The college: Arts & sciences

African & African-American Studies

Department: African & African-American Studies
Course: AAS 110
Title: Introduction to African and African-American Studies
Cross-listed: HIS 110
Instructor: Hudson, L. **Class Size:** 15
Description: Please see HIS 110 for the Description.

Department: African & African-American Studies
Course: AAS 151
Title: The Blues
Cross-listed: REL 151, MUR 127
Instructor: Beaumont, D.
Description: The course is about the history and influence of the music known as "the Blues." The course covers development of the blues from the earliest practitioners to recent developments. Biographies of leading musicians and the social conditions in which the music developed are also examined. Finally its enormous impact on American culture both directly and through its descendent rock'in'roll is analyzed. Classroom time will be divided between listening and discussion. A large body of music will be "streamed" - available in digitized files for students in this class to access through their own computers. This will eliminate the problem of one student having checked out the CD etc.

Department: African & African-American Studies
Course: AAS 202
Title: The Third World
Cross-listed: HIS 201/201W
Instructor: Mandala, E.
Exams: mid-term and final
Coursework: One 10-15 page essay
Description: Please see HIS 201 for the Description.

Department: African & African-American Studies
Course: AAS 205
Title: Debates and Theories in Anthropology
Cross-listed: ANT 205
Instructor: Carter, A. **Class Size:** 25
Restrictions: Permission of instructor required for freshmen
Coursework: Three papers; class presentation
Description: This course examines contemporary and historical debates that have shaped theory and method in cultural anthropology. It aims to show how anthropological thought and practice has responded to urgent social issues such as racism, gender inequality, and poverty. The course gives particular attention to the question of what constitutes a public anthropology, that is, how anthropologists engage and address audiences outside of academia.

Department: African & African-American Studies
Course: AAS 210
Title: American Culture
Cross-listed: ANT 245
Instructor: Emmett, A. **Class Size:** 30
Description: Please see ANT 245 for the Description.

Department: African & African-American Studies
Course: AAS 241
Title: Studies in a Major Author: Toni Morrison and Critical Theory
Cross-listed: ENG 243
Instructor: Li, Stephanie
Description: Please see ENG 243 for the Description.

Department: African & African-American Studies
Course: AAS 243
Title: Muhammad and the Qur'an
Cross-listed: REL 240
Instructor: Homerin, Th. E.
Description: Please see REL 240W for the Description.

Department: African & African-American Studies
Course: AAS 249
Title: The Civil War
Cross-listed: HIS 249
Instructor: Hudson, L
Description: Please see HIS 249 for the Description.

Department: African & African-American Studies
Course: AAS 254
Title: West African Dance
Cross-listed: DAN 181
Instructor: Martino, K.
Description: Please see DAN 181 for the Description.

Department: African & African-American Studies
Course: AAS 265
Title: The Black Art Movments

Instructor: Rabig, J.
Description: Students in this course will encounter the black freedom struggle through the literature, music, art, and political activism of the Black Arts Movement. The artistic corollary to Black Power, the Black Arts Movement flourished in the 1960s and 1970s as artists/activists sought to put a revolutionary cultural politics into practice around the country. Though short-lived, the Black Arts Movement had far-reaching consequences for the way artists and writers think about race, history, identity, and the relationship between artistic production and liberation. Well read the work of Amiri Baraka, Sonia Sanchez and other artists who created the traditionally-defined Black Arts Movement in Harlem and trace the movements extension across the country through protest, local political battles, and the emergence of black studies programs. Well explore the overlap of the Black Arts Movement with other political currents in the late 1960s and early 1970s and delve into the long-running debates over class, gender, and ideology that concerned both Black Arts circles and the larger Black Power Movement. Well consider the ways in which the Black Arts Movement lived on in hip-hop and film, as well as the ways in which it was co-opted or distorted.

Department: African and African-American Studies
Course: AAS 270
Title: African-American Visual Culture
Cross-listed: AH 266/466
Instructor: Saab, Joan
Description: Please see AH 266 for the Description.

Department: African & African-American Studies
Course: AAS 277
Title: Energy Resources and Utilization
Cross-listed: CHE 277
Instructor: Ebenhack,B. **Class Size:** 25
Restrictions: Permission of instructor required for freshmen
Coursework: Quizzes, Mid-term and Final Papers
Description: Emphasis will be placed on technical and development aspects of energy resource problems. Applications of resource exploration and development in energy prospective locales which lack commercial energy development will be discussed. The importance of energy to the quality of life in industrial and non-industrialized countries will be considered. Problems considered include: combustion of fossil fuels on environmental grounds, benefits of energy in social development, technology of energy exploration and development, and economics of energy development and acquisition.

Department: African & African-American Studies
Course: AAS 278
Title: Birth and Death II: Making Populations Healthy
Cross-listed: ANT278
Instructor: Homerin, E.
Prerequisites: None; ANT 218 is strongly recommended
Restrictions: Permission of instructor required for freshmen
Exams: 3 papers
Coursework: Regular take-home exams and a research paper. Where appropriate, students will be encouraged to seek internships in NGOs and other agencies providing population-related services.
Description: Please see ANT 278 for the Description.

Department: African & African American Studies
Course: AAS 286
Title: Islam and the Third World
Cross-listed: AAS 278/HIS 244W/REL 247W
Instructor: Homerin, Th. E. **Class Size:** 25
Restrictions: Permission of instructor required
Coursework: 3 papers
Description: This course will study some of the important and often dramatic changes occurring in modern Islam by examining the effects on it of Third World political, social, and economic factors. Case studies will be drawn from twentieth century Islam but placed in context of similar situations involving other religious traditions in South America, Africa, and South Asia.

Department: African & African-American Studies
Course: AAS 335
Title: The Political Economy of Food in Africa
Cross-listed: HIS 347W, HIS 457
Instructor: Mandala, Elias **Class Size:**
Description: Please see HIS 347W for the Description.

Department: African & African-American Studies
Course: AAS 343
Title: Race and the American City
Cross-listed: HIS 343W, HIS 43
Instructor: Wolcott, V. **Class Size:** 15
Restrictions: Permission of instructor required
Exams: Midterm and Final Examination
Coursework: Two papers, 5-7 pages
Description: Race has played a major role in defining the physical, cultural, and political environment of American cities. This course will explore the role of race in urban history in the nineteenth and twentieth centuries. Cities were utopian destinations for generations of immigrants and native-born African-Americans.

Yet, those same cities were marked by racial prejudice, concentrations of poverty, and political corruption. We will examine these contradictions by analyzing the experiences of African American, Latino, and Asian residents of urben centers.

Department: African & African-American Studies
Course: AAS 352
Title: Harlem Renaissance
Cross-listed: PSC 267
Instructor: Tucker, Jeff
Description: See ENG 380

Department: African & African-American Studies
Course: AAS 371
Title: Evolution of the World Economic Order Since the 16th Centruy
Cross-listed: HIS 357W/HIS 457/ECO 371
Instructor: Inikori, J. **Class Size:** 15
Exams: Midterm / Final
Description: Please see HIS 357W for the course description.

Anthropology

Department: Anthropology
Course: ANT 101
Title: Cultural Anthropology
Instructor: Kim, E. **Class Size:** 40
Restrictions: Open only to freshmen & sophomores
Coursework: Lectures, discussion, reading, films, two exams
Description: This course is an introduction to the study of human culture that exposes students to the basic principles of anthropology. Students will be introduced to the range of cultural diversity that exists in the world, from tribal societies to modern nation-states. Through this encounter, students will learn to view exotic cultures in comparative context, and will critically reflect on what it means to be human. NOTE: THIS CLASS IS REQUIRED FOR ANTHROPOLOGY MAJORS BEGINNING IN FALL 2008.

Department: Anthropology
Course: ANT 110
Title: Introduction to Linguistic Analysis
Cross-listed: LIN 110
Instructor: Paauw, S. **Class Size:** 30
Description: See LIN 110 for course description

Department: Anthropology
Course: ANT 201
Title: Theory and Method in Anthropology
Instructor: Reichman, D. **Class Size:** 25
Restrictions: Permission of instructor required Permission of Department required
Description: A survey of major developments in anthropological thought. This class will explore the relationship between sociocultural theory and the methodologies used by anthropologists to conduct ethnographic research such as: participant observation(fieldwork), interviewing, and various writing strategies. (NOTE: This class is required for the anthropology concentration. PERMISSION of instructor is required in Spring 2009)

Department: Anthropology
Course: ANT 204
Title: Ethnographic Themes
Instructor: Emmett, A. **Class Size:** 25
Prerequisites: Introductory cultural anthropology course helpful
Restrictions: Permission of instructor required for freshmen
Description: This course offers an encounter with ethnographies that reveals a fascinating history of engagement with the global and a mesmerizing history of ideas about doing fieldwork and writing about it. Using ethnographies and ethnographic films we will explore some twists and turns of the discipline and examine the kinds of contemporary social and cultural themes that they raise. We will ask how ethnographies, written and visual, link academic debates in the West to the lived experience of local people around the globe. We will also explore distinct ethnographic insights on the global world of the 21st century.

Department: Anthropology
Course: ANT 216
Title: Medical Anthropology
Instructor: Metcalf, L. **Class Size:** 40
Prerequisites: Previous Anthropology or Health and Society courses or permission of instructor
Restrictions: Permission of instructor required for freshmen
Coursework: Three papers
Description: Class will explore the cultural and social dimensions of health and illness including the political and economic dimensions. Particular attention will be placed on how social change affects peoples' health and the delivery of health care. We will also pay critical attention to the practice of Western biomedicine and it's developing role in various societies. Students will use the concepts and methods of anthropology to examine these processes. Cousework will include exams, papers based on independent research, and class participation.

Department: Anthropology
Course: ANT 226
Title: Culture and Consumption
Cross-listed: ANT 426
Instructor: Foster, R **Class Size:** 20
Prerequisites: ANT 101 or 201 helpful
Description: This course explores anthropological approaches to the study of mass consumption and material culture. Specific topics for investigation include: possessions and personhood; the history of modern consumerism in the West; fashion and social status; and the globalization of markets. The course will address these topics, as well as the politics of consumption, through studies of advertising and food provisioning. Students will be required to develop and present a brief research project; students registered for ANT 226 will be asked to do projects on food-related issues. Projects may make use of ethnographic and/or historical methods and/or primary research materials.

Department: Anthropology
Course: ANT 229
Title: War and Migration
Cross-listed: WST 229
Instructor: Kim, E **Class Size:** 20
Description: This course critically examines post-1945 migrations to the U.S. through the lens of war. We will consider the far-ranging impacts of American military intervention in East and Southeast Asia on migration flows and the civil rights of American citizens of Asian descent. We will also consider the experiences of migrants and refugees displaced by war and violence in Latin America and Africa and the transnational communities and nationalist projects that have emerged among exiled groups. Throughout the course we will ask how American geopolitical relations and imperial projects intersect with politics of race, class and gender in the U.S. Readings and films will cover the experiences of war orphans, refugees, military sex workers, and war brides. The course concludes with an examination of the current "war on terror" and its impact on Asian American and Arab American communities in the U.S.

Department: Anthropology
Course: ANT 245
Title: American Culture
Cross-listed: AAS 210
Instructor: Emmett, A. **Class Size:** 30
Description: American Culture? Is there such a thing? This class will explore, discuss and debate this question and some more: If there is an American culture, how can we tackle it? How does anthropology, famous for its research away from home, help us understand current major debates in the United States? How do outsiders understand and evaluate American culture? Is there a return of religion to American public life? How do Americans address power relations, class, gender, ethnicity and race? To tackle these questions we will use assigned readings, films, and current events seen through print and electronic media.

Department: Anthropology
Course: ANT 252
Title: Women in East Asia
Cross-listed: HIS 296
Instructor: Hauser, W. **Class Size:** 30
Description: See HIS 296W for course description

Department: Anthropology
Course: ANT 277
Title: The Museum & 'the Other'
Cross-listed: AH 277
Instructor: Berlo, J **Class Size:** 20
Description: See AH 277 for course description

Department: Anthropology
Course: ANT 278
Title: Birth and Death II: Making Populations Healthy
Cross-listed: AAS 278
Instructor: Carter, A. **Class Size:** 30
Prerequisites: None; ANT 218 is strongly recommended
Restrictions: Permission of instructor required for freshmen
Coursework: Regular take-home exams and a research paper. Where appropriate, students will be encouraged to seek internships in NGOs and other agencies providing population-related services.
Description: Please see ANT 278 for the course description.

Department: Anthropology
Course: ANT 281K
Title: Solving URs Enviro-Footprint
Cross-listed: CHE 281K
Instructor: Ebenhack, B. **Class Size:** 20
Restrictions: Not open to freshmen
Description: See CHE 281K for course description.

Department: Anthropology
Course: ANT 292
Title: Senior Seminar
Instructor: Reichman, D. **Class Size:** 20
Restrictions: Open only to senior majors or by permission of instructor

Description: For Anthropology Majors and Minors, usually in their final semester. An opportunity to reflect upon and pull together the work they have done in the Anthropology concentration. For example, students may expand and revise projects carried out in ANT 291 or during study abroad. Specific content and format of the seminar will be created by students in consultation with the instructor.

Department: Anthropology
Course: ANT 310K
Title: Social Network Theory and Entrepreneurial Activity in Silicon Valley
Cross-listed: SOC 310K
Instructor: Smith, Thomas,Silon, David **Class Size:** 20
Description: See SOC 310K for description

Department: Anthropology
Course: ANT 311K
Title: Social Network Theory and Entrepeneurial Activity in Silicon Valley II
Cross-listed: SOC 311K
Instructor: Smith, T.,Silon, D. **Class Size:** 20
Description: See SOC 311K for course description

American Sign Language

Department: American Sign Language
Course: ASL 101
Title: Beginning American Sign Language I **Class Size:** 18
Exams: frequent quizzes; final
Description: An introductory course in American Sign Language as developed and used by the Deaf community in most areas of North America. It consists of a preparatory phase to attune students to communication in the manual-visual mode, followed by instruction and practice in vocabulary, sentence structure, elementary conversation, and literature. In addition, the course provides a survey of various issues raised by examining ASL and the Deaf community.

Department: American Sign Language
Course: ASL 102
Title: Beginning American Sign Language II **Class Size:** 18
Prerequisites: ASL 101 or ASL Skill Evaluation by designated ASL Program faculty
Exams: frequent quizzes, final
Description: Continuation of basic study of the language and culture; an opportunity to build receptive and expressive sign vocabulary; use of signing space; further nonmanual components of ASL grammar including facial expression and body postures, and introduction of conversational regulators. Discussion of regional and ethnic sign variations, and social, political and educational institutions of the Deaf community. Interaction with members of the Deaf community in both directed and non-directed activities.

Department: American Sign Language
Course: ASL 105
Title: Intermediate American Sign Language I **Class Size:** 18
Prerequisites: ASL 102 or ASL Skill Evaluation
Exams: quizzes and final
Description: This course emphasizes further development of receptive and expressive skills. Introduction to language forms used in ASL poetry and features of culture as displayed in art and theater.

Department: American Sign Language
Course: ASL 106
Title: Intermediate American Sign Language II **Class Size:** 7
Prerequisites: ASL 105 or ASL Skill Evaluation
Exams: quizzes and videotaped final
Description: This course consists of intensive use of expressive and receptive skills in complex grammatical structures, dialogues, and storytelling.

Department: American Sign Language
Course: ASL 110
Title: Comparative Study of French Sign Language
Instructor: Chastel, G. **Class Size:** 18
Prerequisites: ASL 105
Description: Intended for students with intermediate-level skills in ASL. American Sign Language is historically related to French Sign Language (LSF) and this course is designed for students who wish to pursue a comparative study between ASL and its parent language as well as to achieve independence in communication with French deaf people. The main objectives are to gain basic knowledge of modern LSF vocabulary and to examine archaic forms, thus enhancing understanding of sign language evolution and diversity.

Department: American Sign Language
Course: ASL 203
Title: Advanced ASL **Class Size:** 18
Prerequisites: ASL 106. Course open to ASL Majors and Minors only.
Restrictions: Open only to Junior and Senior majors of the offering department
Description: This advanced language course allows students to extend their ASL competence and to use ASL in a variety of discourse and

narrative settings. Skills to be developed are: semantic awareness analysis, in-depth exploration of ASL grammar and complex uses of space, ways of making transitions between ideas, use of classifiers, and determining appropriate perspective in specific texts.

