Fictions of Venture Capital and the Law in the Spanish Conquest - (New Course)

Catalog Number: 75089

*Nicole Delia Legnani*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

What is a conquest? How does enterprise (empresa) relate to chivalry, conquest and business? We explore the Spanish tropes of profitable violence in the West Indies and contextualize the development of the "laws of peoples" (jus gentium) by Spanish jurists within the corpus of



commercial law employed by the empresarios of the 15th and 16th centuries. Topics include carried interest, the state of exception, sovereignty, friendship and enmity, profitable violence, orthodoxy and heterodoxy. In addition to examining laws, contracts, and chronicles of conquest, we read selections of an Inquisition trial and a bid made by indigenous elites of the Andes to purchase limited sovereignty from Philip II.

### **Spanish 124. Don Quixote and the Art of Reading**

Catalog Number: 1378

*Mary M. Gaylord*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

In the beginning was the book. From his library the *hidalgo*, bent on writing himself into History, sallies forth into a world of actors, storytellers, and readers. How do books come by their power to shape individuals and their world? We read Cervantes' masterpiece alongside seminal Renaissance works his characters and readers knew (Erasmus, Vives, More, Castiglione), and modern studies of reading and print culture.

*Note:* Conducted in Spanish; an advanced reading knowledge of Spanish is essential. There will be class visits to the Houghton Library of Rare Books and screenings of film versions of the novel. .

*Prerequisite:* Coursework in Spanish at the 70-, 90-, or 100-level, or permission of the instructor.

### **[Spanish 125. The New Art of Telling Stories in Spanish: Cervantes's *Novelas Ejemplares* and Other Short Fiction for Early Modern Spain]**

Catalog Number: 13594

*Mary M. Gaylord*

*Half course (fall term). Tu., Th., 11:30–1.*

Before the novel was the novella. Early modern short stories hold up revealing mirrors to society, history and literature, offering – as Horace recommends – instruction and entertainment for an expanding readership in a changing world. Works studied include picaresque, Moorish tales, miscellanies, joke-books, Cervantes's *Novelas ejemplares* (1613) and María Zaya's tragic love stories. Taught in Spanish

*Note:* Expected to be given in 2015–16. Conducted in Spanish.

### **Spanish 126. Performing Latinidad**

Catalog Number: 69012

*Lorgia H. García Peña*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

What exactly does the word "latinidad" mean? How has "the Latino" been constructed in U.S. culture? What has been the importance of "latinidad" in the social and political history of people of Latin American descent in this country? What place does "latinidad" occupy within the North American academy? Our course attempts to respond to these inquiries through an analysis of Latino performance and its representation within particular literary and cultural productions: poetry, theater, film, and stand-up comedy.

*Note:* Class will be conducted in English. Discussions in English and Spanish according to class composition.



### [Spanish 149. Filming the Text]

Catalog Number: 11542

*Luis Fernández-Cifuentes*

*Half course (fall term). Hours to be arranged.*

We will explore the complex process that takes place when certain literary texts (novels like Unamuno's *La tía Tula*; short stories like Aldecoa's *Los pájaros de Badem-Badem* or García Morales's *El Sur*; and, especially, plays like García Lorca's *Bodas de sangre* or Valle-Inclán's *Divinas palabras*) are transformed into films by such prominent directors as Luis Buñuel, Juan Antonio Bardem, Carlos Saura, and Mario Camus.

*Note:* Expected to be given in 2015–16. Conducted in Spanish.

*Prerequisite:* Previous coursework in Spanish at the 90- or 100-level; or the permission of the course head.

### [Spanish 152. Magical Realism and Its Discontent: Latin American Novels That Didn't Boom]

Catalog Number: 0215

*Mariano Siskind*

*Half course (spring term). M., 3-5, and an additional weekly section hour to be arranged.*

Carpentier and García Márquez found a narrative form to express Latin America's aesthetic particularity through magic and marvel. Since the publication of *Cien años de soledad*, its remarkable impact generated different experimental responses attempting to work through Latin American social reality in very different ways. We read novels and short stories by Carpentier, García Márquez, Rulfo, Cortázar, Borges, Donoso, Saer, Cabrera Infante, Glantz, Bolaño, Fuguet, Bellatín and Aira. Also comics and films.

*Note:* Expected to be given in 2015–16. Conducted in Spanish.

### [Spanish 158. Transversal Poetics: Workshops on Translation and Transcreation of Latin American Poetry]

Catalog Number: 36194

*Sergio Delgado*

*Half course (fall term). Tu., Th., 1:30–3.*

An inquiry into the notion of transversal poetics: the theory and practice of poetry as a form of expression that brings together distinct ways of making sense with language. Structured as a workshop. Assignments include: translation of poems into English; rendition of poems into formats other than print (fliers, broadsheets, slideshows, installations, etc.). Readings by Augusto and Haroldo de Campos, Zurita, Kamenszain, Cucurto, Maquieira. Course conceived in conjunction with Latin American poetry symposium November 2013.

*Note:* Expected to be given in 2015–16. Conducted in Spanish.

*Prerequisite:* Previous coursework in Spanish at the 90- or 100-level; or the permission of the course head.

### Spanish 171 (formerly Catalan 93). Barcelona and the Catalan Culture

Catalog Number: 58773

*Eloi Grasset Morell*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

The course offers an interdisciplinary approach to Barcelona, a multilayered space furnished by



Roman, French, Muslim, and Spanish legacies that shaped a singular culture and language. Developing from periods of egalitarian social and political institutions in the Middle Ages to strong socioeconomic industrial development in the 19th century and later tourism, Spain's most European city is inscribed by a deep sense of civic and industrious society permanently seeking innovation and modernity, yet facing the consequences of its complex past. Through readings of historians, art critics, urban designers, and writers, and supported by visual materials, the course offers an integrated perspective which opens questions in every field of the Humanities and the Social Sciences on Catalan and Hispanic Cultures.

*Note:* The course will be conducted in Spanish. The readings will be in English & Spanish.

### [Spanish 173. Madrid, fin-de-siècle]

Catalog Number: 4425

*Luis Fernández-Cifuentes*

*Half course (fall term). Tu., Th., 10–11:30.*

Madrid's first turn of the century as a modern metropolis was marked by the innovative visions of the "generation of 1898" (the year Spain's colonial empire ended); the second, by the aftermath of Franco's dictatorship. This course will articulate comparative analyses of multicultural issues around those two historical "ends": from the architecture of the Gran Vía and Baroja's engravings to the Castellana "skyscrapers" and Antonio López's paintings; from Valle-Inclán's plays to Almodóvar's films; from workers' movements to socialist democracy.

*Note:* Expected to be given in 2015–16. Conducted in Spanish.

### [Spanish 179. Regarding the Pain of Spain]

Catalog Number: 10194

*Daniel Aguirre Oteiza*

*Half course (fall term). Tu., 3–5, and an additional weekly section hour to be arranged.*

We will explore modern representations of violence in Spanish history through close analyses of short stories, novels, memoirs, paintings, and films by Spanish and some Latin American authors. Issues discussed may include *la España negra*, black humor, bullfighting, colonial power, concentration camps, gothic horror, sexual abuse, state repression, terrorism.

*Note:* Expected to be given in 2015–16. Conducted in Spanish.

### Spanish 194. The Borges Machine

Catalog Number: 25301

*Mariano Siskind*

*Half course (fall term). Tu., 1–3, and an additional weekly section hour to be arranged. EXAM GROUP: 8*

We study Jorge Luis Borges's poetry, short stories, and essays; from *Fervor de Buenos Aires* to *El Aleph*; from his scripts and the films based on them to the cultural constellations that rose around him, as well as those his work created. We will think of Borges as a writer, but also as literary machine, an artifice that produces meaning in the works of other writers and in cultural formations beyond Argentina and Latin America.

*Note:* Conducted in Spanish.

### ***Cross-listed Courses***



**[Anthropology 1648. Latin@s Remaking America: Immigration, Culture and Language]  
 [Literature 157. From Type to Self in the Middle Ages]**

*Primarily for Graduates*

**Spanish 201. Historia de la lengua española**

Catalog Number: 5610

*Luis M. Girón Negrón*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

Introducción a la historia de la lengua española desde sus orígenes hasta el presente. Escarceos en lingüística histórica en el marco de la historia literaria y el estudio comparado de las lenguas románicas. Acercamiento interdisciplinario.

*Note:* Conducted in Spanish. Required of graduate students in Spanish and Portuguese.

**Spanish 242. Being and Knowing in Latina Theory - (New Course)**

Catalog Number: 77268 Enrollment: Limited to 15.

*Mayra Rivera Rivera (Divinity School)*

*Half course (spring term). Th., 2–4. EXAM GROUP: 4*

This graduate-level seminar course engages philosophers and literary theorists who analyze the relationship between geopolitics, language, and the production of knowledge drawing from Latino/a and Latin American intellectual traditions. Readings include works by Linda Martín Alcoff, Walter Mignolo, and Édouard Glissant, among others.

*Note:* Offered jointly with the Divinity School.

**Spanish 243. Foundational Fiction and Film**

Catalog Number: 3129

*Doris Sommer*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

Through novels that helped to consolidate nation-states in Latin America, explores modernity as personal and public lessons in laissez-faire. Sequels in film, telenovelas, performances show tenacity of genre. Links between creativity and citizenship. Theorists include Anderson, Foucault, Arendt, Lukacs, Flaubert.

*Note:* Conducted in Spanish.

**[Spanish 244. The Logic of Sensationalism]**

Catalog Number: 50596

*Sergio Delgado*

*Half course (spring term). M., 4–7 p.m.*

Probes sensationalism as register of violent crimes and traumatic experiences. Posits sensation as break with or interruption of storytelling, narrative, discourse, etc. Readings and visual materials by Fernando Vallejo, Bolano, Metinides, Moris, Kristeva, Deleuze, Yudice.

*Note:* Expected to be given in 2015–16. Conducted in Spanish.

*Prerequisite:* Graduate students only; or permission of course head.

**Spanish 254. Imagining Caribbean Communities: Border, Nations, and Diaspora in Contemporary Hispanic Caribbean Literatures - (New Course)**



Catalog Number: 75832

*Lorgia H. García Peña*

*Half course (fall term). Tu., 10–12. EXAM GROUP: 12*

This course explores the imagining of Caribbean communities through literary and cultural representations. Setting off from the concept of Pan-Caribbean solidarity that José Martí imagined at the end of the nineteenth century, we will look at the ways in which notions of Caribbean communities have been imagined, and deployed through literary and cultural representation. Focusing on questions of race, class, nation, and migration(s) our course will create a dialogue among late nineteenth and early twentieth century canonical Caribbean thinkers such as Juan Bosch, and Eugenio María de Hostos and lesser-known contemporary writers like Rita Indiana Hernández and Rey Andújar. Our course will be organized thematically, proposing a trans-national and trans-historical view of Caribbean intellectual and literary history. The theoretical framework will engage current race, nation, migration, and transnational feminist theories with a focus on Caribbean criticism.

*Note:* Readings will be in Spanish, English, Spanglish or French (with available translations to Spanish or English.) Discussion will be in Spanish. The focus will be on the Hispanic Caribbean, Haiti and the U.S. Caribbean Diasporas.

### **Spanish 261. The Return of World Literature: Placing Latin America, Debating Universalism**

Catalog Number: 8328

*Mariano Siskind*

*Half course (spring term). M., 3–5. EXAM GROUP: 17*

With Moretti and Casanova, world literature has made a comeback. Is there room for 'the Latin American universal'? We read Goethe, Hegel, Marx, Sanín Cano, Reyes, Borges, Wilcock, Copi, Bolaño, Latin American films and music.

*Note:* Conducted in Spanish.

### **[Spanish 269. Body Matters and Market Forces in Latin American Literature and Culture]**

Catalog Number: 99479

*Sergio Delgado*

*Half course (fall term). Hours to be arranged.*

Traces and analyzes social and symbolic dynamics of urban commodity capitalism. Emphasis on the body and perception as contested sites of coercion and critical agency. Readings by Benjamin, Arlt, Adorno, Siqueiros, Merleau-Ponty, Paz, Eltit.

*Note:* Expected to be given in 2015–16.

### **[Spanish 281r. Graduate Seminar: New Worlds of Early Modern Poetry in Spanish]**

Catalog Number: 9785

*Mary M. Gaylord*

*Half course (spring term). Th., 1–3.*

Imitation of Latin and Italian models, rediscovery of Spain's medieval traditions and global exploration reshape 16th- and 17th-century lyric and epic, redefining poetic language itself.

*Note:* Expected to be given in 2015–16. Conducted in Spanish and English. An advanced reading knowledge of Spanish is essential.



**[Spanish 285cr. Graduate Seminar: Money and Realism in Galdós's Times]**

Catalog Number: 1104

*Luis Fernández-Cifuentes*

*Half course (spring term). Th., 2:30–5.*

The function and circulation of money in realism's representations of modern urban societies: monetary value and the modern concepts of need, wealth, happiness, poverty, and labor; money and gender; economics and the rhetoric of realism.

*Note:* Expected to be given in 2015–16. Conducted in Spanish.

**Spanish 285r. Spanish Literature: Seminar: Filming the Text - (New Course)**

Catalog Number: 55936

*Luis Fernández-Cifuentes*

*Half course (fall term). Th., 2:30–5. EXAM GROUP: 14*

We will explore the complex process that takes place when certain literary texts (novels like Unamuno's *La tía Tula* or Galdós's *Nazarín*; short stories like Aldecoa's *Young Sánchez* or García Morales's *El Sur*; and, especially, plays like Carlos Arniches's *La señorita de Trevélez* or Valle-Inclán's *Divinas palabras*) are transformed into films by such prominent directors as Luis Buñuel, Juan Antonio Bardem, Víctor Erice, Miguel Picazo, Mario Camus, and others.

***Cross-Listed Courses***

**[Comparative Literature 211. Mysticism and Literature]**

**Comparative Literature 252. The Literatures of Medieval Iberia**

***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

*Sergio Delgado 6724 (on leave 2014-15), Luis Fernández-Cifuentes 2091, Mary M. Gaylord 2632, Luis M. Girón Negrón 3060, Mariano Siskind 5530, Doris Sommer 2744, and Diana Sorensen 4214*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 17; Spring: 13*

**\*Spanish 330. Direction of Doctoral Dissertations**

Catalog Number: 2143

*Josiah Blackmore 3750, Sergio Delgado 6724 (on leave 2014-15), Luis Fernández-Cifuentes 2091, Mary M. Gaylord 2632, Luis M. Girón Negrón 3060, Mariano Siskind 5530, Doris Sommer 2744, and Diana Sorensen 4214*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*



## ROTC

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

The Faculty of Arts and Sciences, in cooperation with the Massachusetts Institute for Technology (MIT), offers Harvard undergraduates the opportunity to participate in the Reserve Officers Training Corps (ROTC) through cross-registration. More information on cross-registration is available through the [Harvard University Course Catalog](#).

For a full description of the Air Force ROTC, Army ROTC, and Naval ROTC programs see the [MIT Course Catalog](#).

#### *Air Force ROTC*

The [Air Force ROTC Program in Aerospace Studies](#) offers [courses for 2014-2015](#).

#### *Army ROTC*

The [Army ROTC Program in Military Science and Leadership](#) offers [courses for 2014-2015](#).

#### *Naval ROTC*

The [Naval ROTC Program in Naval Science](#) offers [courses for 2014-2015](#).

## 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*



Terry D. Martin, George F. Baker III Professor of Russian Studies (*Chair*)  
 Julie A. Buckler, Professor of Slavic Languages and Literatures and of Comparative Literature, Harvard College Professor, and Director of the Humanities Program at the Radcliffe Institute for Advanced Studies  
 Timothy J. Colton, Morris and Anna Feldberg Professor of Government and Russian Studies  
 Grzegorz Ekiert, Professor of Government  
 Kelly A. O'Neill-Uzgiris, Associate Professor of History (*on leave fall term*)  
 Serhii Plokhi, Mykhailo S. Hrushevskyi Professor of Ukrainian History (*on leave spring term*)  
 Stephanie Sandler, Ernest E. Monrad Professor of Slavic Languages and Literatures  
 Justin Weir, Professor of Slavic Languages and Literatures and of Comparative Literature

***Other Faculty Offering Instruction in Regional Studies—Russia, Eastern Europe, and Central Asia***

Terry D. Martin, George F. Baker III Professor of Russian Studies  
 Alexandra Vacroux, Lecturer on Government

This is a two-year interdisciplinary program leading to the AM degree. The REECA 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. 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:

Anthropology, Comparative Literature, Government, History, History of Art and Architecture, Near Eastern Languages and Civilizations (for courses on Islamic civilization, as well as languages of Central Asia and the Caucasus), Slavic Languages and Literatures, Sociology, and Ukrainian Studies.

For more information on courses offered, please see individual departmental listings, or visit the REECA website at [daviscenter.fas.harvard.edu/student-programs/masters.html](http://daviscenter.fas.harvard.edu/student-programs/masters.html)

***Primarily for Graduates***

**\*Regional Studies — Russia, Eastern Europe, and Central Asia 298. Master's Thesis Reading and Research**

Catalog Number: 3938 Enrollment: Limited to master's degree candidates in the REECA Program.



*Alexandra Vacroux and members of the Faculty*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 18*

Supervised reading and research to fulfill the thesis requirement in the master's degree program in Regional Studies—Russia, Eastern Europe, and Central Asia.

*Note:* May be substituted for RSRA 298hf only with the permission of the Academic Advisor. Master's degree candidates normally complete both \*RSRA 298hf/298 and 299hf/299 to fulfill the thesis requirement. Course must be taken for letter grade.

### **\*Regional Studies — Russia, Eastern Europe, and Central Asia 298hf. Master's Thesis**

#### **Reading and Research**

Catalog Number: 14813

*Alexandra Vacroux and members of the Faculty*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: 18*

Interdisciplinary proseminar designed to orient master's degree students in Regional Studies—Russia, Eastern Europe, and Central Asia to theoretical and methodological approaches in the field, including research design for academic and policy research.

*Note:* This course must be taken for letter grade.

### **\*Regional Studies — Russia, Eastern Europe, and Central Asia 299. Master's Thesis**

#### **Development and Writing**

Catalog Number: 1931 Enrollment: Limited to master's degree candidates in the REECA Program.

*Alexandra Mary Vacroux and members of the Faculty*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 14; Spring: 11*

A continuation of RSRA 298/298hf, culminating in the final master's thesis.

*Note:* May be substituted for RSRA299hf only with the permission of the Academic Advisor. Master's degree candidates normally complete both \*RSRA 298hf/298 and 299hf/299 to fulfill the thesis requirement. Course must be taken for letter grade.

### **\*Regional Studies — Russia, Eastern Europe, and Central Asia 299hf. Master's Thesis**

#### **Development and Writing**

Catalog Number: 81442

*Alexandra Mary Vacroux and members of the Faculty*

*Half course (throughout the year). Spring: F., 2–4. EXAM GROUP: Fall: 5; Spring: 18*

A continuation of \*RSRA 298hf, culminating in the final master's thesis.

*Note:* Master's degree candidates are normally required to complete \*RSRA 298hf in the first year and \*RSRA 299hf in the second year of graduate study.



# Slavic Languages and Literatures

## AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

### *Faculty of the Department of Slavic Languages and Literatures*

Justin Weir, Professor of Slavic Languages and Literatures and of Comparative Literature  
(*Chair; Director of Undergraduate Studies*)

Anna Baranczak, Preceptor in Slavic Languages and Literatures

Stanislaw Baranczak, Alfred Jurzykowski Professor of Polish Language and Literature

Jonathan H. Bolton, Professor of Slavic Languages and Literatures (*on leave fall term*)

Svetlana Boym, Curt Hugo Reisinger Professor of Slavic Languages and Literatures and Professor of Comparative Literature (*on leave spring term*)

Julie A. Buckler, Professor of Slavic Languages and Literatures and of Comparative Literature, Harvard College Professor, and Director of the Humanities Program at the Radcliffe Institute for Advanced Studies

Natalia Chirkov, Preceptor in Slavic Languages and Literatures

Steven Clancy, Senior Lecturer on Slavic Languages and Literatures and Director of the Slavic Language Program

Volodymyr Dibrova, Preceptor in Slavic Languages and Literatures

Veronika A. Egorova, Preceptor in Slavic Languages and Literatures

Melissa Sara Feuerstein, Lecturer on Slavic Languages and Literatures

Michael S. Flier, Oleksandr Potebnja Professor of Ukrainian Philology

George G. Grabowicz, Dmytro Cyzevs'kyj Professor of Ukrainian Literature (*on leave spring term*)

Daria Khitrova, Assistant Professor of Slavic Languages and Literatures

Maria Khotimsky, Visiting Lecturer on Slavic Languages and Literatures

Jessie Labov, Visiting Assistant Professor of Slavic Languages and Literatures (*Ohio State University*)

John E. Malmstad, Samuel Hazzard Cross Professor of Slavic Languages and Literatures (*on leave 2014-15*)

Natalia Pokrovsky, Preceptor in Slavic Languages and Literatures

Stephanie Sandler, Ernest E. Monrad Professor of Slavic Languages and Literatures (*Director of Graduate Studies*)

William Mills Todd III, Harry Tuchman Levin Professor of Literature and Professor of Comparative Literature

Veronika Tuckerova, Preceptor in Slavic Languages and Literatures

Oksana Willis, Preceptor in Slavic Languages and Literatures



Boris Y. Wolfson, Visiting Associate Professor of Slavic Languages and Literatures (*Amherst College*)

***Other Faculty Offering Instruction in the Department of Slavic Languages and Literatures***

Kelly A. O'Neill-Uzgiris, Associate Professor of History (*on leave fall term*)

***Language Courses***

***Sectioning Note:*** Sectioning in multi-sectioned 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.

***Note on Auditing, Pass/Fail and Satisfactory/Unsatisfactory (Sat/Unsat):*** 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. Undergraduate students are generally discouraged from taking language courses Pass/Fail and may do so only after consultation with and permission from the Director of the Language Program and the course instructor. Graduate students may register on a Pass/Fail basis (as Sat/Unsat) with permission of the Director of the Language Program and the course instructor.

***Slavic Languages Offered:***

- Bosnian, Croatian, Serbian Language Tutorials
- Czech Language Courses
- Czech Language Tutorials
- Polish Language Courses
- Polish Language Tutorials
- Russian Language Courses
- Russian Language Tutorials
- Ukrainian Language Courses
- Ukrainian Language Tutorials

For further information on the Slavic Department and the possibility of tutorials in other languages, please go to [www.slavic.fas.harvard.edu](http://www.slavic.fas.harvard.edu) or contact the Director of the Language Program, [Dr. Steven Clancy](#).

***Note on the sequence of Russian courses:***

Students in the Russian program have choices as they progress from the Elementary sequences (A-level courses) to Intermediate sequences (B-level courses) to the Advanced sequences at the



third-year (101-103, 102r), fourth-year (111, 112, 113, 114), and fifth-year (115-116) levels. Although single tracks such as Russian A to B, Aab to Bab, and At to Bt lead directly to 101-103, students may change tracks from year to year as they progress (e.g., A to Bt, Aab to B, At to B, etc.). These courses all lead to the common third-year level sequence (Russian 101-103). At the fourth-year level, students may choose from a range of thematic half courses offered each semester.

All full courses are divisible for credit, but this is not recommended and in fact strongly discouraged.

### ***Bosnian, Croatian, Serbian Language Tutorials***

#### **\*BCS Ar. Elementary Bosnian/Croatian/Serbian**

Catalog Number: 85146

*Steven Clancy and others*

*Half course (fall term; repeated spring term). Spring: Tu., Th., at 10. EXAM GROUP: Spring: 12*

Individualized study of the Bosnian/Croatian/Serbian language at the elementary level, conducted as a tutorial. Contact hours with language coach. Emphasis on literacy.

*Note:* Not open to auditors. Course offered only by application and upon approval by the Director of the Language Program and the Office of Undergraduate Education. Students must demonstrate clear academic need for the tutorial (e.g. knowledge of the language contributes to thesis research, other coursework, planned study/research/internships abroad, etc.) Mere academic interest in the language is not sufficient for approval. Application information is available at the Slavic Department website. Interested students should submit on-line applications to staff assistant, Jolanta Davis, slavic@fas.harvard.edu, preferably by the second day of classes. No applications accepted after Friday of the first week of classes.

#### **\*BCS Br. Intermediate Bosnian/Croatian/Serbian**

Catalog Number: 19497

*Steven Clancy and others*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 5*

Individualized study of the Bosnian/Croatian/Serbian language at the intermediate level, conducted as a tutorial. Contact hours with language coach. Emphasis on literacy.

*Note:* Not open to auditors. Course offered only by application and upon approval by the Director of the Language Program and the Office of Undergraduate Education. Students must demonstrate clear academic need for the tutorial (e.g. knowledge of the language contributes to thesis research, other coursework, planned study/research/internships abroad, etc.) Mere academic interest in the language is not sufficient for approval. Application information is available at the Slavic Department website. Interested students should submit on-line applications to staff assistant, Jolanta Davis, slavic@fas.harvard.edu, preferably by the second day of classes. No applications accepted after Friday of the first week of classes.

#### **\*BCS Cr. Advanced Bosnian/Croatian/Serbian**

Catalog Number: 18037

*Steven Clancy and others*



*Half course (fall term; repeated spring term). Fall: Tu., Th., at 12. EXAM GROUP: Fall: 13; Spring: 14*

Individualized study of the Bosnian/Croatian/Serbian language at the advanced level, conducted as a tutorial. Contact hours with language coach. Emphasis on literacy.

*Note:* Not open to auditors. Course offered only by application and upon approval by the Director of the Language Program and the Office of Undergraduate Education. Students must demonstrate clear academic need for the tutorial (e.g. knowledge of the language contributes to thesis research, other coursework, planned study/research/internships abroad, etc.) Mere academic interest in the language is not sufficient for approval. Application information is available at the Slavic Department website. Interested students should submit on-line applications to staff assistant, Jolanta Davis, slavic@fas.harvard.edu, preferably by the second day of classes. No applications accepted after Friday of the first week of classes.

## **Czech Language Courses**

### **Czech A. Elementary Czech**

Catalog Number: 2173

Veronika Tuckerova

*Full course. M., W., F., at 10, with an additional hour of speaking practice to be arranged.*

*EXAM GROUP: 5*

An introductory course in modern Czech language and culture, designed for students without previous knowledge who would like to speak Czech or use the language for reading and research. All four major communicative skills (speaking, listening comprehension, reading, writing) are stressed. Students are exposed to Czech culture through work with film and literature and gain some familiarity with the major differences between literary and spoken Czech as they learn to use the language both as a means of communication and as a tool for reading and research. This year-long full course satisfies the foreign language requirement and prepares students for continued study of Czech in intermediate-level courses and for study or travel abroad in the Czech Republic.

### **Czech B. Intermediate Czech**

Catalog Number: 6028

Veronika Tuckerova

*Full course. M., W., F., at 11, with an additional hour of speaking practice to be arranged.*

*EXAM GROUP: Fall: 18; Spring: 14*

An intermediate course in modern Czech language and culture for students with previous study of the language. Further development of vocabulary and oral expression within a comprehensive review of Czech grammar. All four major communicative skills (speaking, listening comprehension, reading, writing) are stressed as students learn to use the language both as a means of communication and as a tool for reading and research. Systematic study of word formation and other strategies are taught to help free students from excessive dependence on the dictionary and develop confidence in reading. Increased exposure to the differing registers of Czech in its literary and spoken forms. This year-long full course prepares students for continued study of Czech in advanced-level courses and for study or travel abroad in the Czech Republic.

*Prerequisite:* Czech A or placement at the B-level. Familiarity with fundamentals of Czech grammar, particularly case endings and elementary competence in spoken Czech.



### **\*Czech Cr. Advanced Czech**

Catalog Number: 0847

*Veronika Tuckerova*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 10*

Individualized study of the Czech language at the advanced level. Emphasis on reading with some practice in speaking and writing for professional and academic purposes. Conducted as a tutorial.

*Note:* Not open to auditors. Course offered only by application and upon approval by the Director of the Language Program. Students must demonstrate clear academic need for the tutorial (e.g., knowledge of the language contributes to thesis research, other course work, planned study/research/internships abroad, etc.). Mere academic interest in the language is not sufficient for approval. Application information is available at the Slavic Department website. Interested students should submit on-line applications to staff assistant, Jolanta Davis, slavic@fas.harvard.edu, preferably by the second day of classes. No applications accepted after Friday of the first week of classes.

## ***Polish Language Courses***

### **Polish A. Elementary Polish**

Catalog Number: 8158

*Anna Baranczak*

*Full course. M., W., F., at 9, with an additional hour of speaking practice to be arranged. EXAM GROUP: 10*

An introductory course in modern Polish language and culture, designed for students without previous knowledge who would like to speak Polish or use the language for reading and research. All four major communicative skills (speaking, listening comprehension, reading, writing) are stressed. Students are exposed to Polish culture through reading of prose and poetry as they learn to use the language both as a means of communication and as a tool for reading and research. This year-long full course satisfies the foreign language requirement and prepares students for continued study of Polish in intermediate-level courses and for study or travel abroad in Poland.

### **Polish B. Intermediate Polish**

Catalog Number: 41571

*Anna Baranczak*

*Full course. M., W., F., at 11, with an additional hour of speaking practice to be arranged.*

*EXAM GROUP: Fall: 18; Spring: 14*

An intermediate course in modern Polish language and culture for students with previous study of the language. Further development of vocabulary and oral expression within a comprehensive review of Polish grammar. All four major communicative skills (speaking, listening comprehension, reading, writing) are stressed as students learn to use the language both as a means of communication and as a tool for reading and research. Introduction to Polish literature through fiction and poetry, history and contemporary events, including readings from literary masterpieces from Polish literature from the era of the Renaissance to contemporary times including Jan Kochanowski, Wisława Szymborska, Zbigniew Herbert, Czesław Miłosz and others. Film clips and newspaper articles will introduce students to a variety of styles of



contemporary Polish. Systematic study of word formation and other strategies are taught to help free students from excessive dependence on the dictionary and develop confidence in reading. This year-long full course prepares students for continued study of Polish in advanced-level courses and for study or travel abroad in Poland.

**Prerequisite:** Polish A or placement at the B-level. Familiarity with fundamentals of Polish grammar, particularly case endings and elementary competence in spoken Polish.

### **\*Polish Cr. Advanced Polish**

Catalog Number: 1096

*Anna Baranczak*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*

Individualized study of the Polish language at the advanced level. Emphasis on reading with some practice in speaking and writing for professional and academic purposes. Conducted as a tutorial.

**Note:** Not open to auditors. Course offered only by application and upon approval by the Director of the Language Program. Students must demonstrate clear academic need for the tutorial (e.g., knowledge of the language contributes to thesis research, other course work, planned study/research/internships abroad, etc.). Mere academic interest in the language is not sufficient for approval. Application information is available at the Slavic Department website. Interested students should submit on-line applications to staff assistant, Jolanta Davis, slavic@fas.harvard.edu, preferably by the second day of classes. No applications accepted after Friday of the first week of classes.

## **Russian Language Courses**

### **Russian A. Elementary Russian**

Catalog Number: 8014

*Steven Clancy, Natalia Chirkov, and others*

*Full course. Section I: M., W., F., at 9, Section II: M., W., F., at 11, with speaking practice Tu., Th., at 10, 11, 1, or 2. Tuesday/Thursday small group practice times are tentative and will be adjusted to accommodate student schedules. EXAM GROUP: 10*

An introductory course in modern Russian language and culture, designed for students without previous knowledge of Russian who would like to speak Russian or use the language for reading and research. All four major communicative skills (speaking, listening comprehension, reading, writing) are stressed. Students are introduced to Russian culture and the etiquette of social exchanges, and expand their knowledge of grammar and vocabulary through readings (including stories, biography, and poetry), videos, and class discussions. This year-long full course satisfies the foreign language requirement and prepares students for continued study of Russian in intermediate (B-level) courses and for study or travel abroad in Russian-speaking countries.

**Note:** See "Sectioning Note" above. Assumes no previous knowledge of Russian. Russian A, Russian Aab, and Russian At all prepare students to continue in Russian B, Bab, or Bt.

### **Russian Aab. Elementary Russian (Intensive)**

Catalog Number: 4441

*Natalia Chirkov and others*

*Full course (fall term; repeated spring term). M., through F., at 9, with speaking practice M., W.,*



*F., at 10 or 11. MWF small group practice times are tentative and efforts will be made to accommodate student schedules. EXAM GROUP: 10*

An intensive version of Russian A, covering the same material in a single semester. Class meets five days per week with five hours of the main section and three hours of small group speaking practice each week.

*Note:* See "Sectioning Note" above. Assumes no previous knowledge of Russian. Russian A, Russian Aab, and Russian At all prepare students to continue in Russian B, Bab, or Bt.

### **\*Russian Ah (formerly Slavic Ac). Grammar and Vocabulary Review for Heritage Speakers**

Catalog Number: 0496

*Veronika Egorova*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

Grammar and vocabulary review for students with a Russian-speaking family background. The course covers the entire case system, verb conjugation, aspect, motion constructions, and other essential grammar topics. Emphasis on reading, writing, spelling, and word formation.

*Note:* Offered every other year.

### **Russian At. Elementary Russian through Authentic Texts (Russian through Pushkin)**

Catalog Number: 39963

*Oksana Willis and others*

*Full course. M., W., F., at 10, with speaking and reading practice Tu., Th., at 10 or 1.*

*Tuesday/Thursday small group practice times are tentative and will be adjusted to accommodate student schedules. EXAM GROUP: 5*

Introductory course to Russian language and culture through a selection from the verse and prose works of Russia's greatest poet, Alexander Pushkin (including *The Bronze Horseman*, excerpts from *Eugene Onegin*, shorter poems, and prose in *The Queen of Spades*). This literary and linguistic approach to Elementary Russian has a strong emphasis on reading authentic Russian, but all four major communicative skills (speaking, listening comprehension, reading, writing) are stressed. Covers all of the basics of Russian grammar, including all six cases, verbal conjugation, and verbs of motion.

*Note:* Assumes no previous knowledge of Russian. Russian A, Russian Aab, and Russian At all prepare students to continue in Russian B, Bab, or Bt.

### **Russian B. Intermediate Russian**

Catalog Number: 3262

*Steven Clancy (fall term) and Veronika Egorova (spring term) and others*

*Full course. M., W., F., at 9 with speaking practice Tu., Th., at 9 or 10. Tuesday/Thursday small group practice times are tentative and will be adjusted to accommodate student schedules.*

*EXAM GROUP: 4*

An intermediate course in modern Russian language and culture for students with previous study of the language. Further development of vocabulary and oral expression within a comprehensive review of Russian grammar. All four major communicative skills (speaking, listening comprehension, reading, writing) are stressed as students learn to use the language both as a means of communication and as a tool for reading and research. Systematic study of word formation and other strategies are taught to help free students from excessive dependence on the



dictionary and develop confidence in reading. Vocabulary is thematically organized to include such topics as self and family, education, work, human relationships, politics, and national attitudes and is reinforced through film and the reading of classical and contemporary fiction and history. Practice in the etiquette of common social situations (sociolinguistic competence). Computer exercises on selected topics. This year-long full course prepares students for continued study of Russian in advanced-level courses and for study or travel abroad in Russian-speaking countries.

*Note:* See "Sectioning Note" above. Russian B, Russian Bab, and Russian Bt all prepare students to continue in Russian 101.

*Prerequisite:* Russian A, Aab, At, Ah, or placement at the B-level. Familiarity with fundamentals of Russian grammar, particularly case endings, verb conjugation, and elementary competence in spoken Russian.

### **Russian Bab. Intermediate Russian (Intensive)**

Catalog Number: 1657

*Natalia Chirkov and others*

*Full course (spring term). M., W., F., at 9, Tu., Th., at 10, with speaking practice M., W., F., at 1. MWF small group practice times are tentative and efforts will be made to accommodate student schedules. EXAM GROUP: 10*

An intensive version of Russian B, covering the same material in a single semester. Class meets five days per week with five hours of the main section and three hours of small group speaking practice each week. Readings may vary.

*Note:* See "Sectioning Note" above. Class hours may be changed by agreement. Russian B, Russian Bab, and Russian Bt all prepare students to continue in Russian 101.

*Prerequisite:* Russian A, Aab, At, Ah, or placement at the B-level. Familiarity with fundamentals of Russian grammar, particularly case endings of the noun, pronoun, and adjective and elementary competence in spoken Russian.

### **Russian Bt. Intermediate Russian through Authentic Texts (Russian through Bulgakov)**

Catalog Number: 72229

*Oksana Willis*

*Full course. M., W., F., at 11, with speaking practice T., Th., at 9 or 11. EXAM GROUP: Fall: 18; Spring: 14*

An intermediate course in Russian language and culture through reading of what is arguably 20th-century Russia's greatest novel, Mikhail Bulgakov's *The Master and Margarita*. This literary and linguistic approach to Intermediate Russian has a strong emphasis on reading authentic Russian, but all four major communicative skills (speaking, listening comprehension, reading, writing) are stressed as students learn to use the language both as a means of communication and as a tool for reading and research. Further development of vocabulary and oral expression within a comprehensive review of Russian grammar. Systematic study of word formation and other strategies are taught to help free students from excessive dependence on the dictionary and develop confidence in reading. This year-long full course prepares students for continued study of Russian in advanced-level courses and for study or travel abroad in Russian-speaking countries.

*Note:* Russian B, Russian Bab, and Russian Bt all prepare students to continue in Russian 101.

*Prerequisite:* Russian A, Aab, At, Ah, or placement at the B-level. Familiarity with fundamentals



of Russian grammar, particularly case endings of the noun, pronoun, and adjective and elementary competence in spoken Russian.

### **Russian 101. Advanced Russian I**

Catalog Number: 7234

*Natalia Pokrovsky, Veronika Egorova, and others*

*Half course (fall term). M., W., F., at 1, with speaking practice Tu., Th., at 1 or 2.*

*Tuesday/Thursday small group practice times are tentative and will be adjusted to accommodate student schedules. EXAM GROUP: 4*

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. Readings include a satirical tale by Shvartz, poetry of Akhmatova, and a film (Bykov's *Scarecrow*).

*Prerequisite:* Russian B, Bt, Bab, or placement at this level.

### **\*Russian 102r. Advanced Russian: Introduction to the Language of Social Sciences and the Media**

Catalog Number: 3280

*Oksana Willis*

*Half course (fall term). W., 2–4; F., at 9. EXAM GROUP: 7*

Introduction to the language of Russian newspapers, journals, and historical writing. Basic vocabulary for such areas as current events, including politics, history, economics, military issues, society, and the environment. Systematic study of word formation and other strategies are taught to help free students from excessive dependence on the dictionary and develop confidence in reading. Intended for students who desire a professional level of reading proficiency in the social sciences. Intensive work on morphology and supplementary work on oral comprehension.

*Prerequisite:* Russian 101, placement, or permission of instructor.

### **Russian 103. Advanced Russian: Reading, Composition, and Conversation**

Catalog Number: 8638

*Veronika Egorova and others*

*Half course (spring term). M., W., F., at 1, with a speaking section Tu., Th., at 1 or 2.*

*Tuesday/Thursday small group practice times are tentative and will be adjusted to accommodate student schedules. EXAM GROUP: 8*

Continuing work on vocabulary and grammar centering on verbs and verb government. Readings include works by Chekhov and Dostoevsky, poetry, and film.

*Note:* Strongly recommended for students who plan to continue in Russian.

*Prerequisite:* Russian 101 or placement at the 103 level.

### **Russian 111. Advanced Russian: Readings in Russian/Post-Soviet Studies**

Catalog Number: 1594

*Natalia Pokrovsky*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

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.

*Prerequisite:* Russian 101 and 103, Russian 102r, or placement at the level of Russian 111/113.

### **Russian 112. Advanced Russian: Russian Media**

Catalog Number: 3290

*Natalia Pokrovsky*

*Half course (spring term). M., W., F., at 1. EXAM GROUP: 8*

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.

*Prerequisite:* Russian 102r and an additional course at the level of Russian 101 or above, or Russian 111 with permission of the instructor.

### **Russian 113. Advanced Russian: Readings in Russian Literature**

Catalog Number: 0955

*Natalia Pokrovsky*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 18*

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.

*Prerequisite:* Russian 103, 114, or placement at this level or above.

### **Russian 114. Advanced Russian: Russian Cultural Self-Images and National "Mentality"**

Catalog Number: 0795

*Natalia Pokrovsky*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

Through readings and film, we explore Russian cultural attitudes and self-images as socio-cultural context. Topics include cultural perceptions of self as nation and as cultural "mentality," the collective vs. the individual, attitudes toward friendship, the family and women, law, crime, prestige and success, and ethnic difference. Concentrates on vocabulary and phrasing, and includes extensive writing practice.

*Prerequisite:* Russian 103, 113, or permission of instructor.

### **[Russian 115. Advanced Russian for Academic Professional Communication]**

Catalog Number: 36353

*Natalia Pokrovsky*

*Half course (spring term). Hours to be arranged.*

Emphasis on close reading and stylistic analysis of the Russian language with continued development of grammatical, sociolinguistic, strategic, and discourse competencies at an advanced level. Emphasis on reading with considerable practice in speaking, presenting, and writing for professional and academic purposes.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Russian 113, 114, or permission of the instructor.

### **[Russian 116. Stylistics]**

Catalog Number: 3480



*Half course (spring term). Hours to be arranged.*

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 given in 2015–16.

### **\*Russian 120r. Supervised Readings in Advanced Russian**

Catalog Number: 7121

*Steven Clancy and others*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 18; Spring: 14*

Intended for students who have already taken other department offerings. Reading, discussion, and writing on special topics not addressed in other courses. Conducted as a tutorial. Requires a course proposal to apply; acceptance is not automatic. Applications may be found on the department website under Resources.

*Note:* Course offered only by application and upon approval by the Director of the Language Program. Application information is available at the Slavic Department website. Interested students should submit on-line applications to staff assistant, Jolanta Davis, slavic@fas.harvard.edu, preferably by the second day of classes. No applications accepted after Friday of the first week of classes.

## ***Ukrainian Language Courses***

### **Ukrainian A. Elementary Ukrainian**

Catalog Number: 5536

*Volodymyr Dibrova*

*Full course. M., W., F., at 9, and an additional hour of speaking practice to be arranged. EXAM GROUP: 10*

An introductory course in modern Ukrainian language and culture, designed for students without previous knowledge who would like to speak Ukrainian or use the language for reading and research. All four major communicative skills (speaking, listening comprehension, reading, writing) are stressed. Students are exposed to Ukrainian culture through work with prose and poetry as they learn to use the language both as a means of communication and as a tool for reading and research. This year-long full course satisfies the foreign language requirement and prepares students for continued study of Ukrainian in intermediate-level courses and for study or travel abroad in Ukraine.

### **\*Ukrainian Br. Intermediate Ukrainian**

Catalog Number: 52597

*Volodymyr Dibrova*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 10*

Individualized study of the Ukrainian language at the Intermediate level. Emphasis on reading with some practice in speaking and writing for professional and academic purposes. Conducted as a tutorial.



*Note:* Not open to auditors. Course offered only by application and upon approval by the Director of the Language Program. Students must demonstrate clear academic need for the tutorial (e.g., knowledge of the language contributes to thesis research, other course work, planned study/research/internships abroad, etc.). Mere academic interest in the language is not sufficient for approval. Application information is available at the Slavic Department website. Interested students should submit on-line applications to staff assistant, Jolanta Davis, slavic@fas.harvard.edu, preferably by the second day of classes. No applications accepted after Friday of the first week of classes.

### **\*Ukrainian Cr. Advanced Ukrainian**

Catalog Number: 1260

*Volodymyr Dibrova*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 16; Spring: 6*

Individualized study of the Ukrainian language at Advanced level. Emphasis on reading with some practice in speaking and writing for professional and academic purposes. Conducted as a tutorial.

*Note:* Not open to auditors. Course offered only by application and upon approval by the Director of the Language Program. Students must demonstrate clear academic need for the tutorial (e.g., knowledge of the language contributes to thesis research, other course work, planned study/research/internships abroad, etc.). Mere academic interest in the language is not sufficient for approval. Application information is available at the Slavic Department website. Interested students should submit on-line applications to staff assistant, Jolanta Davis, slavic@fas.harvard.edu, preferably by the second day of classes. No applications accepted after Friday of the first week of classes.

## ***Slavic Literature, Culture, and Philology***

### ***Primarily for Undergraduates***

### **\*Slavic 91r. Supervised Reading and Research**

Catalog Number: 2713

*Justin Weir and others*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*

*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 97. Tutorial — Sophomore Year**

Catalog Number: 7595

*Daria Khitrova*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

An interdisciplinary introduction to major authors and themes of Slavic history and literature, focusing on relationships between literature, power, history, and myth. Theories of literary interpretation (including Russian Formalism and semiotics) as well as different approaches to placing literature in its social and political contexts. Readings introduce students to major figures in the Slavic literary traditions, including Pushkin, Dostoevsky, Tolstoy, Chekhov, Platonov,



Kundera, Hrabal, and others.

*Note:* For concentrators in Slavic Literatures and Cultures. Open to non-concentrators provided they contact the instructor before the beginning of the semester.

### **\*Slavic 98. Tutorial—Junior Year**

Catalog Number: 1684

*Maria Khotimsky (spring term) and William Mills Todd III (fall term)*

*Full course. Th., 2–4. EXAM GROUP: Fall: 14; Spring: 11*

Fall term introduces students to Gogol's short fiction, read in the original, and explores a range of interpretive approaches. Spring term is devoted to a single topic and provides concentrators with a more intensive reading experience. This year's focus is on the life and short fiction and plays, read in the original, of Anton Pavlovich Chekhov.

*Note:* Required of junior concentrators in Slavic Literatures and Cultures. Other students may enroll for one or both terms. Students who wish to concentrate on a different Slavic language may arrange a separate tutorial.

### **\*Slavic 99a. Tutorial - Senior Year**

Catalog Number: 9278

*Justin Weir and others*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*

For senior concentrators in Slavic Literature and Culture. Students work with a faculty advisor on a senior thesis or capstone project.

*Note:* Required for senior concentrators in Slavic Literature and Culture. Students who wish to enroll must obtain the signature of the Director of Undergraduate Studies. Honors students must also complete Slavic 99b.

### **\*Slavic 99b. Tutorial — Senior Year**

Catalog Number: 5592

*Justin Weir and others*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 9*

Students work with a faculty adviser on a senior thesis.