Department: American Sign Language
Course: ASL 205
Title: Art of Translation: ASL and English
Instructor: Clark, P. **Class Size:** 10
Prerequisites: ASL 201
Coursework: Three translation projects will be required.
Description: Introduction to the study of meaning-based translation, with a focus on the analysis of ASL texts and the development of written English translation.

Department: American Sign Language
Course: ASL 208
Title: Language Development
Cross-listed: BCS 259, LIN 208, PSY 259
Description: For description, see BCS 259

Department: American Sign Language
Course: ASL 209
Title: Teaching ASL as a Second Language **Class Size:** 10
Prerequisites: ASL 106
Description: This course is designed to provide an understanding of how sign language is taught in various settings, and to explore current teaching methods and theories. Students learn about the history of Sign Language teaching and resources to support such efforts. Students are provided opportunities to practice basic teaching techniques and to select appropriate classroom materials to introduce cultural and grammatical features.

Department: American Sign Language
Course: ASL 210
Title: Narrative and Poetic Styles in ASL **Class Size:** 18
Prerequisites: ASL 201
Description: Examines the techniques for telling stories or creating poetry in ASL. Eye gaze, role shifting, spatial referencing, and appropriate use of classifiers in storytelling will be featured. ASL poems on videotape are analyzed for their poetic devices and elements. Guest lecturers demonstrate related forms of expression, such as "signlore", signing for the stage, and nonverbal communication. Students will be given the opportunity to create literary forms from their personal experiences, as well as from well-known sources, throughout the course with guidance from the instructor.

Department: American Sign Language
Course: ASL 250
Title: Sociolinguistics of the Deaf Community **Class Size:** 18
Prerequisites: ASL 105
Description: Investigation of language attitudes, language policy, language use in society, and discourse analysis.

Department: American Sign Language
Course: ASL 270
Title: Psych Perspectives on Deafness & Signed Lang
Cross-listed: BCS 270
Instructor: Dye, M.
Prerequisites: BCS/112 or ASL 101 or ASL 200/BCS 264
Description: This course will explore the impact of deafness and using a sign language on human behavior. Topics to be covered will include, but not be limited to, visual perception, language acquisition, acquiring literacy in a written language, and psychological assessment. In all of these domains we will examine how deafness and signing both influences an individual's psychology and the field of psychology itself.

Art & Art History

Department: Art & Art History
Course: AH 100
Title: Introduction to Visual and Cultural Studies
Cross-listed: WST 123
Instructor: Willis, S.
Description: Spring 2009. The aim of this course is two-fold: first, to develop an understanding of the extraordinary variety of ways meaning is produced in visual culture; secondly, to enable students to analyze and describe the social, political and cultural effects of these meanings. By studying examples drawn from contemporary art, film, television, digital culture, and advertising we will learn techniques of analysis developed in response to specific media and also how to cross-pollinate techniques of analysis in order to gain greater understanding of the complexity of our visual world. Grades are based on response papers, class attendance and participation, and a midterm and a final paper. Occasional film screenings will be scheduled as necessary in the course of the semester.

Department: Art & Art History
Course: AH 102
Title: Introduction to Media Studies
Cross-listed: ENG 118/FMS 131
Instructor: Niu, G.

Description: Spring 2009. Please see ENG 118 for the course description.

Department: Art & Art History
Course: AH 107
Title: Ancient Architecture
Instructor: D. Walsh **Class Size:** 30
Description: Spring 2009. This offering introduces architecture of the ancient world with a focus on Egypt, Mesopotamia, the Bronze Age Aegean, Greece and Rome. Of particular interest is the creation and development of urbanism in which spaces and buildings are expressions of political, social, economic and religious aspects of the cultures. Due consideration will be made of the environment as a source not only of materials (and their construction techniques), but as relating to the meaning of buildings and the world view of the cultures.

Department: Art & Art History
Course: AH 120
Title: Northern Renaissance
Instructor: Goehring, M. **Class Size:** 30
Description: Spring 2009. This course surveys the artistic developments outside of Italy in Northern Europe around 1350-1600 - from their late medieval foundations to the art of the early modern cities. Principal attention will be granted to painting with focussed consideration of manuscript illumination. Van Eyck, Bosch, Durer, Holbein, Bruegel, may be among the artists addressed along with topics such as the rise of pictorial genres, nation-states, urban art markets, and other cultural developments of the period.

Department: Art & Art History
Course: AH 130
Title: History of Photography
Instructor: Seiberling, G.
Exams: Two exams
Coursework: One short paper, one longer paper, field trips to GEH every two weeks.
Description: Spring 2009. This survey course will provide an overview of photography from pre-photographic times to the present. Given that there is no single history, but only histories of the medium, the course will explore a variety of approaches to the study of photography, its evolution in relation to other art forms and its role in the development of mass culture. Students taking this course will gain a basic knowledge of photographic history, its major events, practitioners and theorists. We will consider the photographic image in a range of contexts, including art, advertising, journalism and propaganda, and will explore the social, political and ethical consequences of photographic media in our culture. This course will make extensive use of the collections of the International Museum of Film and Photography at the George Eastman House.

Department: Art & Art History
Course: AH 209
Title: Writing on Art
Cross-listed: SA 209
Instructor: Haidu, R. **Class Size:** 20
Restrictions: Permission of instructor required
Description: Spring 2009. Please see SA 209 for the course description.

Department: Art & Art History
Course: AH 221
Title: Classical Archaeology: Roman Art & Archaeology
Cross-listed: CLA 221
Instructor: Colatoni, E.
Description: Spring 2009. See CLA 221 for description.

Department: Art & Art History
Course: AH 242
Title: Barbarian Europe
Cross-listed: HIS 216
Instructor: Walsh, D.
Coursework: Students will be required to write two essays and a research paper on selected topics.
Description: Spring 2009. This offering explores the cultures of northern Europe from the 5th century BCE to the 10th century CE. In the first unit, we will deal with the Celtic peoples from their prehistoric pagan past to their continuing cultural identity after their conversion to Christianity, especially in Ireland. The second unit traces the Germanic peoples from their movement throughout Europe during the Migration Period to their conversion and settlement as Christian kingdoms. The last unit considers the history of the Vikings, "the last of the barbarians", and their impact on the Christian West. The course stresses the sources and interpretation of evidence from Archaeology, art history, historical texts, inscriptions, and place names, which allow us to reconstruct the cultures and assess their contribution to Medieval and, ultimately, Modern society.

Department: Art & Art History
Course: AH 255
Title: Arts in American Culture
Cross-listed: HIS 263
Instructor: Seiberling, G. **Class Size:** 25

Exams: Midterm, final exam, term paper.
Description: Spring 2009. What did it mean to be American? What did America look like, geographically and in terms of its people? What part did art and photography play in documenting and giving an identity to Americans in the century between 1850 and 1950? Attention will be given to documenting and representing the West, immigration, and the emerging urban environment. Students will work with the collections of George Eastman House and the Memorial Art Gallery. Requirements for the course include a short museum paper, a term paper, with draft, and take-home midterm and final exams.

Department: Art & Art History
Course: AH 269
Title: Art of the Floating World
Cross-listed: JPN 269/WST 270
Instructor: Pollack, D.
Description: Spring 2009. Please see JPN 269 for the course description.

Department: Art & Art History
Course: AH 272
Title: Film History--Museum Studies
Instructor: Loughney, P.
Exams: AH 472/ENG 268/ENG 468/FMS 254/FMS 454
Description: Spring 2009. Please see ENG 268 for the course description.

Department: Art and Art History
Course: AH 274
Title: Cultural History of American Architecture
Cross-listed: AH 474
Instructor: Saab, J. **Class Size:** 25
Description: Spring 2009. This course will explore critical issues in American Architecture from an interdisciplinary perspective that focuses on the built environment. How do spaces shape history? Can we locate the history of slavery, corporate capitalism, the Cold War, or cultural imperialism, within their respective architectural spaces: the plantation, the family home, the skyscraper, the fallout shelter, or the international hotel? Over the course of the semester we will look at contemporary monographs of specific spaces alongside the work of key architectural historians and theorists. In addition, we will discuss novels, films, and paintings that foreground the centrality of architecture within American modernity.

Department: Art & Art History
Course: AH 277
Title: The Museum & 'the Other'
Cross-listed: AH 477/ANT 277
Instructor: Berlo, J.
Prerequisites: None.
Description: Spring 2009. For well over 100 years, Euro-Americans have tried to explain and interpret indigenous cultures by means of representations in museums. We will examine museum isplays of Native American and African visual culture, in particular, as exemplified in a century of public exhibits. These will range from Franz Boass displays in the American Museum of Natural History in New York in the 1890s to exhibits in the planning stages at the time the course is being offered. Pivotal moments of inquiry will include Indian Art of the United States (MOMA, 1941), African Art in Motion (The National Gallery of Art, Washington, 1974), Into the Heart of Africa (Royal Ontario Museum, Toronto, 1990), Chiefly Feasts (American Museum of Natural History, NY, 1992), and the professor's own Plains Indian Drawings 1865-1935: Pages from a Visual History (The Drawing Center, NY, 1996). We will also examine how Native American and African American artists, scholars, and curators have represented their own cultures, and critiqued the Euro-American culture of representation, focusing on exhibits such as Fred Wilson's "The Other Museum" (Washington Project for the Arts, Washington, D.C., 1991) and current exhibits at the National Museum of the American Indian in Washington, D.C.

Department: Art & Art History
Course: AH 280
Title: Native American Art and Religion
Cross-listed: REL 238
Instructor: Berlo, J.
Description: Spring 2009. This examination of selected spiritual and artistic traditions of the indigenous peoples of North America will range from the Canadian arctic to the desert southwest, as we look at various ways in which the visual arts articulate religious and philosophical systems of thought. We will explore various traditional practices including shamanism, art and hunting magic in the arctic, and katsina societies at Hopi and Zuni in the southwest. More in-depth readings will focus on Navajo sandpainting and healing, and Lakota religion and ceremony. We will consider topical issues like repatriation, secrecy and privacy, ecology and ethics, as well as New Age appropriation of Native religious traditions.

Department: Art & Art History
Course: AH 282
Title: Renaissance Art: Space, Narrative, Form
Cross-listed: AH 482

Instructor: Duro, P. **Class Size:** 20
Description: Spring 2009. Focusing on the art of fifteenth and sixteenth-century Italy, this course will explore the development of the characteristic structures of renaissance painting, sculpture and architecture through three related concepts: space, narrative and form. These concepts will lead us to study the development of pictorial space in the work of Giotto and his followers, and the parallel, and connected, development of a narrative tradition of storytelling. Together these two initiatives resulted will be shown to culminate in a distinctive pictorial style in which space and narrative work together to produce the appearance of reality often referred to as a window onto the world. But the history of the art of the Italian Renaissance is also the history of a the rise of the artist, of the intellectual and social revolution that was humanism, of the rivalry between city states like Florence, Mantua and Sienna, of workshop tradition, of the patronage of princes of church and state, and above all of those artists whose work has left a cultural legacy that is as vibrant today as it was five centuries ago.

Department: Art & Art History
Course: AH 300
Title: Art New York New Media Culture
Cross-listed: SA 300
Instructor: Cohen, E.
Prerequisites: Special application required; permission of school dean required.
Description: Spring 2009. Please see SA 300 for the course description.

Department: Art & Art History
Course: AH 305K
Title: Art New York Colloquium
Cross-listed: SA 305K
Instructor: Cohen, E.
Prerequisites: Special application required; permission of school dean required.
Description: Spring 2009. Please see SA 305K for the course description.

Department: Art & Art History
Course: AH 307
Title: Rhetoric of the Frame
Cross-listed: AH 507
Instructor: Duro, P. **Class Size:** 15
Description: Spring 2009.The task of any discussion of frames & framing in the visual arts is first and foremost to counter the tendency of the frame to invisibility with respect to the artwork. It is against this tendency to ignore the frame that this seminar is directed. This course aims to show that the frame serves to create a space for the artwork which the work, in itself, is incapable of furnishing. Starting from a consideration of the foundational texts of frame theory in the writings of Immanuel Kant and Jacques Derrida, we will examine the discursive limits of the material and non-material borders in art. Students will have the opportunity to present topics of their choice for discussion in class and for the written assignments.

Department: Art & Art History
Course: AH 326
Title: New Histories of Postwar Art II
Cross-listed: AH 525
Instructor: Haidu, R. **Class Size:** 20
Description: Spring 2009. This is an intensive reading seminar that examines new texts by the emerging generation of art historians. We read books published in the last two to three years, concentrating on three overlapping areas and types of study: urbanism and public space; monographs; and the intersection of the performing and visual arts in the postwar period. Texts include a diagnosis of how "techno-utopia's" agenda substituted for the classic framework of architecture in postwar American urbanism; the hybridization of music theory, film, and "underground" popular culture in the work of artist Tony Conrad; and an examination of the formation of an African-American contemporary art that subtly complicates the primacy of race in artistic identity. Secondary readings accompany each primary text, and grades are based on class participation, reading presentations prepared jointly with other class members; and a short paper expanding the student's presentation.

Department: Art & Art History
Course: AH 355
Title: Feminist Film Theory
Cross-listed: AH 555, FMS 355, FMS 555, ENG 261, CLT 2
Instructor: Willis, S. **Class Size:** 20
Description: Spring 2009. Feminism has had a powerful impact on the developing field of film theory from the 1970s to the present. This course will examine the major feminist work on film, moving from the earlier text-based psychoanalytic theories of representation to theories of feminine spectatorship to studies of reception contexts and audience. We will also give some attention to the very important role of feminist theory in television studies. Weekly screenings, keyed to the readings, will allow us to test the value of these positions for close critical analysis of the film or television text. Readings to include: Laura Mulvey, Kaja Silverman, Constance Penley, Judith Mayne, Linda Williams, Jacqueline Bobo, Valerie Smith, Lynn Spigel, Lynne Joyrich, Julie D'Acci.

Department: Art & Art History
Course: AH 392
Title: Art New York Internship
Cross-listed: SA 392
Instructor: Cohen, E.
Prerequisites: Special application required; permission of school dean required.
Description: Spring 2009. Please see SA 392 for the course description.

Department: Art & Art History
Course: AH 434
Title: Paris: Capital of the 19th Century
Cross-listed: FR 234
Instructor: R. Doran
Description: Spring 2009. See FR 234 for description.

Department: Art & Art History
Course: AH 584
Title: Research Seminar in Visual and Cultural Studies
Instructor: Saab, J. **Class Size:** 15
Prerequisites: Open to Visual and Cultural Studies students only.
Restrictions: See course description for specific prerequisties required
Description: This course is a continuation of AH593 and is limited to first year students. Students should enter with a a fully articulated project. The first few classes will be dedicated to research and writing strategies. The rest of the semester will be dedicated to the students' projects. At the end of the semester, each student will present their work in a professional, conference-style format and complete a paper worthy of publication in an academic journal. Open to Visual and Cultural Studies students only.

Art & Art History -- Studio Arts

Department: Art & Art History -- Studio Arts
Course: SA 111
Title: Introductory Drawing
Instructor: Ashenfelder, S. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Spring 2009. This course is designed as an exploratory investigation into the art of drawing through a traditional and experimental approach. Through a sequence of projects, students will have the opportunity to develop formal artistic skills and spatial relationships while enhancing their conceptual understanding of art as a visual language. Students will work from life and from the imagination to solve both process-oriented and product- oriented visual problems. Students should expect to gain experience in pencil, charcoal, oil pastel, chalk pastel, ink, wax resist, and a variety of non-traditional media. Emphasis is given to learning a variety of processes; the resulting products act as documents of sight and insight. While a significant amount of time will be devoted to studio production, students will also meet regularly for demonstrations, presentations, and discussions. Evaluation will primarily be based on the quantity and quality of studio production as well as the effort to thoughtfully contribute to critiques and discussions. Relevant readings and short papers are to be expected. Students who have taken SA 171 with a drawing component are still invited to enroll. Permission by instructor required. Not open to seniors. Studio art supplies fee: $50.