*Note:* For senior concentrators in Slavic Literature and Culture. Students who wish to enroll must obtain the signature of the Director of Undergraduate Studies.

*Prerequisite:* Slavic 99a.

### ***Cross-listed Courses***

#### **Aesthetic and Interpretive Understanding 11. Poetry Without Borders**

#### **Aesthetic and Interpretive Understanding 41. How and What Russia Learned to Read: The Rise of Russian Literary Culture**

[Aesthetic and Interpretive Understanding 45. Art and Politics in Russia and Eastern Europe]

[Aesthetic and Interpretive Understanding 60 (formerly Literature 164 and Slavic 190).

Literature and Art in an Era of Crisis and Oppression: Modernism in Eastern Europe]

#### **Culture and Belief 38. Apocalypse Then! Forging the Culture of Medieval Rus'**

[Culture and Belief 42. Communism and the Politics of Culture: Czechoslovakia from



**World War II to the Velvet Revolution]**

[**Ethical Reasoning 28. Moral Inquiry in the Novels of Tolstoy and Dostoevsky]**

**\*Freshman Seminar 39x. Watch Her Step: Ballet Past and Present - (New Course)**

[\***History 82f. The Origins of the Cold War: The Yalta Conference (1945)]**

[**Humanities: Essential Questions 51** (formerly **Humanities: Essential Questions 21**). **Major Themes in the Humanities: Love and Freedom**] - (*New Course*)

**Humanities: Frameworks 11c. Frameworks: The Art of Reading**

[**Societies of the World 52** (formerly **Slavic 144**). **The Phoenix and the Firebird: Russia in Global Perspective**]

***For Undergraduates and Graduates***

**[Slavic 126. Structure of Modern Russian: Phonology and Morphology]**

Catalog Number: 3083

*Steven Clancy*

*Half course (spring term). Hours to be arranged.*

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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Russian B, Bab, Bt or placement at the third-year level. No knowledge of linguistics required.

**Slavic 140. 20th Century Russian Culture on Page, Stage, and Screen - (New Course)**

Catalog Number: 80908

*Daria Khitrova*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

Explores Russian culture of the 20th century, its evolution from the late Imperial to Post-WWII period; looks mainly (but not exclusively) at literature, dance and film, the three arts Russians were particularly proud of bringing to the West. Studies works of verbal, performance and screen arts in relation both to their own respective traditions and to each other, the back-and-forth from page to stage to screen. Examines texts, ballets and films in the context of politics, ideology, social and cultural developments. Main art movements to be looked at: Russian prerevolutionary Modernism; early Soviet takes on building a new art for the new life; the monumentalism of the 1930s; the "new simplicity" of the Thaw. Key figures include: Diaghilev, Bely, Stravinsky, Bauer, Vertov, Bulgakov, Prokofiev, Eisenstein, Pasternak, Akhmatova.

**[Slavic 141. Russian Drama and Performance]**

Catalog Number: 56433

*Julie A. Buckler*

*Half course (fall term). Hours to be arranged.*

Investigates performance and theatricality in imperial, Soviet, and post-Soviet contexts, in both art and life, through broad exploration of theoretical underpinnings (classical dramatic theory to contemporary performance studies) and case studies from drama, opera, ballet, film, musicals, performance art, religious ritual and folk festival, monarchy and court, mass spectacles, Cold War competitions and diplomacy, subcultures, and contemporary assertions of new orders.



*Note:* Expected to be given in 2015–16. All readings in English. No prior knowledge of Russian literature or history necessary. Students who wish to read Russian texts in the original may arrange a special section with the instructor.

### **Slavic 144. Chekhov**

Catalog Number: 13372

*Maria Khotimsky*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

Introduction to the life and works of Anton Pavlovich Chekhov, focusing on reading short fiction and plays in the original. Explores Chekhov's approaches to depicting human character and psychological collisions and discusses main themes and motifs of his works: the search for meaning of life, impasses in communication, understanding of death and disease, generational and social change. Aims to enhance students' reading and interpretive skills and to teach some literary and critical terminology in Russian. Also addresses issues of reception, including film and theater adaptations of Chekhov's plays, and includes practice staging a play excerpt.

*Note:* Alternative to Slavic 98. Tutorial - Junior Year.

*Prerequisite:* Good reading knowledge of Russian.

### **[Slavic 148. Strange Russian Writers]**

Catalog Number: 7101

*Stephanie Sandler*

*Half course (fall term). Tu., Th., at 11 and a weekly section to be arranged.*

Studies Russia's rebels, deviants, martyrs, loners, and losers as emblems of national identity. Stories, films and poems that project Russia's distinctive obsessions with history and religion. Includes Gogol, Dostoevsky, Tolstoy, Leskov, Kharms, Platonov, Nabokov, Petrushevskaya, Prigov; films by Eisenstein, Tarkovsky, Askoldov, Sokurov.

*Note:* Expected to be given in 2015–16. All readings in English. Separate additional section for those able to read texts in Russian. This course, when taken for a letter grade, meets the General Education requirement for either Aesthetic and Interpretive Understanding or Culture and Belief, but not both. This course fulfills the requirement that one of the eight General Education courses also engage substantially with Study of the Past.

### **[Slavic 150. Moscow and St. Petersburg]**

Catalog Number: 7644

*Julie A. Buckler*

*Half course (spring term). Hours to be arranged.*

Explores the literary and cultural histories of Russia's two capital cities, their "urban geographies" and representations in visual and performing arts. Includes Pushkin, Gogol, Dostoevsky, Tolstoy, Chekhov, Bely, Zamyatin, Bunin, Bulgakov, Nabokov, Erofeev, Bitov, Tolstaya, Pelevin, Sokurov, Balabanov, Bekmambetov.

*Note:* Expected to be given in 2015–16. All readings in English. No prior knowledge of Russian literature or history necessary. Students who wish to read Russian texts in the original may arrange a special section with the instructor.

### **Slavic 152. Pushkin**

Catalog Number: 8023



*William Mills Todd III*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

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.

*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 2015–16. No knowledge of Russian required.

**Slavic 156. Nabokov: A Cross-Cultural Perspective after the Cold War**

Catalog Number: 8650

*Svetlana Boym*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

Examines Nabokov's poetry, novels, short stories and essays from Russian, European and American periods. Attention to issues of literary modernism, play, cultural translation and memory in the wake of the Cold War. Additional readings from Chekhov, Proust, Borges, and others.

*Note:* Knowledge of Russian is not required but additional section for those wishing to read some texts in Russian might be organized.

**[Slavic 157. Some Versions of Russian Pastoral]**

Catalog Number: 99049

*William Mills Todd III*

*Half course (spring term). Hours to be arranged.*

Readings of 18th- through 20th-century Russian literature, including prose and verse by Karamzin, Pushkin, Sergei Aksakov, Goncharov, Turgenev, Saltykov-Shchedrin, Tolstoy, and Gorky. Discussion focuses on contemporary cultural contexts and on theoretical issues.

*Note:* Expected to be given in 2015–16. No knowledge of Russian required.

**Slavic 158. Gogol's Short Fiction**

Catalog Number: 30568

*William Mills Todd III*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

Close reading of Gogol's short fiction, read in the original, with special attention to humor and narrative structure. We will also explore contextual issues and possible critical approaches.

*Note:* Alternative to Slavic 98. Tutorial - Junior Year.

*Prerequisite:* Good reading knowledge of Russian.

**[Slavic 159. War and Peace] - (New Course)**

Catalog Number: 69611



*Justin Weir*

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

### **Slavic 160. Intersection of Polish and Jewish Culture - (New Course)**

Catalog Number: 91865

*Jessie Labov (Ohio State University)*

*Half course (spring term). M., 12–2. EXAM GROUP: 7*

A survey-style course that recreates several major moments of intersection between Polish and Jewish literatures. Both of these categories can be understood as placeholders for larger constellations of culture: from the Polish-Lithuanian Commonwealth to the Ashkenazic Pale. Starting with the medieval ghetto, the presence/absence of Polish Jews in Polish cultural memory forms one line of inquiry; *Polin* as a present/absent homeland in Jewish thought from the 16th through 21st centuries forms another. These two cultures have been intertwined for longer than they have been considered separately; we read them in order to place them once again in dialogue.

*Note:* All texts taught in English translation. Any knowledge of Polish, Hebrew, or Yiddish a plus.

### **[Slavic 166. Russian-Ukrainian Literary Relations in the 19th Century: Conference Course]**

Catalog Number: 3513

*George G. Grabowicz*

*Half course (fall term). Hours to be arranged.*

Examines Russian-Ukrainian literary relations from 1798 to 1905, with special focus on canon formation, ethnic, national and imperial identity, and the interrelation of literature, society, and ideology. Topics include Decembrist historicism, Romantic poetics and folklore, Slavophilism and populism, literature as subversion (*kotljarevshchyna*), the uses of translation, the reception of major writers (Gogol, Shevchenko, and others), and the imperial attempt to suppress “Ukrainophilism.”

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Reading knowledge of Russian or Ukrainian.

### **Slavic 167. Revolutionary Ukraine: Between the Russian Revolution and the Euromaidan of 2014 - (New Course)**

Catalog Number: 44116

*George G. Grabowicz*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

Focus on Ukrainian avant-garde literature and film, in the context of modernism, socialist realism, the impact of Stalinism, the famine (Holodomor), WWII and the Holocaust, late Sovietism and dissent, Crimea and the Tatars, collapse of the USSR and independence, varieties of post-modernism, and the present conflict with Russia. Also forays into visual art.

*Note:* All readings in English.

### **[Slavic 169. 20th-Century Ukraine: Literature, Arts, and Society]**

Catalog Number: 4126



*George G. Grabowicz*

*Half course (fall term). Hours to be arranged.*

Examines main currents in Ukrainian intellectual and cultural expression from the eve of the Russian Revolution, through the formation and dissolution of the USSR, to the "Orange Revolution" (2004). Topics include populism vs. modernism, nationalism vs. socialism, Literary Discussion of the 1920s, Stalinism, Glasnost, linguistic, and national identity. Focus on literature, film (Dovzhenko, Paradzhanov, Illienko), and theater (Kurbas); guest lectures on music and art.

*Note:* Expected to be given in 2015–16. Readings in English. Films subtitled.

### **Slavic 173. Polish Romanticism**

Catalog Number: 2240

*George G. Grabowicz*

*Half course (fall term). Th., 12–2. EXAM GROUP: 13*

Overview of the major artistic and intellectual trends and close reading of key works by the major writers: Malczewski, Mickiewicz, Slowacki, Krasinski, and others. Focus also on the central role of Romanticism in Polish culture.

*Prerequisite:* Reading knowledge of Polish.

### **[Slavic 180. Russian Symbolist Poetry]**

Catalog Number: 6333

*John E. Malmstad*

*Half course (fall term). Hours to be arranged.*

A survey of the history of the Symbolist movement in Russia with emphasis on close reading of poetry by its major figures.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Russian 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 2015–16.

*Prerequisite:* Russian 101 or an equivalent acceptable to instructor.

### **[Slavic 183. Reading Anna Karenina]**

Catalog Number: 74812

*Justin Weir*

*Half course (spring term). Hours to be arranged.*

A course for students who want to read one of the great novels of the 19th century in the original Russian. To be tailored for students with different levels of Russian fluency.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Reading knowledge of Russian required.



### **Slavic 184. The Catastrophic Imagination: Russian Literature in the Age of Revolution - (New Course)**

Catalog Number: 59936

*Boris Y. Wolfson (Amherst College)*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

Examines key works of Russian prose and drama between the turn of the twentieth century and the onset of the Second World War through the lens of the era's revolutionary upheavals. Special attention to questions of imagining and representing historical cataclysms as existential catastrophes that lay bare utopian aspirations and cultural anxieties about the possibilities of artistic innovation and esthetic tradition in times of trouble. Shorter works by Bely, Soloviev, Sologub, Gippius, Pilniak, Babel, Shklovsky, Zoshchenko, Trotsky, Platonov, Bulgakov, Olesha, Vsev. Ivanov, Erdman, Krzhizhanovsky.

*Note:* Lectures in English, primary readings in Russian, secondary readings in English.

Undergraduates admitted with permission of the instructor.

*Prerequisite:* Reading knowledge of Russian required.

### **Slavic 185. 18th-Century Russian Literature: Seminar - (New Course)**

Catalog Number: 85412

*Daria Khitrova*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

A survey of major authors and key questions in 18th-century Russian literature: (r)evolutions in literary language; syllabo-tonic reform; style and genre systems; the status of literature in the Imperial state, etc. Studies Prokopovich, Trediakovsky, Lomonosov, Sumarokov, Fonvizin, Derzhavin, Bogdanovich, Karamzin.

*Prerequisite:* Good reading knowledge of Russian.

### **[Slavic 192. Literature as Institutions: Conference Course]**

Catalog Number: 6120 Enrollment: Limited to 15.

*William Mills Todd III*

*Half course (fall term). Hours to be arranged.*

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:* Expected to be given in 2015–16. 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 194. The Austro-Hungarian Grotesque - (New Course)**

Catalog Number: 27619

*Jessie Labov (Ohio State University)*

*Half course (spring term). Th., 12–2. EXAM GROUP: 9*

Reconstructs a historical context for the literary/visual aesthetic of the Austro-Hungarian grotesque. Focuses on the period 1867-1918, while also mapping psychoanalysis and the subconscious onto later, surrealist incarnations of the grotesque in the twentieth century. Special attention paid to the role of Jewish culture and other margins of empire. How are the history, theory, and affect of the grotesque determined by spatial and/or social peripherality? How is the



nascent sense of identity of small nations and minor literatures informed in turn by the grotesque? Text include: Andrič, Csáth, Freud, Hašek, Kafka, Musil, von Rezzori, Roth, Sacher-Masoch, Schnitzler, Schulz, Svevo.

*Note:* All texts taught in English translation; students with any knowledge of BCS, Czech, German, Hungarian, Italian, Polish, Romanian, Slovak, Ukrainian, or Yiddish are especially encouraged to enroll.

### *Cross-listed Courses*

[History 1266. Central Europe, 1789-1918: Empires, Nations, States]

[History 1270. Frontiers of Europe: Ukraine since 1500](#)

[History 1280. History of the Soviet Union, 1917-1991](#)

[History 1281. The End of Communism]

[History 1290. The History of the Russian Empire](#)

[Linguistics 101. The Science of Language: An Introduction](#)

[Literature 142. Narrative Theories of Prose and Film]

[Medieval Studies 110. Mapping the Slavlands: Central Europe in the Middle Ages - \(New Course\)](#)

[Visual and Environmental Studies 184. Imagining the City: Literature, Film, and the Arts]

### *Primarily for Graduates*

[Slavic 201. Introduction to East Slavic Languages]

Catalog Number: 5134

*Michael S. Flier*

*Half course (spring term). Tu., Th., 10–11:30.*

Introduction to the structure and history of Russian, Ukrainian, and Belarusian.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Linguistics 250.

[Slavic 223. 19th-Century Ukrainian Poetry]

Catalog Number: 2097

*George G. Grabowicz*

*Half course (fall term). M., 12–2.*

A survey of the major poets: Kotljarev's'kyj, Hulak and the pre-Romantics, Shevchenko, Kulish, Rudans'kyj, Franko, and Lesja Ukrajinka.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Reading knowledge of Ukrainian.

[Slavic 230. Medieval, Renaissance, and Baroque Prague: A Cultural History]

Catalog Number: 92043

*Jonathan H. Bolton*

*Half course (fall term). Hours to be arranged.*

History of Prague and Bohemian culture from the Middle Ages to the eighteenth century, including Kosmas's *Chronicle of the Czechs*, the medieval court of Charles IV, Jan Hus and the Hussite war, Renaissance learning under Rudolf II, Baroque literature and art, and the changing



fates of Prague Jewish culture. Special emphasis on the development of Czech literature and the Czech literary language.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Reading knowledge of Czech.

### **[Slavic 231. Czech Literary Culture, 1900-1945]**

Catalog Number: 46473

*Jonathan H. Bolton*

*Half course (spring term). Hours to be arranged.*

Close reading of major works of poetry and prose in the original Czech, with attention to the larger cultural currents of Central European modernism. Prose by Čapek, Hašek, Vančura, Olbracht, Šalda; poetry by Nezval, Halas, Holan, Orten, Kolář, and others.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Reading knowledge of Czech.

### **Slavic 252. Rereading Russian Intellectual History - (New Course)**

Catalog Number: 35075

*Justin Weir*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

This seminar reviews the standard texts and topics of pre-Revolutionary Russian intellectual history. Course readings include works by Chaadaev, Herzen, Belinsky, Chernyshevsky, Pisarev, Bakunin, Solovyov, and others. The seminar also considers methodological problems and how approaches to writing Russian intellectual history have evolved from the last half of the twentieth century to the post-Soviet era.

*Note:* Open to qualified undergraduates.

*Prerequisite:* Reading knowledge of Russian required.

### **Slavic 253. Reading Contemporary Russia (Graduate Seminar in Undergraduate Education) - (New Course)**

Catalog Number: 16391

*Stephanie Sandler*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

Seminar on post-1989 Russian literature, film, and culture, and on the challenges and pleasures of studying contemporary cultural processes. Includes Brodsky, Medvedev, Pelevin, Petrushevskaya, Prigov, Shvarts, Sorokin; German, Muratova, Sokurov. Combines individual research proposals with designing an undergraduate course.

*Note:* Graduate students who take this class will help to shape the structure of a concentration course to be offered in 2016-17 and will be encouraged to serve as its teaching fellows.

*Prerequisite:* Reading knowledge of Russian.

### **Slavic 270hf. Mapping Cultural Space: Sites, Systems & Practices across Eurasia - (New Course)**

Catalog Number: 11189

*Julie A. Buckler, Eve Marion Blau (Design School), and Kelly A. O'Neill-Uzgiris*

*Half course (throughout the year). M., 2–4. EXAM GROUP: Fall: 7; Spring: 18*

Year-long bi-weekly interdisciplinary seminar on the production of social, cultural, and political



space in Russia, Eastern Europe, and Central Asia. Physical and urban space will receive particular attention. Includes individual and collaborative work with digital tools for research, analysis, and presentation. Key questions: How can diverse mapping practices (geographical, scholarly and disciplinary, discursive, artistic) illuminate Eurasian cultural politics? How can we analyze cultural space as a dynamic product of cultural activity, as well as a framework for the evolution and transmission of beliefs, behaviors, memories, and values?

*Note:* Open to qualified undergraduates with permission of the instructors.

### **Slavic 280r. Slavic Culture: Seminar**

Catalog Number: 1909

*Michael S. Flier*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

The Culture of Medieval Rus': Art, Architecture, Ritual, Literature.

### **[Slavic 281. Literature, Film, and Visual Arts in Russia, 1920-1930]**

Catalog Number: 1058

*Svetlana Boym*

*Half course (fall term). Hours to be arranged.*

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:* Expected to be given in 2015–16. Texts are available in English and Russian. Open to qualified undergraduates.

*Prerequisite:* Reading knowledge of Russian or with the permission of the instructor.

### **[Slavic 282. Literature, Film, and Visual Art in Contemporary Russia]**

Catalog Number: 1286

*Svetlana Boym*

*Half course (fall term). Hours to be arranged.*

Examines Russian culture from the 1950s to the present socialist realism to postcommunism. Topics: Socialist realist film, literature of the Gulag, writers' trials, non-conformist art and rethinking of history, utopia and kitsch. Works by Brodsky, Shalamov, Nabokov, Sinyavsky-Tertz, Tarkovsky, Muratova, and others.

*Note:* Expected to be given in 2015–16. Most materials also available in English. Open to qualified undergraduates.

*Prerequisite:* Reading knowledge of Russian or a permission of 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, Vvedenskii, Mandel'shtam, Tsvetaeva, Barkova, Brodsky, Sedakova, Shvarts, Dragomoshchenko. Relies on literary and psychoanalytic theories of identity.

*Note:* Expected to be given in 2016–17. Open to qualified undergraduates with permission of



instructor.

*Prerequisite:* Reading knowledge of Russian required.

**[Slavic 289. Elegy: The Art of Losing]**

Catalog Number: 56141

*Stephanie Sandler*

*Half course (spring term). Hours to be arranged.*

Poems, films, visual artifacts, and music alongside theories of loss. Focuses on non-narrative forms, with examples from Pushkin, Baratynsky, Fet, Brodsky, Shvarts; Tarkovsky, Shemiakin, Sokurov; Silvestrov, Sebald.

*Note:* Expected to be given in 2015–16. Open to qualified undergraduates.

*Prerequisite:* Reading knowledge of Russian.

**[Slavic 291. Problems in the History of Early Ukrainian Literature]**

Catalog Number: 0643

*George G. Grabowicz*

*Half course (fall term). Hours to be arranged.*

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.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Reading knowledge of Ukrainian.

**[Slavic 292. 20th-Century Ukrainian Prose]**

Catalog Number: 5733

*George G. Grabowicz*

*Half course (spring term). Hours to be arranged.*

A survey of Ukrainian prose focusing on the avant-garde of the 1920s-1940s (Khyl'ovyj, Johansen, Domontovych, Kosach) and the most recent period (Andijevs'ka, Andrukhovych, Izdryk and others).

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Reading knowledge of Ukrainian.

**\*Slavic 299. Proseminar**

Catalog Number: 7972

*Justin Weir*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

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 221. Literature, Philosophy, Pedagogy: Love and Freedom] -  
*(New Course)***

**[Comparative Literature 242. Text, Image, Public Sphere]**

**[Comparative Literature 253. Literature, Art and Exile]**



[Comparative Literature 256. Archeology of Modernity and Visual Culture]

[Comparative Literature 270. Urban Imaginary and Visual Culture - \(New Course\)](#)

[Comparative Literature 273. Approaches to Modernity: The Metropolis]

[Comparative Literature 275. Theory of Narrative: Conference Course](#)

[History 2272. The Soviet Union: Seminar](#)

[History 2275hf. Subjectivities and Identities in Russia and Eurasia: Seminar]

[\*History 2277. Eastern Europe: Peoples and Empires: Proseminar]

[Linguistics 200. Second Language Acquisition](#)

[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 (on leave fall term), Svetlana Boym 1926 (on leave spring term), Julie A. Buckler 2960, Michael S. Flier 2878, George G. Grabowicz 4511 (on leave spring term), Daria Khitrova 7645, John E. Malmstad 1219 (on leave 2014-15), Joanna Nizynska 4891 (spring term only), Stephanie Sandler 1343, William Mills Todd III 1634, and Justin Weir 3407 Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

#### **\*Slavic 301. Reading and Research**

Catalog Number: 3385

*Jonathan H. Bolton 4892 (on leave fall term), Svetlana Boym 1926 (on leave spring term), Julie A. Buckler 2960, Steven Clancy 7129, Michael S. Flier 2878, George G. Grabowicz 4511 (on leave spring term), Daria Khitrova 7645, John E. Malmstad 1219 (on leave 2014-15), Joanna Nizynska 4891 (spring term only), Stephanie Sandler 1343, William Mills Todd III 1634, and Justin Weir 3407 Half course (fall term; repeated spring term). . EXAM GROUP: 12*

## Social Policy

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

#### *Faculty of the Committee on Higher Degrees in Social Policy*

Devah Pager, Professor of Sociology, and Professor of Public Policy (*Kennedy School*) (*Chair*)

Jason Beckfield, Professor of Sociology

Jennifer L. Hochschild, Henry LaBarre Jayne Professor of Government and Professor of African



and African American Studies

Christopher Jencks, Malcolm Wiener Professor of Social Policy at the John F Kennedy School of Government (*Kennedy School*)

Theda Skocpol, Victor S. Thomas Professor of Government and Sociology

Mary C. Waters, M. E. Zukerman Professor of Sociology

Bruce Western, Professor of Sociology, and Daniel and Florence Guggenheim Professor of Criminal Justice (*Kennedy School*) (*on leave 2014-15*)

William Julius Wilson, Lewis P. and Linda L. Geyser University Professor

### ***Other Faculty Offering Instruction in Social Policy***

Mary C. Brinton, Reischauer Institute Professor of Sociology

Peter A. Hall, Krupp Foundation Professor of European Studies (*on leave 2014-15*)

Torben Iversen, Harold Hitchings Burbank Professor of Political Economy

Michèle Lamont, Robert I. Goldman Professor of European Studies and Professor of Sociology and of African and African American Studies (*on leave 2014-15*)

Peter V. Marsden, Dean of Social Science, and Edith and Benjamin Geisinger Professor of Sociology

Orlando Patterson, John Cowles Professor of Sociology

Paul E. Peterson, Henry Lee Shattuck Professor of Government

Robert D. Putnam, Peter and Isabel Malkin Professor of Public Policy (*on leave spring term*)

Robert J. Sampson, Henry Ford II Professor of the Social Sciences (*on leave fall term*)

Sidney Verba, Carl H. Pforzheimer University Professor, Emeritus

Martin K. Whyte, John Zwaanstra Professor of International Studies and of Sociology

Christopher Winship, Diker-Tishman Professor of Sociology

This program confers the PhD in Government and Social Policy or the PhD in Sociology and Social Policy. These joint PhD offerings are designed for students who wish to combine the full disciplinary depth of a PhD in political science or sociology with multidisciplinary study on issues of social policy.

Created in 1999, the PhD in Government & Social Policy and the PhD in Sociology & Social Policy constitute joint ventures linking the departments of Government and Sociology in Harvard's Faculty of Arts and Sciences with the Social Policy faculty of the Harvard Kennedy School. "Discipline-plus" in its philosophy, the Social Policy program ensures a solid disciplinary foundation in political science or sociology, while providing unique opportunities for multidisciplinary training and research in social policy, a doctoral experience enriched by the insights of neighboring social science disciplines.

This degree is intended for students whose research interests embrace such issues as economic inequality, poverty, urban neighborhoods and spatial segregation, changing family structures, race and ethnicity, immigration, educational access and quality, political inequalities and participation, distributive politics, and comparative and institutional studies of social policy, particularly in the U.S. and Europe.

Further information about the Social Policy Ph.D. program may be obtained from the program



website ([www.hks.harvard.edu/socialpol](http://www.hks.harvard.edu/socialpol)). Questions or requests for additional printed materials should be directed to Pamela Metz, Director, via e-mail (social—policy@harvard.edu).

### ***Graduate Courses of Reading and Research***

#### **\*Social Policy 300. Reading and Research**

Catalog Number: 6290

*Members of the Committee*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 14; Spring: 11*

#### **\*Social Policy 302. Doctoral Dissertation Research**

Catalog Number: 9707

*Members of the Committee*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 2; Spring: 16*

#### **\*Social Policy 303qc. Introduction to Social Policy Research**

Catalog Number: 56297

*Devah Pager (Kennedy School) 7613*

*Quarter course (spring term). Hours to be arranged. EXAM GROUP: 15*

Required of and limited to first-year PhD students in Social Policy. Explores current issues in Social Policy research based on the Multidisciplinary Program in Inequality & Social Policy Seminar Series.

*Note:* This course may be taken only for quarter credit.

*Prerequisite:* Limited to first-year PhD students in Social Policy.

### ***Cross-listed Courses***

[\*Sociology 223. American Society and Public Policy: Research Seminar]

**\*Sociology 296a. Proseminar on Inequality & Social Policy I**

**\*Sociology 307. Proseminar 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*



Richard Tuck, Frank G. Thomson Professor of Government (*Chair*)  
 Anya Bernstein Bassett, Senior Lecturer on Social Studies  
 Eric Beerbohm, Frederick S. Danziger Associate Professor of Government and of Social Studies  
 Anya Bernstein, Assistant Professor of Anthropology and of Social Studies (*Director of Studies*)  
*(on leave spring term)*  
 Lawrence D. Bobo, W. E. B. Du Bois Professor of the Social Sciences  
 Richard N. Cooper, Maurits C. Boas Professor of International Economics  
 Matthew Stephen Desmond, Assistant Professor of Sociology and of Social Studies  
 Michael Frazer, Associate Professor of Government and of Social Studies  
 Peter E. Gordon, Amabel B. James Professor of History, Harvard College Professor  
 Peter A. Hall, Krupp Foundation Professor of European Studies (*on leave 2014-15*)  
 Jonathan M. Hansen, Senior Lecturer on Social Studies  
 Andrew Jewett, Associate Professor of History and of Social Studies  
 James T. Kloppenberg, Charles Warren Professor of American History  
 Steven R. Levitsky, Professor of Government  
 Charles S. Maier, Leverett Saltonstall Professor of History (*on leave fall term*)  
 Gwyneth McClendon, Assistant Professor of Government and of Social Studies  
 Amanda D. Pallais, Assistant Professor of Economics and of Social Studies  
 Michael E. Rosen, Professor of Government (*on leave 2014-15*)  
 Nancy Lipton Rosenblum, Senator Joseph S Clark Professor of Ethics in Politics and  
 Government (*on leave fall term*)  
 Emma Rothschild, Jeremy and Jane Knowles Professor of History (*on leave 2014-15*)  
 Michael J. Sandel, Anne T. and Robert M. Bass Professor of Government  
 Tommie Shelby, Caldwell Titcomb Professor of African and African American Studies and of  
 Philosophy  
 Daniel F. Ziblatt, Professor of Government

### ***Other Faculty Offering Instruction in Social Studies***

Kiku Adatto, Lecturer on Social Studies  
 Terry K. Aladjem, Lecturer on Social Studies  
 Gretchen Anne Brion-Meisels, Lecturer on Social Studies  
 Kevin N. Caffrey, Lecturer on Social Studies  
 Rodrigo Chacon, Lecturer on Social Studies  
 Lauren Nicole Coyle, Lecturer on Social Studies  
 Nara Dillon, Lecturer on East Asian Languages and Civilizations  
 K. Healan Gaston, Lecturer on Social Studies  
 Jill Iris Goldenziel, Lecturer on Government, Lecturer on Social Studies  
 Meghan Elisabeth Healy, Lecturer on Studies of Women, Gender, and Sexuality  
 Alison Denton Jones, Lecturer on Social Studies  
 Jeffrey S. Kahn, Lecturer on Social Studies  
 Cameron Macdonald, Visiting Assistant Professor of Social Studies  
 Stephen A. Marglin, Walter S. Barker Professor of Economics  
 Nicole D. Newendorp, Lecturer on Social Studies  
 Olivia K. Newman, Lecturer on Social Studies  
 Nikolas Prevelakis, Lecturer on Social Studies



Lisa Stampnitzky, Lecturer on Social Studies  
 Christopher J. Sturr, Lecturer on Social Studies  
 Peter Verovsek, Lecturer on Social Studies  
 Carla Yumatle, Lecturer on Social Studies

***Primarily for Undergraduates***

**\*Social Studies 10a. Introduction to Social Studies**

Catalog Number: 5278

*Richard Tuck, Michael Frazer, and members of the Committee*

*Half course (fall term). Tu., 2-4, and a weekly section to be arranged. EXAM GROUP: 14*

This course offers an introduction to the classic texts of social theory of the eighteenth and nineteenth centuries. Our focus will be on the rise of democratic, capitalist societies and the concomitant development of modern moral, political, and economic ideas. Authors we will examine include Jean-Jacques Rousseau, Adam Smith, Alexis de Tocqueville, John Stuart Mill, and Karl Marx.

*Note:* This course is limited to sophomores and Social Studies concentrators. This course is a prerequisite for sophomores applying to Social Studies. Students planning to take this class must attend the first lecture to be admitted.

**\*Social Studies 10b. Introduction to Social Studies**

Catalog Number: 5097

*Richard Tuck, Michael Frazer, and members of the Committee*

*Half course (spring term). Tu., 2-4, and a weekly section Th., 2-4. EXAM GROUP: 11*

This class continues the introduction to the classic texts of social theory begun in Social Studies 10a through the twentieth century. Authors include Friedrich Nietzsche, Max Weber, Emile Durkheim, Sigmund Freud, and Michel Foucault.

*Note:* This course is limited to Social Studies concentrators who have taken Social Studies 10a.

**Social Studies 40. Philosophy and Methods of the Social Sciences**

Catalog Number: 0476

*Cameron Macdonald and Eric Beerbohm*

*Half course (spring term). M., W., at 10. EXAM GROUP: 5*

This course integrates research methods with an investigation of the philosophical foundations of the social sciences. Topics covered include causal explanation, interpretation, rational choice and irrationality, relativism, collective action, and social choice.

**\*Social Studies 91r. Supervised Reading and Research**

Catalog Number: 9855

*Anya Bernstein Bassett and members of the Committee*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 13*

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 Bassett*

*Full course (indivisible). Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 15*

Writing of senior honors essay.

*Note:* Required for concentrators.

### ***Social Studies 98 — Junior Tutorials: Fall Term***

*Note:* Admission is based on student preferences and a lottery system. Undergraduate non-concentrators may enroll in these tutorials if space is available.

### **\*Social Studies 98ab. Science and Democracy in Modern America - (New Course)**

Catalog Number: 11175 Enrollment: Limited to 10. This course will be lotteried.

*Andrew Jewett*

*Half course (fall term). Tu., 2–4. EXAM GROUP: 14*

Science, in its many guises, is a crucial force in the modern world. How has its growing authority reshaped American democracy since the late nineteenth century? Our readings will address that question in theoretical and practical terms by exploring science's changing roles in academia, political ideology, social thought, popular culture, public education, state administration, and law, as well as its complex ties to religion, secularism, and technological innovation.

*Note:* This course will be lotteried.

### **\*Social Studies 98ax. Development and Modernization: A Critical Perspective**

Catalog Number: 0752 Enrollment: Limited to 10. This course will be lotteried.

*Stephen A. Marglin*

*Half course (fall term). Tu., 12–2. EXAM GROUP: 13*

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.

*Note:* This course will be lotteried.

### **\*Social Studies 98eo. Culture and Society**

Catalog Number: 2114 Enrollment: Limited to 10. This course will be lotteried.

*Kiku Adatto*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

The course explores various approaches to the study of culture, drawing on studies in anthropology, history, philosophy, sociology, literature, and photography. Among the questions addressed are: How is historical memory constructed, and what are the competing forces that shape it? How do advertisements, photography, and film document cultural change? How is culture tied to power, domination, and resistance?

*Note:* This course will be lotteried.



**[\*Social Studies 98fu. Practicing Democracy: Leadership, Community, Power]**

Catalog Number: 7432 Enrollment: Limited to 10.

*Marshall L. Ganz*

*Half course (fall term). Tu., 7–9 p.m.*

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:* Expected to be given in 2015–16. Ten hours per week of field work required. This course will be lotteried.

**\*Social Studies 98jl. Global Social Movements**

Catalog Number: 8965 Enrollment: Limited to 10. This course will be lotteried.

*Alison Denton Jones*

*Half course (fall term). Tu., 2:30–4:30. EXAM GROUP: 14*

Social movements are often considered a driving force behind political, social, and cultural change. This course explores the major theoretical and empirical approaches used in the social sciences to understand the emergence, endurance, and outcomes of social movement activism. The course will examine a range of case studies including movements dealing with environmental justice, health, citizenship, and racial inclusion taken from a range of national (including the U.S.) and transnational contexts.

*Note:* This course will be lotteried.

**\*Social Studies 98lf. Globalization and the Nation State**

Catalog Number: 68748 Enrollment: Limited to 10. This course will be lotteried.

*Nikolas Prevelakis*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

Despite globalization, the nation is still a major actor in today’s world. This course tries to understand why this is so by examining the role that nationalism plays in peoples’ identities and the effects of globalization on nations and nationalism. Examples from the United States, Western Europe, Latin America, India, and the Middle East.

*Note:* This course will be lotteried.

**\*Social Studies 98li. Protest and Conflict in Asia**

Catalog Number: 12939 Enrollment: Limited to 10. This course will be lotteried.

*Kevin N. Caffrey*

*Half course (fall term). W., 7–9 p.m. EXAM GROUP: 17*

This course inquires into the conditions of protests, self-immolations, and rioting by examining cultural, social, and political difference to look at violence as phenomena. We examine cases such as discord in Sri Lanka; communal violence in South Asia; ethnic wars in Burma (Myanmar); discord and protest in China; ethno-religious violence in Indonesia; or Muslim ‘insurgency’ in southern Thailand. The course will bring critical attention to the issues of ethnicity, religion, conflict, and protest while analyzing violence as an anthropological category in order to situate current social and political events.

*Note:* This course will be lotteried.



### **\*Social Studies 98mi. Migration in Theory and Practice**

Catalog Number: 34608 Enrollment: Limited to 10. This course will be lotteried.

*Nicole D. Newendorp*

*Half course (fall term). W., 1–3. EXAM GROUP: I*

In this course, we will examine how and why people migrate from one location to another, focusing both on the theoretical paradigms scholars use to explain migration processes as well as on the individual experiences of migrants. Topics include transnationalism, diaspora, identity formation, integration and assimilation, citizenship claims, and the feminization of migration. Ethnographic readings focus primarily on migration to the US, but also include cases from other world areas, most notably Asia.

*Note:* This course will be lotteried.

### **\*Social Studies 98na. The American Ghetto**

Catalog Number: 49539 Enrollment: Limited to 10. This course will be lotteried.

*Matthew Stephen Desmond*

*Half course (fall term). Th., 4–6. EXAM GROUP: 16*

The ghetto is among the most complex and troubling of all American institutions. This course analyzes the American ghetto in historical and contemporary perspective, exploring topics such as racial segregation, urban poverty, inner-city schools, the underground economy, and the prison boom. Along with engaging with several classic and contemporary texts, we will carry out ethnographic fieldwork in some of Boston's low-income neighborhoods.

*Note:* This course will be lotteried.

### **\*Social Studies 98nb. Inequality and Social Mobility in America**

Catalog Number: 34432 Enrollment: Limited to 10. This course will be lotteried.

*Anya Bernstein Bassett*

*Half course (fall term). W., 1:30–3:30. EXAM GROUP: I*

The United States is currently experiencing high levels of income and wealth inequality and comparatively low levels of social mobility. This course will ask why this is and what, if anything, should be done about it. We will consider both social and individual explanations for inequality and social mobility, and we will examine efforts to increase mobility through educational and legal means.

*Note:* This course will be lotteried.

### **\*Social Studies 98nd. Mass Violence, Memory, and Reconciliation**

Catalog Number: 25731 Enrollment: Limited to 10. This course will be lotteried.

*Jonathan M. Hansen*

*Half course (fall term). M., 1–3. EXAM GROUP: I*

This tutorial examines the problem of national reconciliation after mass violence. How does a nation sundered by genocide, civil war, or political repression reestablish the social trust and civic consciousness required of individual and collective healing? What makes some reconciliations successful, others less so? The course will engage these and other questions from historical and contemporary perspectives, exploring the legacy of mass violence going back centuries, while comparing reconciliation projects across cultures, countries, and continents.

*Note:* This course will be lotteried.



### **\*Social Studies 98ng. Heidegger and Social Thought**

Catalog Number: 16034 Enrollment: Limited to 10. This course will be lotteried.

*Rodrigo Chacon*

*Half course (fall term). M., 1–3. EXAM GROUP: 1*

Martin Heidegger was perhaps the most important and influential philosopher in the Continental tradition in the 20th century, yet the source of his influence has not been fully explored. To that end, we shall trace the development of his thought from his recently published lectures on Aristotle to Being and Time and his later works. Thus, we shall rediscover Heidegger as he appeared to young undergraduates in the early 1920s who would go on to develop some of the most powerful currents of contemporary social thought.

*Note:* This course will be lotteried.

### **\*Social Studies 98nw. Health Care in America**

Catalog Number: 81774 Enrollment: Limited to 10. Course will be lotteried.

*Cameron Macdonald*

*Half course (fall term). W., 4–6. EXAM GROUP: 17*

This course explores the social and cultural politics of healthcare in America, highlighting the ways in which "American Exceptionalism" has resulted in high costs, poor outcomes, and disparate access to care. We will discuss several case studies of controversy related to issues of cost, access, and equity, exploring how such issues have influenced strategies for reform. We will also compare the American healthcare system to systems in other industrialized nations.

*Note:* This course will be lotteried.

### **\*Social Studies 98oa. Human Rights in Africa**

Catalog Number: 60646 Enrollment: Limited to 10. This course will be lotteried.

*Gwyneth McClendon*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

How and to what extent are human rights discussed, contested, and protected in Sub-Saharan Africa? This course considers answers to this question by taking seriously both variation and commonalities across Sub-Saharan African countries. Topics covered include slavery, apartheid, social and economic rights, LGBT rights, the International Criminal Court, and Kony 2012. The study of human rights in any context also requires some understanding of the configurations of power, state institutions and civil society in that context. We therefore also devote some time to considering colonial institutions, contemporary state-society relations, democratization, and social identity groups across SSA countries.

*Note:* This course will be lotteried.

### **\*Social Studies 98oc. Religion and Secularism in a Global World**

Catalog Number: 21793 Enrollment: Limited to 10. This course will be lotteried.

*Anya Bernstein*

*Half course (fall term). M., 5–7 p.m. EXAM GROUP: 17*

What constitutes the political and how does it relate to the religious? This course explores the relationship between recent religious resurgences and secular politics while paying particular attention to the mutually constitutive categories of the "secular" and the "religious." We start by exploring the classic secularization thesis and continue to examine its recent revisions. We will move beyond the assumption that secularism should be conceived in the singular to reflect on its



global varieties, considering not only the Euro-American formations, but also debates around the place of religion in public life in China, India, Russia, Turkey and others.

*Note:* This course will be lotteried.

### **Social Studies 98 — Junior Tutorials: Spring Term**

#### **\*Social Studies 98cl. Law and Society**

Catalog Number: 7389 Enrollment: Limited to 10. This course will be lotteried.

*Terry K. Aladjem*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

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. This course will be lotteried.

#### **\*Social Studies 98hp. Is Democracy Possible Everywhere?**

Catalog Number: 2183 Enrollment: Limited to 10. This course will be lotteried.

*Daniel F. Ziblatt*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

Debates today rage about whether democracy is really possible in places like China or the Middle East. This tutorial asks whether there are, in fact, any preconditions for or impediments to the establishment and consolidation of democracy. Among the factors we will consider: mass culture, elite norms, religion, economic development, ethnic pluralism, and associational life.

*Note:* This course will be lotteried.

#### **\*Social Studies 98kb. Gender in Developing Nations**

Catalog Number: 2276 Enrollment: Limited to 10. This course will be lotteried.

*Meghan Elisabeth Healy*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

This seminar examines national identities, international solidarities, and struggles for social justice in the modern world from gendered perspectives. We take an historical approach, informed by ethnography and social theory. We first explore how gendered ideals and relations shaped colonial and anti-colonial projects in the nineteenth and twentieth centuries. We then analyze how gender has shaped transnational movements since the Second World War, emphasizing international development projects and 'Third World' and 'Global South' alliances.

*Note:* This course will be lotteried.

#### **[\*Social Studies 98kg. The Political Economy of Health in the Developing World]**

Catalog Number: 0037 Enrollment: Limited to 10.

*Nara Dillon*

*Half course (spring term). Hours to be arranged.*

This course places the politics of health care in the context of economic development. Although health care and social programs are often considered secondary to economic growth, they have come to play an increasingly central role in development policy. This course explores the interaction between development and health through a survey of different theoretical approaches



to development, combined with empirical research on public health, AIDS, family planning, and development programs.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16. This course will be lotteried.

### **\*Social Studies 98lc. Global Climate Change - (New Course)**

Catalog Number: 80579 Enrollment: Limited to 10. This course will be lotteried.

*Lauren Nicole Coyle*

*Half course (spring term). W., 2:15–4:15. EXAM GROUP: 18*

Global scientific communities now widely regard climate change as one of the most pressing challenges to our present and future. This course draws upon interdisciplinary debates to examine the ways in which global climate change generates complications for notions of environmental governance, political community, sovereignty, economic development, demographic stability, eco-sociality, cultural vitality, and sustainability. The course also examines broader legal, political, and policy discussions, along with signal agreements that have surfaced on the global stage. Throughout our discussions, we will attend to geopolitical stakes, strategic economic interests, and various visions for alternative political and environmental futures for global society.

*Note:* This course will be lotteried.

### **\*Social Studies 98md. Race in America - (New Course)**

Catalog Number: 38039 Enrollment: Limited to 10. This course will be lotteried.

*Matthew Stephen Desmond*

*Half course (spring term). Th., 4–6. EXAM GROUP: 6*

Today we find ourselves in a remarkable historical moment, attempting to make sense of a nation beset by racial contradictions and paradoxes. Astounding racial progress has been documented at the individual level while, at the social level, racial inequality remains entrenched. Racial dynamics continue to permeate contemporary American life, and they bring with them new uncertainties in interpersonal life, workplace relations, and public policy. This course investigates race in America today, examining advances toward racial tolerance, entrenched racial inequality, and theoretical arguments plumbing the ends and means of racial democracy.

*Note:* This course will be lotteried.

### **\*Social Studies 98mf. Liberalism**

Catalog Number: 36649 Enrollment: Limited to 10. This course will be lotteried.

*Carla Yumatle*

*Half course (spring term). M., 4:30–6:30. EXAM GROUP: 13*

Liberalism is a political theory about the limitation of state power based on constitutional rights that guarantee freedom of speech, freedom of religion, freedom to elect our representatives, private property and due process and equal protection. These institutional mechanisms have been justified on a liberal philosophical outlook. This course examines the central values of the liberal worldview including freedom, equality, toleration, individualism, secularism, pluralism, constitutionalism and the public and private divide. The purpose of this conceptual analysis is to understand the justificatory basis of liberalism and eventually assess its achievements and limitations.

*Note:* This course will be lotteried.



### **\*Social Studies 98nc. The Economics of Education**

Catalog Number: 98561 Enrollment: Limited to 10. This course will be lotteried.

*Amanda D. Pallais*

*Half course (spring term). Tu., 3–5. EXAM GROUP: 16*

This course examines economic aspects of education issues, using quantitative research. We will examine several of the major proposed strategies for improving schools including increasing school resources, enhancing school accountability, improving teacher selection and training, and creating school choice through vouchers and charter schools. We will also discuss how to write a quantitative research paper.

*Note:* This course will be lotteried.

### **\*Social Studies 98nq. Global East Asia**

Catalog Number: 49314 Enrollment: Limited to 10. This course will be lotteried.

*Nicole D. Newendorp*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

In this course, we will explore how social life in contemporary East Asia is both influenced by and contributes to processes of globalization. Ethnographic readings on China, Korea, and Japan focus on migration, gender roles, consumption, media, and markets as we trace the role of the global in everyday life for rural and urban inhabitants of a variety of East Asian locations. For these individuals, engagement with the global structures how they make sense of the world and creates desires for future life change.

*Note:* This course will be lotteried.

### **\*Social Studies 98ns. Culture and Politics in the United States**

Catalog Number: 95758 Enrollment: Limited to 10. This course will be lotteried.

*Lisa Stampnitzky*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

This course aims to provide a conceptual and methodological toolkit for studying the intersection of "culture," broadly understood, and politics in American society. Key questions to be addressed will include: How can "culture" help us understand American politics? What, if anything, is distinctive about American politics and society? And how does culture shape individual and societal approaches to particular political issues?

*Note:* This course will be lotteried.

### **\*Social Studies 98nu. Poor People's Politics in Latin America**

Catalog Number: 15145 Enrollment: Limited to 10. Course will be lotteried.

*Steven R. Levitsky*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

This course critically examines efforts to organize the poor in Latin America, with a focus on the bases of collective action. It covers early patterns of popular sector organization, such as corporatism and populism, revolutionary movements of the 1960s, contemporary parties, social movements, and transnational advocacy networks, and the persistence of clientelism and populism. Finally, the course examines the causes and consequences Latin America's recent turn to the left.

*Note:* This course will be lotteried.



### **\*Social Studies 98ny. And Justice for All: Ethics and America's Schools**

Catalog Number: 85576 Enrollment: Limited to 10. This course will be lotteried.

*Olivia K. Newman*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

This course explores moral and ethical questions concerning the provision of education in the United States. What kind of education is appropriate in a free society? What is a just distribution of educational resources? What rights do students (and parents) have? How should we settle conflicts over curricula? We will address these and related questions with help from classic and contemporary philosophers, political theorists, sociologists, legal scholars, educators, and policy analysts.

*Note:* This course will be lotteried.

### **[\*Social Studies 98of. Democracy and the Psychology of Inequality]**

Catalog Number: 42851 Enrollment: Limited to 10.

*Gwyneth McClendon*

*Half course (spring term). Hours to be arranged.*

This course explores individuals' and societies' responses to economic inequality in the context of democracy. Why is economic inequality met in some democracies and at some times with discontent and in other democracies and at other times with acceptance or even celebration? How do the sources and structure of economic inequality shape citizens' reactions to it? And do citizens' responses to inequality then actually shape politics and public policymaking in democracies? In investigating these questions, we examine research from political science, social psychology and economics conducted in Sub Saharan Africa, the United States, Western and Eastern Europe, and India.

*Note:* This course will be lotteried.

### **\*Social Studies 98oj. The Politics of Economic Development in the Post-Cold War Era - (New Course)**

Catalog Number: 36132 Enrollment: Limited to 10. This course will be lotteried.

*Nara Dillon*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

How can the transition to a market economy be managed? What is the impact of globalization? What are the politics and policies that contribute to rapid economic growth? To answer these questions, this course starts by examining China's rapid economic growth in the last 35 years. The Chinese case is then placed in comparison to other post-communist countries, East Asian developmental states, and finally liberalizing countries in the developing world. Through these comparisons, the course covers the main theoretical debates about the economic development in the field of comparative politics.

*Note:* This course will be lotteried.

### **\*Social Studies 98py. The Critical Theory of the Frankfurt School - (New Course)**

Catalog Number: 28428 Enrollment: Limited to 10. This course will be lotteried.

*Peter Verovsek*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

This tutorial examines the major thinkers and themes associated with the Frankfurt School of critical theory. From its origins in the interwar crisis, critical theory has sought to diagnose the



pathologies of the present in order to chart paths for future emancipation. The readings trace the development of the Frankfurt School through four generations of theorists, including Horkheimer, Adorno, Habermas, Honneth, Benhabib, Fraser, and Forst. The tutorial will conclude with a workshop examining the writings of contemporary critical theorists on the current crisis of democratic capitalism, as we will attempt to determine the continued relevance of the Frankfurt School.

*Note:* This course will be lotteried.

## Sociology

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

#### *Faculty of the Department of Sociology*

Mary C. Brinton, Reischauer Institute Professor of Sociology (*Chair*)  
 Jason Beckfield, Professor of Sociology (*Director of Graduate Studies*)  
 Lawrence D. Bobo, W. E. B. Du Bois Professor of the Social Sciences  
 Bartłomiej Bonikowski, Assistant Professor of Sociology  
 Anthony A. Braga, Visiting Professor of Sociology  
 Paul Y. Chang, Assistant Professor of Sociology  
 Matthew Stephen Desmond, Assistant Professor of Sociology and of Social Studies  
 Frank Dobbin, Professor of Sociology (*on leave 2014-15*)  
 Burak Eskici, College Fellow in the Department of Sociology  
 Dwight Fee, Lecturer on Sociology, Preceptor in Expository Writing  
 Marcel Fournier, William Lyon Mackenzie King Visiting Professor of Canadian Studies  
 Filiz Garip, Associate Professor of Sociology  
 Matthew E. Kaliner, Lecturer on Sociology  
 Rakesh Khurana, Dean of Harvard College, Professor of Sociology (*FAS*), and Marvin Bower Professor of Leadership Development (*Business School*)  
 Alexandra Achen Killewald, Assistant Professor of Sociology  
 Manja Klemencic, Lecturer on Sociology  
 Michèle Lamont, Robert I. Goldman Professor of European Studies and Professor of Sociology and of African and African American Studies (*on leave 2014-15*)  
 Betsy Leondar-Wright, Lecturer on Sociology  
 David Luberoff, Visiting Lecturer on Sociology  
 Peter V. Marsden, Dean of Social Science, and Edith and Benjamin Geisinger Professor of Sociology  
 Tey Meadow, Assistant Professor of Sociology and of Studies in Women, Gender, and Sexuality  
 Rachel Meyer, Lecturer on Sociology (*Associate Director of Undergraduate Studies*)



Seungsook Moon, Sang-Kee Kim Visiting Professor in Sociology  
 Devah Pager, Professor of Sociology, and Professor of Public Policy (*Kennedy School*)  
 Orlando Patterson, John Cowles Professor of Sociology  
 Eva Jillian Rosen, College Fellow in the Department of Sociology  
 Robert J. Sampson, Henry Ford II Professor of the Social Sciences (*on leave fall term*)  
 Alvaro Agustin Santana Acuna, College Fellow  
 Theda Skocpol, Victor S. Thomas Professor of Government and Sociology  
 Mario Luis Small, Grafstein Family Professor of Sociology  
 Kaia Stern, Lecturer on Sociology  
 Tiffanie Lui Ting, Lecturer on Sociology  
 Jocelyn Viterna, Associate Professor of Sociology  
 Mary C. Waters, M. E. Zukerman Professor of Sociology  
 Cory Theodore Way, Lecturer on Sociology  
 Bruce Western, Professor of Sociology, and Daniel and Florence Guggenheim Professor of Criminal Justice (*Kennedy School*) (*on leave 2014-15*)  
 Martin K. Whyte, John Zwaanstra Professor of International Studies and of Sociology  
 William Julius Wilson, Lewis P. and Linda L. Geyser University Professor  
 Christopher Winship, Diker-Tishman Professor of Sociology (*Director of Undergraduate Studies*)

### ***Other Faculty Offering Instruction in the Department of Sociology***

Mary-Jo Del Vecchio Good, Professor of Global Health and Social Medicine (*Medical School*)  
 Christine Webb Letts, Rita E. Hauser Senior Lecturer in the Practice of Philanthropy and Nonprofit Leadership (*Kennedy School*)  
 Mary Ruggie, Adjunct Professor of Public Policy, Harvard Kennedy School (*Kennedy School*)

### ***Introductory Courses***

#### **Sociology 10. Introduction to Sociology**

Catalog Number: 4814

*Eva Jillian Rosen*

*Half course (spring term). Tu., Th., at 12. EXAM GROUP: 9*

Introduces students to the main objects and goals of Sociology—both for sociology concentrators and curious non-concentrators. Explores the theories of classical authors in the history of sociology (such as Marx, Durkheim, Weber, and beyond). Examines major topics in sociological research (including but not limited to social problems, deviance, inequality, social change, culture, education, social interaction).

*Note:* May be counted for introductory concentration requirement, if letter-graded.

#### **Sociology 22. Men, Women, and Work**

Catalog Number: 7997

*Mary C. Brinton*

*Half course (fall term). M., W., at 11. EXAM GROUP: 18*

Why do men and women tend to cluster into different occupations? Why do they earn different wages? Is there a certain path that all countries follow as they become more economically



prosperous, or do issues concerning men's and women's work differ dramatically across countries because of cultural reasons? This course provides an overview of key issues and perspectives in the study of men, women, and work in contemporary society.

*Note:* May be counted for introductory concentration requirement, if letter-graded.

### **\*Sociology 24. Introduction to Social Inequality**

Catalog Number: 9417 Enrollment: Limited to 30.

*Jason Beckfield*

*Half course (fall term). Tu., Th., at 1. EXAM GROUP: 8*

Examines descriptions and explanations for inequality by social class, race, and gender, with a focus on the United States. Comparisons to other societies are also part of the course. Readings include classical and contemporary research reports in the form of nine classic and will-become-classic books; lectures update and contextualize the readings.

*Note:* May be counted for introductory concentration requirement, if letter-graded.

### **[Sociology 25. Introduction to the Sociology of Organizations]**

Catalog Number: 3609

*Frank Dobbin*

*Half course (spring term). M., W., at 10.*

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:* Expected to be given in 2015–16. May be counted for introductory concentration requirement, if letter-graded.

### **Sociology 26. Introduction to Global Social Change**

Catalog Number: 37539

*Rachel Meyer*

*Half course (fall term). Tu., Th., at 12. EXAM GROUP: 13*

Focuses on the development of global capitalism and the relationship between markets, the state, and civil society. The course will pay particular attention to power and inequality, and to various forms of resistance against globalization.

*Note:* formerly Sociology 161: Globalization

### **Sociology 27. Introduction to Social Movements**

Catalog Number: 67106

*Jocelyn Viterna*

*Half course (spring term). M., W., at 1. EXAM GROUP: 8*

Social movements and revolution have long been driving forces behind political, social, and cultural change. From the Civil Rights movement of the 60s to the recent and unpredicted "Arab Spring," the extraordinary mobilization of ordinary people is routinely credited with fundamentally re-shaping societal institutions--the polity, the economy, religion, gender, race, and even the environment. But can we really define and study something as ephemeral as social mobilization? Do we know how social movements begin? Why might they become revolutionary? Can they make a difference in the societies they target? This course examines



these questions within the sociological literature on collective action. Theories of social movements and revolutions are then applied to a series of case studies around the globe. Case studies may include the US, Iran, China, El Salvador, Chile, India, Poland, Argentina, Egypt, and Nigeria, among others. Students will also be required to apply course readings to the collective action case of their choosing throughout the semester.

*Note:* formerly Sociology 132: Mobilizing for Change. This course, when taken for a letter grade, meets the General Education requirement for United States in the World.

### **Sociology 29. Introduction to Urban Sociology**

Catalog Number: 75987

*Eva Jillian Rosen*

*Half course (fall term). Tu., Th., at 2. EXAM GROUP: 14*

Introduces the city as both object and site of social inquiry. We will start with the individual experience of living in cities, then explore the neighborhood structure of the modern metropolis, take on segregation and inequality, and conclude with globalization and world cities. We will also consider themes that cut across these levels, including crime, immigration, workforce issues, and arts and the creative economy. Throughout, students will use the cities of Cambridge and Boston to explore and evaluate ideas from class, via observational and fieldwork opportunities.

### ***Cross-listed Courses***

**African and African American Studies 10. Introduction to African American Studies**

**African and African American Studies 16. Sociology of the Black Community**

**Psychology 15. Social Psychology**

**Societies of the World 21. China's Two Social Revolutions**

**Societies of the World 34. The Caribbean: Globalization, Socio-Economic Development & Cultural Adaptation**

**Societies of the World 44. Human Trafficking, Slavery and Abolition in the Modern World**

**[United States in the World 13. Medicine and Society in America]**

**United States in the World 24. Reinventing Boston: The Changing American City**

**United States in the World 31. American Society and Public Policy**

### ***Tutorials***

#### **\*Sociology 91r. Supervised Reading and Research**

Catalog Number: 4449

*Rachel Meyer and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 2; Spring: 16*

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. Ordinarily for junior and senior Sociology concentrators.



### **\*Sociology 94. Qualitative Research in Education - (New Course)**

Catalog Number: 51741 Enrollment: Limited to 10.

*Tiffanie Lui Ting*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

What can qualitative approaches to research add to our understanding of education, in an era where 'data' are often equated with numbers? In this course, we will examine qualitative methods as a complement and counterpoint to mainstream paradigms in education research. Students will design and implement a small pilot study on an education topic of choice. We will investigate the process of research design, including question formulation, selecting appropriate tools for data collection, and strategies for analyses. The work will be informed by critical reading and discussion of empirical and theoretical scholarship on the intersection of culture, community, and education.

### **[\*Sociology 95. Research for Nonprofits]**

Catalog Number: 0136 Enrollment: Limited to 25.

*Half course (spring term). Tu., Th., 11:30–1.*

Supports students in carrying out a research project for a nonprofit or volunteer organization of their own choice. Examines theories and practices of the nonprofit sector and research methods. Course combines guest speakers, case work, discussion, and student project presentations.

*Note:* Expected to be given in 2015–16. Required first meeting. Both concentrators and non-concentrators are welcome to apply.

### **[\*Sociology 96r. Community Based Research]**

Catalog Number: 7425

*Matthew E. Kaliner*

*Half course (spring term). Tu., 10–12.*

One of the few courses at Harvard that integrates students' participation in activities outside the University with course work. Course integrates readings with hands-on research projects in the Boston area. Topics vary; refer to course website for details. Previous topics have included: immigration, marginalization, adolescents, civic activity.

*Note:* Expected to be given in 2015–16.

### **Sociology 97. Tutorial in Sociological Theory**

Catalog Number: 5079

*Matthew Stephen Desmond*

*Half course (fall term; repeated spring term). Hours to be Arranged. EXAM GROUP: 3*

Provides a critical understanding of selected classical and contemporary theorists, including Marx, Durkheim, Weber, Simmel, Parsons, Coleman, Collins, Bourdieu, and an up-to-date selection of avant-garde theory.

*Note:* Required of concentrators, ordinarily sophomores, and secondary concentrators. Required first organizational meeting on Tuesday, September 2, 2014, 4-5pm, WJH 105 for the fall semester. Required first organizational meeting on Monday, January 26, 2015, 4-5pm, in William James Hall 105. For questions about the required first meeting or about sectioning please contact the Head TF, Jonathan Mijs, at mijs@fas.harvard.edu.



### **\*Sociology 99. Senior Tutorial**

Catalog Number: 6237

*Rachel Meyer and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

Supervision of theses or other honors projects.

*Note:* Limited to concentrators, ordinarily seniors. In addition, students of Sociology 99 may also participate in an optional, regularly scheduled weekly group seminar for consultation and discussion about choice of problems, possible data, and research procedures. Mandatory first meeting Thursday, September 11, 2014 2-3:30pm, in William James Hall, 601.

*Prerequisite:* Sociology 98.

### ***Sociology 98. Junior Tutorials***

Small group research projects centered on common topics that vary by seminar, term, and year.

#### **[\*Sociology 98Bc. The Logic of Cultural Comparison]**

Catalog Number: 87077 Enrollment: Limited to 10.

*Bartłomiej Bonikowski*

*Half course (fall term). Th., 11–1.*

In the context of recent theoretical advances in cultural sociology, the course considers how culture can be systematically compared across populations. While carrying out independent empirical studies, students will navigate the central problems associated with comparative cultural research: defining and measuring cultural phenomena, identifying appropriate units of cultural variation, understanding between- and within-unit heterogeneity, and demonstrating culture's causal effects.

*Note:* Expected to be given in 2015–16. Required of and limited to Sociology concentrators.

Spring Tutorials are by assignment only.

*Prerequisite:* Sociology 97

#### **[\*Sociology 98Fa. Identity and Difference]**

Catalog Number: 61333 Enrollment: Required of and limited to Sociology concentrators. Spring Junior Tutorials are by assignment only.

*Dwight Fee*

*Half course (spring term). W., 11–1.*

This course will explore how identity and difference are constructed, reproduced, and challenged. We will specifically focus on questions of power and culture in the making and resisting of social boundaries, especially with respect to gender, race, class, sexuality, citizenship, and health/illness. Students will propose and carry out an original research project using qualitative data and methods.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Sociology 97.

#### **[\*Sociology 98Ga. Understanding Mexican Migration Flows to the US]**

Catalog Number: 67322 Enrollment: Limited to 10.

*Filiz Garip*

*Half course (spring term). M., 4–6.*



This tutorial guides students through the preparation of an empirical research paper that explores the labor migration of workers from Mexico to the United States using quantitative data and methods.

*Note:* Expected to be given in 2015–16. Required of and limited to Sociology concentrators.

*Prerequisite:* Sociology 97.

**\*Sociology 98Gc. Global Workers, Professionals & Entrepreneurs: The New Economic Order Across Borders**

Catalog Number: 16127

*Filiz Garip*

*Half course (spring term). M., 4–6. EXAM GROUP: 13*

We live in a world where economic activities increasingly span national borders. How do individuals navigate the economic and social relations across borders? This tutorial will guide students through the preparation of an empirical research paper on this broad question.

*Note:* Required of and limited to Sociology concentrators. Spring junior tutorials are by assignment only.

*Prerequisite:* Sociology 97

**[\*Sociology 98Ha. Sociology of Health]**

Catalog Number: 57732 Enrollment: Limited to 10.

*Seth Donal Hannah*

*Half course (spring term). Th., 11–1.*

Examines how culture, politics, and finance "matters" in health care through an exploration of the diverse community health centers and major medical centers throughout greater Boston. Students will enhance their qualitative research skills through ethnographic observation, mapping, and historical and documentary analysis of the services provided and populations served in various clinical settings.

*Note:* Expected to be given in 2015–16. Required of and limited to Sociology concentrators. Spring Junior Tutorials are by assignment only.

**\*Sociology 98Ka. Arts, Culture, and Urban Neighborhoods**

Catalog Number: 69744 Enrollment: Limited to 10.

*Matthew E. Kaliner*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Reviews the major traditions in urban sociology and the sociology of culture, focusing on the connections between cultural creativity and urban change.

*Note:* Required of and limited to Sociology concentrators. Spring Junior Tutorials are by assignment only.

*Prerequisite:* Sociology 97

**[\*Sociology 98L. Racism and Anti-Racism in Comparative Perspective]**

Catalog Number: 54637 Enrollment: Limited to 10.

*Michèle Lamont*

*Half course (fall term). Tu., 1–3.*

Students will familiarize themselves with the literatures on racism and anti-racism, as well as racial identity and boundaries and design their own qualitative research project.



*Note:* Expected to be given in 2015–16. Required of and limited to Sociology junior concentrators.

*Prerequisite:* Sociology 97

### **\*Sociology 98M. Social Class in the United States: Identity, Culture, and Consciousness**

Catalog Number: 18222 Enrollment: Limited to 10.

*Rachel Meyer*

*Half course (spring term). Th., 11–1. EXAM GROUP: 15*

This course will review a variety of empirical and theoretical perspectives on social class in the United States with a focus on class-based identities and class consciousness.

*Note:* Required of and limited to Sociology concentrators. Spring Junior Tutorials are by assignment only.

*Prerequisite:* Sociology 97

### **\*Sociology 98Ma. Urban Social Problems and Public Policy - (New Course)**

Catalog Number: 68018 Enrollment: Limited to 10.

*Eva Jillian Rosen*

*Half course (spring term). W., 10–12. EXAM GROUP: 5*

This tutorial will examine urban social problems and their relationship to public policy solutions through a sociological lens. We will examine social problems that affect city dwellers such as poverty, homelessness, crime, the achievement gap, and health, and their correlate policy solutions including public assistance, housing, policing and incarceration, education policy, health care and more. Students will complete an in-depth independent research project on a social problem of interest, collect their own data, and think through sociological and policy implications. The course will specialize in data collection through the use of qualitative methods such as ethnography, observation, and interviewing.

*Prerequisite:* Sociology 97

### **\*Sociology 98Sc. Political Sociology: Power, Citizenship and the State - (New Course)**

Catalog Number: 37459 Enrollment: Limited to 10.

*Alvaro Agustín Santana Acuña*

*Half course (spring term). Tu., 4–6. EXAM GROUP: 6*

This course reviews major approaches to political sociology through explorations of state formation, civil society, citizenship, democracy, elections, terrorism, media coverage and conflict. A strong emphasis is put on historical analyses and empirical studies. This tutorial guides students through the preparation of a research paper using qualitative and/or quantitative methods.

*Prerequisite:* Sociology 97.

### **[\*Sociology 98Va. Development in Theory and Practice]**

Catalog Number: 12362

*Jocelyn Viterna*

*Half course (fall term). W., 2–4.*

Why are some societies wealthier, healthier, and more highly educated than others? And how might we improve the lives of those individuals with the fewest opportunities? The purpose of this course is to investigate whether and how scholarly theories of development map onto the



real world practices of development organizations (state development offices, intergovernmental agencies, not-for-profit organizations) and vice versa. Readings in development sociology will be interspersed with individual student analyses of specific development organizations across a range of issues including (but not limited to) gender, politics, the environment, education, health care, and the economy.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Sociology 97

### **\*Sociology 98Wb. Race, Poverty, and Justice**

Catalog Number: 24423 Enrollment: Limited to 10.

*Kaia Stern*

*Half course (fall term). Tu., 12–2. EXAM GROUP: 13*

Race, Poverty and Justice surveys some of the key topics in urban sociology, focusing on major social problems in American cities. With particular attention to factors associated with crime, such as poverty, race, education, gender and unemployment, the course draws from different academic, media and narrative sources. Our focus on urban communities of concentrated poverty is intended to challenge students to think about policy solutions to complex problems. How do we respond to under-resourced schools, violence, joblessness, drug addiction and incarceration? Our methodological focus will be on qualitative data collection that includes ethnography and interviews. The last three weeks of the semester will be reserved for students to present original research projects designed to address the problems discussed in class. Questions for consideration: In what ways do various political, economic and religious ideologies shape our understandings of race? What kinds of practices lead us out of poverty? How do we understand justice? An optional visit to at least one Massachusetts state jail/prison will be incorporated into the curriculum.

*Note:* Required of and limited to Sociology concentrators.

*Prerequisite:* Sociology 97

### **\*Sociology 98Wc. Sports and Society**

Catalog Number: 62527 Enrollment: Limited to 10.

*Mary C. Waters*

*Half course (fall term). Tu., 10–12. EXAM GROUP: 12*

This course will examine sports through a sociological lens. We will examine processes of stratification in sports including class, race and gender, as well as sports as a business, the media and sports, and sports and health. Students will do an in depth independent or team based research project on the topic.

*Note:* Required of and limited to Sociology concentrators. Spring Junior Tutorials are by assignment only.

*Prerequisite:* Sociology 97

### **[\*Sociology 98Wd. Occupations and Professions in a Bureaucratized World]**

Catalog Number: 76136 Enrollment: Limited to 10.

*Joshua Wakeham*

*Half course (spring term). Tu., 1–3.*

What does it mean to do a job well? What does it mean to be a good teacher, doctor, social worker, lawyer, or business person? How does the bureaucratic arrangement of work change



people's incentives, perceptions of their jobs, and their capacities to do their jobs well? This class will examine how people in various professional and occupational fields navigate the day-to-day demands of their work, with particular attention to how the demands of organizational life-rules, authority, formality, coordination-interact with the work itself. This course will draw on an array of research in the sociology of organizations, the sociology of occupations, and the sociology of professions. The goal of this course is to help students develop a research project in some professional or occupational field of their interest.

*Note:* Expected to be given in 2015–16. Required of and limited to Sociology concentrators. Spring junior tutorials are by assignment only.

### ***For Undergraduates and Graduates***

#### **[\*Sociology 105. Sports and Society]**

Catalog Number: 21618 Enrollment: Limited to 18.

*Mary C. Waters*

*Half course (fall term). Tu., 10–12.*

This course will examine the institution of sports and how it is shaped by society. Is sports a level playing field and meritocracy where the best person or team wins? Or is sports a mirror of an unequal society where power and wealth shape social life? How do class, race and gender shape the sports we play and how we play them? We will consider sports and higher education in the U.S. and at Harvard. We will also look at youth sports, sports as a business, the media and sports, and sports and health. Students will do an in depth research project on the topic and will actively discuss readings in class each week.

*Note:* Expected to be given in 2015–16.

#### **[Sociology 108. Inequality at Work]**

Catalog Number: 13485

*Mary C. Brinton*

*Half course (fall term). Tu., Th., 10–11:30.*

The American workplace has become much more diverse over the past 30 years, with women and minorities moving into greater positions of authority. But significant inequalities remain. Why? This course explores how sociologists go about analyzing the reasons for workplace inequalities using a variety of methods from ethnography to surveys to experiments. Using case studies, we pay particular attention to how work can be restructured in ways that increase participation and equality.

*Note:* Expected to be given in 2015–16.

#### **[Sociology 114. Organizational Failures and Disasters: Leadership in Crisis]**

Catalog Number: 77614

*Joshua Wakeham*

*Half course (spring term). M., W., at 11.*

Examines organizational failures and disasters from a variety of sectors and professional fields as way to understand how organizational life influences people's behavior, thinking, decision-making, and moral judgment.

*Note:* Expected to be given in 2015–16.



### **Sociology 115. Media and Popular Culture**

Catalog Number: 63027

*Matthew E. Kaliner*

*Half course (fall term). Tu., Th., at 11. EXAM GROUP: 15*

Explores American society and culture through the lens of its various media, including television, literature, music, movies, and the internet. Topics include class and cultural consumption, the business dynamics of the art world, the power of advertising and mass media, children's media and the online worlds of adolescents, and the rise of urban creative economy. Throughout, students will have opportunities to explore and evaluate ideas from class via independent social and media research. Appropriate for sociology concentrators and non-concentrators alike.

### **Sociology 119. From Plantations to Prisons**

Catalog Number: 17111

*Kaia Stern*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

From Plantations to Prisons serves as an introduction to the current crisis of mass incarceration. Specifically, it focuses on the religio-historical roots of the U.S. penal industry, suggesting a continuum between plantations and prisons that calls into question our basic notions of justice. The course draws from academic, media, and narrative sources to give particular attention to factors long associated with crime and punishment, such as sin, race, and citizenship. We will also study the unprecedented prison-population explosion (in terms of race, gender and class), and its relationship to major social problems in American cities. Questions for consideration: How do we understand punishment? What is the relationship between race and crime? How are human rights, democracy, and family at risk? An optional visit to at least one Massachusetts state jail/prison will be incorporated into the curriculum.

### **\*Sociology 123. Cultural Sociology: Space, Culture and Society - (New Course)**

Catalog Number: 14982 Enrollment: Limited to 20.

*Marcel Fournier*

*Half course (spring term). Tu., 3–5. EXAM GROUP: 16*

This course has three objectives: 1) explore the main theoretical debates about the relationship between nature, culture and social structure in the work of major sociologists; 2) Describe the effects of art, culture and science in contemporary societies and discuss the debates around the notions of knowledge society, cultural industries, creative economy, and "society of the spectacle"; 3) analyze a specific aspect of culture: its materialization in spaces and buildings, with case studies of cultural complexes (ex. Lincoln Center-New York) and academic campus and/or buildings (ex. Carpenter Center, MIT Stata Center).

### **Sociology 128. Models of Social Science Research**

Catalog Number: 5979

*Paul Y. Chang*

*Half course (fall term). M., W., at 10 and a weekly discussion section to be arranged. EXAM GROUP: 5*

This course introduces students to core methodological concepts and strategies used in social science research including: question formulation, hypothesis generation, the logic of hypothesis



testing, sampling and measurement, experiments, survey analysis, content analysis, ethnography, and in-depth interviewing. In the course we will discuss and develop the analytic skills necessary to interrogate epistemological assumptions in published research specifically and truth-claims generally. In addition to critically evaluating previous research, students will collect and analyze their own data based on the different methods discussed in the class. By the end of the course, students should have acquired valuable research tools widely applicable in academic and professional settings.

*Note:* Required of concentrators, ordinarily sophomores, and secondary concentrators.

### **[Sociology 129. Education and Society]**

Catalog Number: 6298 Enrollment: Limited to 40.

*Mary C. Brinton*

*Half course (spring term). M., W., at 1.*

Examines the key role played by the educational system in reproducing and transforming modern society. Considers the purposes served by an educational system, the distinctiveness of the American educational system in comparison to other countries, the ways that education connects to the labor market in the U.S. and other societies, and why educational attainment is related to social class and ethnicity.

*Note:* Expected to be given in 2015–16.

### **Sociology 132. Food, Culture, and Globalization - (New Course)**

Catalog Number: 23574

*Seungsook Moon*

*Half course (fall term). M., W., at 12. EXAM GROUP: 11*

Approaching food as material culture that reveals complex social relations of power, this course begins with the examination of the larger historical processes of conquests and other uneven cross-cultural encounters that shaped the making and remaking of ethnic and regional identities of food. Then it investigates the political economy of transnational production, circulation, and consumption of food in various areas of the world. It also explores the cultural politics of how tastes of food are invested with corporate interests, and images and meanings of status distinction and inequalities. Finally, it examines the role of food in shaping ethnic/racial, national, and gender identities in the midst of globalization. To complement analytical approaches in classroom, this course may incorporate experiential learning components, including a visit to a local restaurant, a local farm, or a collaborative cooking exercise.

### **\*Sociology 135. Education and Culture - (New Course)**

Catalog Number: 87494 Enrollment: Limited to 60.

*Betsy Leondar-Wright*

*Half course (fall term). Tu., Th., at 3. EXAM GROUP: 2*

Education is intended to be the great equalizer of opportunity, the engine of the American Dream. But in fact there are vast disparities in educational experiences and outcomes, such as high school graduation rates, depending on race, class and other social inequities. Why? Policy and structural factors offer only partial explanations. Cultural factors also come into play, including cultural and social capital; parenting styles; teacher bias; teachers' and students' raced and classed language codes; college admissions priorities; and the experiences of first-generation college students on campus. Students will practice analyzing the methodology behind claims



about the causes of educational inequality and learn to debunk flawed studies. This lively, interactive course will uncover many roots of educational disparities, as well as possible solutions.

### **Sociology 137. Money, Work, and Social Life**

Catalog Number: 1589

*Filiz Garip*

*Half course (spring term). M., W., at 12. EXAM GROUP: 7*

Examining different sectors of the economy from corporations and finance to households, immigrants, welfare, and illegal markets, we explore how in all areas of economic life people are creating, maintaining, symbolizing, and transforming meaningful social relations. Economic life, from this perspective, is as social as religion, family, or education.

### **Sociology 139. Economic Sociology: Global Perspectives - (New Course)**

Catalog Number: 29016

*Burak Eskici*

*Half course (fall term). M., W., at 1. EXAM GROUP: 1*

Sociology offers a unique perspective on economic behavior and institutions. Exploring the foundational concepts of economic sociology with examples from all over the world, this course treats the following questions, among others: How do sociological perspectives on organizations, networks, power and inequality challenge widely held assumptions about economic behavior? How can seemingly disparate cases from around the globe enrich our conceptual understanding of economy and society? Has the economy become more global over time and, if so, how? What role does finance capital play in the current dynamics and future direction of the global economy? Starting with the evolution of economic organizations, the course covers topics such as social embeddedness, markets and networks, power, labor market, globalization, economic development, and financial markets.

### **\*Sociology 143. Building Just Institutions**

Catalog Number: 10985 Enrollment: Limited to 25.

*Christopher Winship*

*Half course (spring term). W., 10–12. EXAM GROUP: 5*

How can and do people build institutions that are just? This course examines the psychological and sociological underpinnings of people's understanding of justice and their motivation to make situations just. The course draws heavily on real world cases from a variety of social, cultural, and historical settings, as well thinking and research from sociology, philosophy, psychology, and anthropology.

### **\*Sociology 145. Student Experience in Global Perspective - (New Course)**

Catalog Number: 29895 Enrollment: Limited to 25.

*Manja Klemencic*

*Half course (spring term). W., 10–12. EXAM GROUP: 5*

Explores key concepts in sociology of higher education through study of student experience, the effects of college on students, and student engagement in social change - focusing on different parts of the world. This course has a strong empirical component: student research projects will



involve qualitative or quantitative methods of social analysis to investigate research questions related to student experience (through fieldwork on Harvard campus or outside of it).

**[Sociology 147. The Shareholder Value Management Revolution]**

Catalog Number: 94147 Enrollment: Limited to 25.

*Frank Dobbin*

*Half course (fall term). M., 2–4.*

Since the late 1970s, the American style of management has been revolutionized. This course reviews the history of American management strategies, focusing on the origins and effects of the shareholder value approach that now prevails among leading firms. Shareholder value traces its roots to America's lackluster performance in the global economy during the 1970s, and the prescriptions offered by agency theorists in the field of financial economics. We explore how the shareholder value approach was promoted in American firms. We look at how the approach has changed core corporate strategy, how it has affected corporate performance, and how it has shaped labor markets, income inequality, and global trade.

*Note:* Expected to be given in 2015–16.

**\*Sociology 149. Masculinities: Global Perspectives - (New Course)**

Catalog Number: 53684 Enrollment: Limited to 18.

*Seungsook Moon*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*

This course approaches masculinities not only as an aspect of individual (gender) identity and a social structure but also as symbols that convey ideas about dominance or positive values in a given society. It examines complex meanings, everyday practices, and rituals of masculinities in various societies both at the level of important social institutions as well as at the level of lived experiences of individual men (and some women). During the first half of the semester, we will focus on the making and remaking of "hegemonic masculinity" in the modern West, which had global ramifications, and compare it with marginalized masculinities. During the second half of the semester, we will focus on how major social institutions construct and maintain hegemonic masculinity and to what extent it is subverted or challenged; we will also examine how masculinities as symbols of dominance shape workings of the major institutions. Examples of such institutions include the military, the family, the school, business firms/organizations, and entertainment and leisure industry. Throughout this line of inquiry, we will look into the binary and hierarchical gender relations and explore an alternative to this dominant construction of gender.

**[\*Sociology 150. Neighborhood Effects and the Social Order of the City]**

Catalog Number: 31834 Enrollment: Limited to 30.

*Robert J. Sampson*

*Half course (fall term). M., 4–6; Tu., at 9; Tu., at 10.*

Ideas about order and disorder have driven debates about the city for over a century. After reviewing classic approaches we will examine contemporary research on neighborhood inequality, "broken-windows" and crime, racial segregation, ethnic diversity and immigration, the symbolic meanings of disorder, community organizations, and competing visions for the uses of public space. Students will conduct field-based observations drawing upon cutting-edge



methods employed by urban sociologists to understand the workings of the modern city.

*Note:* Expected to be given in 2015–16.

### **\*Sociology 152. Philanthropy and Public Problem-Solving**

Catalog Number: 96881 Enrollment: Limited to 65. The enrollment limit for FAS students is 22.

*Christine Webb Letts (Kennedy School) and Jim Bildner (Kennedy School)*

*Half course (spring term). Tu., Th., 2:30-4. EXAM GROUP: 11*

This course will explore the role of philanthropy in public problem-solving. Using cases and readings, the course will cover the history and role of philanthropy and the nonprofit sector, relationship of both to government, the nature of strategic philanthropy, organizational assessment and impact of private action for public good. Students will chose a problem area with a focus on Boston, and, in teams, research the policies, responses/interventions, role of institutions, strengths and weaknesses of the response and institutional arrangements associated with the problem. A foundation has provided 100,000 dollars (for an enrollment of more than 20 students) for the students to grant to organizations determined as a result of their research.

*Note:* Offered jointly with the Kennedy School as MLD-805. Course will meet at the Kennedy School.

### **\*Sociology 156. Quantitative Methods in Sociology**

Catalog Number: 8958

*Burak Eskici*

*Half course (spring term). M., W., (F.), at 10. EXAM GROUP: 5*

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. This course, when taken for a letter grade, meets the General Education requirement in Empirical and Mathematical Reasoning.

### **[\*Sociology 157. Mapping and Analyzing Social Patterns in Greater Boston]**

Catalog Number: 88434 Enrollment: Limited to 30.

*Half course (fall term). M., W., 2–3:30.*

Introduces the skills necessary to work with spatial data, with a focus on community-level variation in the greater Boston metropolitan area. Includes managing and visualizing data with ArcGIS (v.10) and analytical techniques designed to address complications with spatial data.

*Note:* Expected to be given in 2015–16.

### **\*Sociology 158. Sex, Gender, Sexuality - (New Course)**

Catalog Number: 98211 Enrollment: Limited to 100.

*Tey Meadow*

*Half course (fall term). Tu., Th., at 10. EXAM GROUP: 12*

Male/Female, Man/Woman, Masculine/Feminine, Straight/Gay. These "dueling dualisms" structure our lives, identities and social institutions. Most of us believe that we have a concrete biological sex, social gender and sexual orientation; yet, sociologists increasingly debate the very



meanings of these categories and their relationships to one another. We will examine theoretical and empirical approaches to understanding sex, gender and sexuality, paying particular attention to the historical construction of categories, theories about human difference and efforts within sociology to make sex, gender and sexuality into proper objects of study.

### **\*Sociology 161. Big Data: What is it? - (New Course)**

Catalog Number: 55951 Enrollment: Limited to 50.

*Burak Eskici*

*Half course (spring term). M., W., at 2. EXAM GROUP: 18*

A tremendous amount of data is now being collected through websites, mobile phone applications, credit cards, and many more everyday tools we use extensively. What is currently done and what can we do with this precious resource? This big data course looks under the hood. It explores the logic behind the complex methods used in the field (not the methods itself). We then explore how big data research is designed with real life examples of cutting-edge research and guest lecturers from Facebook, Twitter and Google. By the end of the class students will be competent in the field and be able to conduct a research design using big data.

### **[Sociology 163. Science, Technology, and Democracy]**

Catalog Number: 72138

*Hiro Saito*

*Half course (fall term). M., W., at 10.*

As an integral part of society, science and technology play increasingly important roles in shaping political debates and public policies. This course explores the roles of science and technology in democratic politics in light of the 2011 Fukushima Daiichi Nuclear Accident.

*Note:* Expected to be given in 2015–16.

### **[Sociology 164. Successful Societies: Markers and Pathways]**

Catalog Number: 64978

*Michèle Lamont and Peter Hall*

*Half course (spring term). Tu., 1–3.*

Analyzes the markers of societal success and the social conditions that sustain it. Discusses various indicators ranging from the standard economic measures to the human development index, inequality, resilience to shocks, educational, child development and health measures. Considers the role of cultural and institutional buffers (how cultural repertoires and myths feed strong collective identities, cultural and institutional supports for coping with stigma, models of citizenship and immigration, and multi-level governance and their impact on welfare and poverty). Similarly addresses factors that present major challenges, or 'wicked problems', like concentrated urban poverty, well-being of indigenous and other racialized groups and some of the solutions attempted. Particular attention will be put on the United States, Canada, and other advanced industrial societies and to the role of space, institutions, and culture in shaping the conditions for successful societies. Public policy implications will also be discussed.

*Note:* Expected to be given in 2015–16.

### **Sociology 165. Inequalities in Health Care**

Catalog Number: 8272

*Mary Ruggie (Kennedy School)*



*Half course (fall term). M., W., at 11. EXAM GROUP: 18*

Asks why certain social groups are at greater risk for more severe health problems (e.g., infant mortality, HIV/AIDS, cancer) and yet receive unequal health care in the US. Examines what best practices foster adequate delivery of healthcare services, mutual respect between patient and provider, and healthy living. Considers the role of government, the private sector, family and community.

**[Sociology 166. Sociology of Poverty]**

Catalog Number: 49285 Enrollment: Limited to 35.

*Half course (spring term). Tu., Th., at 2.*

Examines sociological research on poverty and inequality and engages current debates about the causes and consequences of poverty and inequality in the U.S. and other advanced industrialized countries. Explores policy approaches to reducing poverty and inequality.

*Note:* Expected to be given in 2015–16.

**Sociology 167. Art, Crime and Law - (New Course)**

Catalog Number: 64297

*Cory Theodore Way*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

Explores the intersection of art, crime and law, including: (1) how certain crimes involve-or are directed at or against-art; (2) how certain activities are interpreted as both crime and art; (3) how traditional artists and others have creatively depicted crime, criminals and deviance over the centuries; and (4) what contemporary laws and international treaties cover art crime, and what opportunities exist for further legislations/global cooperation. Case studies may involve the protest artist Banksy and other "street artists," the destruction of the Buddhas of Bamiyan, the confiscation/destruction of art in armed conflict (e.g., World War II and the Bosnian War of 1992-95), the thefts at Boston's Isabella Gardner Museum, and many others. This course will be highly interdisciplinary and interactive, and it will encourage students to explore the topic from both scholarly and creative perspectives

**Sociology 168. Sociology of Biomedicine and Global Health - (New Course)**

Catalog Number: 93535

*Mary-Jo Del Vecchio Good (Medical School)*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

Examines the culture of medicine in comparative perspective in diverse environments of risk and trust, in the US and globally; explores the transformative influence of the medical imagination on contemporary worlds of biomedicine and psychiatry

**[\*Sociology 169. Negotiation and Conflict Transformation for Policy and Practice]**

Catalog Number: 17367 Enrollment: Limited to 50.

*Kimberlyn Rachael Leary (Medical School)*

*Half course (spring term). M., 2–4.*

Applies negotiation frameworks to a rich array of cases about community organizing, health care reform, social enterprise ventures, and diplomacy, including cases that students will share from their own research and field study. The course will enable students to be more reflective about



large-scale conflicts, organizational and neighborhood tensions, and everyday experiences of dispute and enmity. Students will also engage in a series of lab exercises and negotiation simulations that will permit them to extend their relational problem-solving skills.

*Note:* Expected to be given in 2015–16.

### **Sociology 170. Culture and Networks**

Catalog Number: 65007

*Bartłomiej Bonikowski*

*Half course (spring term). Tu., Th., at 10. EXAM GROUP: 12*

This course will serve as an overview of the growing field of network research with a particular focus on how patterns of social interaction shape and are themselves shaped by cultural preferences and meaning-making processes. We will discuss a variety of substantive topics, including musical tastes, romantic relationships, organizational collaboration and competition, and social movement mobilization, while paying particular attention to the increasingly important role of social media in establishing and maintaining social ties.

### **Sociology 172. Crime, Journalism and Law**

Catalog Number: 51199

*Cory Theodore Way*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*

Examines the prominence of crime narratives in Anglo-American societies in various media formats since the advent of mass communication. Explores why crime has been consistently compelling to societies and citizens, and how these narratives have been harnessed to advance religious, political, governmental and ideological objectives. Critically analyzes the power of mass communication and the impact that crime events have on societies and their legal systems. Questions what responsibilities (if any) media organizations, individual journalists, media consumers, state officials and the legal system assume when producing, consuming and otherwise engaging highly publicized crime events.

### **Sociology 173. The Sociological Eye: Learning about Society and Culture through Films**

Catalog Number: 20952

*Alvaro Agustín Santana Acuna*

*Half course (fall term). Tu., Th., at 1. EXAM GROUP: 8*

This course introduces students to key themes, methods, and concepts in social and cultural analysis through a global selection of classic and contemporary films, documentaries, and TV series. Topics and related readings cover social control, identity, deviance, power, commodification, stigma, networks and stratification, among others. Screenings include *House of Cards*, *Avatar*, *The Matrix*, “The Wire,” *Psycho*, *King Kong*, and *The Social Network*, among others.

### **[Sociology 175. Sociology of Immigration]**

Catalog Number: 76736

*Half course (fall term). Tu., Th., 3–4:30, and a weekly section to be arranged.*

This course examines global migration and the sociopolitical responses of national communities to this phenomenon. In the first half of the course, students consider the process of international



migration, and the dynamics of immigration policy, border control and citizenship. In the second half, students address contemporary approaches to settlement, integration and political incorporation. The course concludes by evaluating the impact of transnational affiliations and supranational governance on a process that conventionally has been overseen by national authorities. At hand each week are some of the great social and political debates confronting American society and many other countries today.

*Note:* Expected to be given in 2015–16.

### **Sociology 177. Poverty in America - (New Course)**

Catalog Number: 27234

*Matthew Stephen Desmond*

*Half course (spring term). Tu., Th., at 1. EXAM GROUP: 1*

Fifty Years after President Lyndon B. Johnson launched the War on Poverty, America is still home to both abundant wealth and extreme deprivation. This course investigates poverty in America in historical and contemporary perspective. We will explore topics such as urban and rural poverty, the underground economy, and survival strategies of poor families. We will also study several large-scale anti-poverty programs with an eye toward what worked and what didn't, and we will review moral-political debates about the right to housing, living wages, welfare, social suffering, and other matters pertaining to American life below the poverty line.

### **[Sociology 178. Social Network Analysis: Theory, Methods and Applications]**

Catalog Number: 54236

*Instructor to be determined*

*Half course (fall term). W., 3–5.*

Interests in social network analysis have exploded in the past few years. Aimed to examine social relationships and interactions from a structural perspective, social network analysis has become an essential tool for us to understand and address a variety of social issues, including friendship formation, peer influence, career mobility, socioeconomic inequality, organizational alliance and competition, economic development, international trade, diffusion of innovations, political mobilization, crime proliferation, spreading of diseases, etc. This course covers the basic concepts and theory in social network analysis, and major approaches and methods to collect, represent, visualize and analyze social network data. Students will also have the opportunity to learn using the mainstream software in social network analysis to conduct their own research on social networks.

*Note:* Expected to be given in 2015–16.

### **[Sociology 179. Crime, Justice, and the American Legal System]**

Catalog Number: 3962

*Cory Theodore Way*

*Half course (fall term). W., 2–4.*

Explores the causes and consequences of crime in society. Critically examines the role of key players in the American criminal justice system, including police, politicians, judges, lawyers, offenders, victims and the media. Considers historical, political and sociological dimensions of controversial issues in criminal justice practice and policy.

*Note:* Expected to be given in 2015–16.



### [Sociology 180. Law, Science, and Society in America ]

Catalog Number: 38367

*Sheila Jasanoff (Kennedy School)*

*Half course (spring term). M., W., at 10.*

This course explores the tensions, contradictions, and mutual appropriations that characterize the relationship between law, science, and technology in America. It examines how ideas of evidence, expertise, and public reason have changed over the past half-century in response to such phenomena as the rise of the risk society, environmentalism, patient advocacy, and the information revolution. Law is broadly construed to include the activities of legislatures, regulatory agencies, and courts. The course seeks to contextualize the interactions of law, science, and technology in relation to wider transformations in US culture and society.