Department: Art & Art History -- Studio Arts
Course: SA 121
Title: Introductory Painting (2 sections taught)
Instructor: Layton, H. and Ashenfelder, S. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Spring 2009. Designed to introduce students to the art of painting through a traditional and experimental approach. Through a sequence of projects, students will have the opportunity to practice observational painting skills as well as experiment with a variety of non-traditional media and innovative techniques. This course aims to enhance each students understanding of historical and contemporary painting trends through studio practice and classroom dialogue. Ultimately, students will work toward creating mature visual works that communicate meaning effectively. Students will work from life, from found images, and from the imagination to solve both process-oriented and product oriented visual problems. While much of our studio time will be devoted to art production, we will also meet regularly for technique demonstrations, artist presentations, and relevant discussions. Your paintings, in addition to their many other functions, will serve as documentation of your artistic and intellectual pursuit. Formal and informal critiques will regularly follow the completion of most projects. Readings and short papers are to be expected. Permission by instructor only. Not open to seniors. Studio art supplies fee: $50.

Department: Art & Art History -- Studio Arts
Course: SA 131
Title: Introductory 3D
Instructor: Ashenfelder, S. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Spring 2009. A wide range of materials and techniques from metal and welding to assemblage, from wood to experimental methods and media is explored in the service of three

dimensional art making. Investigations of the specific qualities of three dimensional media (i.e. space, form, scale, mass) and how they can convey ideas are made within a contemporary framework. Artworks synthesize a particular choice and use of materials and a concept or expression. It is the aim of this class to develop this synthesis, and in so doing, begin to develop the students own working creative vocabulary. Permission of instructor required. Not open to seniors. Studio art supplies fee: $50.

Department: Art & Art History -- Studio Arts
Course: SA 141
Title: Introductory Photography (two sections taught)
Instructor: Ashenfelder, S. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Spring 2009. The goal of this course is to begin to formulate conceptual ideas and gain the skills and techniques necessary to synthesize these ideas into photographic images. This course will introduce basic techniques and concepts in contemporary photography. Students will read and write on photographers, artists, historians and theoreticians within the context of studio practice. Techniques covered will include basic 35 mm camera operation, black and white film processing and print development. Permission of instructor only. Permission of instructor required. Not open to seniors. Studio art supplies fee: $50.

Department: Art & Art History -- Studio Arts
Course: SA 151
Title: Introductory Digital Art
Cross-listed: FMS 260A
Instructor: Shindelman, M. **Class Size:** 10
Prerequisites: Some familiarity with Macintosh computer required
Restrictions: Permission of instructor required
Description: Spring 2009. For the purpose of this course, the computer and software will be a medium of artistic production. Students will use writings, and readings on contemporary art practice and theory to create work within the framework of contemporary digital art. Software, namely Adobe PhotoShop and Macromedia Dreamweaver , will be the medium for materializing conceptual ideas. Prior experience with the software used in this course is not required. Permission by instructor required. Not open to seniors. Studio art supplies fee: $50.

Department: Art & Art History -- Studio Arts
Course: SA 161
Title: Introductory Video & Sound Art
Cross-listed: FMS 162, ENG 161
Instructor: Middleton, J. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Spring 2009. Please see FMS 161 for the course description. Permission of instructor required. Not open to seniors.

Department: Art & Art History -- Studio Arts
Course: SA 171
Title: Concepts in Introductory 2D: Drawing Collage
Instructor: Ashenfelder, S. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Spring 2009. Students will be introduced to drawing and collage and related practices. They will develop technical proficiency, a critical vocabulary, and a broad understanding of art making's role in culture. Through comparative means, we will consider the possibilities of integrating various techniques, and how through a hybridization of media we can begin questioning the borders of conventional art production. Permission of instructor required. Not open to seniors. Studio arts supplies fee: $50.

Department: Art & Art History -- Studio Arts
Course: SA 209
Title: Writing on Art
Cross-listed: AH 209
Instructor: Haidu, R. **Class Size:** 20
Restrictions: Permission of instructor required
Description: Spring 2009. By analyzing and experimenting with different styles of writing about contemporary and historical arts, we will seek to improve students' own writing and analytical skills. Students will analyze prose by artists, historians, cultural critics, poets, and others who have written on the visual arts. Slide lectures, discussions, and writing projects on objects of diverse media and historical eras will be augmented by visiting speakers and field trips to museums and galleries. This course fulfills one-half of the upper lever writing requirement for both studio and art history majors. Permission of instructor only.

Department: Art & Art History -- Studio Arts
Course: SA 233C
Title: Issues in Advanced 3D
Cross-listed: SA 233A/SA 233B **Class Size:** 10
Restrictions: Permission of instructor required
Description: Please see SA 233A for the course description.

Department: Art & Art History - Studio Arts
Course: SA 244A
Title: Advanced Photo/Digital Art: Color Printing

Cross-listed: SA 244B/244C
Instructor: Shindelman, M. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Spring 2009. This course is an advanced photography and digital printing class. Work is expected to be conceptually challenging as well as technically sound. We will cover studio lighting, advanced camera operation, multiple film formats, advanced digital manipulation in Adobe Photoshop, scanning, color correction, large format printing, and issues in contemporary art and theory. All work will be shot on film and then scanned. Students must have had SA 141: Introductory Photography and SA 151: Introductory Digital Art or a working knowledge of Adobe Photoshop, and the understanding that additional outside work to catch students up to speed on Photoshop will be required. Permission of instructor required.

Department: Art & Art History - Studio Arts
Course: SA 244B
Title: Advanced Photo/Digital Art: Color Printing
Cross-listed: SA 244A/244C
Instructor: Shindelman, M. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Please see SA 244A for the description.

Department: Art & Art History - Studio Arts
Course: SA 244C
Title: Advanced Photo/Digital Art: Color Printing
Cross-listed: SA 244A/244B
Instructor: Shindelman, M. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Please see SA 244A for the description.

Department: Art & Art History -- Studio Arts
Course: SA 262A
Title: Advanced Video & Sound Art
Cross-listed: SA 262B/262C/FMS 262ABC
Instructor: Devereaux, E. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Spring 2009. In this advanced production course, video and sound will be considered as independent art forms as well as part of video installations. Students will produce experimental videos and sound pieces. They will also explore the use of these mediums when combined with two- and three-dimensional materials in real time. This course will cover both analogue and digital formats. Permission of instructor required. Studio arts supplies fee: $50.

Department: Art & Art History -- Studio Arts
Course: SA 262B
Title: Advanced Video & Sound Art
Cross-listed: SA 262A/262C
Instructor: Devereaux, E. **Class Size:** 10
Prerequisites: Prerequisite: Two of the following: SA 141, SA 151, SA 152, SA 171.
Restrictions: Permission of instructor required
Description: Spring 2009. Please see SA 262A for the description.

Department: Art & Art History -- Studio Arts
Course: SA 262C
Title: Advanced Video & Sound Art
Cross-listed: SA 262A/262B/FMS 262A/262B/262C
Instructor: Devereaux, E. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Spring 2008. Please see SA 262A for the description.

Department: Art & Art History - Studio Arts
Course: SA 263A
Title: 3D Digital Time-Based Media
Cross-listed: SA 263B/263C/FMS 263A/263B/263 C
Instructor: Devereaux, E. **Class Size:** 10
Prerequisites: FMS 161/SA 161
Restrictions: Permission of instructor required
Description: Spring 2009. "3D Imaging" introduces the techniques that shape and the theories that inform 3D digital practices. By investigating the unique points of view possible within three-dimensional computer worlds, projects will explore space and time outside of our daily human scale. Techniques covered include 3D modeling, texturing, and animation. Advanced students may independently pursue 3D computer-based production or concentrate exclusively on creating and rigging cyborgs, mecha, or other characters. Final pieces may be created for installation, video, or multimedia applications. Permission of instructor required. Studio arts supplies fee: $50.

Department: Art & Art History - Studio Arts
Course: SA 263B
Title: 3D Digital Time-Based Media
Cross-listed: SA 263A/263C/FMS 263A/263B/263C
Instructor: Devereaux, E. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Spring 2009. Please see SA 263A for the description.

Department: Art & Art History - Studio Arts
Course: SA 263C

Title: 3D Digital Time-Based Media
Cross-listed: SA 263A/263B/FMS 263A/263B/263C
Instructor: Devereaux, E. **Class Size:** 10
Prerequisites: FMS 161/SA 161
Restrictions: Permission of instructor required
Description: Spring 2009. Please see SA 263A for the description.

Department: Art & Art History -- Studio Arts
Course: SA 292A
Title: Markings, Methods, & Materials
Cross-listed: SA 292B/SA 292C
Instructor: Topolski, A. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Spring 2009. This course is dedicated to an intense exploration of alternative media and to the complex and often contradictory ideas surrounding studio production. Students will be expected to challenge their preconceived notions of art and to apply rigorous degrees of experimentation to their own work. The course will address all phases of art making including the conception of an idea, selection of media, the act of making a mark, the relevant decisions made, the technical execution, the aesthetic impact, the intended audience, the motive and content of the work, the related fields of thought, the final presentation, the longevity of its form, and the critical afterthought. Required projects will be both process-oriented and product-oriented and will demand thoughtful participation in every stage of production. Individual and group critiques will provide qualitative evaluation and will aim to be as experimental in structure. Markings, Methods, and Materials can be taken after successful completion of any 100-level studio course. This course may be taken more than once. Permission of instructor required. Studio arts supplies fee: $50.

Department: Art & Art History -- Studio Arts
Course: SA 292B
Title: Markings, Methods, & Materials
Cross-listed: SA 292A/SA 292C
Instructor: Topolski, A. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Please see SA 292A for the course description.

Department: Art & Art History -- Studio Arts
Course: SA 292C
Title: Markings, Methods, & Materials
Cross-listed: SA 292A/SA 292B
Instructor: Topolski, A. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Please see SA 292A for the course description.

Department: Art & Art History -- Studio Arts
Course: SA 300
Title: Art New York New Media Culture
Cross-listed: AH 300
Instructor: Cohen, E. **Class Size:** 15
Prerequisites: Special application required; permission of school dean required.
Restrictions: Permission of instructor required
Description: Spring 2009. This course is an introduction to digital art for Art New York Interns. Permission of instructor required.

Department: Art & Art History -- Studio Arts
Course: SA 305K
Title: Art New York Colloquium
Cross-listed: AH 305K
Instructor: Cohen, E. **Class Size:** 15
Prerequisites: Special application required; permission of school dean required.
Restrictions: Permission of instructor required
Description: Spring 2009. As an integral part of the internship program, all students participating in Art New York will meet weekly in colloquium with the program's resident director. The class will visit museums, art galleries, film and media screenings, and learn from these visits through readings, papers, presentations and discussions. The colloquium will also serve to provide an intellectual framework for understanding the operations of the New York art world and to allow students to discuss with one another their experiences at the various institutions where they intern. Each student will be expected to make a presentation about their internship to the Art New York group. There will be an entrepreneurial component of the class which will introduce the students to a wide variety of entrepreneurial activity and innovative practices within arts and culture. Through guest speakers, seminars and field trips the students will learn how entrepreneurial endeavors develop. By the end of the semester, the students will create their own proposal for an entrepreneurial project. Permission of instructor required.

Department: Art & Art History -- Studio Arts
Course: SA 391
Title: Independent Study
Description: Individual studio work at an advanced level and under the guidance of a member of the Studio Arts faculty. Studio art supplies fee: $50.

Department: Art & Art History -- Studio Arts
Course: SA 392
Title: Art New York Internship

Cross-listed: AH 392
Instructor: Cohen, E. **Class Size:** 15
Prerequisites: Special application required; permission of school dean required.
Restrictions: Permission of instructor required
Description: Spring 2009. Each student will intern in an institution arranged or approved by the Art and Art History faculty. The purpose of this internship is to give students an insiders' view of the workings of the art world. Students will be expected to document their internship experiences as a means of evaluation at the end of the semester. This program is limited to second, third, fourth and fifth year undergraduate students interested in learning about all aspects of contemporary art, about how art gets made, how it reaches its public, and the processes of its interpretation. Internships will consist of 20 hours per week, for which students will receive eight credits. Permission of instructor required.

Department: Art & Art History -- Studio Arts
Course: SA 397
Title: Senior Studio & Seminar--Spring
Instructor: Loughney, P. **Class Size:** 10
Prerequisites: Open to senior majors and minors or by permission of instructor.
Restrictions: Permission of instructor required
Description: Spring 2009. This class has a seminar and a production component. The seminar component will address contemporary issues in art through readings, discussions and student presentations of cultural theory, art history and art criticism. The production component will consist of the intensive critique of ongoing work, critical writing and the development of a thesis exhibition. Permission of instructor required. Studio arts supplies fee: $50.

Biology

Department: Biology
Course: BIO 111
Title: Principles of Biology II
Instructor: Minckley, R. **Class Size:** 250
Prerequisites: BIO 110 and completion or concurrent enrollment in CHM 132
Exams: Three 1 hour exams and a comprehensive final exam
Coursework: Three 50 min lectures and one 50 min problem based recitation per week
Description: The second semester of the introductory sequence designed for majors in biology. Topics include: Evolution (natural selection, speciation, plant and animal diversity), Ecology (population genetics, ecosystem structure, species interactions), Plant and animal physiology.

Department: Biology
Course: BIO 111L
Title: Introductory Biology Laboratory
Instructor: Minckley, R. **Class Size:** 250
Prerequisites: BIO 110 or BIO 112 and concurrent enrollment in BIO 111
Exams: Quizzes, Laboratory report and other assignments, Lab practical
Coursework: Lab meets for one 3 1/2 hour session each week.
Description: This is the lab course which accompanies the lecture course Principles of Biology II. The content of the course is drawn from the lecture material. Topics include plant and animal diversity, anatomical dissections, methods in bacteriology, animal behavior, and basic physiology. An emphasis is placed on problem solving, critical thinking and experimental design.

Department: Biology
Course: BIO 113
Title: Perspectives in Biology II
Instructor: Jaenike, J.
Prerequisites: BIO 112 or AP Biology score of 4 or 5.
Restrictions: See course description for specific prerequisties required
Exams: Four 50 min exams
Coursework: Three 50 min lectures and one 50 min problem based recitation per week
Description: Second semester of a two-course introductory sequence for students with a strong background and interest in science. Topics include: evolution, organismal diversity, ecology, and functional biology. This course differs from BIO 111 in that there will be greater emphasis on experimental approaches, data analysis, and quantitative methods, and will include reading original papers. Note both BIO 110 and BIO 112 are designed to prepare students who intend to major in biology. Open only to freshman prospective majors or by permission of instructor.

Department: Biology
Course: BIO 113L
Title: Perspectives in Biology Lab
Instructor: Minckley, R
Prerequisites: Concurrent enrollment in BIO 113
Exams: Quizzes, Laboratory report and other assignments, Lab practical
Coursework: Lab meets for one 3 1/2 hour session each week.
Description: This is the laboratory course which accompanies the lecture course Perspectives in Biology II. Course content is drawn from the lecture material and includes biological diversity, ecology, evolution, animal behavior, physiology and bioinformatics. Emphasis is placed on problem solving, critical thinking, experimental design and data analysis.

Department: Biology
Course: BIO 151L
Title: Introduction to Biochemistry - Lab
Instructor: Olek, A
Prerequisites: One year of introductory biology and chemistry (e.g., BIO 110 & 111, CHM 131 & 132). Genetics (e.g., BIO 198) recommended
Exams: Multiple quizzes and assignments and one practical examination.
Description: The course is designed to introduce sophomore biology majors to experimental approaches in biochemistry, including enzyme assays, protein analysis, and the use of antibodies. Students will also develop light microscopic skills, e.g. , using fluorescent dyes in organelle isolation. The laboratory emphasizes experimental design and data analysis and complements BIO 250, Biochemistry. This course can be used to satisfy a Ω laboratory requirement in the BA and other UPBM tracks.

Department: Biology
Course: BIO 201
Title: Lectures in Physiology
Instructor: Dietsche, A. **Class Size:** 20
Prerequisites: BIO 110 or BIO 112 and BIO 111 or BIO 113 or permission of the instructor
Exams: Four 50 min exams
Coursework: Three 50 min lectures and one 50 min recitation per week
Description: Function of various mammalian systems with special emphasis on humans. Topics include: excitable tissue, respiration, nutrition, reproduction, endocrinology, skeletal, circulatory and renal systems; homeostatic mechanism. Students will attend lecture and take examinations with students in BIO 204, Mammalian Physiology, and attend one hour of mandatory recitation per week. Laboratory exercises will not be conducted.

Department: Biology
Course: BIO 204
Title: Mammalian Physiology
Instructor: Dietsche, A **Class Size:** 120
Prerequisites: BIO 203 or permission of instructor.
Exams: Four quarterly exams and lab exam
Coursework: Three 50 min lectures and one 3 hour laboratory per week
Description: Function of various mammalian systems with special emphasis on humans. Topics include: excitable tissue; respiration; nutrition; reproduction; endocrinology; skeletal, circulatory and renal systems; homeostatic mechanisms. Three 50 minute lectures and one 3-hour laboratory per week.

Department: Biology
Course: BIO 215
Title: Molecular Biology of Cell Signalling
Instructor: Jasper, H
Prerequisites: BIO 198. One of the following is strongly recommended: BIO 202, BIO 250
Exams: Two exams: midterm and end of semester
Coursework: Two 75-min lectures and one 50 min recitation per week
Description: This course offers an introduction to cell signalling. We will explore basic molecular mechanisms of signal transduction, and study how these mechanisms are used in different contexts to direct cell fate during development, physiology and disease. The course will draw heavily on experiments from the classic and most recent primary literature.

Department: Biology
Course: BIO 232
Title: Genetic Diversity and Human Disease
Cross-listed: BIO 432
Instructor: Fry, J. **Class Size:** 45
Prerequisites: BIO 198
Exams: Three hour exams and one final
Coursework: Two 75 minute lectures and an optional recitation per week
Description: Since the completion of this first draft of the human genome sequence in 2001, information on human genetic diversity and its relationship to trait variation (e.g., disease susceptibility) has been accumulating at an astonishing rate, aided by ever-improving methods for rapidly assessing genetic differences among individuals. This course will provide an overview of the methods and findings of this recent research. Topics include: 1) the molecular basis and evolutionary history of single-gene disorders (e.g., cystic fibrosis and sickle-cell anemia); 2) the genetics of traits influenced by multiple genes, such as common disorders like diabetes and schizophrenia and easily observable traits like height and skin color; and 3) the use of genetic information to reconstruct human evolution and migrations.

Department: Biology
Course: BIO 243
Title: Eukaryotic Gene Regulation
Cross-listed: IND 443, BIO 443
Instructor: Bi, X., Benyajati, C.,Benyajati, C. **Class Size:** unlimited
Prerequisites: BIO 198 and BIO 250; good knowledge of molecular biology
Restrictions: Not open to freshmen and sophomores
Exams: Two 2-hour exams
Coursework: Two 75-minute lectures and a 1-hour recitation per week
Description: This advanced course examines mechanisms of transcription initiation, eukaryotic chromosome structure and its modifications, mechanisms of chromatin-mediated regulation of gene

expression, as well as epigenetics and functional genomics. Lectures and readings draw heavily on primary literature both classic and most recent. IND 443 and BIO 443 students are required to give a 30 minute presentation on a selected topic.

Department: Biology
Course: BIO 247
Title: Environmental Animal Physiology
Instructor: Olek, A
Prerequisites: One year of introductory biology and chemistry (e.g., BIO 110 & BIO 111, CHM 131 & CHM 132). Genetics (e.g. BIO 198) recommende
Exams: Two or three semester exams and one final exam.
Description: This course is designed for sophomore biology majors who want to deepen their understanding of animal function by examining how animals cope with environmental challenges. This includes cellular and physiological adaptations to extremes of temperature, salinity, and altitude. This course can be used to satisfy an upper level elective/diversity requirement in all UPBM tracks and as a "group" A requirement in the BA track.

Department: Biology
Course: BIO 250
Title: Introduction to Biochemistry
Cross-listed: BIO 450
Instructor: Culver, G.
Prerequisites: BIO 110 or BIO 112, plus BIO 198, CHM 203 and CHM 204 (may be taken concurrently) or permission of instructor
Restrictions: Not open to freshmen
Exams: Three 50 min exams and a comprehensive final exam
Coursework: Three 50 min lectures plus ten 2-hour workshops
Description: Biochemistry 250 will cover fundamental aspects of biochemistry, including bioenergetics, protein structure, kinetic analysis of enzyme action, and general intermediary metabolism. The text will be the 5th edition of Lehninger's "Principles of Biochemistry" by Nelson and Cox, with its accompanying Web site, which includes access to CHIME tutorials that explore structure- function relationships in biomolecules.

Department: Biology
Course: BIO 255
Title: The Biochemistry of Male-Female Differences in Health and Disease
Instructor: Prof. Terry Platt **Class Size:** 40
Prerequisites: BIO 250
Description: In many instances, women display different biochemical patterns than men in their metabolic responses to foods, nutrients, drugs, and other macromolecules, as well as to certain diseases. This course is designed to examine the relatively uncharted territory of such biochemical differences between males and females that are a consequence of their sex. Topics to be covered include alcohol metabolism, lipid metabolism, cardiovascular disease, osteoporosis, Parkinsons disease, the cytochrome p450 system, and gene expression. Lecture and discussions will be integrated with areas of environmental and public health concern. [Note: The course will NOT be concerned with anatomical or physiological sexual responses, sexual development, or aspects of reproduction per se.]

Department: Biology
Course: BIO 265
Title: Molecular Evolution
Cross-listed: BIO 465
Instructor: Presgraves, D
Prerequisites: BIO 111 or BIO 113, BIO 198, BIO 205
Description: This course explores evolution at the molecular level. We will use basic evolutionary principles to infer history from DNA sequences; to determine what forces have shaped the evolution of genes and genomes; to understand the relationship between molecular evolution and phenotypic evolution; and to address applied problems, like assigning biological function to genome sequences, finding the sources of epidemics, and finding the genes involved in human disease.

Department: Biology
Course: BIO 266
Title: Tree of Life
Instructor: Glor, R. **Class Size:** 40
Prerequisites: BIO 111 and BIO 113
Description: This course will be centered around a survey of life's diversity with an emphasis on understanding phylogenetic relationships, trends in diversity over macroevolutionary time, and the use of comparative methods to address topics such as adaptation and convergent evolution. Methods for reconstructing phylogenetic trees (e.g., neighbor-joining, parsimony, maximum likelihood, Bayesian), and the application of these trees to macroevolutionary questions will be reviewed.

Department: Biology
Course: BIO 268
Title: Laboratory in Molecular Genetics
Cross-listed: BIO 468
Instructor: Benyajati, C **Class Size:** 24
Prerequisites: Permission of instructor

Restrictions: Permission of instructor required
Exams: Laboratory reports and other assignments
Coursework: Two 4-hour labs and one 1-hour recitation per week
Description: A series of experiments, each lasting two to three weeks, introducing various organisms and techniques. Emphasizes (i) data acquisition and analysis (ii) experience in the design and execution of experiments, writing scientific reports, and public scientific presentation.

Brain & Cognitive Sciences

Department: Brain & Cognitive Sciences
Course: BCS 111
Title: Foundations of Cognitive Science **Class Size:** 50
Prerequisites: None. NOTE: PSY MAJORS, SEE BCS/PSY 112.
Description: Introduces the organization of mental processes underlying cognition and behavior. Topics include perception, language, learning, memory and intelligence. This course integrates knowledge of cognition generated from the field of cognitive psychology with findings from artifical intelligence and cognitive neuroscience.

Department: Brain & Cognitive Sciences
Course: BCS 112
Title: Cognitive Psychology
Cross-listed: PSY 112 **Class Size:** 90
Prerequisites: Recommended for PSY majors. Students who have already taken BCS 111 CANNOT receive credit for BCS/PSY 112.
Description: Provides an introduction to basic concepts in modern cognitive psychology. Topics covered include pattern recognition, attention and memory, concepts and categories, language comprehension and production, and higher-level thinking, such as reasoning and decision making.

Department: Brain & Cognitive Sciences
Course: BCS 153
Title: Cognition
Cross-listed: PSY 153
Instructor: Bavelier, D. **Class Size:** 45
Prerequisites: BCS/PSY 110 REQUIRED; BCS 111 or BCS/PSY 112 recommended
Coursework: Lectures, readings from a text and supplementary materials. Evaluation will be based primarily on the results of four multiple choice exams, including the final.
Description: Considers human cognitive processes, including behavioral and computational methods used to understand the nature of cognition. Explores how we perceive and integrate sensory information to build a coherent perception of the world; how we memorize and retrieve information; how we reason and solve problems.

Department: Brain & Cognitive Sciences
Course: BCS 172
Title: Development of Mind & Brain
Cross-listed: PSY 172
Instructor: Newport E. ,Aslin R. **Class Size:** 55
Prerequisites: None
Exams: Two mid-terms, one practical, one presentation, one research project
Description: Introduces human development, focusing on the ability to perceive objects and sounds, to think and reason, and to learn and remember language and other significant patterned stimulation. Includes the nature and mechanisms of development in humans and an overview of what is known about brain and behavioral development in other species.

Department: Brain & Cognitive Sciences
Course: BCS 203W
Title: Lab in Neurobiology
Cross-listed: NSC 203
Instructor: Nordeen, K. **Class Size:** 16/section
Prerequisites: BCS 200, 240 (NSC 201) and 240L, or equivalent background with permission of instructor.
Restrictions: Permission of instructor required
Exams: Quizzes, practica, take-home exercises and 3-4 papers, written in journal format
Description: Introduces the various methods used in neurobiological research. Covers anatomical, behavioral, chemical, and physiological approaches to studying neural organization and function and concludes with a research project that extends over a period of five weeks.

Department: Brain & Cognitive Sciences
Course: BCS 208W
Title: Lab in Perception & Cognition
Cross-listed: CVS/PSY 208W
Instructor: Tadin, D. **Class Size:** 20 (cap)
Prerequisites: BCS 200 AND either BCS 151 or BCS 153
Description: Introduces observational studies of perceptual and cognitive phenomena, showing how scientific questions can be answered by making such observations. Students perform, analyze, interpret, and report results from seven experiments conducted in a sequence that gradually increases the independence of the student experimenters.

Department: Brain & Cognitive Sciences
Course: BCS 220
Title: The Intelligent Eye
Cross-listed: CVS 220
Instructor: Knill, D.
Prerequisites: BCS 151
Description: Provides an interdisciplinary view of modern research into how the human brain solves the problems involved in perception, including how we perceive the three- dimensional structure of the world, how we recognize objects and how visual information is used to control action in the world. Students read contemporary research and, through classroom discussion and critical essays, explore and analyze the questions and debates that define contemporary perceptual science.

Department: Brain & Cognitive Sciences
Course: BCS 232
Title: Artificial Intelligence
Cross-listed: CSC 242
Instructor: Brown, C.
Description: Same as CSC 242. See description in Computer Science listing.

Department: Brain & Cognitive Sciences
Course: BCS 236
Title: Machine Vision
Cross-listed: CSC 249
Instructor: Nelson, R.
Description: Same as CSC 249. See description in Computer Science listing.

Department: Brain & Cognitive Sciences
Course: BCS 242
Title: Neuropsychology
Cross-listed: NSC/PSY 242
Instructor: Como, P. **Class Size:** 35
Prerequisites: BCS 110 or BCS 240 (NSC 201) or permission of the instructor.
Description: Examines clinical neuropsychology, which bridges neurology, neuroscience, and clinical psychology. Covers history of clinical neuropsychology, principles of neuropsychological assessment, and the interpretation of cognition and behavior as they relate to brain dysfunction. Considers specific neurological syndromes including neurodegenerative, cerebrovascular, toxic, and memory disorders; epilepsy; head trauma; toxic disorders; infectious processes; pediatric neuropsychology; psychiatric syndromes; and forensic neuropsychology. Patient presentations (videotape and in-person interviews) supplement lectures.

Department: Brain and Cognitive Science
Course: BCS 244
Title: Neuroethology
Cross-listed: NSC 244
Instructor: Holtzman, D.
Prerequisites: BCS 240 (NSC 201) or permission of instructor
Description: Explores the neural basis of naturally occurring animal behaviors. Emphasizes how information is integrated from interactions between molecules, cells, and groups of cells, all of which are necessary to produce behavior. Considers how hormones, neural development, anatomy, physiology, and evolution lead to behaviors such as orientation, communication, feeding, and reproduction.

Department: Brain & Cognitive Sciences
Course: BCS 245
Title: Sensory & Motor Neuroscience
Cross-listed: NSC/CVS 245
Instructor: DeAngelis, G. **Class Size:** 35
Prerequisites: NSC 201 (BCS 240), Basic Neurobiology, or equivalent background with instructor's permission.
Exams: 2 mid-terms and a final exam
Coursework: Lectures and reading from a text and selected journal articles.
Description: Focuses on how single neurons and populations of neurons represent sensory information, how sensory signals are transformed and decoded to mediate perception, and how perceptual signals are converted into neural commands to initiate actions. Explores how simple behaviors (such as detection and discrimination) can be quantified and explained in terms of neural activity. Introduces students to quantitative approaches for linking neural activity to perception and decision-making. Emphasizes studies of the visual, oculomotor, and somatosensory systems, with some attention to the auditory and vestibular systems as well.

Department: Brain & Cognitive Sciences
Course: BCS 249
Title: Developmental Neurobiology
Cross-listed: NSC 249
Instructor: Nordeen, E. **Class Size:** 30
Prerequisites: BCS 240 (NSC 201)
Exams: 3 exams and an optional paper
Coursework: Lectures, reading assigned from a text and other assigned sources in the research literature. Typically, 3 exams are given and students have the opportunity to prepare a paper on a research subject of their choice.

Description: Advanced treatment of the development of the nervous system, including the nature/nurture issue and factors that influence the development of neural organization and function. Topics include the production, migration, differentiation and survival of neurons; functional specialization of neural regions; axonal navigation; target mapping. Compares and contrasts developmental plasticity with forms of neural plasticity exhibited in adults. Prerequisite: BCS 240 (NSC 201), or equivalent background.

Department: Brain & Cognitive Sciences
Course: BCS 259
Title: Language Development
Cross-listed: PSY 259, ASL/LIN 208
Instructor: White, K. **Class Size:** 50
Prerequisites: One of the following: BCS 110, or BCS 111, or BCS 172, or PSY 101, or LIN 110, or equivalent background.
Exams: 2 midterms and a final: all essay
Coursework: Reading from the text plus articles from the research literature.
Description: Introduces children's language development, including the acquisition of phonology, syntax, and semantics. Focuses on the acquisition of a first language by young children, comparing the acquisition of a variety of spoken and signed languages to find possible universal principles of language learning.

Department: Brain & Cognitive Sciences
Course: BCS 260
Title: Music and the Mind
Cross-listed: MUR 260, TH 260
Instructor: Marvin, E.
Prerequisites: One semester of collegiate music theory for majors (MUR 111, TH 101) or permission of instructor.
Description: Introduction to the discipline of music cognition. Topics include empirical methods, psycho-acoustic principles, influence of Gestalt psychology, music and language, metric and tonal hierarchies, music and the brain, aspects of musical development, and research on musical memory, expectation, and emotion.

Department: Brain & Cognitive Sciences
Course: BCS 261
Title: Language Use and Understanding
Cross-listed: PSY261/LIN 241
Instructor: Tanenhaus, M. **Class Size:** 30
Prerequisites: BCS 110 or BCS 111 or BCS 112, and BCS 152
Description: Explores the cognitive mechanisms used to speak and understand language, with a special focus on contextually situated language use. Studies the moment-by-moment processes underlying language production and comprehension, including how speakers choose words and phrases and how listeners understand them.

Department: Brain & Cognitive Sciences
Course: BCS 264
Title: Signed Language Structure
Cross-listed: ASL 200/LIN 230 **Class Size:** 30
Prerequisites: ASL 105, LIN 210, 220, or 226; or permission of the Instructor
Description: Examines signed languages and the cognitive constraints that shape them, through a detailed consideration of the structure of American Sign Language and other natural signed languages of the world. Includes training in sign language notation and analysis. Knowledge of sign language is not required.