*Note:* Expected to be given in 2015–16. Offered jointly with the Kennedy School as IGA-516.

### Sociology 181. Social Change in Modern Korea

Catalog Number: 28405

*Paul Y. Chang*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This course explores the incredible transformation of Korean society in the modern period. We begin with the demise of the Chosōn Dynasty at the end of the 19th century before covering the Japanese colonial period (1910–1945), the emergence of two Korean nation-states (1945–1948), the Korean War (1950–53), and the contemporary period (1960–present). The course is divided into two distinct parts. In the first part of the course we discuss Korea's political and economic transformation and in the second, we cover social and cultural change. Upon completion of the course, students should have a thorough grasp of the vast social changes Korea underwent in the 20th century.

### [Sociology 183. Race and Ethnic Relations]

Catalog Number: 70535

*Lawrence D. Bobo*

*Half course (fall term). W., 1–3.*

Focuses on ethno-racial distinctions as they have played out in the US, particularly in the period from post-World War II to the present. The specific topics covered include the concept of race itself, whiteness and white identity, sociological theories of racial and ethnic stratification, immigration and immigration politics, processes of assimilation, new and changing ethno-racial identities, and racial attitudes. In the process of addressing these large and cross-cutting topics we will also take up a host of related issues dealing with such matters as income and wealth differentials, schooling and its outcomes, crime and incarceration, families, interracial marriages, and racism and antiracism.

*Note:* Expected to be given in 2015–16.

### Sociology 189. Democracy and Social Movements in East Asia

Catalog Number: 82041

*Paul Y. Chang*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Social movements are an important part of both democratic and non-democratic societies. In this course we will assess the state of civil society in East Asia by surveying contemporary social



movements in China, Taiwan, Hong Kong, Japan, and South Korea. The course begins with a discussion of the main concepts and analytic approaches in social movement theory. We will then apply these theoretical frameworks to specific mobilization efforts in East Asia, keeping in mind each country's unique historical context. With the theoretical and empirical tools gleaned from the lectures and readings, students will pursue a case analysis of an East Asian social movement of their choosing.

### **Sociology 193. Crime, Community, and Public Policy**

Catalog Number: 8651

*Anthony A. Braga*

*Half course (fall term). M., W., at 11. EXAM GROUP: 18*

Examines criminal justice from the perspective of local communities. Questions of how local communities affect and are affected by crime and criminal justice will be addressed. A central concern will be the discussion of characteristics of neighborhoods that lead to high rates of criminality and how federal, state, and local policies not directly concerned with crime policy may nonetheless bear on crime rates. The City of Boston will be used as a laboratory in which to study these issues.

### ***Cross-listed Courses***

[**African and African American Studies 197. Poverty, Race, and Health**]

**\*Studies of Women, Gender, and Sexuality 1210qt. Queer Theory**

**\*Studies of Women, Gender, and Sexuality 1211. Queer Practice - (New Course)**

### ***Primarily for Graduates***

#### **\*Sociology 202. Intermediate Quantitative Research Methods**

Catalog Number: 4117

*Jason Beckfield*

*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Descriptive and inferential techniques used in quantitative sociological research. Emphasis is on the fundamentals of the linear regression model for continuous response variables, focusing on assumptions and interpretation. Motivation, application, and presentation are stressed; topics include categorical covariates, interactions, and diagnostics. Because the linear regression model is the foundation for more specialized models that are often applied in sociological research, the aim of this course is to develop the skills necessary to (a) understand quantitative sociological research, (b) produce convincing analysis, (c) evaluate quantitative analysis, and (d) learn more specialized techniques as needed.

*Note:* Required of, and 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 (fall term). Tu., Th., 10–12. EXAM GROUP: 12*

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:* Required of, and ordinarily limited to, second-year graduate students in Sociology.

*Prerequisite:* Sociology 202 or basic course in regression analysis.

### **[\*Sociology 203b. Analysis of Longitudinal Data: Seminar]**

Catalog Number: 1860

*Alexandra Achen Killewald*

*Half course (spring term). Tu., 4–6.*

This course takes an applied approach to the analysis of longitudinal data. Lectures will provide an overview of a variety of techniques, including fixed effects models, multilevel models, and duration models. Students will develop their own empirical projects and receive support as they begin to work with longitudinal datasets.

*Note:* Expected to be given in 2015–16. Primarily for graduate students in sociology.

### **Sociology 204. Classical Social Theory**

Catalog Number: 6189

*Alvaro Agustín Santana Acuna*

*Half course (spring term). Tu., 10–12. EXAM GROUP: 12*

Introduction to the formative ideas and socio-intellectual contexts of 19th and early 20th century sociological theory. Course will explore social thought from the perspective provided by the problem of social order - and the roles different thinkers attributed to such factors as solidarity, power, and meaning as solutions to this problem. Consideration of the continuing significance of these ideas for contemporary social thought.

*Note:* Required of and limited to first-year graduate students in Sociology.

### **\*Sociology 205. Sociological Research Design**

Catalog Number: 8972

*Jocelyn Viterna*

*Half course (spring term). W., 10–12. EXAM GROUP: 5*

This course covers the fundamentals of sociological research design. Emphasis is placed on principles that are applicable in all kinds of sociological research, including surveys, participant observation, comparative historical study, interviews, and quantitative analysis of existing data. The course also delves into current methodological controversies in several arenas.

*Note:* Required of, and ordinarily limited to, first-year graduate students in Sociology.

### **\*Sociology 206. The Sociology of Development: Seminar**

Catalog Number: 9026

*Martin K. Whyte*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

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



*Robert J. Sampson*

*Half course (spring term). Tu., 11–1. EXAM GROUP: 15*

Covers the development of sociology as a discipline in the US and the rise of distinct schools of sociological theory. Assesses the role of mechanisms in sociological theory and explores the use of theory in empirical research.

*Note:* Required of and limited to second-year graduate students in Sociology.

### **\*Sociology 209. Qualitative Social Analysis: Seminar**

Catalog Number: 1198

*Mario Small*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

Examines 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, and archival and other interpretative data.

*Note:* Required of and limited to first-year graduate students in Sociology.

### **\*Sociology 221. Immigration, Identity and Assimilation: Seminar**

Catalog Number: 9699 Enrollment: Limited to 16.

*Mary C. Waters*

*Half course (fall term). M., 4–6. EXAM GROUP: 17*

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.

### **[\*Sociology 223. American Society and Public Policy: Research Seminar]**

Catalog Number: 15067 Enrollment: Limited to 16.

*Theda Skocpol and Mary C. Waters*

*Half course (fall term). Tu., 1–3.*

Explores growing inequality in the U.S., and its implications for public policy in the areas of social support for families and workers, immigration and citizenship, and access to higher education. Students are expected to develop and present their own research.

*Note:* Expected to be given in 2015–16.

### **[\*Sociology 224. Organizational Analysis: Seminar]**

Catalog Number: 8202

*To be determined*

*Half course (spring term). Hours to be arranged.*

Reviews classical and contemporary theories of organizations, including ecological, institutional, resource dependence, transaction-cost, agency theory, networks and social movements.

Examines phenomena at multiple levels from the establishment to the organizational network or field.

*Note:* Expected to be given in 2015–16. Offered jointly with the Business School as HBS 4880. This course will meet until spring break.

### **[\*Sociology 226. The Sociology of Culture]**

Catalog Number: 30907



*Orlando Patterson*

*Half course (fall term). Th., 2–4.*

*Note:* Expected to be given in 2015–16.

**Sociology 227. Cultural Sociology and Sociology of Culture: Theoretical Perspectives and Empirical Studies - (New Course)**

Catalog Number: 89523

*Marcel Fournier*

*Half course (spring term). Th., 2–4. EXAM GROUP: 11*

The main topics of this course are: Introduction to a debate: is there a place for creativity and performativity in the sociological study of culture?; 1) the main theoretical debates around culture, social structure and inequality through the classical and contemporary authors and sociological currents, with a focus on the study of cultural practices and styles of consumption; 2) the four dimensions or levels of cultural life in contemporary societies: the creators and their networks, the publics and the market, the local and the global, institutions (schools, museums, etc.), the state and cultural politics.

**[Sociology 234. Ethnographic Fieldwork]**

Catalog Number: 34764

*Matthew Stephen Desmond*

*Half course (spring term). Th., 12–2.*

This seminar is about the practice, politics, and poetics of ethnographic fieldwork--the method of immersing oneself into people's daily routines and systematically recording social processes as they unfold in real time. Along with engaging with several classic and contemporary texts, participants will collect, analyze, and argue with ethnographic data.

*Note:* Expected to be given in 2015–16.

**[\*Sociology 235. Advanced Qualitative Methods]**

Catalog Number: 80114

*Instructor to be determined*

*Half course (spring term). Th., 2–4.*

Explores qualitative research methods with a focus on interviewing, case studies, comparative case analysis, and ethnography, and with particular attention to international/transnational research. Geared towards students who are conducting fieldwork and/or collecting data.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Intended for students who have already taken sociology 209 or its equivalent.

**[Sociology 236. Cultural Processes in the Production of Inequality]**

Catalog Number: 0582

*Michèle Lamont*

*Half course (fall term). F., 10–12.*

This advanced course will consider recent developments at the intersection of cultural sociology and the sociology of inequality, mobility and poverty. Topics will include: the coproduction of social and symbolic boundaries; moral schemas and inequality; cultural scripts in the construction of racism and anti-racism; new developments in the study of identity, ethno-racial and class cultures; cognition, cultural repertoires and networks; evaluation and other cultural and



social processes; and the conceptualization of context and explanations in cultural sociology.

*Note:* Expected to be given in 2015–16.

**[Sociology 237. Contemporary Chinese Society: Seminar]**

Catalog Number: 4320

*Martin K. Whyte*

*Half course (fall term). Tu., 1–3.*

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 2015–16.

**[Sociology 239. Just Institutions (Graduate Seminar in General Education)]**

Catalog Number: 38797

*Christopher Winship*

*Half course (spring term). M., 2–4.*

Examines the normative, psychological, and sociological underpinnings needed to develop and maintain social institutions that are considered "just". The seminar will design and develop a General Education course for undergraduates.

*Note:* Expected to be given in 2015–16.

**\*Sociology 243. Economic Sociology**

Catalog Number: 2022

*Filiz Garip*

*Half course (fall term). M., 2–4. EXAM GROUP: 7*

Introduction to economic sociology at the graduate level. Surveys economic inequality and the ways that economic behavior and outcomes are shaped by social institutions such as markets, networks, organizations, family, and culture.

**[Sociology 246. Seminar in Crime and Justice]**

Catalog Number: 56792

*Bruce Western (Kennedy School)*

*Half course (spring term). W., 5–7 p.m.*

This multidisciplinary seminar will read and discuss research on crime, the social context in which it occurs, and criminal justice policy. We address this literature in the historic context of shifts in US crime policy to a less punitive regime, where incarceration rates may be significantly reduced. Besides studying empirical research on crime and punishment, we will also consider the future of crime policy, and how principles of justice can guide the role of police and corrections in poor communities.

*Note:* Expected to be given in 2015–16.

**Sociology 248. Race, Politics, and Social Inequality: Seminar**

Catalog Number: 8035

*Lawrence D. Bobo*

*Half course (fall term). W., 10–12. EXAM GROUP: 5*

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:* Undergrads admitted by permission of instructor.

### [Sociology 254. Social Structure and Culture in the Study of Race and Urban Poverty]

Catalog Number: 80085

*William Julius Wilson*

*Half course (spring term). Th., 2–4.*

The purpose of this course is to critically examine current writings and debates on how social structure and culture affect the social outcomes of the African Americans and immigrants in the US. The relevance of these works for public and social policy will also be discussed.

*Note:* Expected to be given in 2015–16. Offered jointly with the Kennedy School as SUP-207 (Formerly AAAS 211)

### [Sociology 255. Social Stratification: Seminar]

Catalog Number: 3839

*Instructor to be determined*

*Half course (fall term). Hours to be arranged.*

This graduate level seminar surveys contemporary research in the field of social stratification. We will discuss competing explanations of and empirical scholarship on the emergence, historical evolution and cross-national variation of social inequalities.

*Note:* Expected to be given in 2015–16.

### \*Sociology 259. Policing Urban Communities - (New Course)

Catalog Number: 18224

*Anthony A. Braga*

*Half course (fall term). Th., 2–4. EXAM GROUP: 14*

Examines the issues involved in providing fair and effective police services to urban communities. Questions of how police can effectively prevent crime while enhancing their legitimacy will be addressed. Major police innovations over the last thirty years, such as community and problem-oriented policing, are closely examined and discussed. Sociological and criminological theories, as well as empirical evidence, are applied to understand critical issues that persist for the policing profession such as race, use of force, and police deviance.

*Note:* Undergrads by permission of instructor.

### Sociology 263. Historical Sociology: Cultural and Institutional Perspectives

Catalog Number: 82536

*Orlando Patterson*

*Half course (spring term). Th., 4–6. EXAM GROUP: 6*

The seminar explores the emergence, dynamics and interaction of cultural, structural and institutional processes in the development, and underdevelopment, of capitalism in western and non-western societies. Among the topics explored are: merchant capital, network channeling and cultural change in the late medieval and renaissance periods; institutional and imperial factors in the rise of West European capitalism; networks and informal institutions in the rise of capitalism in China; honorific individualism and networks of aesthetic publics in the making of modern Japanese culture; and colonialism and the institutional and cultural origins of development and



underdevelopment in Africa and the Caribbean. Our readings and discussions will be guided by the recurring theoretical problems of causality, origins, continuity and change in institutional and cultural processes.

### **\*Sociology 267. Political Sociology**

Catalog Number: 42489

*Bartłomiej Bonikowski*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

This course examines power relations between (and within) society and the state. We will focus on nation-state formation, revolutions, social movements, ideology and political attitudes, welfare state policies, and globalization, while interrogating the major theoretical traditions that have shaped the sociological study of politics.

### **\*Sociology 275. Social Network Analysis: Seminar**

Catalog Number: 6899

*Peter V. Marsden*

*Half course (spring term). Th., 10–12. EXAM GROUP: 12*

Concepts and methods for studying social structure using social networks. Approaches to collecting network data; data quality; graph-theoretic, statistical, and visual approaches to analyzing network data, including blockmodels and multidimensional scaling.

### **\*Sociology 296a. Proseminar on Inequality & Social Policy I**

Catalog Number: 67293

*Theda Skocpol and Devah Pager (Kennedy School)*

*Half course (fall term). W., 2–4. EXAM GROUP: 7*

The first doctoral seminar in the Inequality and Social Policy three-course sequence, this course considers the effects of policies and institutions in creating or reducing inequality in the U.S. 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 SUP-921.

### **[\*Sociology 296b. Proseminar on Inequality and Social Policy II]**

Catalog Number: 9407

*Jason Beckfield and Amitabh Chandra (Kennedy School)*

*Half course (spring term). M., 2–4.*

Deals with causes and possible cures for economic inequality, including skill differences, discrimination, immigration, household composition, residential segregation, and the welfare state.

*Note:* Expected to be given in 2015–16. Offered jointly with the Kennedy School as SUP 922.

For 2014–15, FAS offers this course as Government 2340b.

*Prerequisite:* SUP-921

### ***Cross-listed Courses***

### ***Graduate Courses of Reading and Research***



### **\*Sociology 301. Special Reading and Research**

Catalog Number: 4017

*Members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*

### **\*Sociology 302. Direction of Doctoral Dissertations**

Catalog Number: 5021

*Members of the Department*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 14; Spring: 11*

### **\*Sociology 303a. Advanced Topics in Quantitative Research**

Catalog Number: 5636

*Christopher Winship 3189*

*Half course (fall term; repeated spring term). W., 12–1:30. EXAM GROUP: 4*

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

*Bartłomiej Bonikowski 1770*

*Half course (fall term; repeated spring term). M., 4–6. EXAM GROUP: Fall: 8; Spring: 1*

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

*Jocelyn Viterna 5860*

*Half course (fall term). F., 10–12. EXAM GROUP: 7*

*Note:* Required of and limited to graduate students in Sociology. Attendance at first meeting is required. Not repeatable for credit.

### **\*Sociology 307. Proseminar on Inequality and Social Policy III**

Catalog Number: 0137

*William Julius Wilson 2401*

*Half course (fall term). M., 2–4. EXAM GROUP: 18*

Students develop previously completed papers from Sociology 296a or 296b into professional presentations and publishable articles, critique peer papers across disciplines, and discuss presentations of national experts.

*Note:* Offered jointly with the Kennedy School as SUP-923.

*Prerequisite:* Sociology 296a/Gov 2340a and Government 2340b/Soc 296b (or SUP-921 and SUP-922 at the Kennedy School).



### **\*Sociology 308. Workshop on Economic Sociology**

Catalog Number: 0086

*Mary C. Brinton 4567*

*Half course (fall term; repeated spring term). W., 4–5:30. EXAM GROUP: Fall: 2; Spring: 16*

Presentations and discussions of new research by members of the community and visiting scholars. Students are exposed to the major paradigms in the field, and see how research articles are developed and refined.

### **\*Sociology 309. Migration and Immigrant Incorporation Workshop**

Catalog Number: 9932

*Mary C. Waters 1498*

*Half course (fall term; repeated spring term). Fall: Th., 12–2. EXAM GROUP: Fall: 18; Spring: 14*

Bi-weekly colloquium for graduate students that examines international migration and the incorporation of migrants into host societies. Students participate in meetings and present original work in progress.

*Note:* First meeting will be held Thursday, September 11th.

### **\*Sociology 310. Qualifying Paper**

Catalog Number: 40662

*Christopher Winship 3189*

*Half course (fall term). M., 8–10. EXAM GROUP: 11*

Guides students through the process of producing an original research paper of high quality. Readings and discussion cover the identification of appropriate research problems, the nature of causal reasoning, and data analysis and write-up.

*Note:* Required of, and ordinarily limited to, third-year graduate students while writing the qualifying paper. Not repeatable for credit.

### **[\*Sociology 312. Workshop on Social Networks and Social Capital: Advanced Models and Empirical Applications]**

Catalog Number: 49871

*Filiz Garip 5887*

*Half course (fall term; repeated spring term). Th., 4–6.*

The workshop brings together quantitative sociologists working with advanced descriptive, computational, causal or network models to empirically analyze issues broadly related to social networks and social capital.

*Note:* Expected to be given in 2015–16. Class meets bi-weekly.

### **\*Sociology 314. Workshop on Urban Social Processes**

Catalog Number: 16972

*Robert J. Sampson 4546 (on leave fall term)*

*Half course (spring term). Th., 4–6. EXAM GROUP: 10*

Cities are back, urbanization is rapidly expanding around the world, and new forms of data are presenting unique opportunities for research. SOC314 is a forum to explore the social mechanisms, processes, and structures that occur in urban settings and the diverse behaviors that are shaped by spatial inequality. The workshop highlights the presentation of graduate student



research but also includes discussion sessions on selected readings and work-in-progress by faculty at Harvard and around the country.

**\*Sociology 315. Inequality and Social Policy: Seminar**

Catalog Number: 65203

*Deval Pager (Kennedy School) 7613*

*Half course (fall term; repeated spring term). Fall: M., 12–2. EXAM GROUP: Fall: 18; Spring: 14*

**\*Sociology 317. Culture, History and Society**

Catalog Number: 84118

*Orlando Patterson 1091*

*Half course (fall term; repeated spring term). F., 12–2. EXAM GROUP: Fall: 6; Spring: 17*

*Note:* First Fall meeting Friday, September 12th; First Spring meeting Friday, February 6th.

**\*Sociology 318. Quantitative Methods in Sociology**

Catalog Number: 35881

*Christopher Winship 3189*

*Half course (fall term; repeated spring term). Th., 12–2. EXAM GROUP: 15*

This workshop provides a forum in which graduate students and faculty can present in-progress work to a substantively diverse group that shares an interest in quantitative methods. The practice of quantitative social science requires training not only in formal statistical methods but also in research design, model specification, management of complex survey data, and the interpretation of results. While Sociology graduate students receive training in statistical methods, many of the other tools of quantitative research are best taught through example and hands-on experience. This workshop fills a gap in the curriculum, providing an opportunity for students to receive methods-directed feedback on their research projects. Cultivating a sense of the types of concerns that get raised with quantitative social science and good practices for addressing those concerns, this workshop will contribute to building an informal community of quantitative students and faculty who can serve as resources to one another. Although intended primarily for graduate students and faculty in the Harvard Department of Sociology, the workshop is open to faculty, researchers, and students from other disciplines at Harvard and other schools throughout the Boston area.

*Note:* First meeting Thursday, September 18th

**\*Sociology 319. Workshop on Mixed Methods of Empirical Analysis - (New Course)**

Catalog Number: 55778

*Mary C. Brinton 4567 and Filiz Garip 5887*

*Half course (fall term; repeated spring term). F., 12–2. EXAM GROUP: Fall: 16; Spring: 6*

*Note:* First Fall meeting Friday, September 5th; first Spring meeting Friday, January 30th. The graduate workshop on mixed methods is a forum for graduate students and faculty to present their empirical work-qualitative, quantitative, or mixed-methods-and get feedback on the empirical veracity of their claims. Individuals of all methodological persuasions are welcome. We are particularly interested in exploring synergies that can occur across methodological boundaries, either in the context of mixed-methods projects or in the context of collaboration between qualitative and quantitative researchers.



**[\*Sociology 320. Workshop on Sociology of Education]**

Catalog Number: 18817

*Mary C. Brinton 4567*

*Half course (fall term; repeated spring term). Tu., 12–2.*

A forum for students and faculty across the university interested in the sociology of education, primarily for the discussion of research in progress. Domestic and comparative topics welcome. Meets bi-weekly, Fall and Spring.

*Note:* Expected to be given in 2015–16.

***Cross-listed Courses***

**\*Government 3004. Research Workshop in American Politics**

## South Asian Studies

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

***Faculty of the Department of South Asian Studies***

Parimal G. Patil, Professor of Religion and Indian Philosophy (*Chair; Director of Graduate Studies, spring term*)

Sunil Amrith, Mehra Family Professor of South Asian Studies (*on leave spring term*)

Ali S. Asani, Professor of Indo-Muslim and Islamic Religion and Cultures

Amy Bard, Preceptor in Hindi and Urdu

Homi K. Bhabha, Anne F. Rothenberg Professor of the Humanities (*on leave 2014-15*)

Sugata Bose, Gardiner Professor of Oceanic History and Affairs (*on leave 2014-15*)

Richard S. Delacy, Preceptor in Hindi and Urdu

Diana L. Eck, Fredric Wertham Professor of Law and Psychiatry in Society, Harvard College Professor

Jay Jasanoff, Diebold Professor of Indo-European Linguistics and Philology

Shanghai Li, College Fellow in the Department of South Asian Studies and ACLS New Faculty Fellow

Shankar Ramaswami, Lecturer on South Asian Studies (*Director of Undergraduate Studies*)

Jonathan Ripley, Preceptor in Tamil

Amartya Sen, Lamont University Professor (*on leave spring term*)

Ajantha Subramanian, Professor of Anthropology

Leonard W. J. van der Kuijp, Professor of Tibetan and Himalayan Studies (*Director of Graduate Studies, fall term*) (*on leave spring term*)



Alex Watson, Preceptor in Sanskrit (*on leave 2014-15*)  
 Michael Witzel, Wales Professor of Sanskrit  
 Richard K. Wolf, Professor of Music

### ***Other Faculty Offering Instruction in the Department of South Asian Studies***

Anne E. Monius, Professor of South Asian Religions, Acting Director, Center for the Study of World Religions (*Divinity School*)

### ***Affiliates of the Department of South Asian Studies***

Asad A. Ahmed, Associate Professor of Anthropology  
 Prerna Singh, Assistant Professor of Government

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. For further information and updates, please visit our website: [www.sas.fas.harvard.edu](http://www.sas.fas.harvard.edu).

## ***South Asian Studies***

### ***Primarily for Undergraduates***

#### **\*South Asian Studies 91r. Supervised Reading and Research**

Catalog Number: 26727

*Parimal G. Patil and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 18; Spring: 14*

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.

#### **\*South Asian Studies 98r. Tutorial—Junior Year**

Catalog Number: 93356

*Parimal G. Patil and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*

*Note:* Required of concentrators.

#### **\*South Asian Studies 99r. Tutorial—Senior Year**

Catalog Number: 41834

*Parimal G. Patil and members of the Department*

*Full course (indivisible). Hours to be arranged. EXAM GROUP: Fall: 18; Spring: 14*

*Note:* Required of concentrators writing a thesis.

## ***Cross-listed Courses***



**[Aesthetic and Interpretive Understanding 30. Love In A Dead Language: Classical Indian Literature and Its Theorists]**

**[Aesthetic and Interpretive Understanding 54 (formerly Culture and Belief 12). For the Love of God and His Prophet: Religion, Literature, and the Arts in Muslim Cultures]**

**Culture and Belief 19. Understanding Islam and Contemporary Muslim Societies**

**[Culture and Belief 28. Hindu Worlds of Art and Culture]**

**[Culture and Belief 46. Music, Debate, and Islam]**

**Culture and Belief 60. Religion in India: Texts and Traditions in a Complex Society - (New Course)**

**[\*History 86h. Asia after Europe]**

**[History of Art and Architecture 18s. Arts of South and Southeast Asia]**

**[Societies of the World 36. Modern India and South Asia]**

**Societies of the World 47. Contemporary South Asia: Entrepreneurial Solutions to Intractable Social & Economic Problems**

**United States in the World 32. The World's Religions in Multicultural America: Case Studies in Religious Pluralism**

***For Undergraduates and Graduates***

**\*South Asian Studies 100r. South Asian Language Tutorials**

Catalog Number: 78249

*Parimal G. Patil and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 18; Spring: 5*

Individualized study of a South Asian language; emphasis on written expression, reading comprehension and oral fluency. Languages currently offered are Bahasa Indonesia and Bengali though others may be approved upon petition to the Director of Undergraduate Studies/Director of Graduate Studies.

*Note:* Not open to auditors.

**\*South Asian Studies 123. Bollywood and Beyond: Commercial Cinema, Language and Culture in South Asia.**

Catalog Number: 6828 Enrollment: Limited to 20.

*Richard S. Delacy*

*Half course (fall term). W., 1–4. EXAM GROUP: I*

This course examines concepts of personhood, community and culture in South Asia as expressed in contemporary film and literature. Works in Hindi-Urdu and in translation will be examined with emphasis on language as an index of cultural difference and of broad social shifts, notably the transformation of audiences from citizens to culture-consumers. Knowledge of Hindi-Urdu is not required. However, there will be a section for students with intermediate proficiency utilizing language materials.

*Note:* Students who enroll in the language section of this course may count it towards a citation in Urdu-Hindi.

**[South Asian Studies 124. Introduction to World Mythology]**

Catalog Number: 62478



*Michael Witzel*

*Half course (spring term). Th., 10-11:30, and an additional hour to be arranged.*

The course discusses current and past approaches to comparative mythology and explores the new field of historical comparative mythology. Close interdisciplinary attention is given to genetics, linguistics and archaeology, and an outline of the development of mythologies from the late Stone Age until the rise of current world religions is presented.

### **South Asian Studies 127. Editing Indian Texts - (New Course)**

Catalog Number: 85458

*Michael Witzel*

*Half course (spring term). Th., 3–5. EXAM GROUP: 16*

This course aims at describing the methods and tools employed when critically editing Indian (mainly Sanskrit) texts, especially the use of stemma and modern computer-based editing and stemmatic programs, largely borrowed from biology.

### **[South Asian Studies 180. Religion and Violence in South Asia] - (New Course)**

Catalog Number: 38676

*Shankar Ramaswami*

*Half course (spring term). Hours to be arranged.*

This course will examine histories of interactions, conflicts, violence, and nonviolence between Hindus and Muslims in South Asia. The course will begin by discussing histories of conflict, conversion, and syncretism in premodern South Asia, before turning to an exploration of Hindu-Muslim relations under colonialism, with an emphasis on the Mutiny, the nationalist movement, ideas of *jihad* and *ahimsa*, and Partition. The course will then delve into the nature and causes of Hindu-Muslim violence in independent India, with a focus on the Ram temple movement and the Gujarat riots. The course will conclude with a discussion of intimations of non-violent interactions, understandings, and co-struggles of Hindus and Muslims in present-day South Asia.

*Note:* Expected to be given in 2015–16.

### **South Asian Studies 188. South Asian Political Ecology - (New Course)**

Catalog Number: 50989

*Ajantha Subramanian*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

Despite great efforts, scientists and activists have found themselves unable to bring about political changes that might reverse environmental degradation. This degradation has been caused by humans, but humans have not been able to stop the processes behind it. South Asia is exceptionally vulnerable to the effects of environmental degradation and critical to any global solutions to it. This seminar examines case studies of environmental politics in South Asia to explore fundamental questions about human agency and historical change, to understand how the environment is understood, why efforts to prevent its degradation have failed, and to explore interventions that might succeed.

### **South Asian Studies 189. History of Buddhism in South Asia - (New Course)**

Catalog Number: 99214

*Shenghai Li*

*Half course (spring term). M., 2–4. EXAM GROUP: 18*



The growth of diverse Buddhist traditions of Asia and elsewhere rests on the historical foundation of the evolution of Buddhism in South Asia. This course will examine different forms of historical representation found in both contemporary academic scholarship and pre-modern historical traditions. As a group we will collectively engage with the critical issues and major developments in the study of Buddhism on the South Asian subcontinent.

**[South Asian Studies 190. Religious Nationalism and Ethnic Conflict in Modern South Asia]**

Catalog Number: 13053

*Harpreet Singh*

*Half course (spring term). Tu., 3–5.*

What prompts a person with a family to pick up a gun and join a militia? What drives a democratic state to engage in indiscriminate violence against its own citizens? Why do people frequently see George Washington as a "freedom fighter" but insurgents in Kashmir as "terrorists"? This course will consider such questions in the context of religious and ethnic conflict in modern South Asia. Using case studies on Gujarat, Kashmir, Panjab, and Nagaland, we will discuss the historical trajectory and dialectical interplay between different forms of nationalism led by Hindus, Muslims, Sikhs and Nagas in the colonial and post-colonial periods. Materials to be examined will be drawn from a wide range of sources, from theoretical texts and human rights reports to ethnographic accounts and films.

*Note:* Offered jointly with the Divinity School as 3414. This course, when taken for a letter grade, meets the General Education requirement for Societies of the World.

**[South Asian Studies 191. South Asian Literary Cultures: An Introduction]**

Catalog Number: 73789

*Harpreet Singh*

*Half course (spring term). Th., 3–5.*

In the beginning of the second millennium, a major literary transformation occurred in South Asia leading to the rise of local literary cultures. The goal of the course is to introduce students to a range of north Indian literary cultures and genres in Awadhi, Bengali, Brajbhasha, Panjabi, Sindhi and Urdu with an emphasis on religious, political and regional identity, and the ways in which literary production intersects with music and art of the region. All reading will be in English and no knowledge of languages of the region is required.

*Note:* Offered jointly with the Divinity School as 3402.

**South Asian Studies 193. Class and the City in Indian Cinema - (New Course)**

Catalog Number: 31655

*Shankar Ramaswami*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

This course will examine imaginaries and understandings of class and cities in Indian cinema. How are struggles for earnings and mobility in the city - of migrants, workers, and middle classes - represented in Indian cinema? In what ways is the city viewed as a space of ethical deviations and compromises? How does class shape experiences of friendship, family, and erotic love? What visions of politics, justice, and hope arise in Indian cinema? The course will explore these questions in commercial, art, and documentary films (in Bengali, Hindi, and Marathi, with English subtitles), along with readings in history, anthropology, and cinema studies. Screenings



will include films by Satyajit Ray, Guru Dutt, Raj Kapoor, Yash Chopra, Muzaffar Ali, and Anand Patwardhan.

**[South Asian Studies 194. A Clash of Civilizations? Hindus and Muslims in South Asia]**

Catalog Number: 21986

*Harpreet Singh*

*Half course (fall term). W., 3–6.*

The objective of the course is to understand the rich and complex history of Hindu-Muslim interactions in one of most diverse regions in the world. Using literature, art, film and critical scholarship, we will study the ways in which religious identities have been negotiated and contested in the public sphere. We will attempt to respond to the question whether religious strife between Hindus and Muslims in South Asia represents a "clash of civilizations" or something more interesting.

*Note:* Offered jointly with the Divinity School as 3390.

**[South Asian Studies 195. Thinking Critically About Emptiness: History of Madhyamaka Philosophy in South Asia]**

Catalog Number: 84316

*Shenghai Li*

*Half course (fall term). M., 2–5.*

This course is an advanced introduction to the literature of the Madhyamaka school of Buddhist thought in South Asia. Our initial goal is to trace the emergence and development of the Madhyamaka philosophical system as articulated by the school's founders and classical interpreters. The second part of the course will focus on the critical encounters of Madhyamaka writers with other South Asian philosophical traditions. Previous coursework in Buddhist studies or South Asian religions will be helpful, but not necessary.

*Note:* Offered jointly with the Divinity School as 3528.

**South Asian Studies 196. Capitalism and Cosmology in Modern India**

Catalog Number: 63634

*Shankar Ramaswami*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

This course will explore the lives, politics, and cosmologies of working-class persons in modern India. The course will examine contemporary debates on globalization, development, and ecology; workers' experiences of factory work, informality, and agitations; and workers' religious practices, theologies, and cosmological visions. Core concerns of the course will include inquiries into the appropriate categories for understanding workers' lives and visions, and the possibilities for autonomous, nonviolent politics among working people in India. The course will draw upon a range of sources, including anthropology, history, religious studies, epics, and Hindi cinema.

*Note:* Offered jointly with the Divinity School as 3529.

**[South Asian Studies 197. Buddhist Literature in South Asia and Beyond]**

Catalog Number: 54319

*Shenghai Li*

*Half course (spring term). W., 3–6.*



Buddhist literary texts were an innovative force in the cultures of many parts of Asia. This course explores major Buddhist themes and genres in India, ranging from biographies of the Buddha, stories of his former lives, tales of magnificent exploits, to poetry and drama, and their continuing forms in other Asian literatures. While reading Asian Buddhist texts in translation, we will examine such questions as the role of language, the different functions of prose and verse, and the extent to which these texts are to be considered Buddhist.

### **South Asian Studies 198. The Middle Way Philosophy of Candrakirti - (New Course)**

Catalog Number: 15796

*Shanghai Li*

*Half course (fall term). M., 3–6. EXAM GROUP: 6*

The philosophical writings of the seventh century Indian scholar Candrakīrti became increasingly influential in late Indian Buddhism and during the Second Dissemination of Buddhism in Tibet. Since then the interpretation of his thought has occupied a prominent place in the intellectual history of Buddhism. The primary goal of this course is to examine Candrakīrti's philosophical ideas through studying his major writings in translation. We will pursue this objective with an attention to Candrakīrti's intellectual context and the reception of his work. Prior study of Indian philosophy or Buddhist intellectual history will be helpful but there is no prerequisite for this course.

*Note:* Offered jointly with the Divinity School as 3541.

### **South Asian Studies 199. Modern India Through Narrative Forms - (New Course)**

Catalog Number: 78436

*Shankar Ramaswami*

*Half course (fall term). Tu., 1–4. EXAM GROUP: 8*

This course will explore histories, politics, social relations, and subjectivities in modern India through close readings of novels, short stories, and autobiographies. The course will consider the depictions, understandings, and illuminations in these narrative forms of deprivation, conflicts, and intimate relations in villages; nationalism, civil disobedience, and Gandhi; Hindu-Muslim relations and experiences of Partition; and the workings of caste and gender relations in modern India. Readings will include works (in English translation) by Bibhutibhushan Banerji, Munshi Premchand, Rahi Masoom Reza, Saadat Hasan Manto, and U. R. Ananthamurthy.

### ***Cross-listed Courses***

[Anthropology 1656. History and Anthropology of Pakistan: seminar]

**Folklore and Mythology 153. South Asian Folklore - (New Course)**

[History of Art and Architecture 183k. Himalayan Art]

**\*History of Art and Architecture 184x. Painting of India - (New Course)**

**Islamic Civilizations 178 (formerly \*Religion 1820). Muslim Societies in South Asia: Religion, Culture, and Identity**

**Linguistics 107. Introduction to Indo-European**

**Music 157gew. South Indian Music Theory & Practice**

**Music 190gew. Music in Islamic Contexts - (New Course)**

**[Music 190r. Topics in World Music: Proseminar]**



**[\*Philosophy 191. Philosophy without Borders: India and Europe: Proseminar]  
 [Religion 1706. Dharmas, Emptiness, and Idealism ]**

*Primarily for Graduates*

**South Asian Studies 220r. Brahmanas: Seminar**

Catalog Number: 92712

*Michael Witzel*

*Half course (fall term; repeated spring term). Th., 1–3. EXAM GROUP: Fall: 9; Spring: 1*  
 Reading and discussion of the oldest Indian prose texts. Long despised and derided for alleged illogical contents they constitute instead the beginning of sustained and trenchant discussions. Their underlying method, their narrative and their ritual contents will be discussed, along with an introduction to the language and grammar of Vedic prose, as far as it is different from Classical Sanskrit.

**[South Asian Studies 224. Rebirth and Karma]**

Catalog Number: 40633

*Michael Witzel*

*Half course (fall term). Th., 10–12.*  
 Discusses the origin and development of the seminal Indian concepts of Rebirth and Karma as well as their eventual combination in the Upanishadic period. Follows some of their developments in the subsequent texts and beliefs of the past 2500 years

**[South Asian Studies 250r. Advanced Topics in Buddhist Philosophy - Conference Course]**

Catalog Number: 44296 Enrollment: Limited to 35.

*Parimal G. Patil*

*Half course (fall term). Th., 3–6.*

A detailed treatment of specific topics in Indian Buddhist Philosophy. This term our focus will be the Buddhist theory of momentariness.

*Note:* Expected to be given in 2015–16. Jointly offered with the Divinity School as 3568.

**South Asian Studies 290. Buddhism in Three Languages - (New Course)**

Catalog Number: 17308

*Shenghai Li*

*Half course (spring term). Tu., 1–4. EXAM GROUP: 1*

This course is designed to help students develop their skills in reading Buddhist texts in Sanskrit, Tibetan, and Chinese. Parallel texts that exist in Sanskrit as well as in Tibetan and Chinese translations will be chosen. The course package will include selection from at least one Yogācāra text, while other Buddhist text traditions will also be represented in the reading materials.

*Note:* Offered jointly with the Divinity School as 3542.

*Prerequisite:* The minimum prerequisite for the course is reading knowledge of at least one of the three languages, although students who know more than one language will also profit from the study of translation equivalents and strategies.

***Cross-listed Courses***



### **Anthropology 2675. Religion, Nation, and Government in Modern South Asia**

[Anthropology 2676. Muslims, Islam and Anthropology]

[Economics 2057. Rationality and Choice]

[Economics 2085. Economics of Inequality and Poverty]

**Economics 2395. Health and Social Justice: Reshaping the Delivery of Health - (New Course)**

[History 2692. Colonial and Post-Colonial Histories of South Asia: Seminar]

**History of Art and Architecture 282k. Art of Indian Esoteric Buddhism - (New Course)**

[History of Art and Architecture 285m. South Asian Temple : Theory and Practice]

**\*Islamic Civilizations 241r. Approaches to Studying Indo-Muslim Culture and South Asian Islam**

[Linguistics 220ar. Advanced Indo-European]

**Linguistics 221r. Workshop in Indo-European**

**Music 207r. Ethnomusicology: Seminar**

### *Graduate Courses of Reading and Research*

#### **\*South Asian Studies 302. Reading and Research**

Catalog Number: 1405

*Ali S. Asani 7739, Francis X. Clooney (Divinity School) 1785, Diana L. Eck 4514, Anne E.*

*Monius (Divinity School) 4489, Parimal G. Patil 4478, and Michael Witzel 1602*

*Half course (fall term; repeated spring term). EXAM GROUP: Fall: 18; Spring: 14*

### ***Hindi-Urdu***

#### *Primarily for Undergraduates*

#### **\*Hindi-Urdu 91r. Hindi-Urdu Supervised Readings**

Catalog Number: 99557

*Richard S. Delacy, Ali S. Asani, and Amy Bard*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 10*

*Instruction in Hindi-Urdu in topics not covered in the regular curriculum.*

*Note:* Offered at the discretion of the instructors. Not open to auditors.

#### *For Undergraduates and Graduates*

#### **Hindi-Urdu 101. Introductory Hindi-Urdu**

Catalog Number: 4078

*Amy Bard*

*Full course (indivisible). M. through Th., (F.), at 10; a second section may be offered, please contact the instructors. EXAM GROUP: 5*

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 video clips from Bollywood.

*Note:* Not open to auditors.



### **Hindi-Urdu 101ab. Hindi-Urdu for Reading Knowledge - (New Course)**

Catalog Number: 79206

*Richard S. Delacy*

*Full course (spring term). M. through Th., 4–6. EXAM GROUP: 13*

A complete first year introduction, in one term, to the lingua franca of the subcontinent in its “Hindustani” form. Students are introduced to both the Perso-Arabic and the Devanagari script systems, encompassing all four skills: speaking, listening, reading and writing.

*Note:* Not open to auditors; cannot be taken Pass/Fail.

### **Hindi-Urdu 102. Intermediate Hindi-Urdu**

Catalog Number: 2941

*Richard S. Delacy*

*Full course (indivisible). Fall: M., W., Th., at 4; Spring: Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 2*

Continuation of Hindi-Urdu 101. Emphasis on written expression and texts in both Perso-Arabic and Devanagari script systems. Students are introduced to Hindi-Urdu fables, short stories, and various other genres of literature, including poetry.

*Note:* Not open to auditors.

*Prerequisite:* Hindi-Urdu 101 or equivalent.

### **Hindi-Urdu 103ar. Advanced Hindi-Urdu**

Catalog Number: 0700

*Amy Bard*

*Half course (fall term). Tu., 8:30–10; W., 2–4. EXAM GROUP: 9*

Continuation of Hindi-Urdu 102; covers topics in advanced grammar; designed to improve proficiency in speaking, listening, reading, and writing.

*Prerequisite:* Hindi-Urdu 102 or equivalent.

### **Hindi-Urdu 103br. Advanced Hindi-Urdu**

Catalog Number: 4615

*Amy Bard*

*Half course (spring term). Tu., 8:30–10; W., 2–4. EXAM GROUP: 2*

Continuation of Hindi-Urdu 103a.

### **[Hindi-Urdu 104. The Classical Urdu Ghazal and Its Symbolism: Seminar]**

Catalog Number: 0927

*Amy Bard*

*Half course (spring term). Tu., 5–7 p.m.*

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 2015–16.

*Prerequisite:* Hindi-Urdu 102 or equivalent.

### **Hindi-Urdu 105r. Topics in Hindi-Urdu Literature**

Catalog Number: 5963



*Richard S. Delacy, Ali S. Asani, and Amy Bard*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

Individual reading course. A course for students with native or near-native proficiency with readings in a variety of genres from Hindi and/or Urdu literature based on student interest.

**[Hindi-Urdu 106r. Advanced Oral Proficiency in Hindi-Urdu]**

Catalog Number: 70789

*Richard S. Delacy*

*Half course (fall term; repeated spring 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 closure to a wide variety of communicative tasks using diverse strategies.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Hindi-Urdu 103 or Instructor's permission.

**Hindi-Urdu 127. News and Views: Accessing and Interpreting Hindi and Urdu Media - (New Course)**

Catalog Number: 86446

*Amy Bard*

*Half course (spring term). M., at 11; F., 10:30–12. EXAM GROUP: 14*

This class focuses on Hindi and Urdu informational media, particularly coverage of current events, to develop knowledge of South Asian regional issues. Vocabulary building is a key aspect of the course. Assignments involve listening exercises aimed at either basic comprehension or close analysis and discussion; drafting news reports; and reading long and short form journalism. Newspaper, TV, radio, and internet news reports and debates are featured, with some exposure to the emerging field of online social media analysis. This course may count towards a citation in Hindi-Urdu.

*Prerequisite:* Hindi-Urdu 102 or permission of the instructor.

***Graduate Courses of Reading and Research***

**\*Hindi-Urdu 300. Reading and Research**

Catalog Number: 2131

*Ali S. Asani 7739*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 9; Spring: 2*

***Nepali***

***For Undergraduates and Graduates***

**Nepali 101a. Introductory Nepali**

Catalog Number: 8974

*Michael Witzel and members of the Department*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 3*



This course introduces the basic grammatical structures of modern Nepali, enabling students to read and produce simple, standard prose as well as engage in basic conversation by the end of the first year. Nepali is taught with a concern for the cultural context in which this language is spoken and written.

### **Nepali 101b. Introductory Nepali**

Catalog Number: 3039

*Michael Witzel and members of the Department*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 1*

Continuation of Nepali 101a.

### **Nepali 102a. Intermediate Nepali**

Catalog Number: 8921

*Michael Witzel and members of the Department*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 10*

This course is designed to provide students with a more sophisticated knowledge of Nepali grammar. Students will also have an opportunity to use Nepali language for communication purposes and will be able to analyze more complex sentence types than the ones taught in the introductory course.

### **Nepali 102b. Intermediate Nepali**

Catalog Number: 2720

*Michael Witzel and members of the Department*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 14*

This course is designed to provide students with a more sophisticated knowledge of Nepali grammar. Students will also have an opportunity to use Nepali language for communication purposes and will be able to analyze more complex sentence types than the ones taught in the introductory course.

### **Nepali 103a. Advanced Nepali**

Catalog Number: 19267

*Michael Witzel and members of the Department*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 6*

A reading course in Modern Nepali Literature, suitable for students who have at least three years of Nepali learning. This course is designed to help students understand some of the complex literary materials composed in modern Nepali language. The students will have an opportunity to read a wide variety of selected texts, understand the linguistic systems operative in those writings, and come up with their own informed understanding of them.

### **Nepali 103b. Advanced Nepali**

Catalog Number: 85896

*Michael Witzel*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 17*

A reading course in Modern Nepali Literature, suitable for students who have at least three years of Nepali learning. This course is designed to help students understand some of the complex literary materials composed in modern Nepali language. The students will have an opportunity to



read a wide variety of selected texts, understand the linguistic systems operative in those writings, and come up with their own informed understanding of them.

### **Nepali 104a. Readings in Modern Nepali Literature**

Catalog Number: 46805

*Michael Witzel and members of the Department*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 9*

A reading course in Modern Nepali Literature, suitable for students who have at least three years of Nepali learning. This course is designed to help students understand some of the complex literary materials composed in modern Nepali language. The students will have an opportunity to read a wide variety of selected texts, understand the linguistic systems operative in those writings, and come up with their own informed understanding of them

### **Nepali 104b. Readings in Modern Nepali Literature**

Catalog Number: 61912

*Michael Witzel and members of the Department*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 11*

A reading course in Modern Nepali Literature, suitable for students who have at least three years of Nepali learning. This course is designed to help students understand some of the complex literary materials composed in modern Nepali language. The students will have an opportunity to read a wide variety of selected texts, understand the linguistic systems operative in those writings, and come up with their own informed understanding of them.

### **Nepali 105a. Development of Nepali Language and Literature: Contributions of Local Languages**

Catalog Number: 50945

*Michael Witzel*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 18*

Investigates the impact of the various non-Nepali speaking groups (janajati)on Nepali literature, as well as their linguistic contributions.

### **Nepali 105b. Development of Nepali Language and Literature: Contributions of Local Languages**

Catalog Number: 66052

*Michael Witzel*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 17*

Investigates the impact of the various non-Nepali speaking groups (janajati)on Nepali literature, as well as their linguistic contributions.

## **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.*

Considered sacred by the Theravada Buddhist tradition of Sri Lanka, India and Southeast Asia, as it was held to convey the actual "words of the Buddha", Pali came to be used as an authoritative, cosmopolitan language throughout the Theravada world. Pali texts display a rich variety of genres, including some of the earliest extant Indian poetry. The course is geared toward allowing the student to read Pali texts as quickly as possible.

*Note:* Expected to be given in 2015–16.

### [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:* Expected to be given in 2015–16.

### [\*Pali 102a. Intermediate Pali]

Catalog Number: 8376

*Parimal G. Patil and members of the Department*

*Half course (fall term). Hours to be arranged.*

Developing the skills gained in Introduction to Pali, the student reads texts of greater linguistic complexity in a wide variety of genres. The choice of text can be influenced by the students' particular interests. Where applicable, we will use the Pali commentarial tradition as a tool to understanding the texts, thus providing the student with access to this illuminating but challenging body of material.

*Note:* Expected to be given in 2015–16.

### [\*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:* Expected to be given in 2015–16.

*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; repeated spring term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

## Sanskrit

*Primarily for Undergraduates*

### \*Sanskrit 91r. Supervised Reading and Research

Catalog Number: 5497



*Parimal G. Patil and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 3*

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.

### ***For Undergraduates and Graduates***

#### **Sanskrit 101a. Elementary Sanskrit**

Catalog Number: 8140

*Parimal G. Patil and members of the Department*

*Half course (fall term). M., W., F., at 12; M., at 1. EXAM GROUP: 11*

Introduction to Classical Sanskrit, the translocal language of intellectual life in South Asia for much of the last two millennia. This course provides the essential grammar and reading proficiency necessary to take up the language's many rich literary traditions: scripture (*Upaniṣad*), epic (*Rāmāyaṇa* and *Mahābhārata*), poetry, Hindu and Buddhist philosophy, etc. After completing the textbook, we will read a narrative (*Hitopadeśa*) drawn from one of the most popular literary works in the pre-modern world.

#### **Sanskrit 101b. Elementary Sanskrit**

Catalog Number: 6892

*Parimal G. Patil and members of the Department*

*Half course (spring term). M., W., F., at 12; M., at 1. EXAM GROUP: 7*

Continuation of Sanskrit 101a.

#### **Sanskrit 102ar. Intermediate Sanskrit I**

Catalog Number: 4843

*Parimal G. Patil and members of the Department*

*Half course (fall term). M., W., F., at 1; M., at 12. EXAM GROUP: 1*

A reading course designed to give students the tools necessary for advanced study in Classical Sanskrit. Readings in epic (*itihāsa*) or narrative (*kathā*), poetry (*kāvya*) or systematic thought (*śāstra*) will introduce students to a variety of important genres and their distinctive conventions. A focus upon the Sanskrit tradition's categories of analysis - grammatical, commentarial and prosodic - will enable students to begin to make sense of original Sanskrit texts as generations of the tradition's own readers have.

#### **Sanskrit 102br. Intermediate Sanskrit II**

Catalog Number: 4916

*Parimal G. Patil and members of the Department*

*Half course (spring term). M., W., F., at 1; M., at 12. EXAM GROUP: 8*

Continuation of Sanskrit 102a.

#### **[Sanskrit 105. Survey Early Vedic Literature]**

Catalog Number: 48096

*Michael Witzel and members of the Department*

*Half course (fall term). Hours to be arranged.*

This course examines the earliest texts which constitute Vedic Literature. The class will first read



selections of the Rg Vedic 'apocrypha:' poetic material which was not accepted by all schools of Rg Veda. Next, the study of the Atharva Veda will yield insight into early Vedic systems of sorcery, cosmology, and politics. Finally, the focus turns to the earliest Indic prose commentary on the Agnihotra found in the Black Yajur Veda, which will prove foundational to the study of Vedic ritual generally.

*Note:* Expected to be given in 2015–16.

### **Sanskrit 106a. Readings from the Brahmanas and Upanisads**

Catalog Number: 29088

*Michael Witzel and members of the Department*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 9*

Prose texts on ritual and early Indian philosophy are read and analyzed. Special attention is paid to the underlying method of establishing correlations between macro and microcosm in sacrificial proceedings.

### **Sanskrit 106b. Readings in the Upanisads**

Catalog Number: 23618

*Michael Witzel and members of the Department*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 5*

Prose texts on early Indian philosophy are read and analyzed. Special attention is paid to the unfolding philosophical terminology. The main focus will lie on the concepts of atman and brahman: essential terms that come to dominate Indian philosophy for centuries. This course will provide the foundation for a successful engagement with philosophy in India.

*Prerequisite:* At least one year of Sanskrit.

### **[Sanskrit 107. Vâlmîki's Râmâyana]**

Catalog Number: 87193

*Michael Witzel and members of the Department*

*Half course (spring term). Hours to be arranged.*

This course will read selections of the "first kâvya" in Epic Sanskrit. The objectives of the course include gaining speed and facility with the Epic poetic tradition, while focusing on the manner in which the text constitutes the figure of "the hero."

*Note:* Expected to be given in 2015–16.

*Prerequisite:* At least one year of Sanskrit.

### ***Primarily for Graduates***

### **Sanskrit 200ar. Advanced Poetic Sanskrit**

Catalog Number: 3658

*Parimal G. Patil*

*Half course (fall term). Tu., Th., 8:30–10. EXAM GROUP: 9*

Selected readings from classical Sanskrit literature.

### **Sanskrit 200br. Advanced Literary Sanskrit**

Catalog Number: 3526

*Parimal G. Patil*



*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*  
 Selected readings from classical Sanskrit literary theory.

**[Sanskrit 201ar. Advanced Philosophical Sanskrit]**

Catalog Number: 9986

*Parimal G. Patil*

*Half course (fall term). M., W., F., at 10.*

Topic to be announced.

*Note:* Expected to be given in 2015–16.

**[Sanskrit 201br. Advanced Philosophical Sanskrit]**

Catalog Number: 5965

*Parimal G. Patil*

*Half course (spring term). M., W., F., at 10.*

Topic to be announced.

*Note:* Expected to be given in 2015–16.

**[Sanskrit 214. Ritual Sutras]**

Catalog Number: 6626

*Michael Witzel*

*Half course (fall term). Hours to be arranged.*

Reading and discussion of Sutras and Paddhatis.

*Note:* Expected to be given in 2015–16.

**[Sanskrit 217. Introduction to Vedic Studies: language and texts - (New Course)]**

Catalog Number: 58445

*Michael Witzel*

*Half course (fall term). W., 4–6.*

Presents a history of Vedic texts and religion. Reading of pertinent texts from the period, 1200–500 BCE.

**\*Sanskrit 250r. Nth Year Sanskrit: Seminar**

Catalog Number: 63939 Enrollment: Limited to 15.

*Parimal G. Patil*

*Half course (fall term; repeated spring term). Fall: Tu., Th., 10–11:30; Spring: Th., 2–4. EXAM GROUP: Fall: 12; Spring: 11*

An advanced course for students who have completed at least four years of formal Sanskrit instruction. Texts and topics will vary from year to year.

***Graduate Courses of Reading and Research***

**\*Sanskrit 301. Reading and Research**

Catalog Number: 2158

*Francis X. Clooney (Divinity School) 1785, Diana L. Eck 4514, Anne E. Monius (Divinity School) 4489, Parimal G. Patil 4478, and Michael Witzel 1602*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*



### **\*Sanskrit 310. Direction of Doctoral Dissertations**

Catalog Number: 4371

*Francis X. Clooney (Divinity School) 1785, Diana L. Eck 4514, Anne E. Monius (Divinity School) 4489, Parimal G. Patil 4478, and Michael Witzel 1602*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

## **Tamil**

### ***For Undergraduates and Graduates***

#### **Tamil 101a. Elementary Tamil**

Catalog Number: 27362

*Jonathan Ripley*

*Half course (fall term). M., W., F., at 9. EXAM GROUP: 10*

An introduction to the oldest of the Dravidian languages of South India, Tamil holds official language status in Tamil Nadu, Singapore, and Sri Lanka. Tamil has one of the oldest uninterrupted literary traditions in the world, ranging from classical love poetry, devotional compositions and epics to the modern novel and short story. Students will be introduced to the Tamil script and to reading, writing, and speaking. Materials from popular culture will supplement modern teaching materials.

#### **Tamil 101b. Elementary Tamil**

Catalog Number: 93991

*Jonathan Ripley*

*Half course (spring term). M., W., F., at 9. EXAM GROUP: 10*

Continuation of Tamil 101a.

#### **Tamil 102a. Intermediate Tamil**

Catalog Number: 42469

*Jonathan Ripley*

*Half course (fall term). M., W., F., at 11. EXAM GROUP: 18*

Continuation of Tamil 101. Focus will be on further developing reading, writing, and speaking skills. Students will read fables, newspapers, short stories, and other genres of literature including poetry. Tamil cinema and audiovisual materials presenting contemporary and traditional Tamil culture will be used as supplementary class material.

#### **Tamil 102b. Intermediate Tamil**

Catalog Number: 57576

*Jonathan Ripley*

*Half course (spring term). M., W., F., at 11. EXAM GROUP: 14*

Continuation of Tamil 102a.

#### **[Tamil 103ar. Advanced Tamil]**

Catalog Number: 72683

*Jonathan Ripley*

*Half course (fall term). M., W., F., at 2.*



Continuation of Tamil 102. Covers topics of advanced grammar and is designed to further develop proficiency in speaking, listening, reading, and writing. Texts include modern literature, classical poetry, devotional literature, epic literature, and selections from minor literary forms. Films and other audiovisual materials will be used as well.

*Note:* Expected to be given in 2015–16.

### **Tamil 103br. Advanced Tamil**

Catalog Number: 21161

*Jonathan Ripley*

*Half course (spring term). M., W., F., at 3. EXAM GROUP: 17*

Continuation of Tamil 102. Covers topics of advanced grammar and is designed to further develop proficiency in speaking, listening, reading, and writing. Texts include modern literature, classical poetry, devotional literature, epic literature, and selections from minor literary forms. Films and other audiovisual materials will be used as well.

## ***Thai***

### ***For Undergraduates and Graduates***

#### **\*Thai 101a. Introductory Thai I**

Catalog Number: 5395

*Parimal G. Patil and members of the Department*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 3*

This course introduces the basic grammatical structures of modern Thai, enabling students to read and produce simple, standard prose as well as engage in basic conversation by the end of the first year. Thai is taught with a concern for the cultural context in which this language is spoken and written.

#### **\*Thai 101b. Introductory Thai II**

Catalog Number: 6557

*Parimal G. Patil and members of the Department*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 15*

Continuation of Thai 101a.

#### **\*Thai 102a. Intermediate Thai I**

Catalog Number: 8582

*Parimal G. Patil and members of the Department*

*Half course (fall term). M., Th., at 5. EXAM GROUP: 17*

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

*Parimal G. Patil and members of the Department*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 14*

Continuation of Thai 102a

*Prerequisite:* Thai 102a.

### **\*Thai 103ar. Readings in Thai I**

Catalog Number: 7590

*Parimal G. Patil and members of the Department*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 10*

This course is designed to focus on reading and comprehension. Selected readings will be both for academic purposes and for pleasure. Students will read newspaper and magazine articles; short stories; and passages covering topics such as history, science, politics, medicine, technology and more. This reading course will help students become more proficient with nuanced/implied meanings, bolster vocabulary and acquire familiarity with various professional jargon.

### **\*Thai 103br. Readings in Thai II**

Catalog Number: 7593

*Parimal G. Patil and members of the Department*

*Half course (spring term). Hours to be arranged. EXAM GROUP: 11*

Continuation of Thai 103ar.

## ***Graduate Courses of Reading and Research***

### **\*Thai 300. Reading and Research**

Catalog Number: 5368

*Parimal G. Patil 4478 and members of the Department*

*Half course (fall term; repeated spring term). EXAM GROUP: 10*

## ***Tibetan and Himalayan Studies***

### ***Primarily for Undergraduates***

#### **Tibetan 91r. Supervised Reading and Research**

Catalog Number: 2288

*Leonard W. J. van der Kuijp*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 11;*

*Spring: 7*

Supervised reading of texts in Tibetan not covered by regular courses of instruction.

### ***For Undergraduates and Graduates***

#### **Tibetan 101a. Elementary Classical Tibetan**

Catalog Number: 4132



*Leonard W. J. van der Kuijp and members of the Department*  
*Half course (fall term). Tu., Th., 10–11:30. EXAM GROUP: 12*

A introductory course designed for students with no background in classical Tibetan. Students begin with the Tibetan script, its standard transliteration into Roman characters, and pronunciation before proceeding to the basics of Tibetan grammar. After mastering a foundational vocabulary, students begin translating simple Tibetan texts.

### **Tibetan 101b. Elementary Classical Tibetan**

Catalog Number: 5299

*Leonard W. J. van der Kuijp and members of the Department*  
*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Continuation of Tibetan 101a

*Prerequisite:* Tibetan 101a.

### **Tibetan 102a. Intermediate Classical Tibetan**

Catalog Number: 9088

*Leonard W. J. van der Kuijp and members of the Department*  
*Half course (fall term). Tu., Th., 4–5:30. EXAM GROUP: 16*

An intermediate classical Tibetan course emphasizing reading and translation of various Tibetan texts covering different genres, such as religious history, biography of Tibetan masters and folk literature writings. Please check the course website for the most updated information.

*Prerequisite:* Tibetan 101a and 101b or equivalent courses.

### **Tibetan 102b. Intermediate Classical Tibetan**

Catalog Number: 8580

*Leonard W. J. van der Kuijp and members of the Department*  
*Half course (spring term). Tu., Th., 4–5:30. EXAM GROUP: 6*

Continuation of 102a.

*Prerequisite:* 101a, 101b or equivalent courses.

### **Tibetan 104ar. Elementary Colloquial Tibetan**

Catalog Number: 4158

*Leonard W. J. van der Kuijp and members of the Department*  
*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

An introduction to spoken standard Central Tibetan: its phonology and basic grammar and syntactic structures - with drill sessions.

### **Tibetan 104br. Elementary Colloquial Tibetan**

Catalog Number: 7026

*Leonard W. J. van der Kuijp and members of the Department*  
*Half course (spring term). M., W., F., at 10. EXAM GROUP: 5*  
 Continuation of Tibetan 104ar.

### **Tibetan 105ar. Intermediate Colloquial Tibetan**

Catalog Number: 1314

*Leonard W. J. van der Kuijp and members of the Department*



*Half course (fall term). M., W., F., at 12. EXAM GROUP: 11*

This course will cover more complex grammatical and syntactic structures of spoken standard Central Tibetan - with drill sessions.

### **Tibetan 105br. Intermediate Colloquial Tibetan**

Catalog Number: 1151

*Leonard W. J. van der Kuijp and members of the Department*

*Half course (spring term). M., W., F., at 12. EXAM GROUP: 7*

Continuation of Tibetan 105ar.

### **[Tibetan 106ar. Advanced Colloquial Tibetan]**

Catalog Number: 7094

*Leonard W. J. van der Kuijp and members of the Department*

*Half course (fall term). Hours to be arranged.*

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Tibetan 101 and 102, or equivalent.

### **[Tibetan 106br. Advanced Colloquial Tibetan]**

Catalog Number: 5352

*Leonard W. J. van der Kuijp and members of the Department*

*Half course (spring term). Hours to be arranged.*

Continuation of Tibetan 106ar.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Tibetan 101 and 102, or equivalent.

### **Tibetan 150. Bod, Bod chen po, and the historical geography of the Tibetan cultural area - (New Course)**

Catalog Number: 71098

*Leonard W. J. van der Kuijp*

*Half course (fall term). Tu., 1–4. EXAM GROUP: 8*

This course will examine the geography of Bod and Bod chen po, the division of its territories, and a variety of key place-names from an historical perspective. This will be a seminar-cum-reading course using Tibetan (and some Chinese) sources from the ninth to the nineteenth century.

*Prerequisite:* Reading knowledge of Tibetan and an insatiable intellectual curiosity.

### **Tibetan 151. Era of the 5th Dalai Lama (1617-82): Ascendancy & Intellectual Climate of Dga' ldan pho brang Court - (New Course)**

Catalog Number: 40485

*Leonard W. J. van der Kuijp*

*Half course (fall term). Th., 1–4. EXAM GROUP: 8*

This course will examine the politics of the Dga' ldan pho brang court and the arts and sciences cultivated by the Fifth Dalai Lama and his governors (*sde srid*), with special attention given to Sde srid Sangs rgyas rgya mtsho (1653-1705). This will be a seminar-cum-reading course with readings taken from the Fifth Dalai Lama's autobiography, his and Sangs rgyas rgya mtsho's treatises on the astral sciences, and several "afterwords" (*par byang*) to the xylograph-



publications that they sponsored.

*Prerequisite:* Reading knowledge of Tibetan and an insatiable intellectual curiosity.

### **Tibetan 190. Understanding Histories of Tibet - (New Course)**

Catalog Number: 98413

*Leonard W. J. van der Kuijp and members of the Department*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This course introduces two histories of Tibet. The first history begins from the remote past, covering the evolution of political, religious and ideological institutions on the Tibetan plateau from the 7th century until the present. The second history is that of the more recent past, when the first history was used, misused or abused in the scholarly domain and beyond. The close intermingling of these two histories - and the frequent pretense of one as the other - makes “Tibet” uniquely useful in our understanding the very nature of the humanistic inquiry that we call history. Instead of looking at the Tibetan plateau as a self-sufficient unit of historical analysis, this course situates the Tibetan plateau between China, India, Central Asia, Western Asia and the “West.” Specifically, students will be introduced to themes such as: the changing domains of the Tibetan cultural areas; Buddhism’s historical and historiographical conquests of Tibet; the usefulness of the vocabulary “Golden” as well as “Dark” ages in linear historical narratives; the process of consecration of historical persons such as Songtsen Gampo and the Dalai Lamas; the subjugation of and resistance to Tibet as a part of “Chinese” history; the highly contextual representations of Tibet and Tibetan history. No prior knowledge is required.

#### ***Primarily for Graduates***

### **[\*Tibetan 205r. Readings in Tibetan Dunhuang Documents]**

Catalog Number: 28546 Enrollment: At least two years of training in classical Tibetan is required.

*Leonard W. J. van der Kuijp*

*Half course (fall term). Tu., 1–4.*

This course will focus on a select number of Tibetan texts uncovered from the Dunhuang area at the beginning of the twentieth century, texts that do not postdate the early eleventh century. The subject matter of the selected texts will range from historiography, belles lettres, and Buddhist theory and practice.

*Note:* Expected to be given in 2015–16.

### **[\*Tibetan 206r. Tibetan Epigraphy]**

Catalog Number: 83631 Enrollment: At least two years of training in classical Tibetan is required.

*Leonard W. J. van der Kuijp*

*Half course (fall term). Th., 1–4.*

In this course, we will be reading different kinds of inscriptions from the eighth to the ninth century. Special attention will be given to several of these, including the famous Sino-Tibetan inscription of 822-3.

*Note:* Expected to be given in 2015–16.



**[\*Tibetan 207r. Readings in Bilingual Texts]**

Catalog Number: 64094 Enrollment: At least two years of training in classical Tibetan is required.

*Leonard W. J. van der Kuijp*

*Half course (spring term). Tu., 1–4.*

In this course, we will be reading Śaṅkarasvāmin's primer on logic, the *Nyāyapraveśa*, using the Sanskrit text, the two slightly different Tibetan translations, and the Chinese translation.

*Note:* Expected to be given in 2015–16.

**[Tibetan 219r. Tibetan Religious Literature: Seminar]**

Catalog Number: 9500

*Janet Gyatso (Divinity School)*

*Half course (spring term). Tu., Th., 10–11:30.*

An intermediate to advanced reading class in Tibetan religious literature. The topic in Spring 2013 is Tibetan historiography. We will read several outstanding works that recount the past, including histories of the world, of Buddhism, of specific traditions, and of specific monasteries and places. Each present disparate notions of the past and its status vis-a-vis the present, how knowledge should be constituted and organized, how various discursive and poetic forms can effect that presentation, what kinds of things are most important to recount, and what is thereby accomplished.

*Note:* Expected to be given in 2015–16. An intermediate to advanced reading class on Tibetan religious literature. Offered jointly with the Divinity School as 3831.

*Prerequisite:* At least one full year of training in classical Tibetan is required.

**[Tibetan 230. Readings in the Life of the Kashmirian Scholar Shakyashribhadra: Seminar]**

Catalog Number: 92097

*Leonard W. J. van der Kuijp*

*Half course (spring term). Th., 1–4.*

Various Tibetan biographies of the life of this influential scholar will be examined and special problem areas will be analyzed in full detail.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Reading knowledge of Tibetan.

***Graduate Courses of Reading and Research***

**\*Tibetan 300. Reading and Research**

Catalog Number: 0666

*Leonard W. J. van der Kuijp 1556 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: 5*

**\*Tibetan 302. Direction of AM Theses**

Catalog Number: 6927

*Leonard W. J. van der Kuijp 1556 (on leave spring term)*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*



# 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 and of Comparative Literature, Harvard College Professor, and Director of the Humanities Program at the Radcliffe Institute for Advanced Studies (*Chair*)

Deborah D. Foster, Senior Lecturer on Folklore and Mythology

Byron J. Good, Professor of Medical Anthropology in the Department of Social Medicine (*Medical School*)

Mary-Jo Del Vecchio Good, Professor of Global Health and Social Medicine (*Medical School*)

Joshua D. Greene, Professor of Psychology

David A. Haig, George Putnam Professor of Organismic and Evolutionary Biology

Jerold Kayden, Frank Backus Williams Professor of Urban Planning and Design (*Design School*)

Ruth S. Lingford, Senior Lecturer on Visual and Environmental Studies

Stephen A. Marglin, Walter S. Barker Professor of Economics

Sandra Naddaff, Senior Lecturer on Literature and Comparative Literature

Richard K. Wolf, Professor of Music

Richard W. Wrangham, Ruth Moore Professor of Biological Anthropology (*on leave spring term*)

Application forms and information on completing petitions for Special Concentrations may be obtained from the Committee's office, located in Warren House (near the Barker Center).

### *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. EXAM GROUP: 12*

*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. EXAM GROUP: Fall: 6;  
 Spring: 17*

*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. EXAM GROUP: Fall: 17;  
 Spring: 13*

*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. EXAM GROUP: Fall: 9;  
 Spring: 2*

*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. EXAM GROUP: 3*

*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***

Alan Agresti, Visiting Professor of Statistics (*University of Florida*)  
 Edoardo Maria Airoldi, Associate Professor of Statistics (*Director of Graduate Studies*)  
 Joseph K. Blitzstein, Professor of the Practice in Statistics (*Co-Director of Undergraduate Studies*) (*on leave spring term*)  
 Stephen James Blyth, Professor of the Practice of Statistics  
 Luke Bornn, Assistant Professor of Statistics (*on leave spring term*)  
 Tirthankar Dasgupta, Associate Professor of Statistics  
 Andrew Gelman, Visiting Professor of Statistics  
 Mark E. Glickman, Visiting Professor of Statistics (*Boston University*)  
 David P. Harrington, Professor of Statistics (*FAS*) and Professor of Biostatistics (*Public Health*) (*Acting Chair; Co-Director of Undergraduate Studies*)  
 S.C. Samuel Kou, Professor of Statistics  
 Jun S. Liu, Professor of Statistics  
 Viktoriia Liublinska, College Fellow in Statistics  
 Fabrizia Mealli, Visiting Professor of Statistics  
 Xiao-Li Meng, Dean of the Graduate School of Arts and Sciences, and Whipple V.N. Jones Professor of Statistics  
 Luke Weisman Miratrix, Assistant Professor of Statistics  
 Mayumi Morimoto, Preceptor in Statistics  
 Carl N. Morris, Professor of Statistics  
 Michael Isaac Parzen, Senior Lecturer on Statistics (*Co-Director of Undergraduate Studies*)  
 Natesh S. Pillai, Associate Professor of Statistics  
 Kevin Andrew Rader, Preceptor in Statistics  
 Donald B. Rubin, John L. Loeb Professor of Statistics  
 Neil Shephard, Professor of Economics and of Statistics  
 Alexander Volfovsky, Lecturer on Statistics

### ***Other Faculty Offering Instruction in the Department of Statistics***

Verena S. Kaynig-fittkau, Lecturer on Computational Science

### ***Affiliates of the Department of Statistics***

Raj Chetty, William Henry Bloomberg Professor of Economics

Statistics is a relatively young discipline organized around the rapidly growing body of knowledge about quantitative methods for the analysis of data, the making of rational decisions under uncertainty, the design of experiments, and the modeling of randomness and variability in the social and natural sciences.

A basic introduction to the field is provided by any of Statistics 100 through 104, which introduce statistical principles (without any mathematical or statistical prerequisite), with different areas of application emphasized as indicated in the descriptions. Statistics 100, 101, and 104 are Gen Ed-eligible, within the Empirical and Mathematical Reasoning category.



Empirical and Mathematical Reasoning 16: Real Life Statistics: Your Chance at Happiness (or Misery) is a newly designed Gen Ed course introducing statistical principles and reasoning as they arise in everyday life, organized through modules on various areas of application such as health, wine-tasting, and finance.

An introduction to probability and statistics at a higher mathematical and theoretical level is provided by Statistics 110 together with Statistics 111. These courses provide a foundation for understanding random variables, statistical models, and statistical inference, and are prerequisites for most of the department's more advanced courses.

Statistics 101 and 104 will be accepted as fulfilling any requirement or prerequisite that is fulfilled by Statistics 100. Consult the Statistics Department or your tutorial office for more information about courses that satisfy your concentration requirements or for guidance on selecting courses. More detailed information can be accessed at the Statistics Department website: [www.stat.harvard.edu](http://www.stat.harvard.edu).

### ***Primarily for Undergraduates***

#### **\*Statistics 91r. Supervised Reading and Research**

Catalog Number: 6641

*David P. Harrington (FAS/Public Health), and members of the Department*  
*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 7;*  
*Spring: 18*

Supervised reading and research in an area of statistics agreed upon by the student and a faculty adviser.

*Note:* Normally may not be taken more than twice; may be counted once for concentration credit in Statistics, if taken for a letter grade; may be taken in either term; for further information, consult Co-Directors of Undergraduate Studies.

#### **\*Statistics 98. Tutorial — Junior Year**

Catalog Number: 14706

*David P. Harrington (FAS/Public Health) and Viktoriia Liublinska*  
*Half course (spring term). W., 4–6. EXAM GROUP: 13*

Introduction to reading, writing, presenting, and research in statistics. Students will learn to formulate and approach a research question, critically review papers that make use of statistics, and clearly communicate statistical ideas and arguments orally and in writing. Limited to junior concentrators in statistics.

#### **\*Statistics 99hf. Tutorial — Senior Year**

Catalog Number: 4381 Enrollment: For concentrators writing a thesis.

*David P. Harrington (FAS/Public Health)*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: 3*

Supervised research for the senior thesis, under the mentorship of a Harvard facultymember.

### ***For Undergraduates and Graduates***



### **Statistics 100. Introduction to Quantitative Methods for the Social Sciences and Humanities**

Catalog Number: 3808

*Luke Weisman Miratrix*

*Half course (fall term). M., W., 2:30–4; sections to be arranged. EXAM GROUP: 7*

Introduces the basic concepts of statistical inference and statistical computing, both increasingly used in the social sciences and humanities. The emphasis of this course is on statistical reasoning, visualization, data analysis, and use of statistical software instead of theory. The goal is to provide pragmatic tools for assessing statistical claims and conducting basic statistical analyses. The main areas covered are classic one- and two-sample statistics, regression with one or more predictors, and bootstrap and randomization based inference. Explores applications in a wide range of fields, including the social and political sciences, medical research, and psychology.

*Note:* Only one of the following courses may be taken for credit: Statistics 100, 101, 102, 104. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning. Expected to be omitted spring term.

### **[Statistics 101. Introduction to Quantitative Methods for Psychology and the Behavioral Sciences]**

Catalog Number: 5128

*Kevin A. Rader*

*Half course (fall term). Tu., Th., 10–11:30, and weekly sections to be arranged.*

Similar to Statistics 100, but emphasizes concepts and practice of statistics used in psychology and other social and behavioral sciences. Topics covered: describing center and variability; probability and sampling distributions; estimation and hypothesis testing for comparing means and comparing proportions; contingency tables; correlation and regression; multiple regression; analysis of variance. Emphasis on translation of research questions into statistically testable hypotheses and models, and interpretation of results in context.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16. Only one of the following courses may be taken for credit: Statistics 100, 101, 102, 104. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

### **Statistics 102. Introduction to Statistics for Life Sciences**

Catalog Number: 38791

*David P. Harrington (FAS/Public Health)*

*Half course (spring term). M., W., F., at 11, and weekly sections to be arranged. EXAM GROUP: 14*

Introduces the basic concepts of probability, statistics and statistical computing used in medical and biological research. The emphasis is on data analysis and visualization instead of theory.

Designed for students who intend to concentrate in a discipline from the life sciences.

*Note:* Only one of the following courses may be taken for credit: Statistics 100, 101, 102, 104. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

### **Statistics 104. Introduction to Quantitative Methods for Economics**

Catalog Number: 4582



*Michael Isaac Parzen*

*Half course (fall term; repeated spring term). Fall: Lecture 1: M., W., F., at 10, or Lecture 2: M., W., F., at 11, and weekly sections to be arranged; Spring: M., W., F., at 11, and weekly sections to be arranged. EXAM GROUP: Fall: 2; Spring: 14*

A rigorous introduction to statistics for students intending to study economics. Examples drawn from finance, decision analysis and economic decision-making. In addition to descriptive statistics, probability, inference and regression modeling, also covers portfolio optimization, decision analysis, and time series analysis. Students with prior exposure to introductory statistics will find some overlap of material but be exposed to new applications and learn more advanced modeling techniques.

*Note:* Only one of the following courses may be taken for credit: Statistics 100, 101, 102, 104. This course, when taken for a letter grade, meets the General Education requirement for Empirical and Mathematical Reasoning.

### **Statistics 107. Introduction to Business and Financial Statistics**

Catalog Number: 76433

*Michael Isaac Parzen*

*Half course (spring term). Tu., Th., 10–11:30, and weekly sections to be arranged. EXAM GROUP: 12*

Introduces the technical skills required for data-driven analysis of business and financial data. Emphasis on applying statistical methods to summarize and make inferences from complex data and to develop quantitative models to assist business decision making. Topics include: how to collect and summarize financial data, understanding the concept of risk, portfolio construction and analysis, testing trading systems, and simulation techniques.

*Note:* The software packages Excel and R will be used to obtain quantitative solutions to financial problems.

*Prerequisite:* Statistics 100, 101, 104 or equivalent.

### **Statistics 110. Introduction to Probability**

Catalog Number: 0147

*Kevin Andrew Rader*

*Half course (fall term). Tu., Th., 1–2:30, and weekly sections to be arranged. EXAM GROUP: 8*

A comprehensive introduction to probability. Basics: sample spaces and events, conditional probability, and Bayes' Theorem. Univariate distributions: density functions, expectation and variance, Normal, t, Binomial, Negative Binomial, Poisson, Beta, and Gamma distributions. Multivariate distributions: joint and conditional distributions, independence, transformations, and Multivariate Normal. Limit laws: law of large numbers, central limit theorem. Markov chains: transition probabilities, stationary distributions, convergence.

*Prerequisite:* Mathematics 18 or above (may be taken concurrently).

### **Statistics 111. Introduction to Theoretical Statistics**

Catalog Number: 1836

*Kevin Andrew Rader*

*Half course (spring term). Tu., Th., 1–2:30, and weekly sections to be arranged. EXAM GROUP: 1*

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:* Mathematics 19a and 19b or equivalent and Statistics 110.

### **Statistics 115. Introduction to Computational Biology and Bioinformatics**

Catalog Number: 9776

*Xiaole Shirley Liu (Public Health)*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

The course will cover basic technology platforms, data analysis problems and algorithms in computational biology. Topics include sequence alignment and search, high throughput experiments for gene expression, transcription factor binding and epigenetic profiling, motif finding, RNA/protein structure prediction, proteomics and genome-wide association studies. Computational algorithms covered include hidden Markov model, Gibbs sampler, clustering and classification methods.

*Prerequisite:* Good quantitative skills, strong interest in biology, willingness and diligence to learn programming.

### **Statistics 120. Introduction to Applied Bayesian Inference and Multilevel Models - (New Course)**

Catalog Number: 56063

*Edoardo Maria Airoldi*

*Half course (fall term). M., 2:30–4, W., 3:30–5. EXAM GROUP: 7*

An introduction to the nuances of statistical inference in applied contexts. Frequentist and Bayesian techniques. A variety of classic and modern models for high-dimensional, categorical, sequence, spatial and network data. Evaluation techniques for modeling assumptions and inference strategies. Hands-on implementation of estimation and inference procedures in R. Knowledge of R programming is required (and assumed).

### **Statistics 121. Data Science**

Catalog Number: 97597

*Rafael A. Irizarry (Public Health) and Verena S. Kaynig-fittkau*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*

Learning from data in order to gain useful predictions and insights. This course introduces methods for five key facets of an investigation: data wrangling, cleaning, and sampling to get a suitable data set; data management to be able to access big data quickly and reliably; exploratory data analysis to generate hypotheses and intuition; prediction based on statistical methods such as regression and classification; and communication of results through visualization, stories, and interpretable summaries. Built around three modules: prediction and elections, recommendation and business analytics, and sampling and social network analysis.

*Note:* Only one of CS 109, AC 209, or Stat 121 can be taken for credit. Only admitted graduate students can take AC 209, in which case we expect significant differences in readings, assignments, and projects.

*Prerequisite:* Programming knowledge at the level of CS 50 or above, and statistics knowledge at the level of Stat 100 or above (Stat 110 recommended).



### [Statistics 123. Applied Quantitative Finance]

Catalog Number: 71785

*Stephen James Blyth*

*Half course (spring term). Tu., Th., 2:30–4.*

Introduction to financial derivatives and the probabilistic techniques used to analyze them. Topics include: forwards, swaps and options; replication, no-arbitrage and risk-neutrality; martingales, numeraires and the fundamental theorem of asset pricing; and an introduction to interest-rate derivatives and their valuation. Provides a rigorous but accessible treatment of the elegant theory underpinning quantitative finance, motivated by real problems from the financial industry.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16. Designed for those seeking an understanding of the quantitative challenges on Wall Street and the probabilistic toolkit developed to address them. Expected to be given in 2015–16.

*Prerequisite:* Statistics 110 or equivalent.

### [Statistics 131. Time Series Analysis and Forecasting]

Catalog Number: 8291

*Neil Shephard*

*Half course (fall term). Tu., Th., 1–2:30.*

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, spectral analysis, and transfer function models.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

*Prerequisite:* Statistics 111 and 139 or equivalent.

### Statistics 135. Statistical Computing Software

Catalog Number: 3451 Enrollment: Limited to 25.

*Steven Richard Finch*

*Half course (fall term). M., W., F., at 10. EXAM GROUP: 5*

An introduction to major statistics packages used in academics and industry (SAS and R). Will discuss data entry and manipulation, implementing standard analyses and graphics, exploratory data analysis, simulation-based methods, and new programming methods.

*Prerequisite:* Statistics 110 and 139 (may be taken concurrently) or with permission of instructor.

### Statistics 139. Statistical Sleuthing Through Linear Models

Catalog Number: 1450

*Viktoria Liublinska (fall term) and Kevin Andrew Rader (spring term)*

*Half course (fall term; repeated spring term). Fall: Tu., Th., 11:30–1, and a weekly section to be arranged; Spring: M., W., F., at 10, and with a weekly section also to be arranged. EXAM GROUP: Fall: 15; Spring: 5*

A serious introduction to statistical inference with linear models and related methods. Topics include t-tools and permutation-based alternatives, multiple-group comparisons, analysis of variance, linear regression, model checking and refinement, and causation versus correlation.



Emphasis on thinking statistically, evaluating assumptions, and developing tools for real-life applications.

*Prerequisite:* Statistics 100 or equivalent and Mathematics 19a and 19b or equivalent.

### **Statistics 140. Design of Experiments**

Catalog Number: 7112

*Tirthankar Dasgupta and Donald B. Rubin*

*Half course (fall term). M., W., 2:30–4. EXAM GROUP: 7*

Statistical designs for efficient experimentation in the physical, life, social and management sciences and in engineering. A systematic approach to explore input-output relationships by deliberately manipulating input variables. Topics include completely randomized and randomized block designs, Latin square designs, balanced incomplete block designs, factorial designs, confounding in blocks, fractional replications, and re-randomization. Each topic motivated by real-life examples.

*Note:* Expected to be omitted in 2015–16.

*Prerequisite:* Statistics 111 or 139.

### **Statistics 149. Statistical Sleuthing through Generalized Linear Models**

Catalog Number: 6617

*Mark E. Glickman (Boston University)*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

Sequel to Statistics 139, emphasizing common methods for analyzing continuous non-normal and categorical data. Topics include logistic regression, log-linear models, multinomial logit models, proportional odds models for ordinal data, Gamma and inverse-Gaussian models, over-dispersion, analysis of deviance, model selection and criticism, model diagnostics, and an introduction to non-parametric regression methods.

*Note:* Examples will be drawn from several fields, particularly from biology and social sciences.

*Prerequisite:* Statistics 139 or with permission of instructor.

### **[Statistics 160. Design and Analysis of Sample Surveys]**

Catalog Number: 2993

*Alan M. Zaslavsky (Medical School)*

*Half course (fall term). M., W., 2:30–4.*

Methods for design and analysis of sample surveys. The toolkit of sample design features and their use in optimal design strategies. Sampling weights and variance estimation methods, including resampling methods. Brief overview of nonstatistical aspects of survey methodology such as survey administration and questionnaire design and validation (quantitative and qualitative). Additional topics: calibration estimators, variance estimation for complex surveys and estimators, nonresponse, missing data, hierarchical models, and small-area estimation.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

*Prerequisite:* Statistics 111 or 139 or with permission of instructor.

### **Statistics 170. Quantitative Analysis of Capital Markets**

Catalog Number: 1202

*Neil Shephard*

*Half course (fall term). M., 2:30–4; Th., 1–2:30. EXAM GROUP: 7*



An introduction to the analysis of capital markets using quantitative methods. Concepts include risk, expected utility, discounting, binomial-tree valuation methods, martingales, continuous time stochastic calculus methods, stochastic discount factors, financial econometric models and Monte Carlo simulations. These concepts are applied to equities, risk management and derivative pricing.

*Note:* Expected to be omitted 2015-16.

*Prerequisite:* Good quantitative skills including calculus and linear algebra, Statistics 110 or equivalent (i.e. multivariate random variables and conditional distributions), strong interest in finance. Willingness to do some programming.

### **Statistics 171. Introduction to Stochastic Processes**

Catalog Number: 4180

*Natesh S. Pillai*

*Half course (spring term). M., W., 2:30–4, and weekly sections to be arranged. EXAM GROUP: 17*

An introductory course in stochastic processes. Topics include Markov chains, branching processes, Poisson processes, birth and death processes, Brownian motion, martingales, introduction to stochastic integrals, and their applications.

*Prerequisite:* Statistics 110 or equivalent.

### **[Statistics 183. Learning from Big Data]**

Catalog Number: 22432

*Luke Bornn*

*Half course (spring term). M., W., 10–11:30.*

Through a series of forecasting and prediction competitions, each based on a large real-world dataset, students will acquire the tools and experience to explore and model large-scale, real-life data. In addition, the course will cover a series of tools for statistical modeling in real-world environments. Some examples include bagging, boosting, collaborative model development, cross-validation, and model validation and verification.

*Note:* Expected to be given in 2015–16.

### **Statistics 186. Statistical Methods for Evaluating Causal Effects**

Catalog Number: 48805

*Fabrizia Mealli*

*Half course (spring term). Tu., Th., 10–11:30. EXAM GROUP: 12*

Statistical methods for inferring causal effects from data from randomized experiments or observational studies. Students will develop expertise to assess the credibility of causal claims and the ability to apply the relevant statistical methods for causal analyses. Examples from many disciplines: economics, education, other social sciences, epidemiology, and biomedical science. Evaluations of job training programs, educational voucher schemes, changes in laws such as minimum wage laws, medical treatments, smoking, military service.

*Prerequisite:* Statistics 100; Mathematics 21a, b or permission of instructor.

### ***Cross-listed Courses***

#### ***Primarily for Graduates***



### **Statistics 201. Statistical Communication and Graphics - (New Course)**

Catalog Number: 55395

*Andrew Gelman*

*Half course (spring term). W., 6:30 p.m.–8 p.m. and F., 11–12:30. EXAM GROUP: 13*

*Note:* For more information, see the Statistical Modeling, Causal Inference, and Social Science website, <http://andrewgelman.com/2014/10/15/description-course-statistical-communication-graphics/>. The statistical communication and graphics manifesto is located here: <http://andrewgelman.com/2014/10/15/statistical-communication-graphics-manifesto/>.

### **Statistics 210a (formerly Statistics 210). Probability Theory**

Catalog Number: 2487

*Jun S. Liu and Carl N. Morris*

*Half course (fall term). T., Th., 1–2:30, and weekly sections to be arranged. EXAM GROUP: 8*

Random variables, measure theory, reasoning by representation. Families of distributions: Multivariate Normal, conjugate, marginals, mixtures. Conditional distributions and expectation. Convergence, laws of large numbers, central limit theorems, and martingales.

*Prerequisite:* Statistics 110 or equivalent required; Statistics 111 or equivalent recommended.

### **Statistics 210b. Topics in Probability Theory - (New Course)**

Catalog Number: 90816

*Natesh S. Pillai and Alexander Volfovsky*

*Half course (spring term). Tu., 2:30–4 and Th., 10:30–12. EXAM GROUP: 11*

A graduate introduction to advanced probability. Foundations of probability: exchangeability and de Finetti's type theorem. Martingales: convergence theorems, optional stopping, Polya urn schemes and applications to statistics. Poisson processes: general spaces, marked processes, applications to Bayesian nonparametrics. Gaussian processes: existence theorem, Brownian bridges, meanders and excursions. Empirical processes: inequalities, central limit theorems and the bootstrap. Markov Chains: ergodicity, convergence and MCMC algorithms. Stochastic calculus: Ito's formula.

### **Statistics 211a (formerly Statistics 211). Statistical Inference**

Catalog Number: 1946

*Tirthankar Dasgupta*

*Half course (spring term). Tu., Th., 1–2:30, and weekly sections to be arranged. EXAM GROUP: 1*

Inference: frequency, Bayes, decision analysis, foundations. Likelihood, sufficiency, and information measures. Models: Normal, exponential families, multilevel, and non-parametric. Point, interval and set estimation; hypothesis tests. Computational strategies, large and moderate sample approximations.

*Prerequisite:* Statistics 111 and 210a or equivalent.

### **Statistics 215. Introduction to Computational Biology and Bioinformatics**

Catalog Number: 29169

*Xiaole Shirley Liu (Public Health)*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

Meets with Statistics 115, but graduate students are required to do more coding, complete a



research project and submit a written report during reading period in addition to completing all work assigned for Statistics 115.

*Prerequisite:* Good quantitative skills, strong interest in biology, good programming skills in C/C++, Java, Perl or Python.

### **Statistics 220. Bayesian Data Analysis**

Catalog Number: 6270

*Jun S. Liu*

*Half course (fall term). M., Th., 11:30–1. EXAM GROUP: 18*

Basic Bayesian models, followed by more complicated hierarchical and mixture models with nonstandard solutions. Includes methods for monitoring adequacy of models and examining sensitivity of models.

*Note:* Emphasis throughout term on drawing inferences via computer simulation rather than mathematical analysis.

*Prerequisite:* Statistics 110 and 111.

### **Statistics 221. Statistical Computing and Learning**

Catalog Number: 5959

*Edoardo Maria Airoldi*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

Computational methods commonly used in statistics: random number generation, optimization methods, numerical integration, Monte Carlo methods including Metropolis-Hastings and Gibbs samplers, approximate inference techniques including Expectation-Maximization algorithms, Laplace approximation and variational methods, data augmentation strategies, data augmentation strategies.

*Note:* Computer programming exercises will apply the methods discussed in class.

*Prerequisite:* Linear algebra, Statistics 111, and knowledge of a computer programming language (R or Matlab) required; Statistics 220 recommended.

### **[Statistics 225. Spatial Statistics]**

Catalog Number: 6499

*Luke Bornn*

*Half course (spring term). M., W., 1–2:30.*

Introduction to spatial and spatio-temporal statistics. Classic spatial statistics will be covered in addition to more modern hierarchical techniques and computational methods. The course will blend theory and application, with a focus on the latter.

*Note:* Expected to be given in 2015–16.

### **Statistics 230. Multivariate Statistical Analysis**

Catalog Number: 5206

*S. C. Samuel Kou*

*Half course (fall term). M., W., 1–2:30. EXAM GROUP: 1*

Multivariate inference and data analysis. Advanced matrix theory and distributions, including Multivariate Normal, Wishart, and multilevel models. Supervised learning: multivariate regression, classification, and discriminant analysis. Unsupervised learning: dimension



reduction, principal components, clustering, and factor analysis.

*Prerequisite:* Statistics 110 and 111.