Department: Brain & Cognitive Sciences
Course: BCS 265
Title: Language and the Brain
Cross-listed: PSY 265/LIN 218
Prerequisites: BCS 110 or NSC 201 and BCS 152 or LIN 110
Description: Examines how the comprehension and production of language is implemented in the human brain. Uses evidence from neuropsychological and brain imaging studies to consider the following questions: What is the network of brain areas that subserves language processing? What are the specific functions of these areas? What happens when these brain areas are damaged? What is the timing of brain activity in these areas during language processing? Finally, how do the brain areas involved in language processing overlap with those involved in other complex cognitive processes?

Department: Brain & Cognitive Sciences
Course: BCS 310
Title: Senior Seminar
Instructor: Holtzman, D. **Class Size:** 15
Prerequisites: Declared BCS concentrators, senior status.
Restrictions: Open only to senior majors or by permission of instructor
Exams: No exams. Papers and presentations.
Coursework: Seminar format.
Description: A 2-credit-hour course required of all senior BCS majors who do not enter the honors program. Emphasizes reading, evaluating, and discussing primary research papers. Each student chooses a topic, becomes familiar with it, selects a classic paper, leads a class discussion, and writes an evaluation of the paper as though providing peer review for a journal.

Department: Brain & Cognitive Sciences
Course: BCS 311

Title: Honors Seminar
Instructor: Holtzman, D.
Restrictions: Permission of Department required
Coursework: Seminar format.
Description: A 2-credit course required of seniors in the BCS Honors program. Students choose a classic paper for the class to read, lead a discussion of it, and give a formal oral and written presentation of their honors theses. To be taken in the semester the honors thesis is completed. See BCS 310 and refer to the Undergraduate Programs Coordinator in the Dept. of Brain & Cognitive Sciences for more information.

Department: Brain & Cognitive Sciences
Course: BCS 389
Title: Vision Science Research & Colloquium
Cross-listed: CVS 389
Instructor: Williams, D. **Class Size:** 10
Restrictions: Permission of instructor required
Coursework: Students attend meetings of the Center for Visual Science Research Seminars and colloquia. In consultation with a faculty mentor, a review paper or other appropriate research project is undertaken.
Description: A 2-credit hour course. Intended for students who are engaged in research in the Center for Visual Science and who may be considering a career in research. Provides exposure to the research environment of the Center through the regular research meetings and colloquia attended by CVS graduate students, postdocs, and faculty. Students also complete a paper on a vision-related topic. No prerequisites. Same as CVS 389.

Chemistry

Department: Chemistry
Course: CHM 132
Title: Chemical Concepts, Systems and Practices II
Instructor: Turner, D. H. ,Farrar, J. **Class Size:** 350
Prerequisites: CHM 131 or CHM 151
Restrictions: Permission of instructor required
Exams: Three Exams and a Final
Description: A continuation of Chemical Concepts, Systems and Practices I, emphasizing molecular and macroscopic approaches to chemical systems with examples concerned with energy and the environment. Topics covered include: Chemical kinetics, electrochemistry, thermodynamics, properties of atoms, atomic structure, and chemical bonding. M W F - Turner : Three 50 minute lectures per week. T R - Farrar : Two 75 minute lectures per week. In addition, there is a three hour laboratory every week, a 50 minute laboratory lecture and a 50 minute recitation. You must register for the laboratory prior to the start of the semester. The laboratory is identical for both sections. Recitations will be assigned in the main lecture during the first week of classes.

Department: Chemistry
Course: CHM 172Q
Title: Quest Organic Chemistry
Instructor: Nilsson, B.
Prerequisites: Two years of General Chemistry and Advanced Placement score 4 or 5 or equivalent preparation.
Coursework: Two years of General Chemistry and Advanced Placement score 4 or 5 or equivalent preparation
Description: CHM 171Q / 172Q/173Q is a one year exploration of the basic observations, concepts and practice of organic chemistry, with a focus on the fundamental relationships among molecular structure and chemical reactivity. The exploration will require that students grapple Quest issues: defining questions, evaluating evidence, weighing arguments, reflecting on epistemological issues, constructing new experiments, etc. The study of organic chemistry will be carefully integrated with a review of the key concepts from general chemistry. Quest Organic is designed for first year students with good preparation in chemistry (e.g., two years of General Chemistry and Advanced Placement score 4 or 5, or equivalent preparation).

Department: Chemistry
Course: CHM 204
Title: Organic Chemistry II
Instructor: Frontier, A. **Class Size:** 300
Prerequisites: CHM 203 or the equivalent plus one semester of organic laboratory (CHM 207 or equivalent).
Restrictions: See course description for specific prerequisites required
Exams: Three 1-hour Exams and a Final.
Description: A continuation of a two-semester sequence in the study of organic chemistry. Topics covered include the reactivity of various functional groups, approaches to organic synthesis, reactivity of conjugated systems and molecules of biological significance. There are two 75 minute lectures and one workshop per week. Coregistration in CHM 208 or CHM 210. Grade of C - or better in CHM 203 (or equivalent).

Department: Chemistry
Course: CHM 208
Title: Organic Chemistry II Laboratory
Instructor: Toder, B. **Class Size:**

Prerequisites: CHM 207 or 173Q; Coregistration in CHM 204
Exams: Periodic quizzes at the beginning of the laboratory period.
Description: A continuation of the laboratory sequence begun in CHM 207. This laboratory meets one laboratory period per week. There is one 2-hour 40 minute laboratory and a 50 minute laboratory lecture per week.

Department: Chemistry
Course: CHM 208
Title: Organic Chemistry II: Laboratory
Instructor: Toder, B.
Prerequisites: General Chemistry Otherwise, permission of instructor is required.
Description: A continuation of the organic laboratory sequence begun in CHM 207. Coregistration in the requisite lecture course is CHM 204 if necessary. Each student taking the laboratory must pay a lab fee of $50.

Department: Chemistry
Course: CHM 210
Title: Organic Chemistry IIH Laboratory
Instructor: Dinnocenzo, J. **Class Size:** 60
Prerequisites: CHM 207 or 173Q; Coregistration in CHM 204
Description: A laboratory using advanced, modern experimental techniques. This laboratory is required for chemistry majors. There are two 3-hour laboratories and a laboratory lecture per week.

Department: Chemistry
Course: CHM 232
Title: Molecular Spectroscopy Laboratory
Instructor: Rothberg, L.
Prerequisites: CHM 251 is an absolute prerequisite
Exams: Two Exams & Five Laboratory Reports.
Description: Credit - 4 hours. A thorough study of the principles and practice of spectroscopic methods of modern physical chemistry. Three lectures, one lab per week.

Department: Chemistry
Course: CHM 234
Title: Advanced Laboratory Techniques
Instructor: Holland, P. **Class Size:** 24
Prerequisites: CHM 211 and an Organic Chemistry Lab
Exams: Two Problem Sets
Coursework: Four lab reports. There are two or three 75-minute lectures for each lab.
Description: Credit - 4 hours. Advanced laboratory techniques of synthesis, characterization, and analysis applied to problems in inorganic and organic chemistry.

Department: Chemistry
Course: CHM 250
Title: Introduction to Biochemistry
Cross-listed: BIO 250, CHM 450
Instructor: Bren, K.
Prerequisites: 1 semester of organic chemistry
Description: An introduction to biochemistry. Topics to be covered include protein and nucleic acid structure, recombinant DNA technology, bioenergetics, enzyme kinetics and mechanism, and intermediary metabolism. Lectures are supplemented with workshops. Students cannot receive credit for CHM 250 AND CHM 262/462.

Department: Chemistry
Course: CHM 252
Title: Physical Chemistry II
Instructor: Ovchinnikov, M. **Class Size:** 50
Prerequisites: PHY 113/114 or 121/122 CHM 132 or equivalent preparation
Exams: 2 Exams and Final
Description: The course covers thermodynamics, equilibrium, statistical mechanics, solutions, and chemical kinetics. Weekly, there are three 50-minute lectures and one recitation sesson. Weekly problem sets are assigned.

Department: Chemistry
Course: CHM 262
Title: Biological Chemistry
Cross-listed: CHM 462
Instructor: Bren, Kara
Prerequisites: Minimum of one semester of organic chemistry required.
Description: An introduction to the chemical processes of life. Topics to be covered include proteins and nucleic acids, recombinant DNA technology, biological catalysis, and energy transduction. Structure and function of biological macromolecules will be emphasized. Students will not receive credit for BIO 250 AND CHM 262/462.

Department: Chemistry
Course: CHM 352
Title: Issues in Workshop Leadership
Cross-listed: CAS 352
Instructor: Dinnocenzo, J., Perez, C.,Goodman, J.,Perez, C., ,Goodman, J.
Description: A 2-credit course to prepare students to be effective Workshop leaders in chemistry courses. Topics include: group dynamics;

diversity; student development; learning theory; cognitive apprenticeship; metacognition and constructivism. These ideas are developed and applied in the context of Workshop practice. Cross-listed as CAS352. The class meets for 1.5 hours each week in the semester in which students are leading Workshops. Readings from the research literature, class discussion and a research paper and presentation are required.

Department: Chemistry
Course: CHM 404
Title: Bio-Physical Chemistry II
Instructor: Turner, D.
Prerequisites: CHM 252 or its equivalent
Exams: Midterm & Final, Paper & Presentation.
Description: This course explores how fundamental interactions determine the structure, dynamics, and reactivity of proteins and nucleic acids. Examples are taken from the current literature with emphasis on thermodynamic, kinetic, theoretical, and site-directed mutagenesis studies.

Department: Chemistry
Course: CHM 412
Title: Advanced Inorganic Chemistry II
Instructor: Bren, K.
Prerequisites: CHM 211 or CHM 411
Description: Molecular and electronic structure determination of inorganic compounds and metal complexes; spectroscopic and physical methods.

Department: Chemistry
Course: CHM 414
Title: Bio-Inorganic Chemistry
Instructor: Holland, P. **Class Size:** 30
Prerequisites: CHM 211 / CHM 411 or a course in inorganic chemistry or by permission of the instructor.
Coursework: Problem sets, proposal
Description: Discussion of the role of metal ions in biological systems, especially enzymes. Uptake and regulation of metals, common spectroscopic techniques used for studying metals, and mechanisms through which they react. Other topics include metal ion toxicity, metal-based drugs, and interaction of metals with nucleic acids.

Department: Chemistry
Course: CHM 422
Title: Nuclear Magnetic Resonance Spectroscopy
Instructor: Bren, K.
Description: An introduction to NMR spectroscopy. Collection, processing, and interpretation of homonuclear and heteronuclear 1D and multidimensional spectra will be covered. Topics to be discussed include chemical shifts, relaxation, and exchange phenomena. Examples from organic, inorganic, and biological chemistry will be used.

Department: Chemistry
Course: CHM 423
Title: Organometallic Chemistry
Instructor: Jones, W. **Class Size:** 30
Prerequisites: CHM 421
Description: Mechanisms in organometallic reactions. Applications of organometallic compounds in homogeneous catalysis, polymerization, metathesis. (Spring, second half-semester)

Department: Chemistry
Course: CHM 424
Title: Physical Methods in Inorganic Chemistry
Instructor: Holland, P. **Class Size:** 30
Prerequisites: CHM 211/411 or a course in inorganic chemistry or by permission of the instructor. CHM 422 is strongly recommended.
Description: Molecular and electronic structure determination of inorganic compounds and metal complexes; spectroscopic and physical methods (spring-2nd half semester)

Department: Chemistry
Course: CHM 426
Title: Organic Structure Determination Techniques
Instructor: Goodman, J.
Prerequisites: CHM 422
Description: The modern methods and tools employed for the determination of the structure of complex organic molecules will be discussed. Among the areas discussed are basic NMR, IR, UV and mass spectroscopy. Problem solving techniques will be illustrated and problem solving skills developed by means of problem sets and class examples. (spring-2nd half semester)

Department: Chemistry
Course: CHM 434
Title: Advanced Physical Organic Chemistry II
Instructor: Goodman, J. **Class Size:** 25
Prerequisites: CHM 203/CHM 204 or equivalent
Exams: Two Hour Exam & Final Exam
Coursework: Readings in text ("Determination of Organic Reaction Mechanisms," B.K. Carpenter); Problem sets (about four during the semester). Two 75 minutes lectures per week.

Description: Structure and reactivity; kinetic, catalysis, medium effects,transition state theory, kinetic isotope effects, photochemistry, reactive intermediates, and mechanisms.

Department: Chemistry
Course: CHM 436
Title: Applications of Organometallic Chemistry to Synthesis
Instructor: Boeckman, R. **Class Size:** 15
Prerequisites: CHM 422
Description: The transition metal mediated organometallic reactions most commonly employed in organic synthesis will be discussed including their substrate scope, mechanism, and stereo- and/or regiochemical course. Emphasis will be placed on the practical aspects such as catalyst and reaction condition selection, and protocols for trouble shooting catalytic cycles. (spring 1st half semester)

Department: Chemistry
Course: CHM 438
Title: Synthetic Design: Strategy and Tactics
Instructor: Boeckman, R.
Exams: One-Two, One hour Exams and Final Exam.
Coursework: Two - 1 1/4 hour Lectures
Description: A formalism describing commonly employed strategies and tactics for the analysis of complex problems in organic synthesis will be presented. Examples of such strategies will be compared and contrasted during discussion of published complex molecule syntheses. (spring second half of semester)

Department: Chemistry
Course: CHM 462
Title: Biological Chemistry
Cross-listed: CHM 262
Instructor: Bren, Kara
Prerequisites: Minimum of one semester organic chemistry required.
Description: An introduction to the chemical processes of life. Topics to be covered include proteins and nucleic acids, recombinant DNA technology, biological catalysis, and energy transduction. Structure and function of biological macromolecules will be emphasized. Students will not receive credit for CHM 462/262 AND BIO 250.

Department: Chemistry
Course: CHM 466
Title: Nuclear Science and Technology I
Cross-listed: PHY 446
Instructor: Schroder, W. **Class Size:** 15
Prerequisites: Familiarity with Mechanics, Quantum Mechanics, Thermodynamics, Calculus,
Exams: Midterm and a Final
Description: Nuclear technologies of measurement, accelerators and radiation detection, effects and applications of radiation. Fundamental particles interactions, quark model. Nuclear masses, sizes, and shapes. Overview of microscopic and macroscopic models of the nucleus. Nuclear radioactivity and decay modes. Introduction to nuclear reaction theory, classical potential scattering, semi-classical and quantal models of scattering, nuclear excitation,and mass transfer. Mathcad computer projects. Two 75 minute lectures per week, home work problems, and computer simulations.

Department: Chemistry
Course: CHM 456
Title: Chemical Bonds: From Molecules to Materials
Instructor: Krauss, T.D.
Prerequisites: CHM 251 or an equivalent course on introductory quantum mechanics.
Exams: Final
Coursework: Lectures: 2 weekly of 75 minutes
Description: An introduction to the electronic structure of extended materials systems from both a chemical bonding and a condensed matter physics perspective. The course will discuss materials of all length scales from individual molecules to macroscopic three-dimensional crystals, but will focus on zero, one, and two dimensional inorganic materials at the nanometer scale. Specific topics include semiconductor nanocrystals, quantum wires, carbon nanotubes, conjugated polymers and their application to solar energy conversion.

Clinical & Social Sciences in Psychology

Department: Clinical & Social Sciences in Psychology
Course: CSP 161
Title: Social Psychology & Individual Differences
Cross-listed: PSY 161
Instructor: Rempala, D. **Class Size:** open
Exams: 3 exams, two-page paper/five-page paper - optional
Description: An introduction to the field of social psychology and an overview of research on individual differences in personality. Topics include the self, attitudes, social cognition, emotion, interpersonal attraction, relationships, helping, social influence, group behavior, and dispositional differences among people. Students will complete several individual difference measures and receive

individualized feedback at the end of the course. Format is lectures augmented with discussions and demonstrations.