### [Statistics 231. Time Series Analysis and Forecasting]

Catalog Number: 7537

*Tirthankar Dasgupta*

*Half course (fall term). Tu., Th., 1–2:30.*

A graduate-level course on time series models and associated methods of data analysis and inference. Review of ARIMA models, time series regression, long-memory models, state space models and Kalman filtering, multivariate time series, statistical methods in the frequency domain.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

*Prerequisite:* Statistics 111, 131, and 139.

### Statistics 232r. Topics in Missing Data

Catalog Number: 9483

*Donald B. Rubin and Natesh S. Pillai*

*Half course (spring term). Th., 2:30–5. EXAM GROUP: 11*

The modern era of work on missing data problems began in the 1970s and has seen an explosion of developments since then. Seminar will focus on an updated version of a classic text, supplemented with classic articles.

### [Statistics 240. Matched Sampling and Study Design]

Catalog Number: 4036

*Donald B. Rubin and Luke Weisman Miratrix*

*Half course (fall term). W., 1:30–4.*

This course provides an accessible introduction to the study of matched sampling and other design techniques in any field (e.g., economics, education, epidemiology, medicine, political science, etc.) conducting empirical research to evaluate the causal effects of interventions.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

*Prerequisite:* Statistics 110, Statistics 111, and Statistics 139.

### Statistics 242. Permutation and Resampling Based Statistical Methods

Catalog Number: 27674

*Luke Weisman Miratrix*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*

Bootstrap and resampling allow for principled data analysis in diverse areas such as social, biological, or physical sciences. We will implement methods in R, conduct simulation studies, tackle applied projects, and do theoretical work.

*Prerequisite:* Some introductory statistics. Some experience with R or other statistical software ideal, but not necessary.

### \*Statistics 244. Linear and Generalized Linear Models

Catalog Number: 51453

*Alan Agresti (University of Florida)*

*Half course (fall term). Tu., Th., 2:30–4. EXAM GROUP: 14*



The theory and application of LINEAR and generalized linear models, including linear models for normal responses, logistic models for binary and multinomial data, loglinear models for count data, overdispersion and quasi likelihood methods, and models and methods for clustered (e.g., repeated measurement) correlated data.

*Prerequisite:* Strong statistics background required (at the second-year graduate level), Statistics 210a may be taken concurrently, Statistics 211a desirable.

### [Statistics 245. Statistics and Litigation]

Catalog Number: 3488

*Daniel James Greiner (Law School)*

*Half course (spring term). Hours to be arranged.*

Interaction between quantitative methods and law. Teaming with law students: analyze data, prepare expert reports, and give testimony. Learn how to communicate with and present results to untrained but intelligent users, and to defend conclusions.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Basic knowledge of R programming and a graduate course in data analysis, such as Statistics 220, Economics 2120, or a 2000-level quantitative Government course. No knowledge of legal issues is presumed.

### [Statistics 260. Design and Analysis of Sample Surveys]

Catalog Number: 59588

*Alan M. Zaslavsky (Medical School)*

*Half course (fall term). M., W., 2:30–5.*

Meets with Statistics 160, but graduate students will have an extended class period and complete additional assignments for a more theoretical, in-depth treatment of topics.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

*Prerequisite:* Statistics 110, 111, and 139 or with permission of instructor.

### [Statistics 265r. Reading Efron]

Catalog Number: 29813

*Xiao-Li Meng, Joseph K. Blitzstein and Viktoriia Liublinska*

*Half course (spring term). Tu., 6–8:30 p.m.*

Exploration of the statistical contributions of Bradley Efron through study of his writings. Both deeply influential and deeply controversial ideas will be discussed; topics include statistical foundations and principles, estimating the number of unseen species, self-consistency, empirical Bayes, large-scale inference, and the bootstrap.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

*Prerequisite:* Statistics 211a.

### Statistics 286. Theory and Practice of Principal Stratification Analysis - (New Course)

Catalog Number: 78038

*Fabrizia Mealli*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

Introduces the concept of Principal Stratification (PS), first formalized by Frangakis and Rubin (2002), but with roots in the Instrumental Variables literature. PS has been applied to analyze causal effects in different settings, allowing to deal with various "selection" problems or post-



treatment complications, including censoring due to death, noncompliance, missing outcomes, mediation analysis, and applied in various fields including economic, social and medical studies, using different modes of inference (moment- based, likelihood-based and Bayesian). The course will blend theory and application. Recent papers will be discussed; participants will be encouraged to develop their own research problems in this active area.

*Prerequisite:* Statistics 186 or equivalent recommended.

### ***Cross-listed Courses***

**Biostatistics 244. Analysis of Failure Time Data**

**\*Biostatistics 250. Probability Theory and Applications II**

**Economics 2146. Financial Econometrics**

### ***Graduate Courses of Reading and Research***

#### **\*Statistics 300hfr (formerly \*Statistics 300). Research in Statistics**

Catalog Number: 40069

*Neil Shephard 7439*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: 4*

Participants discuss recent research in statistics and present their own work in progress. Open to doctoral students in statistics.

#### **\*Statistics 301. Special Reading and Research**

Catalog Number: 4474

*Edoardo Maria Airoldi 6132, Joseph K. Blitzstein 5588 (on leave spring term), Stephen James Blyth 6712, Luke Bornn 7078 (on leave spring term), Tirthankar Dasgupta 5765, David P. Harrington (Public Health) 4318, S.C. Samuel Kou 4054, Jun S. Liu 3760, Xiao-Li Meng 4023, Luke Weisman Miratrix 6490, Carl N. Morris 2178, Michael Isaac Parzen 6728, Natesh S. Pillai 6729, Donald B. Rubin 7966, and Alan M. Zaslavsky (Medical School) 1927*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 16; Spring: 6*

#### **\*Statistics 302. Direction of Doctoral Dissertations**

Catalog Number: 3382

*Edoardo Maria Airoldi 6132, Joseph K. Blitzstein 5588 (on leave spring term), Stephen James Blyth 6712, Luke Bornn 7078 (on leave spring term), Tirthankar Dasgupta 5765, David P. Harrington (Public Health) 4318, S.C. Samuel Kou 4054, Jun S. Liu 3760, Xiao-Li Meng 4023, Luke Weisman Miratrix 6490, Carl N. Morris 2178, Michael Isaac Parzen 6728, Natesh S. Pillai 6729, Donald B. Rubin 7966, Neil Shephard 7439, and Alan M. Zaslavsky (Medical School) 1927*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

#### **\*Statistics 303hf. The Art and Practice of Teaching Statistics**

Catalog Number: 3545

*Xiao-Li Meng 4023 and Viktoriia Liublinska 7317*

*Half course (throughout the year). Fall: Tu., 10–12; Spring: Tu., 9:30–11:30. EXAM GROUP:*



*Fall: 18; Spring: 14*

Required of all first-year doctoral students in Statistics.

**\*Statistics 306. Research Topics in Sports Analytics - (New Course)**

Catalog Number: 89469

*Luke Bornn 7078 (on leave spring term)*

*Half course (fall term). . EXAM GROUP: 9*

Advanced stochastic models for the analysis of sports. Focus will be on methods for understanding player-tracking data.

**\*Statistics 310hfr (formerly \*Statistics 310hf). Topics in Astrostatistics**

Catalog Number: 2105

*Xiao-Li Meng 4023*

*Half course (throughout the year). Tu., 12–2. EXAM GROUP: Fall: 13; Spring: 9*

**\*Statistics 311. Monte Carlo Methods in Scientific Computing**

Catalog Number: 0826

*Jun S. Liu 3760*

*Half course (spring term). W., 11–1. EXAM GROUP: 4*

*Prerequisite:* Statistics 220 or equivalent.

**[\*Statistics 312r. Estimation Problems for Stochastic Processes and High Dimensional Data]**

Catalog Number: 86589

*Natesh S. Pillai 6729*

*Half course (fall term). F., 4:30–6.*

Focusing on inference problems for stochastic processes and statistical modeling in high dimensions. Contemporary papers from different fields will be discussed and presented by students. Participants will be encouraged to develop their own research problems in this active area.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

**\*Statistics 314hfr. Timely Topics in Statistics**

Catalog Number: 90992

*Luke Bornn 7078 (on leave spring term)*

*Half course (throughout the year). Hours to be arranged. EXAM GROUP: 12*

**\*Statistics 315. High Dimensional Causal Inference - (New Course)**

Catalog Number: 89306

*Luke Weisman Miratrix 6490 and Natesh S. Pillai 6729*

*Half course (fall term). Tu., 2:30–4. EXAM GROUP: 6*

Conducting causal inference under the Neyman-Rubin model when the number of possible covariates is on the order of the number of observations, or even larger, is non-obvious. Recent developments using a variety of methods and approaches such as (sparse) regularization, nonparametric Bayes, BART, model selection, or dimension reduction, claim to address this problem. We will read and discuss the literature in this emerging area with a critical eye.



**[\*Statistics 321. Stochastic Modeling and Bayesian Inference]**

Catalog Number: 4060

*S. C. Samuel Kou 4054*

*Half course (spring term). .*

Stochastic processes and their applications in biological, chemical and financial modeling.

Bayesian inference about stochastic models based on the Monte Carlo sampling approach.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

**[\*Statistics 324r. Parametric Statistical Inference and Modeling]**

Catalog Number: 3366

*Carl N. Morris 2178*

*Half course (fall term). .*

Theory of multi-level parametric models, including hidden Markov models, and applications likely to include biostatistics, health services, education, and sports.

*Note:* Expected to be given in 2015–16.

**[\*Statistics 325hfr (formerly \*Statistics 325). Topics in Environmental Modeling]**

Catalog Number: 83356

*Luke Bornn 7078 (on leave spring term)*

*Half course (throughout the year). .*

Focus will be on research topics in spatial statistics, Monte Carlo, and the overlap and interplay between the two fields.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

**[\*Statistics 328. Bayesian Nonparametrics]**

Catalog Number: 41427

*Luke Weisman Miratrix 6490*

*Half course (fall term). .*

Bayesian nonparametric methods including both random discrete measures and random functions. Gaussian processes (e.g., for nonparametric regression), the Chinese Restaurant process (e.g., for clustering), Pitman-Yor processes (e.g., for hierarchical clustering), and Dirichlet processes (e.g., for topic modeling).

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

**[\*Statistics 329. Special Topics in Bootstrap and Permutation Methods]**

Catalog Number: 85678

*Luke Weisman Miratrix 6490*

Bootstrap and permutation methods with readings both applied and theoretical. Selection of topics will vary by interest, potentially including any of Bayesian approaches, high dimensional concerns, the wild bootstrap and regression, semi-parametric likelihood with bootstrap techniques, subsampling, and more complex extensions of permutation tests.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

**[\*Statistics 340. Random Network Models]**

Catalog Number: 1650

*Joseph K. Blitzstein 5588 (on leave spring term) and Edoardo Maria Airoldi 6132*



*Half course (spring term). Hours to be arranged.*

Random graph models for biological, social, and information networks, including fixed degree, exponential, power law, small world, and geometric random graphs. Estimation and sampling methods for network data.

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

**[\*Statistics 341. Advanced Topics in Experimental Design]**

Catalog Number: 9827

*Tirthankar Dasgupta 5765*

*Half course (spring term). Th., 3:30–5:30.*

*Note:* Expected to be given in 2015–16.

**[\*Statistics 342. Causal Graphs in Low and High Dimensions]**

Catalog Number: 42781

*Luke Weisman Miratrix 6490*

*Half course (fall term). Hours to be arranged.*

Papers in this area will be read with a skeptical but judicious eye. When could these methods offer something tangible, when might they fail, and how can we know in which circumstance we lie?

*Note:* Expected to be omitted in 2014–15. Expected to be given in 2015–16.

**\*Statistics 366hfr (formerly \*Statistics 366). Introduction to Research**

Catalog Number: 65544

*Edoardo Maria Airoldi 6132*

*Half course (throughout the year). Fall: W., 6–8 p.m.; Spring: Tu., 2–4. EXAM GROUP: 5*

Introduction to the process of developing research ideas into publications in Statistics, using case studies and actual research projects. Emphasizes scientific communication in research papers and presentations, deciphering referee reports, and finding the right forum.

*Prerequisite:* Statistics 211a.

**\*Statistics 385 (formerly \*Statistics 285r). Statistical Machine Learning**

Catalog Number: 0512 Enrollment: Limited to 20.

*Edoardo Maria Airoldi 6132*

*Half course (spring term). M., 2–4. EXAM GROUP: 8*

Hands-on introduction to network statistics, with applications to social, biological and communication networks. Topics in sampling designs and inference. Modeling network evolution. Processes on networks. Critical literature review, in class-presentations, and final projects.

*Note:* Computer programming exercises will apply the methods discussed in class.

*Prerequisite:* Familiarity with estimation and inference techniques, and knowledge of a computer programming language (R or Matlab) required; Statistics 220 or 221 recommended.

**\*Statistics 392hf. Research Topics in Missing Data, Matching and Causality**

Catalog Number: 44383

*Donald B. Rubin 7966*

*Half course (throughout the year). W., 4–6. EXAM GROUP: Fall: 8; Spring: 1*



Students will make at least one presentation on current research in applied or theoretical statistics. All registered students are expected to participate by offering commentary/suggestions during presentations. This is a requirement to obtain credit.

**\*Statistics 399. Problem Solving in Statistics**

Catalog Number: 1035

*Carl N. Morris 2178 and Members of the Department*

*Half course (fall term). Hours to be arranged. EXAM GROUP: 12*

Aimed at helping Statistics PhD students transition through the qualifying exams and into research.

***Cross-listed Courses***

**\*Government 3009. Research Workshop in Applied Statistics**

## Stem Cell and Regenerative Biology

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

***Faculty of the Department of Stem Cell and Regenerative Biology (FAS, HMS)***

Douglas A. Melton, Xander University Professor of Stem Cell and Regenerative Biology (*Co-Chair*)

David T. Scadden, Professor of Stem Cell and Regenerative Biology and Gerald and Darlene Jordan Professor of Medicine (*Co-Chair*)

William J. Anderson, Senior Lecturer on Stem Cell and Regenerative Biology

Paola Arlotta, Professor of Stem Cell and Regenerative Biology

Fernando D. Camargo, Associate Professor of Stem Cell & Regenerative Biology

Youngeun Choi, Preceptor in Stem Cell & Regenerative Biology

Chad A. Cowan, Associate Professor of Stem Cell & Regenerative Biology

Kevin C. Eggan, Professor of Stem Cell and Regenerative Biology (*Co-Head Tutor of Undergraduate Education*)

Konrad Hochedlinger, Professor of Stem Cell and Regenerative Biology

Ya-chieh Hsu, Assistant Professor of Stem Cell & Regenerative Biology

Steven E. Hyman, Harvard University Distinguished Service Professor, Professor of Stem Cell and Regenerative Biology, Affiliate of the Department of History of Science, and Professor of Neurobiology (*Medical School*)

Susanne Jakob, Preceptor in Stem Cell & Regenerative Biology



Richard T. Lee, Professor of Stem Cell and Regenerative Biology (*FAS*), Professor of Medicine (*Medical School*)

Jeffrey D. Macklis, Max and Anne Wien Professor of Stem Cell and Regenerative Biology and Professor of Surgery and Neurology, Harvard Medical School

Alexander Meissner, Associate Professor of Stem Cell & Regenerative Biology

Kiran Musunuru, Assistant Professor of Stem Cell and Regenerative Biology

John L. Rinn, Alvin and Esta Star Associate Professor of Stem Cell and Regenerative Biology

Derrick J. Rossi, Associate Professor of Stem Cell & Regenerative Biology

Lee L. Rubin, Professor of Stem Cell and Regenerative Biology

Jack L. Strominger, Higgins Professor of Biochemistry in the Department of Stem Cell and Regenerative Biology

Gregory L. Verdine, Erving Professor of Chemistry in the Departments of Stem Cell and Regenerative Biology and of Chemistry and Chemical Biology

Amy J. Wagers, Forst Family Professor of Stem Cell and Regenerative Biology

Qiao Zhou, Associate Professor of Stem Cell & Regenerative Biology

Leonard I. Zon, Professor of Stem Cell and Regenerative Biology and Grousbeck Professor of Pediatrics, Harvard Medical School (*Medical School*)

### ***Other Faculty Offering Instruction in Stem Cell and Regenerative Biology***

#### ***Primarily for Undergraduates***

##### **SCRB 10. Human Developmental and Regenerative Biology**

Catalog Number: 96716

*Kevin C. Eggan and William J. Anderson*

*Half course (fall term). M., W., F., at 1, and a weekly section to be arranged. EXAM GROUP: 1*  
 Fundamental concepts in developmental biology will be presented within the framework of the developing and regenerating mammal. Where possible, lectures will focus on humans.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Science of Living Systems.

*Prerequisite:* Concurrent enrollment in Life and Physical Sciences A or Life Sciences 1a.

##### **SCRB 20. Molecular Genetics and Genomics in Development and Disease - (New Course)**

Catalog Number: 61742

*John L. Rinn and Alexander Meissner*

*Half course (spring term). Tu., Th., 1–2:30 and a weekly three-hour lab. EXAM GROUP: 1*  
 The sequencing of the human genome has ushered in a new era of scientific investigation. In parallel, advances in molecular biology have made it possible to explore the processes underlying normal development and disease pathogenesis. We will apply principles and techniques of molecular biology - ranging from DNA structure to the Central Dogma, from PCR to cutting-edge genome-editing technology - to understand how genetics and genomics inform gene regulation and cell identity and, ultimately, the human condition.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b (or equivalent) or permission of the instructor.



### **SCRB 25. Biochemistry and Human Metabolism**

Catalog Number: 57725

*Kiran Musunuru*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

This course provides an introduction to the principles of biochemistry in the context of human physiology and disease. We will investigate biochemical pathways governing the metabolism of proteins, carbohydrates, fatty acids and lipids, and nucleic acids. Additionally, we will address basic enzymology, bioenergetics, energy storage and release, and hormonal regulation of metabolism. Special emphasis will be given to the impact of biochemical pathways on disease as well as the development of new therapies.

*Prerequisite:* LPS A or LS 1a or equivalent.

### **SCRB 25x. Biochemistry and Human Metabolism - (New Course)**

Catalog Number: 90966 Enrollment: This course is not open to cross-registration.

*Kiran Musunuru*

*Half course (spring term). Tu., Th., 2:30–4. EXAM GROUP: 11*

This course provides an introduction to the principles of biochemistry in the context of human physiology and disease. We will investigate biochemical pathways governing the metabolism of proteins, carbohydrates, fatty acids and lipids, and nucleic acids. Additionally, we will address basic enzymology, bioenergetics, energy storage and release, and hormonal regulation of metabolism. Special emphasis will be given to the impact of biochemical pathways on disease as well as the development of new therapies.

*Prerequisite:* LPS A or LS 1a or equivalent.

### **\*SCRB 91r. Introduction to Research**

Catalog Number: 75408

*William J. Anderson and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 6; Spring: 17*

Laboratory research in topics related to the Human Developmental and Regenerative Biology Concentration under the direction of, or approved by, members of the Department of Stem Cell and Regenerative Biology, Principal Faculty of the Harvard Stem Cell Institute, or others with permission. A paper must be submitted to the laboratory sponsor and to the HDRB Concentration Office for review by the Course Director and Head Tutors.

*Note:* Limited to Human Developmental and Regenerative Biology Concentrators; written permission of the laboratory sponsor must be submitted to the HDRB Concentration Office prior to enrolling in the course. This introductory research course is intended to prepare students for SCRB 99 and may ordinarily be repeated no more than once. Ordinarily may not be taken as a fifth course. Laboratory safety session required.

### **\*SCRB 99. Laboratory Research for Honors Thesis**

Catalog Number: 23886

*William J. Anderson and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 17; Spring: 13*

For honors candidates writing a thesis in Human Developmental and Regenerative Biology.

*Note:* Ordinarily may not be taken as a fifth course. Laboratory safety session required.



**Prerequisite:** Students intending to enroll in the fall are required to submit a written proposal to the Course Director. Students may enter the course at midyear only with the permission of the Course Director. The thesis proposal must be approved by the Course Director and Head Tutors prior to enrolling in SCRB 99.

### Cross-listed Courses

#### [Engineering Sciences 53. Quantitative Physiology as a Basis for Bioengineering](#) [Life Sciences 60. Ethics, Biotechnology, and the Future of Human Nature]

##### *For Undergraduate and Graduates*

##### [\\*SCRB 110 \(formerly \\*SCRB 90\). Classic Experiments in Developmental Biology](#)

Catalog Number: 15214 Enrollment: Limited to 20.

*Douglas A. Melton*

*Half course (spring term). M., 10–12. EXAM GROUP: 5*

This course will introduce students to classic experiments in developmental biology. We will explore the historical background, experimental design, and results of a handful of experiments that have defined the field of developmental biology and changed our understanding of the discipline. Students will read primary literature and, in turn, present the conclusions in written and oral formats.

**Prerequisite:** SCRB 10 or permission of the instructor.

##### [SCRB 125. Nuclear Reprogramming and Developmental Plasticity](#)

Catalog Number: 5481

*Konrad Hochedlinger*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

This course will focus on the biology of organismal cloning, cellular reprogramming, and developmental plasticity. The role that stem cells play in these processes and the genetic and molecular circuitry that underlie developmental potency and reprogramming will be discussed.

**Prerequisite:** Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b; SCRB 10 or MCB 54, or permission of the instructor.

##### [\\*SCRB 130. Biomedical Entrepreneuring: Turning Ideas into Medicine](#)

Catalog Number: 44334 Enrollment: Limited to 20.

*Derrick J. Rossi*

*Half course (fall term). F., 9–12. EXAM GROUP: 10*

Medicines and other therapeutics have revolutionized the treatment of many diseases. Few of us pause to consider how these products are developed from an initial discovery in the lab to the treatment of patients. This course will consider this journey by incorporating scientific, biotechnology, intellectual property, venture capital, and business perspectives. In addition to lectures, students will work on group projects to chart a strategy toward bringing a novel biomedical idea to the clinic.

**Prerequisite:** Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b; SCRB 10 or MCB 52, or permission of the instructor.



### **SCRB 140. Developmental and Molecular Basis of Growth and Regeneration**

Catalog Number: 73523

*Fernando D. Camargo*

*Half course (spring term). M., W., 2:30–4. EXAM GROUP: 18*

This course will focus on the biology of organ growth and regeneration from a developmental perspective. How is the size and symmetry of our organs set? How does a regenerating animal sense that something is missing and eventually stop the regenerative process when tissues reform? We will learn about conserved developmental pathways that are necessary for adult regeneration and discuss how the aberrant activation of these pathways can lead to overgrowth disorders such as cancer.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b; SCRB 10 or MCB 54, or permission of the instructor.

### **[SCRB 150. Human Genetics: Mining Our Genomes for an Understanding of Human Variation and Disease]**

Catalog Number: 5703

*Kiran Musunuru*

*Half course (fall term). W., 2–5.*

The sequencing of the human genome has revealed the full extent of genetic variation that exists within us as a species. This genetic diversity underlies much of our physical variation as well as our differences in responsiveness to disease stimuli and their treatments. We will explore these and other ramifications of human genetic diversity by applying classical and contemporary genetic tools to the identification of specific genes and pathways that functionally underlie our variable biology.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b (or equivalent); SCRB 10 or MCB 52. Not expected to be offered in 2014-2015.

### **SCRB 152. Asking Cells Who They Are: Computational Transcriptomics Using RNA-Seq - (New Course)**

Catalog Number: 19249 Enrollment: Limited to 16.

*Douglas A. Melton and members of the Department*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This course is a hands-on introduction to computational analysis of RNA sequencing data as a measure of genome-wide transcription. We will cover methods spanning the spectrum of RNA-Seq analysis: starting from raw sequencing reads, obtaining gene expression measures, and interpreting biological significance by differential expression analyses, clustering, and visualization. Coursework will consist of programming assignments in Python exploring real datasets. The course will emphasize skills applicable to independent biological research.

*Prerequisite:* Life Sciences 1a or Life and Physical Sciences A or permission of the instructor; Mathematics at the level of Math 19a or statistics at the level of Stat 102 or above. CS 50 or some previous exposure to programming is preferred but not required.

### **[SCRB 155. Epigenetic Regulation in Development]**

Catalog Number: 63211

*Alexander Meissner*



*Half course (spring term). Tu., Th., 11:30–1.*

Cloning of Dolly the sheep suggests that all of our cells have exactly the same genes as a fertilized egg. If this is true, then how is it that each of our cells reads out those genes differently? This course will explain the developmental events that regulate the expression of genes, as well as how this developmental expression is established and maintained.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b; MCB 52; SCRB 10 or permission of the instructor.

### [SCRB 156. (Epi)Genomics and Genome Regulation]

Catalog Number: 48086 Enrollment: Limited to 50.

*John L. Rinn and Alexander Meissner*

*Half course (spring term). Tu., Th., 1–2:30.*

How does every cell use the same genome template to create a myriad of cellular functions? This course will introduce the basic principles behind genome regulation, ranging from classic studies to next generation approaches and technologies. A particular emphasis will be placed on the roles of epigenetic mechanisms and ncRNA in establishing cell fate. Collectively, students will gain a proficiency in understanding the key principles and questions faced in the post genomic era.

*Note:* Expected to be given in 2015–16. This course is a condensed combination of SCRB 155 and SCRB 157.

*Prerequisite:* Life Sciences 1a or equivalent; Life Sciences 1b; SCRB 10; MCB 52 or permission of the instructor.

### [SCRB 157. The Noncoding Genome]

Catalog Number: 57449

*John L. Rinn*

*Half course (spring term). Tu., Th., 1–2:30.*

This course will introduce classic experiments and examples of functional RNA genes that comprise the ever-emerging RNA world. We will explore diverse classes of RNA genes and their biochemical mechanisms that have defined field, including overviews of relevant technologies leading to these principal findings. Lecture topics will be followed by students reading and presenting related primary literature. Collectively this course will provide an opportunity to explore the wide spectrum of cellular processes involving RNA molecules.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Life Sciences 1a or equivalent; Life Sciences 1b; SCRB 10; MCB 52 or permission of the instructor.

### [\*SCRB 160. Experimental Embryology: From Stem Cells to Tissues and Back Again]

Catalog Number: 45194 Enrollment: Limited to 16.

*Paola Arlotta*

*Half course (fall term). M., 2–6.*

This advanced laboratory course will apply experimental approaches and surgical techniques to illustrate critical developmental events during mouse embryogenesis. Particular emphasis will be placed on experiments covering the following topics: fertilization and pre-implantation embryology; reprogramming of adult somatic cells into embryonic stem cells; early organ



development; and surgical manipulation of late stage mouse embryos in utero.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b; SCRB 10 or MCB 118 or MCB 54.

### **\*SCRB 162. Experimental Regenerative Biology**

Catalog Number: 37108

*Qiao Zhou*

*Half course (spring term). M., 2–6. EXAM GROUP: 18*

This laboratory course will allow advanced undergraduate students to explore classical and modern experimental models of regeneration, and through experimentation, understand the important concepts and key challenges of the regenerative biology field. We will focus in particular on the regeneration of complex tissues and entire organ systems using both invertebrate and vertebrate models, including the planarian worm, the salamander, and the mouse.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b; SCRB 10 or MCB 54, or permission of the instructor.

### **\*SCRB 165. Directed Differentiation of Stem Cells**

Catalog Number: 9605 Enrollment: Limited to 24.

*Chad A. Cowan*

*Half course (spring term). Tu., 2:30–4, and a weekly lab Th., 1–4. EXAM GROUP: 11*

This practical laboratory course will investigate the fundamental biology of human embryonic stem cells and their remarkable capacity to differentiate into all cells of the body. The underlying developmental pathways that guide embryonic stem cell development into these differentiated cell types will be explored. A chemical biology approach will also be used to probe properties of normal and disease model cells derived from embryonic stem cells.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a, or permission of instructor.

### **\*SCRB 167. Stem Cells and Regeneration in the Pathobiology and Treatment of Human Disease**

Catalog Number: 9556 Enrollment: For advanced students only, seniors and qualified juniors.

*George Q. Daley (Medical School) and members of the Department*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

Stem cells are the basis for tissue maintenance and repair, thus, are essential elements of normal organ and tissue physiology. Stem cells are also targets for disease processes and through transplantation are important therapeutic agents. This course will allow advanced undergraduates to explore how stem cells and tissue regeneration impact human disease pathogenesis and how stem cells might be exploited to advance new therapies for disease.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b; SCRB 10; MCB 52 or MCB 54.

### **SCRB 169. History and Philosophy of Experimentation in Biology - (New Course)**

Catalog Number: 62595

*David Jonathan Glass (Medical School)*

*Half course (spring term). Tu., 6:30–8:30 p.m. EXAM GROUP: 6*



We will trace the influence of particular philosophical arguments concerning science that have developed over the last 500 years with the evolution of Scientific Method in biology, showing how changes in philosophy wrought changes in methodology. The course will include readings from philosophers, statisticians and working scientists, and select experiments from the time period 1600-2015.

### **SCRB 175. Glucose: From Molecule to Society**

Catalog Number: 59441

*Richard T. Lee*

*Half course (fall term). M., W., at 11, and a lab component to be arranged. EXAM GROUP: 18*  
 We will explore the biochemistry, cell biology, and physiology that make glucose our main source of energy. How did humans depend on and crave this molecule? What consequences does it hold for normal metabolism and disease? Students will integrate evolution, endocrinology, biostatistics, bioengineering, and regenerative biology approaches in considering sugar and all its consequences. Finally, we will evaluate legal and business issues necessary to move scientific and technical innovations from the laboratory to the patient.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b; SCRB 10 or MCB 54; MCB 52 or permission of the instructor.

### **[\*SCRB 178. Molecular Immunology: Seminar]**

Catalog Number: 2196 Enrollment: Limited to 16.

*Jack L. Strominger*

*Half course (spring term). M., Th., 4–6.*

One session each week is a lecture on current topics in immunology. At the second session, three papers are read from the current literature on that topic (including topics in hematopoietic stem cells, immune cell differentiation, autoimmunity, HIV, cancer, and transplantation), each presented by a student in 30-45 minutes. Course work: reading of papers, seminar presentations, and class participation.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* MCB 169 or permission of instructor required for undergraduates only.

### **[SCRB 180. Regeneration and Repair in the Mammalian Brain]**

Catalog Number: 60301

*Jeffrey D. Macklis*

*Half course (fall term). Tu., Th., 2:30-4, and a weekly section to be arranged.*

This course will discuss cellular and molecular mechanisms of regeneration and repair in the mammalian central nervous system (CNS). We will: compare and contrast aspects of neural development with adult neural plasticity; discuss limitations to neuronal regeneration in the mature mammalian CNS following degeneration or injury; examine CNS regeneration approaches directed at overcoming intrinsic limitations; and explore developmental controls and gene manipulation to promote neurogenesis, axonal regeneration, and directed differentiation in the diseased adult brain.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b; MCB 80 or permission of the instructor.



### [\*SCRB 185. Human Disease]

Catalog Number: 4005

*Gregory L. Verdine*

*Half course (spring term). Tu., Th., 11:30–1.*

This course will address both the molecular basis of human disease, and the biological and chemical foundation of therapeutic intervention. The course will include lectures by prominent experts, and analysis of the primary literature.

*Note:* Expected to be given in 2015–16. May not be taken concurrently with MCB 185. May not be taken for credit if MCB 185 or Chemistry 285 has already been taken. Credit cannot also be received for MCB 185.

*Prerequisite:* Chemistry 20/30 or 17/27, Life Sciences 52 or their equivalents.

### \*SCRB 187. Brains, Identity, and Moral Agency

Catalog Number: 73713 Enrollment: Limited to 50.

*Steven E. Hyman (Medical School)*

*Half course (spring term). M., W., 1–2:30. EXAM GROUP: 8*

Human beings experience a sense of self that provides a stable foundation from which to understand personal experience, consciously formulate goals, and initiate actions. The view that people act in accordance with freely formed intentions underlies important concepts of moral agency and culpability, yet evidence from neuroscience questions this assumption. This course will examine competing views of human agency grounded in concrete scientific examples to encourage reflection on the implications for identity and moral agency.

*Note:* For students who have taken MCB 80, it is contemplated that there will be a section that incorporates more advanced concepts from neurobiology. This course, when taken for a letter grade, meets the General Education requirement for Ethical Reasoning.

*Prerequisite:* LPS A or LS 1a (or equivalent - permission of instructor required).

### SCRB 190. Understanding Aging: Degeneration, Regeneration, and the Scientific Search for the Fountain of Youth

Catalog Number: 1207

*Amy J. Wagers and Lee L. Rubin*

*Half course (fall term). Tu., Th., 11:30–1. EXAM GROUP: 15*

This lecture and discussion course will explore the fundamental molecular and cellular mechanisms that govern organismal aging and contemporary strategies to delay or reverse this process.

*Prerequisite:* Life and Physical Sciences A or Life Sciences 1a; Life Sciences 1b; SCRB 10 or MCB 54.

### [SCRB 192. Principles of Drug Discovery and Development]

Catalog Number: 46717 Enrollment: Limited to 40.

*Gregory L. Verdine and Vicki L. Sato*

*Half course (spring term). Tu., Th., 11:30–1.*

This interdisciplinary course will examine the process of drug discovery and development through disease-driven examples. Topics include: the efficacy/toxicity balance, the differences between drugs and inhibitors, and the translation of cellular biochemistry to useful medicine.

*Note:* Expected to be given in 2015–16. May not be taken concurrently with Chemistry 192. May



not be taken for credit if Chemistry 192 or MCB 192 have already been taken.

*Prerequisite:* Chemistry 20/30 or 17/27, Life Sciences 52 or their equivalents, MCB 52, and one year of organic chemistry. MCB 54 is recommended.

### *Cross-listed Courses*

#### **Biomedical Engineering 110 (formerly Engineering Sciences 145). Physiological Systems Analysis**

#### **\*Biomedical Engineering 121 (formerly \*Engineering Sciences 122). Cellular Engineering**

[Biomedical Engineering 125 (formerly Engineering Sciences 130). Tissue Engineering]

[Government 1093. Ethics, Biotechnology, and the Future of Human Nature]

#### **\*Life Sciences 100r. Experimental Research in the Life Sciences**

#### **MCB 192. Principles of Drug Discovery and Development**

[\*SCRB 185. Human Disease]

### *Primarily for Graduates*

#### **[\*SCRB 200. Independent Research in Stem Cell and Regenerative Biology ]**

Catalog Number: 88356 Enrollment: Enrollment may be limited.

*Lee L. Rubin*

*Half course (spring term). Tu., 6–8 p.m.*

This survey course provides contemporary approaches to the study of stem cell and regenerative biology.

*Note:* Expected to be given in 2015–16. May not be taken concurrently with SCRB 300qc.

#### **SCRB 230. Principles and Practice of Drug Development - (New Course)**

Catalog Number: 77518

*Lee L. Rubin, Stan Neil Finkelstein (Medical School), and Robert H. Rubin (Medical School)*

*Half course (fall term). Th., 3–6. EXAM GROUP: 2*

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.

*Note:* Classes held at MIT. SCRB 230 is also offered as BCMP 230. Students may not take both for credit.

### *Cross-listed Courses*

#### **BCMP 230. Principles and Practice of Drug Development**

#### **BCMP 234. Cellular Metabolism and Human Disease**

#### **\*Engineering Sciences 222. Advanced Cellular Engineering**

[Engineering Sciences 230. Advanced Tissue Engineering]

#### **Genetics 220. Molecular Biology and Genetics in Modern Medicine**

### *Graduate Courses of Reading and Research*



**[\*SCRB 300qc. Current Research in Stem Cell and Regenerative Biology]**

Catalog Number: 95856

*Lee L. Rubin 6061 and members of the Department*

*Quarter course (spring term). Tu., 6–8 p.m.*

This survey course provides contemporary approaches to the study of stem cell and regenerative biology.

*Note:* Expected to be given in 2015–16.

**\*SCRB 302. Mechanisms of Epigenetic Reprogramming**

Catalog Number: 6640

*Kevin C. Eggan 5373*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*SCRB 304. Human Molecular Genetics**

Catalog Number: 22737

*Kiran Musunuru 3235*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 13; Spring: 9*

**\*SCRB 350. Epithelial Stem Cells in Development, Regeneration, and Disease - (New Course)**

Catalog Number: 55368

*Ya-chieh Hsu 7808*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

**[\*SCRB 364. Vertebrate Development]**

Catalog Number: 37752

*Andrew P. McMahon (Medical School) 3312*

*Half course (spring term). .*

*Note:* Expected to be given in 2015–16.

**\*SCRB 382. Molecular Immunology**

Catalog Number: 5515

*Jack L. Strominger 1193*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 6; Spring: 17*

**\*SCRB 399. Vertebrate Developmental Biology**

Catalog Number: 45477

*Douglas A. Melton 7232*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 11; Spring: 7*

***Cross-listed Courses***

**\*BCMP 366. Stem Cells in Disease and Development**

**\*BCMP 384. Embryonic stem cells, Nuclear Transfer, Cancer, Reprogramming**

**\*Cell Biology 351. Cardiovascular Stem Cells in Development and Disease**

**\*Chemistry 331. Approaches Toward Understanding and Treating Human Disease**



- \*DRB 312. Epigenetic Modifications and Cellular Identity**
- \*DRB 314. Investigation of the molecular mechanisms governing development and reprogramming of neuronal subtypes in the mammalian cerebral cortex.**
- \*DRB 319. Adult mammalian regeneration**
- \*Genetics 336. Developmental Biology of Hematopoiesis**
- \*Genetics 387. Stem Cells and Developmental Biology**
- \*Immunology 360. Hematopoietic Stem Cells and their Niche**
- \*Neurobiology 367. Cortical Development and Regeneration**

## Systems Biology

### AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION

#### *Faculty of the Committee on Higher Degrees in Systems Biology*

Timothy J. Mitchison, Hasib Sabbagh Professor of Systems Biology (*Medical School*) (*Co-Chair*)

Andrew W. Murray, Herchel Smith Professor of Molecular Genetics (*Co-Chair*)

Michael Manish Desai, Assistant Professor of Organismic and Evolutionary Biology and of Physics, Thomas D. Cabot Associate Professor of Organismic and Evolutionary Biology

Marc W. Kirschner, John Franklin Enders University Professor of Systems Biology (*Medical School*)

Galit Lahav, Associate Professor of Systems Biology (*Medical School*)

Pamela A. Silver, Elliott T. and Onie H. Adams Professor of Biochemistry and Systems Biology (*Medical School*)

#### *Other Faculty Offering Instruction in Systems Biology*

Edoardo Maria Airoldi, Associate Professor of Statistics

Michael P. Brenner, Glover Professor of Applied Mathematics and Applied Physics and Professor of Physics, Harvard College Professor,

Philippe Cluzel, Professor of Molecular and Cellular Biology and Gordon McKay Professor of Applied Physics (*on leave 2014-15*)

Vladimir Denic, Associate Professor of Molecular and Cellular Biology

Catherine Dulac, Higgins Professor of Molecular and Cellular Biology

Melissa Franklin, Mallinckrodt Professor of Physics (*on leave 2014-15*)

Allon Moshe Klein, Assistant Professor of Systems Biology (*Medical School*)

Erel Levine, Associate Professor of Physics



Richard M. Losick, Maria Moors Cabot Professor of Biology  
 L. Mahadevan, Lola England de Valpine Professor of Applied Mathematics, of Organismic and Evolutionary Biology, and of Physics (*on leave 2014-15*)  
 Christopher Marx, Visiting Associate Professor of Organismic and Evolutionary Biology  
 Radhika Nagpal, Fred Kavli Professor of Computer Science  
 Daniel Joseph Needleman, Associate Professor of Applied Physics and of Molecular and Cellular Biology  
 Martin A. Nowak, Professor of Mathematics and of Biology (*on leave fall term*)  
 Erin K. O'Shea, Paul C. Mangelsdorf Professor of Molecular and Cellular Biology and of Chemistry and Chemical Biology  
 Kevin K. Parker, Tarr Family Professor of Bioengineering and Applied Physics  
 Sharad Ramanathan, Professor of Molecular and Cellular Biology and Gordon McKay Professor of Applied Physics (*on leave 2014-15*)  
 John L. Rinn, Alvin and Esta Star Associate Professor of Stem Cell and Regenerative Biology  
 Pardis Sabeti, Associate Professor of Organismic and Evolutionary Biology  
 Alexander F. Schier, Leo Erikson Life Sciences Professor of Molecular and Cellular Biology  
 Jack Szostak, Professor of Chemistry and Chemical Biology; Professor of Genetics (*Medical School*)  
 Jeffrey Way, Lecturer on Systems Biology (*Medical School*)  
 David A. Weitz, Mallinckrodt Professor of Physics and of Applied Physics  
 Xiaoliang Sunney Xie, Mallinckrodt Professor of Chemistry and Chemical Biology  
 Xiaowei Zhuang, David B. Arnold, Jr. Professor of Science

Systems Biology students should consult course listings from the departments of Biological Sciences, Biophysics, Chemistry, the School of Engineering and Applied Sciences (Applied Mathematics, Applied Physics, Computer Sciences, Engineering Sciences), and the School of Medical Sciences.

#### *Cross-Listed Courses for Undergraduates and Graduates*

[Applied Mathematics 115. Mathematical Modeling](#)

[Applied Mathematics 147. Nonlinear Dynamical Systems](#)

[Biomedical Engineering 110 \(formerly Engineering Sciences 145\). Physiological Systems Analysis](#)

[Biophysics 170. Quantitative Genomics](#)

[Chemistry 60. Foundations of Physical Chemistry](#)

[Chemistry 161. Statistical Thermodynamics](#)

[Chemistry 163. Frontiers in Biophysics](#)

[Computer Science 181. Machine Learning](#)

[Engineering Sciences 156. Signals and Systems](#)

[Mathematics 153. Mathematical Biology-Evolutionary Dynamics]

[MCB 111. Mathematics in Biology](#)

[MCB 195. Foundations of Systems Biology and Biological Engineering]

[OEB 181. Systematics]

[OEB 192. Microbial Evolution]

[Physics 181. Statistical Mechanics and Thermodynamics](#)



### ***Primarily for Graduates***

#### **Systems Biology 200. Dynamic & Stochastic Processes in Cells**

Catalog Number: 8701

*Johan M. Paulsson (Medical School) and Jeremy M. Gunawardena (Medical School)*

*Half course (fall term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 12*

Rigorous introduction to (i) dynamical systems theory as a tool to understand molecular and cellular biology (ii) stochastic processes in single cells, using tools from statistical physics and information theory.

*Note:* Students planning to take both quarter courses (SB303 and 304) must enroll in this as a half course on their study card as SysBio200 for now and in the future. Students who take one half of this quarter can NOT ever take the other half for credit.

*Prerequisite:* College-level calculus.

#### **Systems Biology 201. Principles of Animal Dev. from a Systems Perspective**

Catalog Number: 5148

*Sean Megason (Medical School), Angela Depace (Medical School), and Marc W. Kirschner (Medical School)*

*Half course (spring term). M., W., 3-4:30. EXAM GROUP: 17*

Intensive and critical analysis of systems approaches to circuits and principles controlling pattern formation and morphogenesis in animals. Students develop their own ideas and present them through mentored "chalk talks" and other interactive activities.

#### **Systems Biology 204. Biomolecular Engineering and Synthetic Biology**

Catalog Number: 71179

*Peng Yin (Medical School), George M. Church (Medical School), William Shih (Medical School), and Pamela A. Silver (Medical School)*

*Half course (fall term). M., W., 2:30-4. EXAM GROUP: 7*

A course focusing on the rational design, construction, and applications of nucleic acid- and protein-based synthetic molecular and cellular machinery and systems. Students are mentored to produce substantial term projects.

*Note:* See <http://sb204.net> for details

#### **Systems Biology 212. Communication of Science**

Catalog Number: 47732 Enrollment: Restricted to First Year Systems Biology Students

*Angela Depace (Medical School), Allon Moshe Klein (Medical School), and Galit Lahav (Medical School)*

*Half course (fall term). F., 2-5. EXAM GROUP: 7*

Students will work collaboratively with faculty and one another on critical science communication skills including crafting graphics, writing fellowships, and giving oral presentations.

*Note:* This is a required course for first year Systems Biology students.

### ***Cross-Listed Courses Primarily for Graduates***



### **BCMP 200. Molecular Biology**

[**BCMP 201. Biological Macromolecules: Structure, Function and Pathways**]

**Biophysics 205. Computational and Functional Genomics**

**Biophysics 242r. Special Topics in Biophysics**

**Cell Biology 201. Molecular Biology of the Cell**

**\*Engineering Sciences 222. Advanced Cellular Engineering**

**Genetics 201. Principles of Genetics**

**Mathematics 243. Evolutionary Dynamics**

**MCB 212. Topics in Biophysics**

### *Graduate Courses of Reading and Research*

#### **\*Systems Biology 300hf. Introduction to Systems Biology Research**

Catalog Number: 4103

*Timothy J. Mitchison (Medical School) 3713*

*Half course (throughout the year). M., 6-7:30 pm. EXAM GROUP: Fall: 14; Spring: 11*

Series of lectures to introduce the research areas of current program faculty in systems biology.

#### **\*Systems Biology 350. Systems Biology Research**

Catalog Number: 8370

*Timothy J. Mitchison (Medical School) 3713 and members of the Committee*

*Half course (fall term; repeated spring term). . EXAM GROUP: 10*

Upper level Systems Biology students register for this course when they permanently join a lab.  
 Students should register under the supervising PI.

#### **\*Systems Biology 370. Advanced Topics in Systems Biology: Reading Seminar**

Catalog Number: 43182

*Timothy J. Mitchison (Medical School) 3713*

*Half course (fall term; repeated spring term). . EXAM GROUP: Fall: 18; Spring: 14*

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.

#### **\*Systems Biology 399. Introduction to Systems Biology: Rotations**

Catalog Number: 5863

*Timothy J. Mitchison (Medical School) 3713*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*

The course will introduce the research areas of faculty performing research in systems biology.  
 Intended for Systems Biology lab rotations.

### *Cross-Listed Graduate Courses of Reading and Research*

#### **\*Computer Science 307,308. Biologically-Inspired Multi-Agent Systems, Distributed Systems, and Computational Biology**

### *Quarter Courses for Graduate Students Only*



### **\*Systems Biology 300qc. Advanced Topics in Systems Biology**

Catalog Number: 28586

*Timothy J. Mitchison (Medical School) 3713*

*Quarter course (fall term; repeated spring term). EXAM GROUP: Fall: 1; Spring: 8*

Series of intensive seminars, each running for 6 hours. Three seminars, which can be taken in different terms, are required for credit.

### **\*Systems Biology 301qc. Studying Evolution through Models and Experiments**

Catalog Number: 31854

*Roy Kishony (Medical School) 5501*

*Quarter course (spring term). M. through F., 10–12. EXAM GROUP: 12*

Intensive January course covering theoretical foundations in population genetics, genetic drift versus selection, identifying selection in genomes, advances in laboratory evolution experiments, with applications to key questions in systems biology and evolution.

*Note:* January 12, 2015 - January 23, 2015. Class will be held in Armenise RM 627, HMS. To register for this course, please contact the Systems Biology Department. Course website: <http://isites.harvard.edu/k100765>.

### **[\*Systems Biology 302qc. Quantitative Human Physiology]**

Catalog Number: 14042

*John M. Higgins (Medical School) 6593*

*Quarter course (fall term). Hours to be arranged.*

Introduction to selected mathematical and computational models of human physiology, disease, and treatment monitoring. Topics may include glucose regulation, kidney filtration, blood cell homeostasis and anemia, cell growth and cancer, and pharmacokinetics and pharmacodynamics.

### **\*Systems Biology 303qc. Dynamic and Stochastic Processes in Cells 1**

Catalog Number: 78044 Enrollment: Undergraduates may not receive credit for this course.

*Jeremy M. Gunawardena (Medical School) 5167*

*Quarter course (fall term). Tu., Th., 10-11:30, and a weekly section to be arranged. EXAM GROUP: 11*

We will examine how some of the key requirements of living systems are implemented at the molecular level and how quantitative experimental methods and mathematical analysis can help us understand them.

*Note:* Tuesday September 3, 2013-Thursday, October 10, 2013. Students enrolled in SystBio303qc can never enroll in SystBio304qc.

*Prerequisite:* College-level calculus.

### **\*Systems Biology 304qc. Dynamic & Stochastic Processes in Cells Part 2**

Catalog Number: 93151 Enrollment: Undergraduates cannot receive credit for this course

*Johan M. Paulsson (Medical School) 5502*

*Quarter course (fall term). Tu., Th., 10-11:30, a weekly section to be arranged. EXAM GROUP: 1*

*Note:* October 15, 2013 - December 3, 2013. Students enrolled in SystBio304qc can never enroll in SystBio303qc.

*Prerequisite:* College-level calculus.



### **\*Systems Biology 305qc. Practical Synthetic Biology**

Catalog Number: 22318

*Jeffrey Way (Medical School) 7854*

*Quarter course (spring term). M. through F., 4–6. EXAM GROUP: 7*

Synthetic biology is a new discipline that seeks to enable the predictable engineering of biological systems. According to one conception of synthetic biology, proteins and genetic regulatory elements are modular and can be combined in a predictable manner. In practice however, assembled genetic devices do not function as expected. The purpose of the course is to go beyond the textbook, first-pass description of molecular mechanisms and focus on details that are specifically relevant to engineering biological systems.

*Note:* January 12, 2015 - January 23, 2015. Class will be held in Warren Alpert RM 563, HMS.

To register for this course, please contact the Systems Biology Department. Course website:  
<http://isites.harvard.edu/k100763>.

## **Ukrainian Studies**

### **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

#### ***Faculty of the Committee on Ukrainian Studies***

Serhii Plokhhii, Mykhailo S. Hrushevs'kyi Professor of Ukrainian History (*Chair*) (*on leave spring term*)

Timothy J. Colton, Morris and Anna Feldberg Professor of Government and Russian Studies

Grzegorz Ekiert, Professor of Government

Michael S. Flier, Oleksandr Potebnja Professor of Ukrainian Philology

George G. Grabowicz, Dmytro Cyzevs'kyj Professor of Ukrainian Literature (*on leave spring term*)

Terry D. Martin, George F. Baker III Professor of Russian Studies

The Standing Committee on Ukrainian Studies oversees the systematic study in Ukrainian fields throughout the departments of the Faculty of Arts and Sciences. Students wishing to obtain a doctorate in a particular discipline of Ukrainian Studies, such as language, literature, history, or politics should first fulfill all the requirements of the department of their scholarly discipline (departments of Slavic Languages and Literatures, Linguistics, History, or Government): they may then proceed to the fulfillment of specific qualifications in the Ukrainian aspect of their disciplines under the supervision of the Committee's faculty. Graduate students may also focus on Ukrainian Studies in the Degree of Master of Arts in Regional Studies - Russia, Eastern Europe, and Central Asia. The weekly Seminar in Ukrainian Studies serves as an interdisciplinary introduction to all aspects of Ukrainian disciplines; it is open for enrollment to



graduate students, and with permission to undergraduates.

The Ukrainian Research Institute sponsors programs, events and activities of interest to both students and specialists in Ukrainian Studies. Specific questions concerning the program of Ukrainian Studies at Harvard may be addressed to the Programs Administrator of the Ukrainian Research Institute at 34 Kirkland Street, Cambridge, MA 02138.

### *Primarily for Graduates*

#### **\*Ukrainian 200. Ukrainian Studies: Seminar**

Catalog Number: 7927

*Serhii Plokhi and staff*

*Full course. M., 4–6. EXAM GROUP: Fall: 17; Spring: 13*

Interdisciplinary seminar in Ukrainian studies with broad regional and comparative perspective. Faculty and invited scholars discuss a variety of topics in the humanities and social sciences. Background readings and follow-up discussions help students put the specific lectures in broader context. Students also conduct an individually tailored reading and research project under the guidance of a faculty advisor and in consultation with other resident specialists.

### *Courses of Interest*

[Aesthetic and Interpretive Understanding 60 (formerly Literature 164 and Slavic 190).]

Literature and Art in an Era of Crisis and Oppression: Modernism in Eastern Europe]

[\*History 82f. The Origins of the Cold War: The Yalta Conference (1945)]

**History 1270. Frontiers of Europe: Ukraine since 1500**

**History 1280. History of the Soviet Union, 1917-1991**

**History 1290. The History of the Russian Empire**

[\*History 2260. Central Europe: Seminar]

**History 2272. The Soviet Union: Seminar**

**Linguistics 250. Old Church Slavonic**

[Linguistics 252. Comparative Slavic Linguistics]

[Slavic 166. Russian-Ukrainian Literary Relations in the 19th Century: Conference

Course]

[Slavic 201. Introduction to East Slavic Languages]

**Slavic 280r. Slavic Culture: Seminar**

**Ukrainian A. Elementary Ukrainian**

**\*Ukrainian Cr. Advanced Ukrainian**



# Visual and Environmental Studies

## **AN HISTORICAL EDITION OF FAS COURSES OF INSTRUCTION**

### ***Faculty of the Department of Visual and Environmental Studies***

Robb Moss, Professor of Visual and Environmental Studies (*Chair*)

Giuliana Bruno, Emmet Blakeney Gleason Professor of Visual and Environmental Studies (*on leave 2014-15*)

Katarina Burin, Visiting Lecturer on Visual and Environmental Studies

Francesco Casetti, Visiting Professor of Visual and Environmental Studies

Lucien G. Castaing-Taylor, Professor of Visual Arts and of Anthropology

Tom Conley, Abbott Lawrence Lowell Professor of Romance Languages and Literatures and of Visual and Environmental Studies

Laura A. Frahm, Assistant Professor of Visual and Environmental Studies (*on leave fall term*)

Alfred F. Guzzetti, Osgood Hooker Professor of Visual Arts (*on leave spring term*)

Sharon C. Harper, Professor of Visual and Environmental Studies (*Director of Undergraduate Studies*) (*on leave 2014-15*)

Adam Charles Hart, College Fellow in the Department of Visual and Environmental Studies

David Hilliard, Visiting Lecturer on Visual and Environmental Studies

Chris Killip, Professor of Visual and Environmental Studies

Carrie Lambert-Beatty, Professor of History of Art and Architecture and of Visual and Environmental Studies (*Director of Graduate Studies*) (*on leave 2014-15*)

Annette Lemieux, Senior Lecturer on Visual and Environmental Studies

Dennis Lim, Visiting Lecturer on Visual and Environmental Studies

Ruth S. Lingford, Senior Lecturer on Visual and Environmental Studies

Thomas F. McDonough, Visiting Associate Professor of Visual and Environmental Studies

Ross McElwee, Professor of the Practice of Filmmaking

Virginia L. Overton, Visiting Lecturer on Visual and Environmental Studies

Stephen Prina, Professor of Visual and Environmental Studies (*on leave 2014-15*)

Halsey Clark Rodman, Visiting Lecturer on Visual and Environmental Studies

Matthew Saunders, Assistant Professor of Visual and Environmental Studies

Amie Siegel, Associate Professor of Visual and Environmental Studies

John R. Stilgoe, Robert and Lois Orchard Professor in the History of Landscape Development

Athina Rachel Tsangari, Visiting Lecturer on Visual and Environmental Studies

Alexander Nikolas Zahlten, Assistant Professor of East Asian Languages and Civilizations (*on leave, 2014-15*) (*on leave spring term*)

### ***Other Faculty Offering Instruction in the Department of Visual and Environmental Studies***



Jie Li, Assistant Professor of East Asian Languages and Civilizations  
 Eric Rentschler, Arthur Kingsley Porter Professor of Germanic Languages and Literatures  
*(Director of Graduate Studies)*  
 Jeffrey Schnapp, Professor of Romance Languages and Literatures and of Comparative Literature  
 Hans Tutschku, Fanny P. Mason Professor of Music  
 Justin Weir, Professor of Slavic Languages and Literatures and of Comparative Literature

The curriculum of the Department of Visual and Environmental Studies engages both practical and theoretical aspects of the built environment, digital media, drawing, film, painting, performance, photography, printmaking, sculpture, sound, video, and writing.

Most introductory-level courses are designated with two-digit course numbers and non-introductory courses with three-digit course numbers. The department also offers 200-level courses for PhD students in the Film and Visual Studies graduate secondary field.

Tutorials or special research projects may be taken only if they have been approved by the Director of Undergraduate Studies. Application forms for all VES tutorials can be picked up in the VES Department Office or downloaded from the VES website at [www.ves.fas.harvard.edu](http://www.ves.fas.harvard.edu).

In addition to the studio and lecture courses taught by members of the faculty of Visual and Environmental Studies, the department encourages students to explore course opportunities at the MIT Institute for Advanced Visual Studies as well as the Harvard Graduate School of Design.

Each term the department sponsors a lecture series held at the Carpenter Center for the Visual Arts. These lectures are designed to augment and inform the curriculum of the department and are usually held on Thursday evenings.

For further information on the faculty and courses in the Department of Visual and Environmental Studies, requirements for concentration, as well as the Carpenter Center lecture series, please contact the department office located on the 1st Floor of the Carpenter Center for the Visual Arts, 24 Quincy Street or visit our website at [www.ves.fas.harvard.edu](http://www.ves.fas.harvard.edu).

### ***Primarily for Undergraduates***

#### **\*Visual and Environmental Studies 10a. Drawing 1--The Language of Drawing**

Catalog Number: 6945 Enrollment: Limited to 12.

*Katarina Burin*

*Half course (spring term). Monday and Wednesday 10am-1pm. EXAM GROUP: 5*

A studio course to build the skills of drawing incrementally and expand students' visual vocabulary. Drawings will be made from life, photographs and invention. Emphasis will be placed on enhancing our observational sensibilities, focusing on all aspects of technical development, particularly the importance of line. Assignments will delve into the development of abstract and conceptual principles, and introduce specialized systems of rendering and notation. The aim is to expand drawing skills with intention and purpose.

*Prerequisite:* This class is for beginners or anyone furthering their skill level.



### **\*Visual and Environmental Studies 10br. Drawing 2: Drawing Expanded**

Catalog Number: 57371 Enrollment: Limited to 12.

*Katarina Burin*

*Half course (fall term). Monday and Wednesday at 1pm-4pm. EXAM GROUP: 1*

An intermediate studio course to build upon basic skills, while exploring various methods and modes of drawing. Emphasis will be placed on individual projects and developing a body of work. This course considers drawing as both an immediate and mediated form, with distanced and nuanced potential. Exploring drawing as an expanded field, as process and installation, students can use various transfer techniques and incorporate found imagery--combining traditional skills and contemporary practice.

*Note:* This course may be taken as continuation of Drawing 1 or as a stand-alone course.

*Prerequisite:* At least one VES studio half-course or permission of the instructor.

### **\*Visual and Environmental Studies 15ar. Silkscreen**

Catalog Number: 2262 Enrollment: Limited to 12.

*Annette Lemieux*

*Half course (fall term). Monday and Wednesday 9am-12pm. EXAM GROUP: 10*

For the student who is interested in the manipulation of found and original imagery. Students will create monotypes on paper and other surfaces utilizing the silkscreen process. Through slide presentations, the class will be introduced to the work of artists such as Rauschenberg and Warhol, as well as others who use the silkscreen process.

*Note:* No previous studio experience necessary.

### **[\*Visual and Environmental Studies 18. Works on Paper]**

Catalog Number: 77946 Enrollment: Limited to 12.

*Annette Lemieux*

*Half course (spring term). Tu., Th., 2-5.*

Through image presentations, students will be introduced to the art movements and artists of the 20th and 21st centuries. Using a variety of materials, students will create works on paper for critique that reflect these artists' beliefs and concerns.

*Note:* Expected to be given in 2015–16.

### **[\*Visual and Environmental Studies 20. Contemporary Painting Practice: Beyond the Surface ]**

Catalog Number: 37968 Enrollment: Limited to 12.

*Annette Lemieux*

*Half course (spring term). Tu, Th 2-5.*

Through image presentations and readings, students will be introduced to the art movements from the 1960s to the present - POP, OP, Capitalist Realism, Neo Expressionism, New Image Painting, Figuration Libre, Junge Wilde, Transavantegarde, Neo Geo, Neo Pop, etc. Students will create paintings for critique that reflect these artists' beliefs and concerns.

*Note:* Expected to be given in 2015–16.

### **\*Visual and Environmental Studies 21s. New Grounds: Painting Course**

Catalog Number: 75974 Enrollment: Limited to 12.

*Matthew Saunders*



*Half course (fall term). Wednesday 1-4 and 6-9. EXAM GROUP: 1*

What role does a studio "foundation" play in a technologically and ideologically diverse moment? This will be a painting foundations course, with an emphasis on building skills and exposure to different materials and methods; yet, we also aim to question what the grounds for a painting practice could be, with consideration of conceptual and personal motivation, technical proficiency, and openness to process and experimentation.

*Note:* Open to beginners, while also appropriate for more advanced students. The first meeting of this class will be Wednesday, Sept. 3 at 1pm to 2pm.

#### **[\*Visual and Environmental Studies 23. Conceptual Figure]**

Catalog Number: 11317 Enrollment: Limited to 12.

*Matthew Saunders*

*Half course (fall term). W., 1–5, W., 6–8 p.m.*

Model, Person, Subject, Self, Cipher, Being, Effigy, Corpse, Anatomy, Portrait, Body. This painting course will delve into many ways of approaching the human figure. Working first from life, we will also consider the body in media, the body in history, the body in ideas. Note: Open to beginners, while also appropriate for more advanced students.

*Note:* Expected to be given in 2015–16.

#### **\*Visual and Environmental Studies 24. Painting, Smoking, Eating**

Catalog Number: 78679 Enrollment: Limited to 18.

*Matthew Saunders*

*Half course (spring term). Tu., 1–4, Tu., 6–9 p.m. EXAM GROUP: 1*

Titled after Phillip Guston, this course has two agendas: technical assignments that improve your ability to move paint around, and laying conceptual groundwork for personal projects. One task of an artist is to have a relationship with a world. We will discuss the social role of artists and the boundaries between interior and exterior discourse, with an emphasis on artists' writing, both critical and self-reflexive, treating self-expression as well as abnegation: auteurs, flaneurs, ventriloquists.

#### **[\*Visual and Environmental Studies 31. Beyond Objects--Sculpture Course]**

Catalog Number: 68921 Enrollment: Limited to 12.

*Heather Rowe*

*Half course (fall term). F. 10-2, and additional hours to be determined.*

How can film, architecture, and the 2-dimensional image influence the sculptural process? This is a sculpture foundations course, with an emphasis on construction and the utilization of a broad range of materials and methods. Projects will consider concepts of social and personal space, memory and the psychological effects of the built environment and in addition we will look at cinema, minimalism, site specific artworks, and photography as possible points of departure.

*Note:* Expected to be given in 2015–16.

#### **\*Visual and Environmental Studies 31h. Prismatic Sculpture**

Catalog Number: 63786 Enrollment: Limited to 12.

*Halsey Clark Rodman*

*Half course (spring term). M. W., 2-5. EXAM GROUP: 18*

An introductory course focused on color as a primary attribute of sculptural form. In parallel to



working with a variety of sculptural materials and processes, we will consider the definitions and limits of chromatic experience ranging from virtual to ambient to autonomous. Particular emphasis will be placed on the development of sculpture "in-the-round". The course will include readings, slide lectures, and screenings in addition to technical demonstrations and workshops.

*Prerequisite:* Note: No previous studio experience required, open to all levels.

**\*Visual and Environmental Studies 32v. Volume: Sculpture Course - (New Course)**

Catalog Number: 14005 Enrollment: Limited to 12.

*Virginia Overton*

*Half course (fall term). Tuesday and Thursday 9am-12pm. EXAM GROUP: 9*

A course in which we will investigate the 3-dimensionality of sculpture, asking questions about the space it consumes. We will look at the environment around us and talk about the ways in which the work we make impacts our surroundings. We will think about hills, valleys, caves, stalactites, stalagmites, highrelief, bas-relief and protrusions. We will think about mass that is kinetic, static, hanging, sitting, balanced and imbalanced.

**\*Visual and Environmental Studies 34v. Lost and Found: Sculpture Course - (New Course)**

Catalog Number: 42502 Enrollment: Limited to 12.

*Virginia L. Overton*

*Half course (fall term). Tuesday and Thursday 1pm to 4pm. EXAM GROUP: 8*

An introductory sculpture course, Lost and Found will focus on sculptures made with found materials. Additionally, students will learn techniques related to the use of wood, plaster, and other "new" materials. In addition to studio work, the class will incorporate discussions about work and readings, watch films, listen to music, and explore other forms of expression to aid in-and out-of-the classroom art making.

**\*Visual and Environmental Studies 35r. Building Thought: Sculpture Course**

Catalog Number: 44695 Enrollment: Limited to 12.

*Annette Lemieux*

*Half course (fall term). Monday and Wednesday 1pm to 4pm. EXAM GROUP: 1*

Using a variety of materials and methods, students will build and create artworks that reflect their ideas, with an emphasis and understanding of the language of images, materials, forms, actions, and presentation. Through images, videos, and informal discussions, students will be introduced to the concerns of conceptual artists of the 20th Century to the present.

**[\*Visual and Environmental Studies 37. 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 given in 2015–16. No previous studio experience necessary.



### **\*Visual and Environmental Studies 40a. Introduction to Still Photography**

Catalog Number: 2010 Enrollment: Limited to 20.

*Christopher David Killip*

*Half course (fall term; repeated spring term). Fall: Monday & Wednesday 9am-12pm or 1pm to 4pm. Spring 9am-12pm only. EXAM GROUP: 10*

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.

*Note:* No previous studio experience necessary.

### **\*Visual and Environmental Studies 41a. Introduction to Still Photography**

Catalog Number: 0705 Enrollment: Limited to 10.

*David Hilliard*

*Half course (fall term; repeated spring term). Fall: Tuesday, Thursday 9am-12pm, Spring: Tuesday, Thursday 9am-12pm and Tuesday, Thursday 1pm to 4pm. EXAM GROUP: Fall: 9; Spring: 2*

Introduction to still photography with an emphasis on the medium as a vehicle for expression and personal vision. Covers technical, historical, and aesthetic aspects of the medium. Class is organized around slide lectures, individual meetings, group critiques, and readings.

*Note:* No previous studio experience necessary.

### **[\*Visual and Environmental Studies 41br. Photographic Inquiry: Studio Course]**

Catalog Number: 9484 Enrollment: Limited to 10.

*Sharon C. Harper*

*Half course (spring term). Tu., Th., 1-4.*

Class emphasis will be on developing visual ideas for a self-directed photographic project. Class will be structured around regular critiques, individual meetings, readings, class discussions and museum visits. Students will create a group of photographs for a final project that are the result of a sustained, self-directed creative process.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* At least one half-course in photography or permission of the instructor.

### **\*Visual and Environmental Studies 50. Introduction to Non Fiction Filmmaking**

Catalog Number: 4907 Enrollment: Limited to 10.

*Robb Moss*

*Full course. Tu., 1-4, Th., 1-5. EXAM GROUP: Fall: 8; Spring: 1*

Introductory exercises in live-action 16mm filmmaking culminating in the production of a nonfiction film as a group project in the spring term.

### **\*Visual and Environmental Studies 51a. Introduction to Video**

Catalog Number: 7526 Enrollment: Limited to 10.

*Ross McElwee*

*Half course (spring term). Tu., Th., 1-4. EXAM GROUP: 1*

A series of nonfiction projects, both individual and collaborative, designed to introduce and explore the range of expressive possibilities in digital video.



### **\*Visual and Environmental Studies 52r. Introduction to Non Fiction Videomaking**

Catalog Number: 87233 Enrollment: Limited to 10.

*Alfred F. Guzzetti*

*Half course (fall term). M., W. 1-4. EXAM GROUP: 1*

Following an introductory exercise, each student will spend the term making a single nonfiction video on a subject of his or her choosing.

*Note:* Students seeking to enroll are encouraged to bring a paragraph describing a proposed subject to the first class meeting.

### **\*Visual and Environmental Studies 53ar. Fundamentals of Animation**

Catalog Number: 1360 Enrollment: Limited to 10.

*Ruth Stella Lingford (fall term), Paul Bush (spring term)*

*Half course (fall term; repeated spring term). W. 1-5, and weekly film screenings F., 1-3. EXAM GROUP: Fall: 1; Spring: 8*

An introduction to the possibilities of animation. Using a mixture of traditional and 2D digital tools, students will complete practical exercises which will familiarize them with basic skills and techniques. Screenings and discussions will help develop the specialized thinking needed to understand the discipline.

*Note:* Drawing skills are optional, though helpful. This course has an additional weekly film screening, Fridays, 1-3 pm.

### **[\*Visual and Environmental Studies 54s. Animating Science]**

Catalog Number: 83728 Enrollment: Limited to 10.

*Ruth S. Lingford and Alain Viel*

*Half course (spring term). Tu., 1-5, and weekly film screenings F., 1-3.*

This hands-on class will investigate the cross-overs between science and animation. How can animation communicate abstract ideas? How can science inspire the artist? Students will acquire some fundamental animation skills, and will work on individual and group projects. This class will be suitable for students with an interest either in science or visual art, or both.

*Note:* Expected to be given in 2015–16. This course has an additional weekly film screening, Fridays, 1-3 pm.

### **[\*Visual and Environmental Studies 57r. Maya Hybrids]**

Catalog Number: 4275 Enrollment: Limited to 10.

*Allen Sayegh*

*Half course (fall term). M. 1-5, and a weekly screening F. 1-3.*

This course will offer an introduction to 3D computer animation, and explore hybrid forms of animation and the new thinking they enable.

*Note:* Expected to be given in 2015–16. This course has a weekly film screening, Fridays, 1-3 pm.

### **\*Visual and Environmental Studies 59. The Science of Fiction**

Catalog Number: 90016 Enrollment: Limited to 10.

*Amie Siegel*

*Half course (spring term). M., W., 1-4. EXAM GROUP: 8*

A course in narrative fiction film production, emphasizing experimental and conceptual forms,



literary adaptation and artist-filmmakers. Students push the artistic boundaries of filmmaking, each student writes, directs and edits several exercises as well as creating a short film. We then throw out our scripts and work in improvisatory, associative modes. We look closely at structure, performance and genre--melodrama, sci-fi, western. Students learn techniques of camera, lighting, sound and editing. Student work is discussed extensively in class.

**\*Visual and Environmental Studies 60x. Fiction in the Flesh: Studio Course (Formerly Trials in Narrative Filmmaking)**

Catalog Number: 21952 Enrollment: Limited to 10.

*Athina Rachel Tsangari*

*Half course (fall term). Tuesdays 6pm-9pm and Wednesdays 1pm-4pm. EXAM GROUP: 16*

In this introduction to fiction filmmaking, we will explore the technical, structural, sensorial, and ontological language of cinema in all its idiomatic, hybrid expressions, from associative assemblages to naturalism. Emphasis will be given to the synesthetic processes of meaning construction, from the seed of an idea to its screen embodiments shot by shot, as well as the relation between sound and image. Projects will be collaborative as well as individual. Occasional in-class workshops by film professionals and artists.

**Visual and Environmental Studies 70. The Art of Film**

Catalog Number: 4249

*Adam Charles Hart*

*Half course (spring term). Tu., Thu. at 10, a weekly screening Tu. 7-10 p.m., and a weekly section to be arranged. EXAM GROUP: 12*

An introductory course that focuses on the language of film and moving image media. It will provide the students with the analytical tools to respond both critically and creatively to moving image media, with an emphasis on close formal analysis. In the interest of exploring the vast possibilities of the moving image, we will watch a broad selection of narrative and non-narrative works from around the globe alongside canonical feature films.

*Note:* No background in film history or theory necessary. Required for all students concentrating in Film Studies. This course has an additional weekly film screening on Tuesdays at 7 pm to 10 pm. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

*Prerequisite:*

**Visual and Environmental Studies 71. Silent Cinema**

Catalog Number: 1971

*Adam Charles Hart*

*Half course (fall term). M., W., at 10, a weekly film screening Tu., 4-6:30, and a weekly section to be arranged. EXAM GROUP: 5*

This course will survey the development of the film medium from its beginnings in the 1890s to an astonishing artistic flowering in the 1920s in the US, France, Germany, Japan, the Soviet Union, and elsewhere. This course will focus on the shifts in cinematic language- especially camerawork and editing - and on the contemporaneous theoretical discourse about the cinema from filmmakers, critics, and philosophers attempting to define a young, constantly-expanding medium.



*Note:* No background in film history or theory necessary. Required for all students concentrating in Film Studies. This course has an additional weekly film screening, Tuesday 4-6:30 pm.

**[Visual and Environmental Studies 72. Sound Cinema]**

Catalog Number: 6997

*Laura A. Frahm*

*Half course (spring term). Tu., Thu., at 10, a weekly film screening M. 4-6, and a weekly section to be arranged.*

This course explores film history through the question of sound and considers the interplay between music, dialogue, and noise as a vital concept through which we can understand film. We will put special emphasis on the question of how filmmakers, composers, and sound designers have envisioned and discussed the way we think about film sound. Weekly topics will include early sound experiments, the transition to sound, post-war cinematic soundscapes, and sound design in contemporary cinema.

*Note:* Expected to be given in 2015–16. No background in film history or theory necessary. Required for all students concentrating in Film Studies. This course has an additional weekly film screening Monday, 4-6 pm.

**[\*Visual and Environmental Studies 80. Loitering: Studio Course]**

Catalog Number: 9394 Enrollment: Limited to 12.

*Stephen Prina*

*Half course (spring term). Tu., Th., 1-4.*

You will hang out in the vicinity of culture and make things in response to it. This class is not thematic or linked to any particular discipline.

*Note:* Expected to be given in 2015–16. No previous studio experience necessary.

**[\*Visual and Environmental Studies 83. The Devil, Probably x 10 + 1: A Studio-based Seminar]**

Catalog Number: 93053 Enrollment: Limited to 12.

*Stephen Prina*

*Half course (spring term). Tu., 1-4, Thu., 1-4.*

Part 1 is a weekly studio session during which participants will create 3 projects in any medium or discipline during the term. Part 2 is a screening of the film "The Devil, Probably," 1977 by Robert Bresson for 10 consecutive weeks, interrupted by the 3 project class presentations.

Different readings will accompany each screening. The final screening--+1--is "The Third Generation," 1979 by Rainer Werner Fassbinder.

*Note:* Expected to be given in 2015–16. The studio projects do not need to pertain to the Bresson/Fassbinder screenings.

*Prerequisite:* There are no prerequisites for the class. First year participants are encouraged to apply.

**[Visual and Environmental Studies 92. Contemporary Art]**

Catalog Number: 53514

*Carrie Lambert-Beatty*

*Half course (spring term). Tu., Th., at 11. Weekly section to be arranged.*

Art of the last fifty years, with an eye to issues facing artists working today. Pop, Minimalism,



Conceptual Art, Installation, and New Media: in surveying these and other developments in recent art, lecture-based class will address such topics as modernism/postmodernism; changing models of artistic work and artists' identity; and globalization and the art world.

*Note:* Expected to be given in 2015–16. Recommended for VES concentrators.

#### **[\*Visual and Environmental Studies 96r. Directed Research: Studio Course]**

Catalog Number: 7299 Enrollment: Limited to 10.

*Stephen Prina*

*Half course (fall term; repeated spring term). W., 6-9 pm, and additional hours to be arranged.* This course is intended for students who have developed the beginnings of a practice they are prepared to pursue. The motive is to assemble a group of disparate artists who come together to exchange thoughts across disciplines: painting next to photography next to writing next to filmmaking, and so on.

*Note:* Expected to be given in 2015–16. Recommended for concentrators in Visual and Environmental Studies in their junior and senior year but also open to others with permission of the instructor.

#### ***Tutorials, Projects, and Research***

Preparation for thesis is begun in studios and seminars and is carried to completion in a VES 99 tutorial during the senior year. *In rare instances* students needing special preparation not available in regularly offered courses can enroll in an optional junior or even sophomore tutorial, or a special projects course. Tutorial proposals will be considered by the Director of Undergraduate Studies only with written permission of the project adviser and if the material to be covered is substantially different from other departmental offerings. Ordinarily, tutorial proposals must be submitted before Study Cards are due. Check the department calendar for due dates.

Alternatively, students may wish to consider *Visual and Environmental Studies 96r, Directed Research*, which is intended for students who have developed the beginnings of a practice they are prepared to pursue. Please see course description above.

#### **\*Visual and Environmental Studies 91r. Special Projects**

Catalog Number: 9183

*Ruth S. Lingford and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4* Open to a limited number of students who wish to carry out a special project under supervision. Students wishing to enroll in VES 91r must find a member of the faculty to advise the project and submit an application to the Director of Undergraduate Studies.

*Note:* Letter-graded only. Special Project tutorials are led by individual faculty members; however study cards should be signed by the Director of Undergraduate Studies.

#### **\*Visual and Environmental Studies 97r. Tutorial - Sophomore Year**

Catalog Number: 0450

*Ruth S. Lingford and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 18;*



### *Spring: 14*

Individual instruction in subjects of special interest that cannot be studied in regular courses. Concentrators wishing to take a tutorial in their sophomore year must find a member of the faculty to advise the project and submit an application to the Director of Undergraduate Studies. *Note:* Optional for sophomore concentrators. Letter-graded only. Tutorials are led by individual faculty members; however study cards should be signed by the Director of Undergraduate Studies.

#### **\*Visual and Environmental Studies 98r. Tutorial - Junior Year**

Catalog Number: 1411

*Ruth S. Lingford and members of the Department*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: 4*

Individual instruction in subjects of special interest that cannot be studied in regular courses. Concentrators wishing to take a tutorial in their junior year must find a member of the faculty to advise the project and submit an application to the Director of Undergraduate Studies.

*Note:* Optional for junior concentrators. Letter-graded only. Tutorials are led by individual faculty members; however study cards should be signed by the Director of Undergraduate Studies.

#### **\*Visual and Environmental Studies 99. Tutorial - Senior Year (Thesis/Senior Project)**

Catalog Number: 5141

*Ruth S. Lingford and members of the Department*

*Full course. Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

All students wishing to undertake a VES 99 project must have permission of the project adviser before being considered. The Director of Undergraduate Studies must approve all VES 99 projects and all theses must be approved by the VES Honors Board in advance.

*Note:* Optional for senior concentrators. Letter-graded only. Students must be enrolled in VES 99 to do a thesis. Students should arrange regular tutorial meetings with their project adviser. Senior theses and projects are led by individual faculty members; however study cards should be signed by the Director of Undergraduate Studies.

#### ***For Undergraduates and Graduates***

#### **Visual and Environmental Studies 106. Artist as Typographer (Seminar) - (New Course)**

Catalog Number: 41985

*Thomas F. McDonough*

*Half course (fall term). Thu. 1-3. EXAM GROUP: 8*

This course examines the recent proliferation of artists whose work employs typography. If we have been accustomed to the predominance of language in art at least since the rise of Conceptual practices in the early 1970s, the current turn represents something different: it takes up language's material realization and the particular histories carried within its forms. We'll examine the range of such practices, trace their genealogies, and assess their approaches toward contemporary communication.

#### **\*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*

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 108. Stranger than Fiction]**

Catalog Number: 23387 Enrollment: Limited to 15.

*Carrie Lambert-Beatty*

*Half course (fall term). Tu., 1–3.*

Much recent art stages slippages between the fictive and factual. False personas, invented histories and museums of unnatural history are some such creative deceptions — so are *Punk'd*, *Borat*, and *Fear Factor*. With a focus on installation art, photography, video, and performance but an eye to popular culture and political scandal, this seminar will trace artistic precedents for treating our sense of reality as a plastic material, and explore the ethical, political, and aesthetic implications.

*Note:* Expected to be given in 2015–16.

#### **\*Visual and Environmental Studies 110r. Drawing 3: Drawing as Process and Instrument - (New Course)**

Catalog Number: 98103 Enrollment: Limited to 12.

*Katarina Burin*

*Half course (spring term). Monday and Wednesday 3pm-6pm. EXAM GROUP: 17*

An intermediate studio course building upon basic drawing skills, while exploring alternative methods of drawing. Focusing on drawing as process and means, rather than an end itself, we will explore historical and contemporary techniques and ways of using drawing as a "tool", including modes of architectural rendering, technical drawing, and other approaches to drawing in design and the written word. Emphasis is placed on individual projects and developing a personal focus or body of work.

*Note:* This course may be taken as continuation of Drawing 2 or as a stand-alone course.

*Prerequisite:* At least one studio course in VES or permission of the instructor.

#### **\*Visual and Environmental Studies 115. Printed Matters: Studio Course**

Catalog Number: 38924 Enrollment: Limited to 12. Permission of instructor required.

*Matthew Saunders*

*Half course (fall term). Tu., 1–5, Tu., 6–8 p.m. EXAM GROUP: 8*

Painting's productive association with the technologies of reproduction. We will think both pre- and post-20th century, considering the analogue (intaglio printing, especially etching and aquatint; also block, book and commercial printing) and digital as worthy collaborators.

Workshops in technique will support independent projects in any media.

*Note:* The first meeting of this class will be Tuesday, Sept. 2 at 1pm to 2pm.

*Prerequisite:* At least one VES studio half-course or the permission of the instructor.



### **\*Visual and Environmental Studies 123r. Post Brush: Studio Course**

Catalog Number: 7463 Enrollment: Limited to 12.

*Annette Lemieux*

*Half course (spring term). M., W., 10-1. EXAM GROUP: 5*

Using the silkscreen printing process, students will create paintings and objects that incorporate images and text found in popular culture. Through slides, videos and informal discussions, students will be introduced to the Pop artists of the 20th century as well as other contemporary artists.

*Prerequisite:* At least one VES studio half-course or permission of the instructor.

### **[\*Visual and Environmental Studies 125. Surface Tensions]**

Catalog Number: 27157

*Matthew Saunders*

*Half course (spring term). W., 1-5, and 6-8 p.m.*

“Surface” considered as formal quality and useful tool. Whether taken to mean literal materials, the chain of ideas cohering a body of work, or painting’s Teflon-like durability as cultural tradition, we’ll pursue strategies to engage surface: seriality, alternative supports, facture/blur; mechanical tools, casualness and formality. Of particular interest are the challenges posed by seamlessness both in photographic sources and in conversations surrounding abstraction. Emphasis on painting, but other disciplines are welcome.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* At least one VES half-course in studio, or permission of the instructor.

### **[\*Visual and Environmental Studies 125s. Postcards from Volcanoes: Studio Course]**

Catalog Number: 54031 Enrollment: Limited to 12. Permission of instructor required.

*Matthew Saunders*

*Half course (spring term). Tu., 1–5 and 6–8.*

This is an intermediate painting class grounded in individual projects and group critique. Not limited to conventional forms, we will think broadly about the edge between inchoate material and inscribed meaning. Studio work will be coupled with abundant reading and discussion.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* At least one VES studio half-course or permission of instructor.

### **\*Visual and Environmental Studies 135. Where is the Object?: Ambience, Condition, Experience (Studio Course) - (New Course)**

Catalog Number: 27722 Enrollment: Limited to 12.

*Halsey Clark Rodman*

*Half course (spring term). Monday 6pm-9pm, Wednesday 10am-1pm. EXAM GROUP: 13*

This is a sculpture course concerned with the difficulty of defining entities. For example, what separates an object from the informational and physical conditions surrounding it? And, if every object is in a state of continuous change, can it ever arrive as a complete "thing"? Each week we will read a text, watch something (film, video, slide lecture), and discuss. Students will present their work for group critique approximately three times during the semester.

*Prerequisite:* All disciplines are encouraged to enroll, no previous studio experience required.



### **\*Visual and Environmental Studies 142. Defining Vision: Creating a Photographic Project - (New Course)**

Catalog Number: 10445 Enrollment: Limited to 10.

*David Hilliard*

*Half course (fall term). Tuesday and Thursday 1pm to 4pm. EXAM GROUP: 8*

This class is designed as a transition from Introduction to Still Photography to developing an independent work practice that is an extension of your own interests. Students will investigate concepts and strategies in order to create a meaningful body of work that is technically refined, well edited and sequenced. The class will be organized around class discussions, critiques and individual meetings with the instructor, in addition to slide presentations, readings, field trips and visiting artists.

*Prerequisite:* At least one half-course in photography or permission of the instructor.

### **[\*Visual and Environmental Studies 143r. The Photographer as Auteur: Studio Course]**

Catalog Number: 2835 Enrollment: Limited to 10.

*Instructor to be determined.*

*Half course (spring term). Tu., Th., 1–4.*

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 discernible relationship to the subject.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* At least one half-course in photography.

### **[\*Visual and Environmental Studies 144r. Photography in the Field: Developing an Experimental Sense of Place]**

Catalog Number: 44322 Enrollment: Limited to 10.

*Sharon C. Harper*

*Half course (spring term). Tu., Th., 1–4.*

This intermediate level photography class will be structured around weekly photographic field trips giving students the opportunity to define and respond to a variety of sites ranging from natural to urban and built environments. Experimentation with photographic methods and approaches will be supported by slide lectures featuring artists' practices from this genre. Bring your sense of adventure.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* Introduction to Still Photography or permission of the instructor.

### **\*Visual and Environmental Studies 146r. The Photographic Portrait**

Catalog Number: 5743 Enrollment: Limited to 10.

*Chris Killip*

*Half course (spring term). M., W., 1–4. EXAM GROUP: 8*

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]**

Catalog Number: 2011 Enrollment: Limited to 10.

*Chris Killip*

*Half course (spring term). M. W. 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, which the author is able to master not only the implicit creative aspects but also a certain social dimension. We will deal with the sequential steps of a photography project: creative conception, documentation, practical realization, and critical evaluation.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* At least one half-course in photography or permission of the instructor.

### **\*Visual and Environmental Studies 150ar. Narrative Tactilities: Studio Course**

Catalog Number: 4692 Enrollment: Limited to 10.

*Athina Rachel Tsangari*

*Half course (fall term). Tu., 1–4; Th., 1–4. EXAM GROUP: 8*

In this intermediate production course, we will explore systems, syntaxes, and voices of cinematic fictions across national cinemas in the 20th and 21st century. We will investigate all aspects of the mise-en-scène through exercises in screenwriting, directing professional and amateur actors, storyboarding, lighting, sound design, art direction, and digital editing. Students will also research and develop short scripts to be produced during the spring term. Occasional in-class workshops by film professionals and artists.

*Note:* Interview with instructor required for admission.

*Prerequisite:* VES 50 or two other courses in video production such as VES 51a, VES 52r, VES 59, VES 60x or VES 151b.

### **\*Visual and Environmental Studies 150br. Kinochemical Reactions: Studio Course**

Catalog Number: 3934 Enrollment: Limited to 10.

*Athina Rachel Tsangari*

*Half course (spring term). Tu., Th., 1–4. EXAM GROUP: 1*

This course is essentially the continuation of 150ar. Students will re-write, produce, and direct the scripts that were developed during the fall term. Emphasis will be given to directing actors, spatial reconnaissance of shooting locations, production design, sound design, and re-making/re-mapping through editing. Completed films (edited, mixed, color graded) are required by the end of the term. Collaboration between students, and crew rotation is a must. Occasional in-class workshops by film professionals and artists.

*Note:* Students seeking to enroll should come to the first class meeting with a developed short narrative screenplay.

*Prerequisite:* VES 150ar or two courses in video production, one of which must be VES 60x or VES 59.

### **\*Visual and Environmental Studies 151br. Nonfiction Video Projects**

Catalog Number: 3838 Enrollment: Limited to 10.

*Ross McElwee*

*Half course (fall term). F., 1-5:30. EXAM GROUP: 1*

Working from a proposal approved in advance by the instructor, each student plans, shoots, and



edits a documentary video of his or her design. Shooting should take place over the summer and editing 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. An interview with the instructor is required for admission.

*Prerequisite:* At least one VES half-course in live-action film or video.

### **\*Visual and Environmental Studies 152r. Intermediate Nonfiction Projects**

Catalog Number: 8012 Enrollment: Limited to 10.

*Robb Moss*

*Half course (spring term). F., 12–4. EXAM GROUP: 7*

A workshop for students with experience in video to explore the capabilities of the medium. Students may work singly or together-to make either an extended project or a series of shorts-of their own design or from experimental prompts.

*Note:* While not required, students seeking to enroll are encouraged to 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 or permission of the instructor.

### **[\*Visual and Environmental Studies 153ar. Intermediate Animation: Making an Animated Film: Studio Course]**

Catalog Number: 5211 Enrollment: Limited to 10.

*Ruth S. Lingford*

*Half course (fall term). W., 1-5, and weekly film screenings F., 1-3.*

This course offers returning animators a chance to extend and deepen skills and understanding of animation and to make a more substantial piece of work. Additional exercises encourage students to challenge themselves and explore a range of creative possibilities.

*Note:* Expected to be given in 2015–16. This course has an additional weekly film screening, Fridays, 1-3 pm.

*Prerequisite:* This class welcomes students with any previous animation/video/or filmmaking experience.

### **\*Visual and Environmental Studies 153br. Intermediate Animation Workshop**

Catalog Number: 3477 Enrollment: Limited to 10.

*Ruth S. Lingford (fall term), Paul Bush (spring term)*

*Half course (fall term; repeated spring term). Thu., 1-5, and weekly film screenings F., 1-3.*

*EXAM GROUP: Fall: 8; Spring: 1*

This course offers returning animators a chance to extend and deepen skills and understanding of animation and to make a more substantial piece of work, alongside introductory level students who will learn some basic tools of animation. Additional exercises encourage students to challenge themselves and explore a range of creative possibilities.

*Note:* This course has an additional weekly film screening, Friday, 1-3 pm. First meeting is Thursday, January 29, 11am - 1pm.

*Prerequisite:* This course welcomes both introductory level and intermediate level students.

### **\*Visual and Environmental Studies 158ar. Sensory Ethnography 1a**

Catalog Number: 6680 Enrollment: Limited to 10.



*Lucien G. Castaing-Taylor*

*Half course (spring term). M., W., 2pm to 4pm and Tu., 6pm to 10pm. EXAM GROUP: 18*

Students use video, sound, and/or hypermedia to produce short works about embodied experience, culture, and nature, and are introduced to current issues in aesthetics and ethnography.

*Note:* No previous studio experience necessary.

**\*Visual and Environmental Studies 158cr. Sensory Ethnography 2**

Catalog Number: 66304 Enrollment: Limited to 10.

*Lucien G. Castaing-Taylor*

*Half course (fall term). Mondays, Wednesdays 2pm-4pm, Tuesdays 6pm-8pm. EXAM GROUP: 7*

Students collaborate in the production of substantial work of ethnographically informed non-fiction media. Principal recording should have occurred before enrolling in the course.

**\*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*

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 161n. Cinema and Desire--Studio Course]**

Catalog Number: 56948 Enrollment: Limited to 10. Admission through interview with instructors.

*Lucien G. Castaing-Taylor and Haden R. Guest*

*Half course (spring term). Tu., 12–4.*

Students produce audio-visual works that explore the body, desire, and sexuality, and their significance in human existence.

*Note:* Expected to be given in 2015–16.

**\*Visual and Environmental Studies 162g. Water Musics--A Dialogue of Electroacoustic Music and Moving Images - (New Course)**

Catalog Number: 35875 Enrollment: Limited to 10.

*Alfred F. Guzzetti and Hans Tutschku*

*Half course (fall term). Tuesdays and Thursdays 10am-1pm. EXAM GROUP: 12*

Students work with both video and sound composition to explore the mutual dependence of the two media. Water in its many manifestations provides the source material and playground for a series of assignments. The final project will be an art work for presentation in various venues: concert hall, gallery and outdoor spaces.

*Prerequisite:* Music 167 or Music 264 or one VES course in video production.



**\*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. EXAM GROUP: 8*

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, 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: 1*

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 photography, advertising, video, computer-generated simulation, and designed life forms.

*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 172b. Contemporary Film Theory]**

Catalog Number: 9562

*Instructor to be determined*

*Half course (fall term). W., 1-3.*

A critical and historical survey of the major questions, concepts, and trends in film theory since 1968. Weekly readings and discussion will examine how the study of film and spectatorship have been influenced by semiotics, psychoanalysis, Marxism, postmodernism, feminism, and gay and lesbian criticism, as well as multiculturalism.

*Note:* Expected to be given in 2015–16.

*Prerequisite:* VES 70 or permission of the instructor.

**[Visual and Environmental Studies 173. Visual Music]**

Catalog Number: 25495

*Laura A. Frahm*

*Half course (fall term). Th., 11:30–1 and a weekly film screening W., 1–3.*

A new course that explores the history of visual music throughout the 20th century and across different media. Our topics will range from early avant-garde films and Disney ani-mations to post-war art scenes and pioneers of electronic music to a survey of jukebox films and music videos. By bridging the gap between experimental and popular approaches to visual music, this course will provide a multi-layered history of the inter-relations between film, video, animation, and music.



*Note:* Expected to be given in 2015–16. This course has an additional weekly film screening Wednesday, 1-3 pm.