Department: Clinical & Social Sciences in Psychology
Course: CSP 211
Title: Introduction to Statistical Methods in Psychology
Cross-listed: PSY 211
Instructor: TBA **Class Size:** 60
Description: Introduction to the use of statistics in psychological research. Topics include descriptive statistics, correlationand regression, and inferential statistics. Examples are drawn from social and personality psychology. Logic ofstatistical inference and proper interpretation of research findings are emphasized. NOTE: Total CAP CSP/PSY 211: 60

Department: Clinical & Social Sciences in Psychology
Course: CSP 219W
Title: Research Methods in Psychology
Cross-listed: PSY 219W
Instructor: Rogge, R. **Class Size:** 25
Prerequisites: CSP/PSY 211
Exams: Final
Coursework: Lab reports
Description: Hands-on introduction to the process of conducting research in personality and social psychology. Topics include measurement techniques, correlational methods and experimental design, data analysis, and ethical issues. Laboratory reports emphasize proper interpretation and presentation of research findings. Fulfills upper level writing requirement.

Department: Clinical & Social Sciences in Psychology
Course: CSP 262
Title: Human Motivation and Emotion
Cross-listed: PSY 262
Instructor: Niemec, C. **Class Size:** open
Prerequisites: CSP/PSY 161 or 181
Description: A study of the motivational and emotional processes and theories that underlie both adaptive and maladative behavior. Includes consideration of research largely with human subjects.

Department: Clinical & Social Sciences in Psychology
Course: CSP 278
Title: Adolescent Development
Cross-listed: PSY 278
Instructor: Rempala, D. **Class Size:** 110
Description: This course surveys theory and research relating to normal development during adolescence. Adolescent development is examined in a variety of contexts, including families, peer groups, and schools, and issues pertaining to biological, social, and cognitive development are discussed.

Department: Clinical & Social Sciences in Psychology
Course: CSP 280
Title: Clinical Psychology
Cross-listed: PSY 280
Instructor: Manly, J. **Class Size:** open
Prerequisites: PSY 101, PSY 282 or PSY 289
Exams: 2 midterms
Coursework: 1 paper
Description: An introduction to the field of clinical psychology. Students will be exposed to prevalent theoretical and research models, as well as approaches and research findings to assessment and diagnosis, and treatment modalities.

Department: Clinical & Social Sciences in Psychology
Course: CSP 282
Title: Abnormal Psychology
Cross-listed: PSY 282
Instructor: Burnette, M. **Class Size:** 150
Restrictions: Open to freshmen only
Exams: 3 or 4 exams
Description: Provides a conceptual overview to the field of psychopathology. We will discuss assessment and diagnosis, etiology, developmental course, treatment, and prognosis of the major psychological disorders. Current theory and research will be emphasized.

Department: Clinical & Social Sciences in Psychology
Course: CSP 283
Title: Behavioral Medicine
Cross-listed: PSY 283, PSY 283W & CSP 283W
Instructor: Patrick, H. **Class Size:** open
Prerequisites: PSY 101
Description: Explores the application of psychological theory, research, and clinical practice to specific health issues. The focus will be on the role of psychology in the promotion and maintenance of physical health and well-being, as well as in the treatment of physical illnesses, including chronic pain, cardiovascular disease, cancer, and AIDS. While the course is not biology-intensive, relevent physiology and psychophysiological mechanisms of various disorders will be discussed.

Department: Clinical & Social Sciences in Psychology
Course: CSP 309

Title: Honors Seminar
Cross-listed: PSY 309
Instructor: McAdam, D.,Klorman, R.
Prerequisites: PSY 101, STT 211
Restrictions: Permission of Department required
Coursework: Oral presentations, class discussion, written report.
Description: The intent of this course is to inform students about the range of research conducted by faculty. Students participate in the following individual and group projects: geneology/history of psychology, applied statistical methods and experimental design, state-of-the-art research critiques, research ethics, scientific writing. This is meant to help students who wish to participate in the honors program to make an informed choice about the area for their honors thesis.

Department: Clinical & Social Sciences in Psychology
Course: CSP 311
Title: Honors Research II
Cross-listed: PSY 311
Instructor: McAdam, D.,Klorman, R.
Restrictions: Permission of instructor required
Exams: Honors thesis
Description: Second part of research requirement for Honors degree. The student performs independent research under the guidance of a chosen faculty advisor and writes a research report. The report is evaluated by the advisor and Honors Coordinator as a partial requirement for an Honors Degree in Psychology

Department: Clinical & Social Sciences in Psychology
Course: CSP 352
Title: Research in Developmental Neuropsychology
Cross-listed: PSY 352
Instructor: Bennetto, L.
Restrictions: Permission of instructor required
Description: This course provides guided, direct research experiences in developmental neuropsychology, with a particular focus on autism and other developmental disabilities.

Department: Clinical & Social Sciences in Psychology
Course: CSP 356
Title: Research in Adolescent Development
Cross-listed: PSY 356
Instructor: Smetana, J.
Prerequisites: Prerequisite: CSP 171 or 278
Restrictions: Permission of instructor required
Description: This course provides guided, direct experiences with research on adolescent development, with a particular focus on adolescence in the context of family relationships.

Department: Clinical & Social Sciences in Psychology
Course: CSP 374
Title: Exploring Research in Social Psychology II
Cross-listed: PSY 374, PSY 374W & CSP 374W
Instructor: Elliot, A.
Restrictions: Permission of instructor required
Description: First-hand team experience with ongoing research in social psychology areas.

Department: Clinical & Social Sciences in Psychology
Course: CSP 378
Title: Exploring Research in Family Psychology II
Cross-listed: PSY 378
Instructor: Davies, P.
Restrictions: Permission of instructor required
Description: A continuation of CSP/PSY 377.

Department: Clinical & Social Sciences in Psychology
Course: CSP 385
Title: Practicum in Developmental Disabilities
Cross-listed: PSY 385
Instructor: Bennetto, L.
Restrictions: Permission of instructor required
Description: Explores educational, therapeutic, and social challenges in developmental disabilities. Students will spend approximately 8 hours per week in a supervised educational or treatment setting as well as participate in weekly meetings to review and discuss general issues in the field.

Computer Science

Department: Computer Science
Course: CSC 108
Title: Introduction to Computers
Instructor: Arnold, K.
Prerequisites: Not open to officially declared CSC Majors.
Description: A practical introduction to computing for students in the humanities, social sciences, and business. Topics to be covered include stand-alone applications (word processing, spreadsheets, databases); Internet tools (web browsers, e-mail, file transfer, web page creation); basic computer technology (how computers work, how they are programmed, what their limitations are); and broader social issues (technological trends, computer ethics, the

impact of computing on society). Labs required. Weekly assignments.

Department: Computer Science
Course: CSC 170
Title: Introductory Computer Programming
Instructor: Arnold, K. **Class Size:** 75
Prerequisites: none. Not open to officially declared CSC majors.
Description: The course is taught using the Javascript programming language and HTML, but emphasizes algorithmic thinking and creative problem solving over language specifics. Projects and exams are used to evaluate grades. Prospective majors lacking experience can take this course, possibly preceded even by CSC 108, in the freshman year, and begin the late-start B.A. in the fall of the sophomore year. This course also serves students who want to learn programming, but whose educational goals do not require the scope of coverage found in CSC 171.

Department: Computer Science
Course: CSC 172
Title: Data Structures
Instructor: Pawlicki, T.
Prerequisites: CSC 171 or equivalent; MTH 150.
Description: Representing data for computer manipulations (e.g., trees, lists, sets, stacks, and queues) in JAVA. Analysis of the running times of programs operating on such data structures, and basic techniques for program design, analysis, and proof of correctness (e.g., induction and recursion).

Department: Computer Science
Course: CSC 190
Title: Issues in Computing: Recreational Graphics I
Cross-listed: CSC 290C
Instructor: Pawlicki, T.
Prerequisites: General prerequisite: none; CSC 170 Recommended for Recreational Graphics. CSC 170 reco
Description: Special topics of current interest that vary by semester. See current semester description. This course is not taught on a regular basis. Springl 2008 - Recreational Graphics II (2.0 hours) Practical, individual and team project based computer graphics centered on using the MAYA graphics framework and the MEL (Maya Embedded Language) programming. Topics will include 3D modeling, animation, and simulation. The purpose of this course is to provide a context for a learning community in computer graphics. Students will design and implement personal projects. The course will carry 2 credit hours per semester and is based on progress of the projects. PreReq: Rec. Graphics I.

Department: Computer Science
Course: CSC 200
Title: Undergraduate Problem Seminar
Cross-listed: CSC200H
Instructor: Hemaspaandra, Lane **Class Size:** 15-20
Prerequisites: All premajor requirements
Description: Intensive seminar on cooperative problem solving. Overview of the subdisciplines and the research of the University of Rochester's computer science faculty. CSC 200H is required for Honors Research B.S. degree; CSC 200 is an optional elective for the B.S. and B.A. in Class of 2007 & 2008; required for B.S. students in 2009+. Students taking CSC 200H may have additional reading, assignments or projects.

Department: Computer Science
Course: CSC 200H
Title: Undergraduate Problem Seminar
Instructor: Hemaspaandra, L.
Prerequisites: All pre-major requirements (strictly enforced).
Description: Intensive seminar on cooperative problem solving. Overview of the subdisciplines and the research of the University of Rochester's computer science faculty. CSC 200H is required for Honors Research B.S. degree; CSC 200 is an optional elective for the B.S. and B.A. in Class of 2007 & 2008; required for B.S. students in 2009+. Students taking CSC 200H may have additional reading, assignments or projects.

Department: Computer Science
Course: CSC 242
Title: Artificial Intelligence
Cross-listed: BCS 232
Instructor: Brown, C
Prerequisites: MTH 150 & CSC 172
Description: Philosophical, psychological, psychophysical issues. History of trends in AI and current state. Case studies from problem solving, expert systems, robotics, natural language understanding, computer vision, neural nets, and learning. LISP and possibly MATLAB programming. Laboratory exercises involve state-of-the-art hardware and software systems. This course is prerequisite for advanced AI courses.

Department: Computer Science
Course: CSC 246
Title: Mathematical Foundations of Artificial Intelligence
Cross-listed: CSC 446
Instructor: Gildea, Daniel

Prerequisites: CSC 242 and MTH 165 (the 2-course sequence of MTH 163 and MTH 235 may be substituted for MTH 165)
Description: The mathematical foundations of robotics and vision applications in artificial intelligence. Meets jointly with CSC 446, a graduate-level course that requires additional readings and assignments.

Department: Computer Science
Course: CSC 249
Title: Machine Vision
Cross-listed: CSC 449, BCS 236, & BCS 536
Instructor: Nelson, Randal **Class Size:** 15
Prerequisites: MTH 161 & CSC 242
Description: Introduction to computer vision, including camera models, basic image processing, pattern and object recognition, and elements of human vision. Specific topics include geometric issues, statistical models, Hough transforms, color theory, texture, and optic flow. Meets jointly with CSC 449, a graduate-level course that requires additional readings and assignments. May not be offered every year.

Department: Computer Science
Course: CSC 252
Title: Computer Organization
Instructor: Scott, Michael
Prerequisites: MTH 150 & CSC 172
Coursework: Several programming assignments required.
Description: Introduction to computer architecture and the layering of hardware/software systems. Topics include instruction set design; logical building blocks; computer arithmetic; processor organization; the memory hierarchy (registers, caches, main memory, and secondary storage); I/O---buses, devices, and interrupts; microcode and assembly language; virtual machines; the roles of the assembler, linker, compiler, and operating system; technological trends and the future of computing hardware.

Department: Computer Science
Course: CSC 258
Title: Parallel & Distributed Systems
Cross-listed: CSC 458
Instructor: Dwarkadas, S.
Prerequisites: CSC 254 & CSC 256
Description: This course will focus on the principles of parallel and distributed systems, and the associated implementation and performance issues. We will examine programming interfaces to parallel and distributed computing, memory management techniques and parallel program optimization, interprocess communication, synchronization, and consistency models, fault tolerance and reliability, distributed process management, multiprocessor architectures, and the interaction of the compiler, run-time, and hardware architecture. Meets jointly with CSC 458, a graduate-level course that requires additional readings and assignments. May not be offered every year.

Department: Computer Science
Course: CSC 260
Title: Topics In Natural Dialog Systems
Cross-listed: CSC 460
Instructor: Allen, J. **Class Size:** 10-15
Prerequisites: CSC 244 and CSC 247
Description: This course will examine recent research in computational linguistics and artificial intelligence on natural language dialog systems. Students will take turns leading the discussion of current research papers. Undergraduates taking the course for credit will also be required to prepare a written review of one of the papers. It may be repeated for credit with permission of the instructor. Crosslisted with CSC 460. Graduates taking the course may have additional readings or assignments.

Department: Computer Science
Course: CSC 280
Title: Computer Models and Limitations
Instructor: Seiferas, J.
Prerequisites: CSC 173 & MTH 150.
Description: This course studies fundamental computer models and their computational limitations. Finite-state machines and pumping lemmas, the Chomsky hierarchy, Turing machines and algorithmic universality, noncomputability and undecidability, tradeoffs between power and formal tractability.

Department: Computer Science
Course: CSC 284
Title: Advanced Algorithms
Cross-listed: CSC 484
Instructor: Stefankovic, D.
Prerequisites: CSC 282
Description: Advanced study of design and analysis of algorithms. Topics typically include: growth of functions; recurrences; probabilistic analysis and randomized algorithms; maximum flow; sorting networks; expander graphs; matrix operations; linear programming; discrete Fourier transform; number-theoretic algorithms; string matching; computational geometry; NP-completeness; approximation algorithms. Students taking this course at the 400 level may be required to complete additional tests, readings or assignments.

Department: Computer Science
Course: CSC 290
Title: Topics in Computer Science: Collaborative Software Engineering
Instructor: Spring 2009 290A Ding ,Spring 2009 290B Pal, C.,Spring 2009 290C Koomen **Class Size:** 15-20
Prerequisites: Varies with topic. Spring 290A CSC173, CSC 254 recommended; CSC 290B CSC 171 or permission of instructor.
Description: (290A) Collaborative Software Engineering: Running on low-cost, powerful computers, immense storage, and ubiquitous networks, a new generation of software has radically changed how information is distributed and accessed and is opening new possibilities in how (fast) knowledge is created and used. This revolution has been compared to the advent of printing, and the pertinent expertise and skill are considered as basic and essential as reading and writing. This experimental course teaches principles and practices of collaborative software development and its use in converting data into knowledge and knowledge into tools. The topics include fundamentals of programming (more for organizing information than for managing computers), lessons from past information systems, and current practice and tools for teamwork and (virtual) collaboration. The main assignments are a series of group projects including the final project of developing a possibly on-line recommendation system. The projects will be evaluated based on the design, implementation, and deployment, including an end-of-semester competition based on a user survey. CSC290B Computational Photography and Video: Computational aspects of image, video processing and interactive photography. Topics selected from: imaging and low level image processing, compression, video processing and tracking, image segmentation, combining / compositing images, stereo vision, depth and 3D reconstruction techniques, image registration, face detection and recognition, general object recognition, image and video indexing and retrieval. Real world examples will be drawn from commercial, artistic, medical and scientific applications. 290C - Intro to Database Systems (290C): This course presents the fundamental concepts of database design and use. It provides a study of data models, data description languages, and query facilities including relational algebra and SQL, data normalization, transactions and their properties, physical data organization and indexing, security issues and o

Dance

Department: Dance
Course: DAN 102
Title: Fundamentals of Movement A
Instructor: Pigno, N. **Class Size:** 25
Description: This course will explore movement through the use of technique and improvisation. It emphasizes spontaneity, joy in moving, and self-awareness and is based on experiential anatomy and developmental movement patterns. It provides a strong foundation for further study in dance, theater, or sports, or can be used as an introduction to movement and body awareness. No previous dance training is required.

Department: Dance
Course: DAN 103
Title: Fundamentals of Movement B
Instructor: Pigno, N. **Class Size:** 5
Description: A continuation of Dance 102.

Department: Dance
Course: DAN 104
Title: Contact Improvisation I
Instructor: Pigno, N. **Class Size:** 12
Description: Contact improvisation is rooted in dance, the martial arts and studies of body development and awareness. It is a duet form where partners use weight, momentum, and inertia to move each other freely through space, finding support through skeletal structure rather than muscular effort. We will explore solo and duet skills such as rolling, falling, balance, counter-balance, jumping, weight sharing, spirals, and attuning to sensory input. Skill work will be combined with more open dancing in a supportive and focused environment. No previous dance training required.