### **Visual and Environmental Studies 174. Art of the Real - (New Course)**

Catalog Number: 49183 Enrollment: Limited to 15.

*Dennis Lim*

*Half course (fall term). Tuesdays 10am-12pm and a mandatory weekly film screening Mondays 4pm to 6pm. EXAM GROUP: 12*

A historical survey of the documentary from the silent era to the digital present, with an emphasis on documentary as art. The seminar will discuss the evolution of documentary in terms of cinematic engagements with the generative possibilities of the real, the confluence of documentary and experimental film, and the emergence of documentary as a mode of art making.

### **Visual and Environmental Studies 178n. The Documentary Moment - (New Course)**

Catalog Number: 69391

*Dennis Lim*

*Half course (spring term). Tuesdays 11am-1pm and a mandatory weekly film screening on Tuesdays, 3:30 pm to 6:30 pm. EXAM GROUP: 15*

This class will survey recent developments and contemporary tendencies in nonfiction film, in particular those that have led to a redefinition and reconsideration of the form. Topics include the role of digital technology, the status of the moving image in contemporary art, and the proliferation of documentary-fiction hybrid films.

### **Visual and Environmental Studies 179f. Furious Cinema: 1968-1979 - (New Course)**

Catalog Number: 98082 Enrollment: Limited to 20.

*Athina Rachel Tsangari*

*Half course (spring term). Wednesdays 6pm-9:30pm. EXAM GROUP: 13*

Between 1968 and 1979, cinema turned upside down, radicalizing itself in all possible conducts, universally. This spontaneous, synchronized rebellion set new norms, paradigms, movements, and socio-political ethics that reshaped cinema as we know, make, and watch it today. We will survey, dissect, and admire the fury of this decade's ground-breaking movies from across the world, across all genres. Students will respond with scripts or/and visual essays.

*Note:* Attendance at occasional supplementary screenings required.

### **[Visual and Environmental Studies 180. Film, Modernity and Visual Culture]**

Catalog Number: 2874

*Giuliana Bruno*

*Half course (fall term). Th., 11:30-1, a weekly film screening W., 7-9, and a weekly section to be arranged.*

Cinema has changed the way we see and think. Modern visual culture develops with the art of film. Course considers this major 20th century shift in visual perception. We look at "motion" pictures as a product of modernity, born of scientific motion studies, aesthetic and cultural mobility. We relate film to the moving experience of urban space. Key writings and films engage sites of modern movement: home(land) and city, voyage and transport, gender and body.

*Note:* Expected to be given in 2015–16. Offered jointly with the Graduate School of Design as 4131. This course has an additional weekly film screening, Wednesday, 7 pm-9 pm.



### [Visual and Environmental Studies 181. Film Theory, Visual Thinking]

Catalog Number: 0648

*Giuliana Bruno*

*Half course (spring term). Th., 11:30-1, a weekly film screening W., 7-9 pm, and weekly sections to be arranged.*

How do moving images transform the way we think? Introduction to film theory aimed at interpreting the visual world, and developing skills to analyze films and media images. Survey of classical and contemporary film theory goes from turn-of-the-century scientific motion studies to the virtual movements of today. Considers theories of space, time, and motion, including Eisenstein's theory of montage and architecture. Treats visual technology and sensate space, the cultural history of the cinematic apparatus, the body and physical existence, affect and gender, and screen theory. Different theoretical positions guide us in understanding and reading films.  
*Note:* Expected to be given in 2015–16. Offered jointly with the Graduate School of Design as 4132. This course has an additional weekly film screening, Wednesday, 7 pm-9pm.

### [\*Visual and Environmental Studies 182. Film Architectures: Seminar]

Catalog Number: 6864 Enrollment: Limited to 12.

*Giuliana Bruno*

*Half course (fall term). W., 2-4, and weekly film screenings Tu., 7-9pm.*

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 conduct presentations.

*Note:* Expected to be given in 2015–16. Expected to be given in 2014–15. Offered jointly with the Graduate School of Design as 4351. This course has an additional weekly film screening, Tuesday, 7 pm-9pm.

*Prerequisite:* A course in film studies or the equivalent course in cultural studies.

### [Visual and Environmental Studies 183. Cinema and the Auteur]

Catalog Number: 71745

*Tom Conley*

*Half course (spring term). Tu., 11:30-1, and weekly film screenings W., 1-3.*

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 2015–16. This course has an additional weekly film screening, Wednesday, 1-3pm.

### [Visual and Environmental Studies 184. Imagining the City: Literature, Film, and the Arts]

Catalog Number: 5736

*Giuliana Bruno and Svetlana Boym*

*Half course (fall term). Th., 11:30-1, a weekly film screening W., 7-9 pm, and a weekly section to be arranged.*

How do visual representation and narrative figuration contribute to construct urban identity? Explores the urban imagination in different art forms: 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 construction site, interior space and public sphere, technology and virtual cities. We will focus on the European city, as we travel through Paris, Berlin, St. Petersburg, Moscow, Naples and Rome.

*Note:* Expected to be given in 2015–16. Cannot be taken for credit if Literature 184 has been taken. Cannot be taken concurrently with Literature 184. Also offered jointly with the Graduate School of Design as 4353. This course has an additional weekly film screening, Wednesday, 7 pm-9 pm.

### **[\*Visual and Environmental Studies 185x. Visual Fabrics: Art, Media, Materiality Seminar]**

Catalog Number: 1575 Enrollment: Limited to 12.

*Giuliana Bruno*

*Half course (spring term). W., 2-4, and a weekly film screening Tu., 7-9 pm.*

How do the visual arts engage the sensorium? What is the place of materiality in our virtual world? How do film and fashion communicate as objects of material culture? As powerful image makers, film and fashion share a role with architecture and contemporary art. We explore their common language in "fashioning" sensory experience and material visual expression. Readings in contemporary visual theory and diverse film screenings explore the haptic as part of our cultural "fabric". Extensive text(ur)al analysis of Wong Kar-wai's *In the Mood For Love*.

*Note:* Expected to be given in 2015–16. Offered jointly with the Graduate School of Design as 4354. This course has an additional weekly film screening, Tuesday, 7 pm-9 pm.

### **Visual and Environmental Studies 186. Film, Media, Space - (New Course)**

Catalog Number: 55609

*Francesco Casetti*

*Half course (spring term). Tuesdays 4pm to 6pm. EXAM GROUP: 6*

This seminar will explore the subtle relations between media to their surroundings, the way in which they develop a reciprocal influence, the capacity of the media to become environments in themselves, the transitions from a space to another, and the effects of these dynamics on the symbolic economy and on the exercise of power.

### **Visual and Environmental Studies 190. The Horror Film - (New Course)**

Catalog Number: 95879

*Adam Charles Hart*

*Half course (spring term). Tuesday 2-4, and a weekly film screening Monday 3-6. EXAM GROUP: 11*

This course will provide a historical and theoretical survey of the horror film. Beginning in the silent era and working up to recent entries, we will explore the nature of horror and the horrific in the cinema and the various approaches and perspectives that can be utilized to understand these films and their persistent global appeal. We will discuss major films in the genre as well as avant-garde outliers and cult films that push at the boundaries of the genre.

*Note:* This course has mandatory weekly screenings on Mondays, 3pm to 6pm.

*Prerequisite:* No background in film theory or history necessary.



### **Visual and Environmental Studies 192. Cinema and French Culture from 1896 to the Present**

Catalog Number: 8550

*Tom Conley*

*Half course (spring term). M., 1-3, with a mandatory weekly film screening W., 1-3:30. EXAM GROUP: 8*

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:* This course has an additional weekly film screening, Wednesday, 1pm-3:30pm.

### **[Visual and Environmental Studies 193. Fortunes of a Genre: The Western]**

Catalog Number: 51896

*Tom Conley*

*Half course (spring term). Tu. 1-3 and a weekly film screening Tu., 7-9pm.*

Studies American westerns through appreciation of genre theory and history with emphasis on French reception. Includes films of Boetticher, Dwan, De Toth, Ford, Fuller, Hawks, Hellman, Lang, Mann, Ray, Vidor, Walsh, et al.

*Note:* Expected to be given in 2015–16. This course has an additional weekly film screening, Tu., 7 pm-9 pm.

### **[Visual and Environmental Studies 198. American Film Noir]**

Catalog Number: 44686

*Haden Guest*

*Half course (spring term). W., 10-12 and a weekly film screening M., 1-3.*

This lecture offers a critical survey of American film noir, the cycle of dark, fatalistic crime films that flourished in Hollywood during the period between 1940 and 1960 and remains deeply influential today. Focusing on the close study of key films, the course will explore the dominant iconography, tropes and patterns within them in the specific socio-cultural contexts of post-war America and deeper changes at work within the Hollywood studio system and American popular culture.

*Note:* Expected to be given in 2015–16.

### **\*Visual and Environmental Studies 199. The Film Archive: History, Theory, Practice**

Catalog Number: 80068 Enrollment: Limited to 12.

*Haden Guest*

*Half course (fall term). W. 10-12 with a weekly film screening M. 1-3. EXAM GROUP: 5*

This course studies the historical, cultural and philosophical ideas underlying the establishment of the modern motion picture archive in the mid-20th century and its development to the present day. Drawing closely from the collections and practices of the Harvard Film Archive, the film archive will be revealed as a dynamic optic through which to (re)explore notions of historiography, material specificity, visual culture and film studies.

*Note:* This course has an additional weekly film screening, Monday, 1-3 pm.



*Related Courses of Interest for VES Concentrators*

**Aesthetic and Interpretive Understanding 14. Putting Modernism Together**

[Aesthetic and Interpretive Understanding 16. Openings: The Illuminated Manuscript]

[Aesthetic and Interpretive Understanding 26. Race, Gender, and Performance]

[Aesthetic and Interpretive Understanding 36. Buddhism and Japanese Culture]

**Aesthetic and Interpretive Understanding 40. Monuments of Islamic Architecture**

**Aesthetic and Interpretive Understanding 59 (formerly Culture and Belief 54). Nazi Cinema: The Art and Politics of Illusion**

[Culture and Belief 28. Hindu Worlds of Art and Culture]

[Culture and Belief 30. Seeing is Believing: A History of Photography]

[\*Dramatic Arts 133. Directing Film: Telling the Story and Working with Actors]

[\*Dramatic Arts 135. Design for the Theatre: History and Practice]

**\*Dramatic Arts 136. Scenography Studio**

**East Asian Film and Media Studies 140 (formerly Aesthetic and Interpretive Understanding 53). Anime as Global Popular Culture**

[Empirical and Mathematical Reasoning 19. The Art of Numbers]

**\*History 88b. Medieval History and Cinema**

[\*History of Science 152. Filming Science]

**Italian 115. Italian Cinema and the Poetics of Refuse - (New Course)**

[Literature 129. Reading the 18th Century Through 21st-Century Eyes]

[\*Literature 131. The Arab-American Experience in Fiction, Film, and Popular Culture - (New Course)]

[Literature 150. Colonial and Post-Colonial Spaces: France-North Africa]

[Music 263r. Intimate Sound Installations]

[Romance Studies 111. The World of Romance Language Cinemas: A Classical Age]

**\*Science of the Physical Universe 24. Introduction to Technology and Society**

[Slavic 148. Strange Russian Writers]

[Societies of the World 33. Tokyo]

**Societies of the World 38. Pyramid Schemes: The Archaeological History of Ancient Egypt**

[United States in the World 12. American Encounters: Art, Contact, and Conflict, 1560-1860]

**United States in the World 29. Designing the American City: Civic Aspirations and Urban Form**

*Primarily for Graduates*

**\*Visual and Environmental Studies 209r. Curation, Conservation and Programming**

Catalog Number: 30424

*Eric Rentschler*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 11; Spring: 7*

For research and independent projects in the archives, collections, and exhibitions of the Carpenter Center for the Visual Arts, the Harvard Film Archive, or the Harvard Museums and other campus arts institutions. Open only by petition to the Department; petitions should be



presented during the term preceding enrollment, and must be signed by the instructor or staff member with whom the project is to be done.

### **[Visual and Environmental Studies 241. New Media Theory]**

Catalog Number: 86755

*Laura A. Frahm*

*Half course (spring term). W. 12-2 with a weekly film screening Tu., 3-5.*

A new graduate course that surveys new developments in media theory and provides an overview of advanced approaches to the study of media. We will look at different schools and streams of thought that productively expand and transform the established corpus of media theory, ranging from cultural technologies, media archaeology, and object studies to non-representational theory, actor network theory, and process philosophy. Two research projects will further advance our critical survey of new media theory.

*Note:* Expected to be given in 2015–16. This course has an additional weekly film screening, Tuesdays, 3-5 pm.

### **\*Visual and Environmental Studies 250r. The Live Film: Graduate Production Course**

Catalog Number: 43899 Enrollment: Limited to 10.

*Anie Siegel*

*Half course (fall term; repeated spring term). M. 4-7, Tu. 1-4. EXAM GROUP: Fall: 17; Spring: 6*

A course to pursue creative production within a rigorous studio art/film context, this artist's colloquium explores retreating boundaries between the fixity of film and the live-ness of performance. We will consider where early cinema touches performance art meets dance connects with broadcast television relates to live streaming consorts with sculpture associates to theatrical sets. The course focus is the creation of new work. Special attention is given to the development of individual artistic processes.

*Prerequisite:* Priority given to graduate students in Film & Visual Studies and Critical Media Practice, but open to all graduate students with permission of instructor. Graduate School of Design Students are also encouraged to apply.

### **\*Visual and Environmental Studies 270. Proseminar in Film and Visual Studies: History**

Catalog Number: 1741

*Tom Conley*

*Half course (fall term). Tu., 1-3, and a weekly film screening W. 7-9. EXAM GROUP: 8*

Considers film history and the relations between film and history as well as pertinent theoretical approaches to historiography. Critical readings of exemplary film historical studies and careful scrutiny of films both in and as history.

*Note:* Required of all Film and Visual Studies graduate students, as well as graduate students intending to declare a secondary field in Film and Visual Studies. This course has an additional weekly film screening, Wednesdays, 7-9.

### **\*Visual and Environmental Studies 271. Proseminar in Film and Visual Studies: Theory**

Catalog Number: 0159

*Francesco Casetti*

*Half course (spring term). W., 2–4. EXAM GROUP: 18*



An advanced survey of current debates on the place of the moving image in contemporary visual culture and art practice with respect to concepts of space, time, movement, and affect.

*Note:* Required of all Film and Visual Studies graduate students as well as graduate students intending to declare a secondary field in Film and Visual Studies.

**[\*Visual and Environmental Studies 283. Screens: Media Archaeology and Visual Arts Seminar]**

Catalog Number: 74909 Enrollment: Limited to 12.

*Giuliana Bruno*

*Half course (spring term). W., 2–4.*

How do screens function as interface between us and the world? What is the role of the screen in contemporary visual arts and media culture? The art of projection has traveled from film exhibition to art installation. With the interdisciplinary approach of visual studies, we examine the history and archaeology of screen media, their cultural and aesthetic dimensions, from pre-cinematic exhibition to the post-medium condition. Considering the art of screening in the deep time of media, we explore the changing architecture of screen space, at the crossroads of science and art, museum and moving images.

*Note:* Expected to be given in 2015–16. Offered jointly with the Graduate School of Design as 4356.

**[Visual and Environmental Studies 287. Cinema and Nation]**

Catalog Number: 33084

*Eric Rentschler*

*Half course (spring term). Tu., 2-4, with a weekly film screening F., 2-5.*

This course addresses the role of modern media in the formation of local and global identities. In that endeavor we will consider exemplary films from a number of nations as well as pertinent historical and theoretical texts.

*Note:* Expected to be given in 2015–16.

**Visual and Environmental Studies 289. The Frankfurt School on Mass Media and Mass Culture - (New Course)**

Catalog Number: 75119

*Eric Rentschler*

*Half course (spring term). Tu. 1-3 and a weekly film screening F. 1-4. EXAM GROUP: 1*

This seminar considers the Frankfurt School's deliberations on film, radio, television, and mass culture. We will devote the majority of the course to three seminal figures: Siegfried Kracauer, Walter Benjamin, and T. W. Adorno. More generally, we will focus on the debates catalyzed by the emergence of modern mass media and an industrialized visual culture; we will also reflect on the pertinence of these debates for our own contemporary culture of media convergence.

**Visual and Environmental Studies 291. The 1960s and the End(s) of French Cinema - (New Course)**

Catalog Number: 49495

*Thomas F. McDonough*

*Half course (fall term). Wednesdays 2-4 and a mandatory weekly film screening Tuesdays 7-9.*

*EXAM GROUP: 7*



The 1960s are typically seen as a decade when French film flourished, renewed by the youthful energies of the Nouvelle Vague, but for experimental filmmakers and theorists like Guy Debord, Jean-Luc Godard, Chris Marker, or Jean Rouch, it was a period of radical questioning and critique of the medium. This seminar traces an alternate history of postwar French film, focusing on issues of experimental documentary, militant film, and radical theorizations of film and media.

### ***Graduate Courses of Reading and Research***

#### **\*Visual and Environmental Studies 301. Film and Visual Studies Workshop**

Catalog Number: 2867

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: 3*

#### **\*Visual and Environmental Studies 310. Reading and Research**

Catalog Number: 5851

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: 15*

*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.

#### **\*Visual and Environmental Studies 320. Directed Study**

Catalog Number: 0441

*Members of the Department*

*Half course (fall term; repeated spring term). . EXAM GROUP: 4*

#### **\*Visual and Environmental Studies 330. Teaching Workshop - (New Course)**

Catalog Number: 92002

*Matthew Saunders*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 8; Spring: 1*

This course serves as an introduction to teaching in Visual and Environmental Studies, as well as a forum for designing instruction. There will be an emphasis on discussions of hybrid methodologies between research and practice.

#### **\*Visual and Environmental Studies 351hf (formerly \*Visual and Environmental Studies 350hf). Film Study Center Non Fiction Filmmaking Workshop**

Catalog Number: 85749

*Lucien G. Castaing-Taylor*

*Half course (throughout the year). W., 6–9 p.m. EXAM GROUP: Fall: 13; Spring: 9*

A graduate workshop for Film Study Center non-fiction film and video projects.

*Note:* Admission Limited to Critical Media Practice graduate students and Film Study Center fellows.



**\*Visual and Environmental Studies 355r. Critical Media Practice - (*New Course*)**

Catalog Number: 69713

*Lucien G. Castaing-Taylor and Matthew Saunders*

*Half course (spring term). M., 6–8 p.m. EXAM GROUP: 11*

This course is for graduate students pursuing the PhD Secondary Field in Critical Media Practice, as well as for other students creating artistic or interpretive media projects that are complementary to their scholarship.

*Prerequisite:* Interview with instructor.

***Related Courses of Interest for Film and Visual Studies Graduate Program***

[\*Anthropology 1836br (formerly \*Anthropology 1836bbr). Sensory Ethnography II: Studio Course]

[\*\*Anthropology 2688. The Frankfurt School, Film, and Popular Culture\*\*](#)

[\*\*\\*Literature 146. Space and Place: The Environment in Film\*\*](#)

[Music 263r. Intimate Sound Installations]

[\*Romance Studies 219. Digital Humanities 2.0: a metaLAB(at)Harvard seminar]

[\*Visual and Environmental Studies 185x. Visual Fabrics: Art, Media, Materiality Seminar]

[\*\*\\*Visual and Environmental Studies 270. Proseminar in Film and Visual Studies: History\*\*](#)

[\*\*\\*Visual and Environmental Studies 271. Proseminar in Film and Visual Studies: Theory\*\*](#)

\*Visual and Environmental Studies 301. Film and Visual Studies Workshop

\*Visual and Environmental Studies 310. Reading and Research

\*Visual and Environmental Studies 320. Directed Study

\*Visual and Environmental Studies 351hf (formerly \*Visual and Environmental Studies 350hf). Film Study Center Non Fiction Filmmaking Workshop

## 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***

Alice Jardine, Professor of Romance Languages and Literatures and of Studies of Women, Gender, and Sexuality (*Chair*)

Robin M. Bernstein, Professor of African and African American Studies and of Women, Gender and Sexuality (*on leave 2014-15*)

Josiah Blackmore, Nancy Clark Smith Professor of the Language and Literature of Portugal



Michael Bronski, Professor of the Practice in Media and Activism  
 Peter J. Burgard, Professor of German  
 Stephen Louis Burt, Professor of English (*on leave fall term*)  
 Nancy F. Cott, Jonathan Trumbull Professor of American History  
 Annette Gordon-Reed, Professor of Law in the Faculty of Law; and Professor of History in the Faculty of Arts and Sciences (*on leave 2014-15*)  
 Mark D. Jordan, Andrew W. Mellon Professor of Christian Thought in the Faculty of Divinity, and Professor of Studies of Women, Gender, and Sexuality in the Faculty of Arts and Sciences (*Divinity School*)  
 Ju Yon Kim, Assistant Professor of English  
 Caroline Light, Lecturer on Studies of Women, Gender, and Sexuality (*Director of Undergraduate Studies*)  
 Tey Meadow, Assistant Professor of Sociology and of Studies in Women, Gender, and Sexuality  
 Marcyliena Morgan, Professor of African and African American Studies  
 Afsaneh Najmabadi, Francis Lee Higginson Professor of History and Professor of the Studies of Women, Gender, and Sexuality (*on leave 2014-15*)  
 Ahmed Ragab, Richard T. Watson Assistant Professor of Science and Religion (*Divinity School*) (*Affiliate of the Department of the History of Science*)  
 Laurence A. Ralph, Assistant Professor of African and African American Studies and Anthropology  
 Sindhumi Revuluri, Associate Professor of Music  
 Sarah S. Richardson, John L. Loeb Associate Professor of the Social Sciences  
 Sophia Roosth, Assistant Professor of the History of Science  
 Laurel Thatcher Ulrich, 300th Anniversary University Professor  
 Jocelyn Viterna, Associate Professor of Sociology  
 Tomiko Yoda, Takashima Professor of Japanese Humanities

### ***Other Faculty Offering Instruction in Studies of Women, Gender, and Sexuality***

Madina Agenor, Lecturer on Studies of Women, Gender, and Sexuality  
 Kimberly Juanita Brown, Visiting Assistant Professor of Studies of Women, Gender, and Sexuality  
 Julie R. Grigsby, Lecturer on Studies of Women, Gender, and Sexuality  
 Meghan Elisabeth Healy, Lecturer on Studies of Women, Gender, and Sexuality  
 Laura K. Johnson, Lecturer on Studies of Women, Gender, and Sexuality  
 Elizabeth Singer More, Lecturer on History and Literature, Lecturer on Studies of Women, Gender, and Sexuality  
 Mari Ruti, Visiting Professor of Studies of Women, Gender, and Sexuality  
 Linda Schlossberg, Lecturer on Studies of Women, Gender, and Sexuality  
 Katherine Stanton, Lecturer on Studies of Women, Gender, and Sexuality

### ***Affiliated Members***

Verena A. Conley, Visiting Professor of Comparative Literature and of Romance Languages and Literatures



***Primarily for Undergraduates***

**\*Studies of Women, Gender, and Sexuality 91r. Supervised Reading and Research**

Catalog Number: 6225

*Director of Studies and staff*

*Half course (fall term; repeated spring term). Fall: (F.), at 8. EXAM GROUP: Fall: 10; Spring: 14*

The study of selected topics in studies of women, gender, and sexuality.

**\*Studies of Women, Gender, and Sexuality 97. Tutorial-Sophomore Year**

Catalog Number: 7217

*Caroline Light*

*Half course (spring term). Tu., Th., 11:30–1. EXAM GROUP: 15*

An introduction to foundational concepts and skills in the study of gender and sexuality.

Readings include Gloria Anzaldúa, Donna Haraway, Patricia Hill Collins, Kimberlé Crenshaw, Monique Wittig, Alison Bechdel, Chandra Talpade Mohanty, and Michel Foucault.

*Note:* Required of Women, Gender, and Sexuality concentrators in their first year in the concentration. Recommended for undergraduates pursuing a secondary field in WGS.

**\*Studies of Women, Gender, and Sexuality 98f. Tutorial - Junior Year: Research and Methods**

Catalog Number: 24505 Enrollment: Open only to juniors on leave in the spring term.

*Sarah S. Richardson*

*Half course (fall term). (Tu.), at 10. EXAM GROUP: 12*

*Note:* WGS Juniors are expected to take 98s in the spring term. This course is only open to students planning to be on leave in the spring term of the junior year. Permission from the DUS in WGS and updated plan of study required.

**\*Studies of Women, Gender, and Sexuality 98s. Tutorial - Junior Year: Research and Methods**

Catalog Number: 8094

*Sarah S. Richardson*

*Half course (spring term). M., 3–5. EXAM GROUP: 17*

This course supports the writing of the junior paper through seminar discussions and one-on-one tutoring. In the seminar portion of the course, students discuss feminist methodologies across the humanities, social sciences, and life sciences through engagement with diverse readings from these fields. In the practicum, students work with an individual tutor on a semester-long research project in his or her area of interest.

*Note:* Required of all Honors concentrators in their junior year.

**\*Studies of Women, Gender, and Sexuality 99a. Tutorial — Senior Year**

Catalog Number: 6763

*Linda Schlossberg*

*Half course (fall term; repeated spring term). (F.), 10:30–12. EXAM GROUP: 5*

*Note:* Both WGS 99a and 99b are required of all honors concentrators in their senior year.



### **\*Studies of Women, Gender, and Sexuality 99b. Tutorial — Senior Year**

Catalog Number: 5847

*Linda Schlossberg*

*Half course (fall term; repeated spring term). Fall: (F.), 10:30–12. EXAM GROUP: Fall: 5;*

*Spring: 8*

*Note:* Both WGS 99a and 99b are required of all honors concentrators in their senior year.

#### ***For Undergraduates and Graduates***

#### **[\*Studies of Women, Gender, and Sexuality 1127. Beyond the Sound Bite: Women, Gender, and Sexuality in The Daily News]**

Catalog Number: 48191 Enrollment: Limited to 35.

*Alice Jardine*

*Half course (spring term). Tu., Th., at 12 and a one hour section to be arranged.*

We are bombarded by sound bites from all over the globe, moving at disorienting speeds, reorganizing our relationship to time and space with increasingly dystopic results. This course will focus on selected televisual and digital events in "real time" from February-May 2014. We will analyze the embedded bits of gender and sexuality always at work in the representations of those events. Topics include: politics, the environment, military adventures, and popular revolt in dialogue with important texts in WGS Studies.

*Note:* Expected to be given in 2015–16.

#### **Studies of Women, Gender, and Sexuality 1200fh. Our Mothers, Ourselves: Postwar American Feminist Thought**

Catalog Number: 3042

*Alice Jardine*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

The classics of American postwar, mainstream feminist thought are sometimes assumed, sometimes reviled, but rarely re-read. In this seminar, we will read critically across four decades of widely-read, influential feminist books, keeping constantly in view the philosophical and political, psychological and historical, legal and ethical questions at the heart of women, gender, and sexuality studies today.

#### **\*Studies of Women, Gender, and Sexuality 1210qt. Queer Theory**

Catalog Number: 9232 Enrollment: Limited to 15.

*Tey Meadow*

*Half course (spring term). Tu., 1–3. EXAM GROUP: 1*

What is "queer"? What relationship does queer have to "homosexuality," "LGBT," or any conventional understanding of gender, sexuality, culture, history or politics? This course surveys the interdisciplinary field of queer theory, from its emergence two decades ago to its present day articulations. We will examine queerness as a conceptual category, as identity (or anti-identity), and its relation to race, ethnicity, nationality, class, as well as to artistic production and activism. We will likewise interrogate "theory" itself, what it is, what it does, and what interventions it can perform. Other topics include recent work on futurity, utopia, place, risk and intimacy.



### **\*Studies of Women, Gender, and Sexuality 1211. Queer Practice - (New Course)**

Catalog Number: 63756 Enrollment: Limited to 12.

*Tey Meadow*

*Half course (fall term). W., 1–3. EXAM GROUP: 1*

Is there a particularly "queer" way to live? Does a queer perspective mitigate for certain forms of social, interpersonal or political action? Are there sets of vocations, engagements or relationship formations that are, in and of themselves, distinctly queer? Or is queerness something that can infuse or transform pre-existing modes of personal or relational action? Is a university education or academic queer theory necessary, or even useful, for these endeavors? Students will examine the connections and disconnects between academic work in gender and sexuality studies and the ways feminist and LGBTQ politics are imagined and lived within contemporary activist communities.

### **\*Studies of Women, Gender, and Sexuality 1221. La Chicana: Race, Gender, and Mexican-American Identity - (New Course)**

Catalog Number: 56336 Enrollment: Limited to 15.

*Julie R. Grigsby*

*Half course (fall term). M., 3–5. EXAM GROUP: 6*

This course is an interdisciplinary exploration of the Chicana identities through feminist histories and scholarship. Beginning with a brief historical overview of Mexican American women in the U.S., we'll consider the emergence of Chicana feminism and examine the genesis of the term, "Chicana" as it was developed and deployed during El Movimiento in the early 1970's. Then move into contemporary explorations of identity including race, regional difference, art, literature, and community organizing. Course participants will gain the ability to recognize the interplay of social processes on the development of identity, especially within U.S. cultural institutions.

### **\*Studies of Women, Gender, and Sexuality 1228. Race, Gender, and Criminality - (New Course)**

Catalog Number: 15864 Enrollment: Limited to 15.

*Julie R. Grigsby*

*Half course (spring term). M., 1–3. EXAM GROUP: 8*

What is a crime and who is a criminal? How are social understandings of punishment and control informed by hegemonic racial ideologies? How do the answers to these questions change the ways we imagine and respond to news? to violence? or social inequity? This seminar will examine the complex intersections between race, gender, poverty, and crime within U.S. cultural, political and social contexts. To do this, we will explore historical and contemporary studies that provide arguments about the connections between race, gender, poverty and the criminal justice system. Topics include: mass incarceration, policing, violence, reproductive control and media representations of crime.

### **\*Studies of Women, Gender, and Sexuality 1233. Gender, Sexual Violence, and Empire**

Catalog Number: 4121 Enrollment: Limited to 15.

*Katherine Stanton*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

Making the case for what Deepika Bahri identifies as the "prominent and constitutive" role of



gender-and sexuality-in colonial formations, this course will examine how gendered and sexed ideas and practices were critical to signifying racial difference, naturalizing exploitation, symbolizing the colonial mission, and managing colonial economies. We will ask, with Ann Laura Stoler, was sexual domination a metaphor for colonial power, or the very "substance" of imperial policy?

**[\*Studies of Women, Gender, and Sexuality 1234. A Voice of One's Own: Creative Writing in Women, Gender, and Sexuality]**

Catalog Number: 12567 Enrollment: Limited to 12.

*Linda Schlossberg*

*Half course (spring term). Tu., Th., 11:30–1.*

Students write and analyze short stories, paying close attention to key writing concepts such as characterization, voice, point-of-view, dialogue, and setting, while also investigating thematic issues related to women, gender, and sexuality studies. Frequent writing assignments, including written evaluations of peers' stories.

*Note:* Expected to be given in 2015–16.

**[\*Studies of Women, Gender, and Sexuality 1237. LGBT Literature]**

Catalog Number: 44338 Enrollment: Limited to 25.

*Linda Schlossberg*

*Half course (fall term). Tu., Th., 11:30–1 and a one hour section to be arranged.*

This course examines a range of works from the British and American LGBT canon. Our starting premise will be that LGBT themes have been central, rather than peripheral, to the Western literary tradition. We'll pay close attention to how sexual identity and desire are understood and represented in different social and historical circumstances, as well as the aesthetic traditions and personal experiences shaping these individual works. Authors include James Baldwin, E.M. Forster, Nella Larsen, Virginia Woolf.

*Note:* Expected to be given in 2016–17. This course, when taken for a letter grade, meets the General Education requirement for Aesthetic and Interpretive Understanding.

**[\*Studies of Women, Gender, and Sexuality 1243. Men to Boys: Masculinity in Postwar Hollywood Film]**

Catalog Number: 46977 Enrollment: Limited to 25.

*Michael Bronski*

*Half course (spring term). M., 1–3 and a one hour section to be arranged.*

This survey course examines the changing images of masculinity in Hollywood films from 1950 to the present. We will use the films, critical readings, feminist theory, film theory and primary source materials to chart the enormous changes in how postwar culture conceptualized "manhood" and "masculinity." Beginning with post-World War II films such as "The Men," and then covering Vietnam films and sports films such as "Rocky" and "Raging Bull" we will end with popular comedies celebrating male immaturity of Judd Apatow. We will be analyzing the films in the economic, political, sociological, and psychological context in which they were made and to which they were responding.

*Note:* Expected to be given in 2015–16.



### **\*Studies of Women, Gender, and Sexuality 1247. I Will Survive: Women's Political Resistance Through Popular Song - (New Course)**

Catalog Number: 82696 Enrollment: Limited to 35.

*Michael Bronski*

*Half course (fall term). M., 1–3 and a one hour section to be arranged. EXAM GROUP: 1*  
 This course will examine how women, through popular music, have articulated clear political analysis to their oppression that has reached large audiences and become foundational to American culture. We will begin with African-American blues in the early 20th century and moving through jazz, torch singing, folk, girl groups, disco, and contemporary song. Along their music readings we will include biographical, historical, and critical texts that will place these women in their artistic and political contexts. Performers studied will include, among others, Bessie Smith, the Boswell Sisters, Billie Holiday, Marian Anderson, Peggy Lee, Joan Baez, Gloria Gaynor, and Amy Winehouse.

### **\*Studies of Women, Gender, and Sexuality 1249. Gender in African History**

Catalog Number: 60756 Enrollment: Limited to 15.

*Meghan Healy-Clancy*

*Half course (fall term). Tu., 3–5. EXAM GROUP: 2*

This seminar surveys the changing politics of gender across African history, in conversation with global histories of gender and sexuality. We investigate three questions: How can we understand the history of gender in Africa before colonialism? What role did gender play in the making and unmaking of colonialism? How have nationalist and postcolonial politics been defined by gendered categories? Readings include case studies from west, east, and southern Africa, treating themes from the history of sexuality to the history of political culture. Each student will present an original research project related to course themes.

### **\*Studies of Women, Gender, and Sexuality 1253. Sexual Health and Reproductive Justice - (New Course)**

Catalog Number: 79811 Enrollment: Limited to 15.

*Madina Agenor*

*Half course (fall term). W., 3–5. EXAM GROUP: 6*

This intermediate-level seminar investigates the connections between sexuality, reproduction, public health, and social justice. We will examine how inequities related to gender, race/ethnicity, socioeconomic position, and sexual orientation influence the sexual and reproductive health and rights of socially and economically marginalized groups of women in the contemporary United States, especially women of color and poor and low-income women but also lesbian, bisexual, and transgender women. Using public health and social justice lenses, we will focus on the following topics: pregnancy, birth, abortion, contraception, forced sterilization, sexual violence, cervical cancer, and HIV/AIDS.

### **[Studies of Women, Gender, and Sexuality 1258. Friends with Benefits?]**

Catalog Number: 12001

*Afsaneh Najmabadi*

*Half course (fall term). M., W., at 11 and a one hour section to be arranged.*

How many people would you count as your friends? Facebook friends? Facebook Close Friends? Google+ friends? Other network friends? Friends with Benefits? Does sex get in the way of



friendship? Are your friends mostly of the same sex/gender/sexuality? Is it harder to make friends with persons of different sex/gender/sexuality? How have friendships changed as people have become more embedded in online communities? The course will begin with a consideration of current conversations about friendship, including popular TV serials -- such as "Friends," "Sex and the City," "New Girl," and "The Inbetweeners" -- in which friendships are lived and variously configured through sexual relationships. What could we make about meanings of friendship and sex, and their inter-relationship, in contemporary American culture? We will read various texts that form historical threads that inform our contemporary concepts and practices of friendship and romance. Readings will include Winthrop, Plato, Cicero, Biblical sources, St. Augustine, St. Aquinas, Montaigne, Bray, Marcus, Sedgwick, and Foucault. Finally, we will return to contemporary America, asking what gay marriage, Facebook, and changing conceptions of masculinity/femininity are doing to/for friendship.

*Note:* Expected to be given in 2015–16. This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief.

**\*Studies of Women, Gender, and Sexuality 1261. On Love: Gender, Sexuality, Identity - (New Course)**

Catalog Number: 55146 Enrollment: Limited to 15.

*Mari Ruti*

*Half course (spring term). W., 1–3. EXAM GROUP: 8*

Is romantic love a life-altering "event" in Alain Badiou's sense? Or is it a biopolitical tool of neoliberal control in Michel Foucault's sense? This course examines love from a philosophical, psychoanalytic, critical theoretical, and cultural studies perspective. Special attention is given to the foundational role of love in how Western subjects negotiate the complexities of gender, sexuality, and identity.

**\*Studies of Women, Gender, and Sexuality 1271. Women and War: Gender, Race, and the Politics of Militarism - (New Course)**

Catalog Number: 92764 Enrollment: Limited to 15.

*Elizabeth Mesok*

*Half course (fall term). Th., 3–5. EXAM GROUP: 2*

This course examines scholarship on gender, sexuality, and race within a multitude of feminist disciplines in order to suggest productive interventions in analyses of women and warfare. Refuting essentialized notions of womanhood as passive, peaceful, and submissive, this class encourages students to move beyond thinking about what men and women do in war, and instead consider how gendered constructs are necessary for war. Memoirs, documentaries, military policy, and legal cases will serve as case studies to analyze contemporary and historical issues of gender and militarism.

**\*Studies of Women, Gender, and Sexuality 1272. Global Reproductive Health - (New Course)**

Catalog Number: 81563 Enrollment: Limited to 15.

*Madina Agenor*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

This course examines how poverty, development and global health policies, legacies of colonialism, and public infrastructure influence sexual and reproductive health outcomes



(pregnancy, maternal and child health, HIV/AIDS, cervical cancer) and access to sexual and reproductive health services (family planning, abortion, HIV testing and counseling, cervical cancer screening) among women in developing countries. We will also address how inequities based on socioeconomic position, ethnicity, nationality, religion, gender, and sexuality shape sexual and reproductive health inequities within countries in the Global South and how women have responded to these challenges through individual and collective agency.

**\*Studies of Women, Gender, and Sexuality 1407. Harlots, Dandies, Bluestockings: Sexuality, Gender, and Feminism in the 18th and 19th Centuries**

Catalog Number: 0730 Enrollment: Limited to 12.

*Linda Schlossberg*

*Half course (fall term). Th., 1–3. EXAM GROUP: 8*

How did social forces in the 18th and 19th centuries shape (and contest) new theories of womanhood, sexuality, and political equality? Readings from a variety of literary and political sources, including "*Fanny Hill: Memoirs of a Woman of Pleasure*," "*Moll Flanders*," "*The Picture of Dorian Gray*," "*Dr. Jekyll and Mr. Hyde*," "*A Vindication of the Rights of Women*." Areas of inquiry: prostitution, the suffrage movement, motherhood, property rights, psychology, manliness, sexology, Victorian pornography.

**[\*Studies of Women, Gender, and Sexuality 1421. Medical Management of the Female Body]**

Catalog Number: 21083 Enrollment: Limited to 15.

*Sarah S. Richardson*

*Half course (spring term). W., 1–3.*

This course examines how Western medical knowledge, practices, and institutions define female health and normality and manage diseased and gender-variant female bodies. How, for instance, does medicine conceive of the female body as a medical problem or mystery and how do race, class, and sexuality inflect these conceptions? Topics include: "female maladies," medicalization of childbirth and the pregnant body, medical management of transgender and intersexed bodies, ideals of fitness, cosmetic surgery, disability, and pharmaceutical marketing.

*Note:* Expected to be given in 2015–16.

**\*Studies of Women, Gender, and Sexuality 1424. American Fetish: Consumer Culture Encounters the Other**

Catalog Number: 91598 Enrollment: Limited to 12.

*Caroline Light*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

How are notions of human difference, including ethnicity, race, gender, and sexuality, used to sell products in an increasingly global market? We will start in the nineteenth century with the rise of consumer culture, examining how cultures and people considered "primitive" achieved value as objects for exchange and entertainment, and then investigate how this idea takes shape in our contemporary moment. Topics include: sex tourism; commodification of "queer" and multiracial aesthetics; "compassionate" consumption.

*Note:* This course, when taken for a letter grade, meets the General Education requirement for Culture and Belief.



### **\*Studies of Women, Gender, and Sexuality 1440. Mommy Wars: Race, Class, and the Politics of Motherhood**

Catalog Number: 29785 Enrollment: Limited to 15.

*Elizabeth Singer More*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

The term "mommy wars" emerged in 1990 to suggest that relations between "working mothers" and "stay at home mothers" were characterized by mutual animosity and petty status battles between women defined through their roles as mothers. Yet the political, cultural, and economic struggles over motherhood have deep roots and high stakes. This seminar will look critically at the history and literature of the "mommy wars," from The Feminine Mystique to contemporary advice literature, paying special attention to voices often excluded from mainstream media representations. Topics include mothers in the workplace, race and reproduction, caring labor, and class in discourses of "good" and "bad" mothering.

### **\*Studies of Women, Gender, and Sexuality 1463. Reading Hollywood: Feminist Film Theory - (New Course)**

Catalog Number: 71551 Enrollment: Limited to 15.

*Mari Ruti*

*Half course (fall term). Tu., 1–3. EXAM GROUP: 8*

This course examines the construction of desire, pleasure, and fantasy in Hollywood film. Drawing on current debates in feminist film theory - as well as on related fields such as queer theory, critical race theory, and psychoanalysis - the course focuses on theories of the gaze, fetishization, racialization, heteronormativity, and the subversive potential of mainstream film.

### **\*Studies of Women, Gender, and Sexuality 1467. Sex, Race, and The Visual: Studies in Art and Literature - (New Course)**

Catalog Number: 66514 Enrollment: Limited to 12.

*Kimberly Juanita Brown*

*Half course (spring term). W., 3–5. EXAM GROUP: 17*

This course will examine categories of race, gender, sex, and sexuality through the lens of the visual. Using contemporary literature, photography, performance art, film, and theories of the visual, our task is to investigate the import and utility of embodiment. How do race, gender, and sexuality function in artistic imaginary? What can we glean from cultural productions that engage the viewer/reader in ways that challenge ideas about conformity, fluidity, belonging, and self-reflection? More than a linear literary or theoretical trajectory, this course will provide a template for all the mechanisms of the visual-psychological and ocular, interpretive, rhetorical and performative.

*Primarily for Graduates*

### **\*Studies of Women, Gender, and Sexuality 2000. Introduction to WGS: Graduate Proseminar**

Catalog Number: 9620 Enrollment: Limited to 15.

*Mari Ruti*

*Half course (spring term). Th., 1–3. EXAM GROUP: 1*

This course offers an introduction to theoretical themes in the study of women, gender, and



sexuality. Special attention is given to recent critical debates that have (re)energized the field and that cross disciplinary boundaries. The course also addresses matters of professional development.

*Note:* Will count as the Graduate Proseminar for the PhD secondary field requirement in WGS.

**\*Studies of Women, Gender, and Sexuality 2012. Sex as an Ethical Problem (Graduate Seminar in General Education) - (New Course)**

Catalog Number: 99186 Enrollment: Limited to 12.

*Mark D. Jordan (Divinity School)*

*Half course (spring term). Tu., 2–4. EXAM GROUP: 11*

This seminar will draft and then evaluate alternate plans on ethical reasoning about sexual acts, desires, and identities. In an astonishingly short time, sex has been pushed from the center of American morality to somewhere beyond the edge of it. A hundred years ago, "immorality" without qualification usually meant sexual misconduct, especially by women. Today many Americans are unclear whether there is any morality to sex beyond counsels of hygiene or responsible reproduction. This rapid historical change makes sex a very good place to think not only about how ethical reasoning changes, but what it does and doesn't add to human lives. The seminar will consider the full range of topics pertinent to a course on sexual ethics, but also and perhaps more importantly the array of possible pedagogies.

*Note:* The seminar will design and develop a General Education course on these themes for undergraduates.

***Graduate Courses of Reading and Research***

**\*Studies of Women, Gender, and Sexuality 3000. Reading and Research**

Catalog Number: 17353

*Robin M. Bernstein 5411 (on leave 2014-15), Michael Bronski 6029, Alice Jardine 7457, Mark D. Jordan (Divinity School) 6279, Tey Meadow 7665, Afsaneh Najmabadi 4052 (on leave 2014-15), and Sarah S. Richardson 6730*

*Half course (fall term; repeated spring term). Hours to be arranged. EXAM GROUP: Fall: 1; Spring: 8*

*Note:* Open only by petition. Applicants for admission should first confer with the Director of Graduate Studies.

***Of Related Interest***

Courses related to the studies of women, gender, and sexuality offered by other departments are listed below. Many of the courses may be taken for graduate credit. 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. This list is for informational purposes only and courses are not pre-approved for WGS concentration credit. For courses offered by other departments that are approved for WGS concentration credit please contact the WGS main office.

**[Aesthetic and Interpretive Understanding 26. Race, Gender, and Performance]**

**African and African American Studies 118. The History of African Americans From the Slave Trade to the Civil War**



[African and African American Studies 120x. African American Theatre, Drama, and Performance]

[African and African American Studies 183x. Queer of Color Theory]

[Culture and Belief 22. The Ancient Greek Hero](#)

[Culture and Belief 41. Gender, Islam, and Nation in the Middle East and North Africa]

[Culture and Belief 61. Gender and Science: From Marie Curie to Gamergate - \(New Course\)](#)

[French 70b. Introduction to French Literature II. 19th and 20th Centuries: Tales of Identity](#)

[French 157. The Hermaphroditic Imagination]

[History 1462. History of Sexuality in the Modern West](#)

[History 2805. Gender and Sexuality: Comparative Historical Studies of Islamic Middle East, North Africa, South, and East Asia: Seminar]

[History of Science 108. Bodies, Sexualities, and Medicine in the Medieval Middle East](#)

[Japanese Literature 133. Gender and Japanese Art]

[Portuguese 40. Images of Brazil: Contemporary Brazilian Cinema](#)

[Sociology 22. Men, Women, and Work](#)

[Sociology 115. Media and Popular Culture](#)

[United States in the World 16. Men and Women in Public and Private: the US in the 20th Century]

[Visual and Environmental Studies 181. Film Theory, Visual Thinking]

[\*Visual and Environmental Studies 182. Film Architectures: Seminar]

[Visual and Environmental Studies 184. Imagining the City: Literature, Film, and the Arts]

[\*Visual and Environmental Studies 185x. Visual Fabrics: Art, Media, Materiality Seminar]