Department: Dance
Course: Dan 105
Title: Creative Improvisation Through World Percussion
Instructor: Holland, J. **Class Size:** 18
Description: This class explores improvisation as a process and vehicle for personal expression, while investigating some of the rhythms and music of the world through hands-on performance, guided listening, readings and video presentations. The course provides an introduction to hand-drumming technique, with an emphasis on West African and Afro-Cuban percussion traditions. Following the spirit of these traditions, which celebrate community over individualism, practical facility with drumming language will be emphasized as a key to exploring improvisation. The course, in an overall sense, provides students with a first-hand experience of how music in general, and drumming in particular, joins people together in a shared experience of sound and vibration that is both ancient and contemporary.

Department: Dance
Course: DAN 114
Title: Introduction to Anusara Yoga
Instructor: McCausland, J. **Class Size:** 20
Description: Anusara Yoga is a powerful system of hatha yoga that integrates a Tantric philosophy of intrinsic human goodness, Universal Principles of Alignment, and an artistic method of expressive movement. Students learn to honor their unique differences and limitations and through self-examination, discovery and receptivity, they open to new ideas about their responsibility and individual roles in a rapidly changing world community. This class unifies traditional Indian philosophy with practical implementation, classic yoga asana (poses) with a creative movement application emphasizing a celebration of the heart. Course requirements include assigned readings, journaling, discussion, participation in class and home practice.

Department: Dance
Course: DAN 116
Title: Introduction to Contemporary Ballet
Instructor: World, C. **Class Size:** 20
Description: Contemporary Ballet will approach ballet technique through the lens of somatic practices and will focus on giving the students a strong technical base. Phrasing, musicality and efficiency of movement will be emphasized. The class will provide a theoretical context, looking at ballet history and art and culture in society.

Department: Dance
Course: DAN 120
Title: Introduction to Aikido
Instructor: Martini, R. **Class Size:** 18
Restrictions: Not open to seniors
Description: Aikido is a different kind of martial art. It doesn't rely on speed or strength, but on the development of a calm mind and a relaxed body. While the techniques you learn in Aikido are fascinating and effective, Aikido's real secret is this strong, dependable mind/body state. You will learn how to throw attackers effectively and almost effortlessly and how to fall safely. Aikido helps you to know yourself, to understand the natural rhythms of the human body, and to harness the true power of your mind and body for school, sports, dance, and all aspects of your life.

Department: Dance
Course: DAN 171
Title: Capoeira:Brazilian Art Movement
Instructor: Russell, T. **Class Size:** 20
Description: An art form of self-defense with strong aerobic and dance elements that brings together a harmony of forces. Through the study of the history, movements and culture behind Capoeira students will gain self-confidence, power, flexibility, endurance, and ultimately the tools towards self-discovery. Capoeira is within the reach of anyone regardless of age, sex, or athletic experience. In keeping with its strong traditions, Capoeira balances the body, mind, and soul and enables one to break through limits, revitalizing oneself for everyday life.

Department: Dance
Course: DAN 175
Title: Voice and Movement for the Actor
Cross-listed: ENG 177
Instructor: Browne, P. ,Ware, S. **Class Size:** 15
Description: Please See ENG 177 for course description.

Department: Dance
Course: DAN 180
Title: Creative Middle Eastern Dance
Cross-listed: WST 177
Instructor: Scott, K. **Class Size:** 20
Description: Unveil the grace and beauty residing in the creative nature of Middle Eastern Dance. Improve strength, flexibility and self awareness of the body. Class work will include meditative movement, dance technique, improvisation and rhythm identification through music and drumming. Specific dance forms such as Egyptian & Turkish Oriental, Tunisian, American Tribal and Folkloric/Bedouin styles of North Africa will be taught. Discourse and research topics will explore issues of gender, body image, historical perspectives and Orientalism.

Department: Dance
Course: DAN 181
Title: West African Dance Forms I
Cross-listed: AAS 254
Instructor: Martino, K. **Class Size:** 20
Description: Students will experience dancing African styles from the traditional cultures of Ghana and Guinea, West Africa. Technical emphasis will focus on foot patterns and placement, as well as developing the proper physical stance for African dance styles. Students will practice the dances and drum songs called Kpanlogo & Gota from Ghana, and Yankadi, Makru, & Kuku from Guinea, as well as various other selections. Outside work is required, including performance attendance, video viewing, article analysis, and journaling. Students can expect to gain a

broadened perspective on contemporary West Africa and it's cultural practices.

Department: Dance
Course: DAN 203
Title: Contact Improvisation II
Instructor: Pigno, N. **Class Size:** 10
Description: A continuation of DAN 202 that is taught concurrently with the introductory course. Students in DAN 203 will gain a deeper experiential and intellectual knowledge of contact by exploring issues further. Work includes both more advanced practice with other DAN 203 students, and the experience of helping teach the DAN 202 students the basic principles of contact.

Department: Dance
Course: DAN 204
Title: Contact Improvisation and Culture
Instructor: Pigno, N. **Class Size:** 10
Description: This course includes the studio work of the 2 credit contact improvisation course, and readings and written assignments that use ideas from contact improvisation to explore cultural issues.

Department: Dance
Course: DAN 207
Title: Dance as a Force for Social Change
Instructor: Hook, J. **Class Size:** 15
Description: Dance is an irreplaceable way of understanding and expressing the world. Contemporary dance cuts across social, cultural, geographic and aesthetic boundaries, bridging between diverse cultures and traditions and giving a venue for exploring the complexities and ambiguities of human existence. Through films, readings and discussion we will explore dance as a force for transformative change in the 21st Century.

Department: Dance
Course: DAN 208
Title: T'ai Chi and Chinese Thought
Instructor: Loughridge, R. **Class Size:** 18
Description: A study of Taijiquan, (also known as T'ai Chi Ch'uan or Tai Chi), a traditional Chinese martial art, and its intimate relationship to the cosmological, physiological, and philosophical conceptions found in the culture and thought from which it emerged. The course investigates both the traditional Chinese philosophy and movement aspects of Tai Chi in order to better understand the integration of human body, mind, and spirit. The Simplified 24-Step Taijiquan (Ershisi Shi Taijiquan) is learned, along with the foundation skills of the Eight Methods or Energies (Ba Fa), Reeling Silk (Chan Si Gong), Pushing Hands (Tui Shou), and Standing Pole meditation (Zhan Zhuang). Tai Chi is not only a valuable cross training exercise for the dancer, but also provides training for relaxed strength, whole body coordination, balance, centered alignment, timing, weight shifting and moving with fluid grace.

Department: Dance
Course: DAN 209
Title: Qigong: Chinese Way To Health
Instructor: Loughridge, R. **Class Size:** 18
Description: Qi Gong is a traditional Chinese internal art and an early forerunner of Tai Chi Ch'uan consisting of the practice (Gong) of sets of energy (Qi) exercises to build outer and inner strength. It is a self-healing modality designed to balance and harmonize the energy flow of the body, improve breathing and relax the mind for health, fitness, and longevity. This course is a study of both the philosophical and the movement aspects of Qi Gong in order to better understand and to attain the integration of body, mind, and spirit. Topics will include traditional Chinese cultural concepts such as Yin-Yang theory, Five Element theory and Qi theory. Qi Gong provides the dancer with training for better breathing, body awareness, focus and concentration, mental presence, imagery, and cultivating and expressing energy.

Department: Dance
Course: DAN 211
Title: T'ai Chi: Explorations in Qi
Instructor: Loughridge, R. **Class Size:** 18
Description: Dancers, musicians, actors, painters, philosophers, poets, warriors, healers, and artists of every discipline historically have utilized the Chinese internal arts of Tai Chi and Qi Gong as tools for the mobilization of qi, or energy, in order to achieve health, healing, and mind-body-spirit integration. This course combines movement, meditative, and breathing exercises and traditional forms with readings, video viewings, creative exercises, exploratory projects, and discussions of literature and philosophy to explore how the practice and philosophy of these transformative arts can lead to mental and physical balance, body-mind integration, self-discovery, creative expression, and peak athletic and enhanced artistic performance. (Four Credit Hours)

Department: Dance
Course: DAN 214
Title: Community, Earth & Body
Cross-listed: WST 215

Instructor: Hook, J. **Class Size:** 12
Description: What is a sustainable community? How does our relationship with our body affect the way we interact with the world? What does it mean to be truly human and to renew and deepen communication with our natural world and society? What is transformative learning? These questions and others will be addressed through experiential practice, journal writing, reading and discussion of contemporary writers, and time spent in meditation/reflection.

Department: Dance
Course: DAN 217
Title: Body as Medium: Performance Art
Instructor: Holland, J. **Class Size:** 18
Description: This class introduces students to performance art as a four-fold discipline: a powerful cultural practice that has a long and storied history; a contemporary means of expression that remains both vibrant and volatile; a powerful tool for investigating and reflecting on ways that individuals choose to construct representations of their self/ selves; and a path leading toward a meaningful social, political and ecological engagement with the world. Among other things, we will consider how ones history, gender, race or ethnic identification, personal geography, sexuality and bodily expression can all be considered elements in the ongoing performance of ones life. Students, presented with daily warm up, group and individual exercises, will learn to develop collaborative and individual pieces that explore embodiment as an artistic medium.

Department: Dance
Course: DAN 265
Title: Contemporary Dance Technique
Instructor: Smith, M. **Class Size:** 18
Prerequisites: DAN 102 or equivalent dance experience
Description: This class is for students with previous dance or athletic experience. It will blend the challenges of full-bodied, momentum-driven dancing with a sense of ones own self-awareness and discovery. Classes will explore efficiency of movement, breath, gravity and weight, musicality, performance and somatic practices. Through rigorous dancing, students will be challenged to move beyond not only their physical, but also their artistic boundaries and dimensions.

Department: Dance
Course: DAN 281
Title: West African Dance Forms II
Cross-listed: AAS 255
Instructor: Martino, K. **Class Size:** 20
Description: This course will focus on the increasingly complex dance repertoires of Ghana and Guinea, West Africa. A more specified investigation of regional context and cultural function of the dances will be emphasized. Repertoire dances include Sinte, Kassa, Yamama, & Somuninku from Guinea and Adowa, Slow Agbekor, & Gahu from Ghana, as well as others. Enrollment requires West African Dance 1 or demonstrated ability in African dance.

Earth & Environmental Sciences

Department: Earth & Environmental Sciences
Course: EES 102Q
Title: Earthquakes, Volcanoes and Mountain Ranges in California: A Field Quest
Instructor: Tarduno, J. **Class Size:** 15
Description: Understanding how the Earth works starts with an appreciation of geological processes in action. To observe these dynamic processes, such as earthquakes, volcanic eruptions and mountain formation, Earth scientists must travel to areas of geological youth, such as California. In this quest, students are introduced to active geology through readings and discussion sections in preparation for a field excursion to California. Students will learn to examine critically ideas on how Earth science systems work and how active processes affect society.

Department: Earth & Environmental Sciences
Course: EES 103
Title: Introduction to Environmental Science
Instructor: Cox, L.
Prerequisites: Recommended: EES 101 and a solid background in high school biology and chemistry.
Description: An introduction to the natural, physical chemical, biological and geological processes that shape conditions at the Earth's surface, their interrelationships, and the modification of these processes by human activity. Students will learn to critically analyze scientific hypotheses and the data on which they are founded. Exercises in the field and laboratory will reinforce basic concepts introduced in lecture, and introduce students to some basic methods of environmental research. The content of this course is similar to that of the AP Environmental Science curriculum.

Department: Earth & Environmental Sciences
Course: EES 119
Title: Energy and Mineral Resources
Cross-listed: EES 219

Instructor: Fehn, U. **Class Size:** 40
Exams: Two exams and final.
Coursework: Weekly problem sets
Description: Mineral deposits; the geologic processes related to their formation, geologic setting, distribution and use. Formation of fossil fuels. Technical principles of today's major energy sources, their availability and future potential. Alternative energy sources (e.g., solar energy, geothermal energy). Environmental and economic consequences of energy use. Note: Juniors and Seniors in the natural sciences and engineering are required to enroll in EES 219.

Department: Earth & Environmental Sciences
Course: EES 201
Title: Evolution of the Earth
Instructor: Cottrell, R. **Class Size:** 60
Coursework: Weekly labs and Saturday field trips (late in the semester) supplement the lectures.
Description: Historical geology encompasses the 1) dynamic history of the physical earth: The development of landforms, rise and fall of ancient seas, movements of continents, etc. and 2) the evolution of historical geology such as paleontology, sedimentology, stratigraphy, geochronology and plate tectonics and, second, a chronological survey of earth and life history, emphasizing the evolution of North America.

Department: Earth & Environmental Sciences
Course: EES 201W
Title: Evolution of the Earth-Upper Level Writing Requirement
Instructor: Cottrell, R.
Prerequisites: See EES 201
Description: See EES 201 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.

Department: Earth and Environmental Sciences
Course: EES 202Q
Title: Plates Tectonics and Active Geologic Processes in California
Cross-listed: EES 102Q
Instructor: Tarduno, J. **Class Size:** 15
Description: Understanding how the Earth works with an appreciation of geological processes in action. To observe these dynamic processes such as earthquakes, volcanic eruptions and mountain formation, Earth scientists must travel to areas of geological youth, such as California. In this course, students are introduced to active geology through readings and discussion sections in preparation for a field excursion to California. Students will learn to examine critically ideas on how Earth science systems work and how active processes affect society. This course is the complement to EES 102Q and is intended for geology and environmental science majors

Department: Earth and Environmental Sciences
Course: EES 206
Title: Petrology and Geochemistry
Cross-listed: EES 406
Instructor: Basu, A. **Class Size:** 40
Prerequisites: EES 101
Exams: Three 1-hour exams, 2 laboratory exams, plus quizzes
Description: Distribution, description, classification, and origin of igneous and metamorphic rocks in the light of theoretical- experimental multicomponent phase equilibria studies; use of trace elements and isotopes as tracers in rock genesis; hand specimen and microscopic examinations of the major rock types in the laboratory

Department: Earth & Environmental Sciences
Course: EES 206W
Title: Petrology and Geochemistry-Upper Level Writing Requirement
Instructor: Basu, A.
Description: See EES 206 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.

Department: Earth & Environmental Sciences
Course: EES 207
Title: Principles of Paleontology
Instructor: Higgins, P. **Class Size:** 40
Prerequisites: EES 101, EES 201 or permission of instructor
Exams: Three hourly exams
Description: This course is designed to introduce the basic principles of paleontology - the study of fossil organisms in the geological record. Topics to be covered include: Taphonomy and the processes of fossilization; Principles of evolution as evidenced by the fossil record; Taxonomy and the recognition and naming of fossil species; Biostratigraphy as a means of dating a rock and/or learning about ancient environments; Geochemistry of fossils as a means to understand ancient habitats and behaviors. The course will include an overview of important fossil groups with hands-on experience and a field trip.

Department: Earth & Environmental Sciences
Course: EES 207W
Title: Principles of Paleontology - Upper Level Writing Requirement
Instructor: Higgins, P.
Prerequisites: See EES 207

Restrictions: Permission of instructor required
Description: See EES 207. This section fulfills the upper level writing requirement and EES Departmental Writing Plan.

Department: Earth & Environmental Sciences
Course: EES 211
Title: Earthquake and Volcanic Hazards: Living on an active planet
Cross-listed: EES 111
Instructor: Ebinger, C. **Class Size:** 30
Prerequisites: EES 101 or permission of instructor
Exams: one mid-term exam, and one final exam
Coursework: one 20-page essay concerning a case study of a recent seismic or volcanic event. Students electing this section will have 8 additional lab sessions on earthquake and volcanic processes.
Description: Earthquakes and volcanic eruptions are violent manifestations of plate tectonics, the movement of the relatively rigid plates forming the Earth's outer shell. This course focuses on the causative mechanisms of earthquakes and volcanoes, hazards and forecasting, and insights into planetary processes gained from their study. The final third of the course examines particular events on Earth, with implications for planetary evoltuion.

Department: Earth & Environmental Sciences
Course: EES 217
Title: Physical and Chemical Hydrology
Cross-listed: EES 417
Instructor: Poreda, R.
Prerequisites: EES 101
Description: This course provides a foundation in both qualitative and quantitative analyses of the dynamic interaction between water and geologic media. The first part of the course outlines the formation of water, atmospheric processes and the hydrologic cycle. The second part focuses on the theory of, and geologic controls on, groundwater flow. The third and final part of the course deals with natural groundwater geochemistry and environmental contamination.

Department: Earth & Environmental Sciences
Course: EES 217W
Title: Physical and Chemical Hydrology-Upper Level Writing Requirement
Instructor: R. Poreda
Prerequisites: See EES 217
Description: See EES 217 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.

Department: Earth & Environmental Sciences
Course: EES 219
Title: Energy and Mineral Resources
Cross-listed: EES 119
Instructor: Fehn, U. **Class Size:** 20
Exams: Two Exams and final.
Coursework: Discussion session; problem sets; research paper
Description: See description of EES 119. The science background will be more emphasized in additional readings and a separate discussion session.

Department: Earth & Environmental Sciences
Course: EES 219W
Title: Energy and Mineral Resources-Upper Level Writing Requirement
Instructor: U. Fehn
Prerequisites: See EES 219
Description: See EES 219 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.

Department: Earth and Envionmental Sciences
Course: EES 251
Title: Intro. Remote Sensing and Geographic Information Systems
Cross-listed: EES 451
Instructor: Ebinger, C.
Prerequisites: MTH 141-143 or MTH 161-163
Exams: Assessment is through computer-based practicals and a short-answer mid-term exam
Description: Students will learn the basic principles of satellite, airborne, and other remote sensing data acquisition systems, and the processing and interpretation of acquired data sets. Case studies and computer-based practicals will focus on visible to near-infrared, thermal and radar imaging of continents and seafloor. Course material will include a review of geographic coordinate systems and projections for georeferencing remotely-sensed data as a basis for Geographic Information Systems analysis.

Department: Earth and Environmental Sciences
Course: EES 257
Title: TOPICS IN ADVANCED SEISMOLOGY
Instructor: Ebinger, C.
Prerequisites: PHY 122 or equivalent, EES 205
Description: This course examines wave propagation in the Earth, and introduces helioseismology. Classes focus on theory of waveform modelling, moment tensor inversions, low frequency earthquakes and related topics. Laboratory work focuses on Matlab-based programming.

Department: Earth and Environmental Sciences
Course: EES 259
Title: Seminar in Paleomagnetism
Instructor: Tarduno, J.
Prerequisites: EES 101 or permission of instructor
Description: Current topics in Paleomagnetism and rock magnetism will be explored through literature reviews and modeling studies. Topics will range from the history of plate tectonics to biogenic magnetism. An introduction to basic concepts in paleomagnetism and rock magnetism will be included.

Department: Earth & Environmental Sciences
Course: EES 285
Title: Structure and Tectonics of Mountain Belts
Instructor: Mitra, G. **Class Size:** 30
Prerequisites: EES 208 or equivalent
Restrictions: Permission of instructor required
Exams: 2 exams plus required field trip(s).
Description: Orogeny and its relationship to plate tectonics. Structural style and tectonic history of mountain belts with special reference to the Appalachians and Cordilleras. Lectures twice a week. Homework assignments involve drawings and interpreting cross-sections through mountain belts. Extended Field trip to the Appalachians to look at typical structures of mountain belts. Offered alternate spring semesters.

Department: Earth & Environmental Sciences
Course: EES 285W
Title: Structure and Tectonics of Mountain Belts-Upper Level Writing Requirement
Instructor: G. Mitra
Prerequisites: See EES 285
Description: See EES 285 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.

Department: Earth & Environmental Sciences
Course: EES 298
Title: Introduction to Research Methods
Instructor: Staff
Description: A basic introduction to research in the Earth and Environmental Sciences will be provided in one of the laboratories that comprise the Department's Center for Analytical Geosciences.

Department: Earth & Environmental Sciences
Course: EES 318W
Title: Environmental Decisions - Upper Level Writing Requirement
Instructor: Fehn, Udo **Class Size:** 40
Description: Discussion of major environmental issues such as water use, pollution and energy availability. Analysis of decisions resulting in environmental change. The interaction of scientists with the public and policymakers. Seminar format with oral presentations and papers. A writing course.

Department: Earth & Environmental Sciences
Course: EES 390
Title: Supervised College Teaching
Cross-listed: EES 490
Instructor: Any Full-time Faculty Member within Department
Restrictions: Permission of instructor required
Description: Attendance of all primary class lectures. Assist in at least one laboratory session per week and general preparation for answering student questions. Preparation and delivery of at least one laboratory lecture and summary discussion following that lab. Assistance with the setup and dismantling of extensive lab displays of rocks, fossils and maps. Assistance with grading of lab quizzes and homework assignments, and in proctoring exams.

Department: Earth & Environmental Sciences
Course: EES 391
Title: Independent Study in Earth and Environmental Sciences
Instructor:
Restrictions: Permission of instructor required
Description: Students must have permission. Interested students should meet with their advisor, and/or Udo Fehn regarding course content.

Department: Earth & Environmental Sciences
Course: EES 391w
Title: Independent Study in Earth and Environmental Sciences-Upper Level Writing Requirement
Instructor: TBA
Prerequisites: See EES 391
Restrictions: Permission of instructor required
Description: See EES 391 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.

Department: Earth & Environmental Sciences
Course: EES 393
Title: Senior Thesis
Instructor:
Restrictions: Permission of instructor required
Description: Students should seek out the faculty member he/she wishes to do a senior thesis with. Students should pick-up independent course forms from Lattimore 312. Course is suited to each students abilities. Questions should be directed to your major advisor.

Department: Earth & Environmental Sciences
Course: EES 393W
Title: Senior Thesis-Upper Level Writing Requirement
Prerequisites: See EES 393
Restrictions: Permission of instructor required
Description: See EES 393 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.

Department: Earth & Environmental Sciences
Course: EES 394
Title: Internship in Earth and Environmental Sciences
Instructor:
Restrictions: Permission of instructor required
Description: Students should contact their major advisor for details. Closure course for Environmental Studies majors (ESP) and Environmental Science majors (EVS).

Department: Earth & Environmental Sciences
Course: EES 417
Title: Physical and Chemical Hydrology
Cross-listed: EES 217
Instructor: R. Poreda
Prerequisites: EES 101
Description: This course provides a foundation in both qualitative and quantitative analyses of the dynamic interaction between water and geologic media. The first part of the course outlines the formation of water, atmospheric processes and the hydrologic cycle. The second part focuses on the theory and geologic controls on groundwater flow. The third and final part of the course deals with natural groundwater geochemistry and environmental contamination.

Department: Earth and Envionmental Sciences
Course: EES 451
Title: Intro. to Remote Sensing and Geographic Information Systems
Cross-listed: EES 251
Instructor: Ebinger, C.
Prerequisites: MTH 141-143, MTH 161-163
Exams: Assessment is through computer-based practicals and a short-answer mid-term exam
Description: Students will learn the basic principles of satellite, airborne, and other remote sensing data acquisition systems and the processing and interpretation of acquired data sets. Case studies and computer-based practicals will focus on visible to near-infrared, thermal and radar imaging of continents and seafloor. Course material will include a review of geographic coordinate systems and projections for georeferencing remotely-sensed data as a basis for Geographic Information analysis.

Department: Earth and Environmental Sciences
Course: EES 457
Title: TOPICS IN ADVANCED SEISMOLOGY
Instructor: Ebinger, C.
Prerequisites: PHY 122 or equivalent, EES 205
Description: This course examines wave propagation in the Earth, and introduces helioseismology. Classes focus on theory of waveform modelling, moment tensor inversions, low-frequency earthquakes and related topics. Laboratory work focuses on Matlab-based programming.

Department: Earth & Environmental Sciences
Course: EES 459
Title: Seminar in Paleomagnetism
Cross-listed: EES 259
Instructor: Tarduno, J. **Class Size:** 15
Prerequisites: EES 101
Restrictions: Permission of instructor required
Coursework: Class presentations and research paper
Description: Current topics in paleomagnetism and rock magnetism will be explored through literature reviews and modeling studies. Topics will range from the history of plate tectonics to biogenic magnetism. An introduction to basic concepts in paleomagnetism and rock magnetism will be included

Department: Earth and Environmental Sciences
Course: EES 462
Title: Seminar in Noble Gas Geochemistry
Instructor: Poreda, R.
Description: This course will examine topics in noble gas geochemistry through a series of recent articles on various topics.

Economics

Department: Economics
Course: ECO 108
Title: Principles of Economics
Instructor: Landsburg, S. **Class Size:** 200
Description: This course gives an overview of economics and provides a foundation for studying further in economics. We model how individuals make economic choices, e.g., what to buy, how much to work, how much to save, what occupation to pursue, how many children to have, etc. Secondly, we examine how all these

individual choices come together. In particular, how does a market-oriented economy coordinate all these individual choices. The course explains the market forces of supply and demand and how they determine a good's price, who produces it, how it is produced, and who gets the good. We examine the role of international trade and the impact of government involvement in markets, such as imposing rent controls, taxing cigarettes, or outlawing child labor. We examine how markets deal with monopoly power or producers polluting; and we examine the ability of government intervention to lessen or worsen these problems. We see how a market economy rewards persons, how it can generate wealth and poverty, and study the outcome of government welfare policies. We also introduce a number of important issues in macroeconomcis. These include the sources of economic growth and the impact of government spending, taxing, and borrowing on the performance of the aggregate economy. Eco 108 is preparation for subsequent economics courses. Completion of (or concurrent enrollment in)a course in calculus is recommended.

Department: Economics
Course: ECO 207H
Title: Honors Intermediate Micro
Instructor: Pavan, R. **Class Size:** 30
Prerequisites: 1)A strong performance in ECO 108 2)Completion of MTH 161 or MTH 171 or completion of MTH 141 & 142
Description: This course shows how the choices of consumers and firms interact through markets to determine all the factors related to economic well being. In comparison to other sections of ECO 207, this section will develop those choices more formally and mathematically.

Department: Economics
Course: ECO 208
Title: Topics in Microeconomic Theory
Cross-listed: ECO 208W
Instructor: Landsburg, S.
Prerequisites: ECO 207, Calculus
Exams: 3 Exams
Description: This course is a sequel to ECO 207. It covers a variety of topics in microeconomics. The precise content varies, but usually includes a more detailed look at the theory of the firm, analysis of simultaneous equilibrium in many markets, and allocation of resources over time and under uncertainty.

Department: Economics
Course: ECO 209
Title: Intermediate Macroeconomics
Instructor: Hong, J. **Class Size:** 125
Prerequisites: ECO 207
Exams: 2 Midterms, 1 Final
Description: ECO 209 is an intermediate course in macroeconomics. The course analyzes basic models of income determination which attempt to explain how the price level, the interest rate and the level of output and employment are determined. Monetary and fiscal policies are discussed within the framework of these models, and competing theories are compared.

Department: Economics
Course: ECO 211
Title: Money, Credit and Banking
Cross-listed: ECO 211W
Instructor: Rizzo, M. **Class Size:** 100
Prerequisites: ECO 207 (or permission of instructor)
Exams: 2 Midterms, Final
Description: This course is devoted to the study of topics in money and banking. Topics covered include the determinants and causes of inflation, monetary policy, credit and capital markets, liquidity and financial intermediation, and federal regulation of the banking system.

Department: Economics
Course: ECO 217
Title: Economics of Contracts, Organizations, and Markets
Cross-listed: ECO 217W
Instructor: Abraham, A.
Prerequisites: ECO 207 and Calculus Eco 207;ECO 216 or FIN 205; ECO 230 or equivalent
Restrictions: Not open to freshmen
Exams: 1-2 Midterms, Final, Problem sets
Description: This course offers a unified treatment of the economics of contracts and organizations. We use the concepts of transaction costs, private information and efficiency are used to study issues regarding co-ordination, incentives, organization and mechanism design. Among others, we will seek answers to following questions. Do stock options or variable bonuses give better incentives for managers to work hard on the behalf of the shareholders? Should a medium size firm finance new investment by issuing equity or by borrowing? Should corporations expand vertically or horizontally?

Department: Economics
Course: ECO 230
Title: Economic Statistics

Instructor: Yilkiz, N. **Class Size:** 75
Prerequisites: Students should have taken or currently be taking Math 141 or higher.
Exams: midterms, final
Description: This course is an introduction to the probability and statistical theory underlying the estimation of parameters and testing of hypotheses in economics. Linear correlation and simple regression analysis are also be introduced. Students will use computers to analyze economic data.

Department: Economics
Course: ECO 231W
Title: Econometrics
Instructor: Kinsler, J. **Class Size:** 70
Prerequisites: ECO 207;ECO 230 or STT 213 or MTH 203
Description: This course covers the single and multiple linear regression model, the associated distribution theory, and testing procedures; specification errors; multicollinearity; corrections for heteroscedasticity and serial correlation; simultaneous equations; measurement error, dummy variables, discrete choice models; and other extensions as time permits. Students also apply techniques to a variety of data sets using computers. Applications of these techniques to various economic fields are emphasized.

Department: Economics
Course: ECO 251
Title: Industrial Organization: Theory & Evidence
Cross-listed: ECO 251W
Instructor: Virag, G.
Prerequisites: ECO 207
Description: This course examines the determinants of market structure and market performance. Questions discussed are pricing, product- and quality choice, collusion, mergers, vertical restrictions, antitrust policy and related welfare analysis. Additional topics (depending on time) that are covered are networks, auctions, advertisement and research and development. The course puts a special emphasis on studying strategic situations, using the tools of game theory. We use examples from US and international markets to illustrate the main theoretical ideas.

Department: Economics
Course: ECO 263
Title: Public Finance
Cross-listed: ECO 263W
Instructor: Wolkoff, M. **Class Size:** 50
Prerequisites: ECO 207
Exams: 2 Midterms, Final
Description: This course is intended to be an introduction to the study of the role of government in the economy, with an emphasis on the microeconomic aspects of this role. Both the taxation and the expenditure sides of government activity will be studied. The first part of the course will be devoted to the theory of public finance in order to build a foundation for the remainder of the course, which involves the application of this theory to particular programs and institutions (policy analysis). Typical topics include: public goods, social security, income taxation, tax reform, fiscal federalism ,etc. ECO 263(W) section counts for upper level writing requirement.

Department: Economics
Course: ECO 270
Title: International Finance
Cross-listed: ECO 270W
Instructor: Stockman, A. **Class Size:** 40
Prerequisites: ECO 207/ECO 209/ECO 230 or STT 213
Exams: Midterm, Final
Description: Foreign exchange markets; determination of exchange rates; balance of payments, and international asset flows; central bank intervention; international monetary system; European Monetary System (EMS) and European Monetary Union (EMU); international transmission of macroeconomic disturbances.

Department: Economics
Course: ECO 274
Title: Mathematical Economics
Instructor: Pancs, R.
Description: This course will cover basic tools used in economic theory and their applications. The topics covered will include the notions continuity, existence, uniqueness, and characterization of solutions, comparative statics, and duality theory. These tools will be used and further tools will be developed in applications to trade, auctions, and matching.

Department: Economics
Course: ECO 288
Title: Introduction to Game Theory
Cross-listed: PSC 288
Instructor: Barelli, P.
Prerequisites: ECO 207

Department: Economics
Course: ECO 371

Title: Evolution of the World Economic Order Since the Sixteenth Century
Cross-listed: ECO 371W/AAS 371/HIS 357/HIS 457
Instructor: Inikori, J.
Exams: Midterm and Final
Description: The course traces the historical origins of the hierarchical structure of the current world economic order. It examines specifically the historical forces which produced the unequal international division of labor between industrial and non-industrial nations, starting with the British Industrial Revolution which occurred within the Atlantic world economy. The rise and fall of the USSR and the command economies of Eastern Europe are examined in the context of efforts by underdeveloped countries to improve their performance and location within the world system. The more recent successes of some Asian countries and the continuing external debt problems of Latin American and African countries are also examined with the conceptual framework of international political economy to predict the probable future of all poor peoples both in the poor and in the rich countries.

Department: Economics
Course: ECO 389
Title: Senior Seminar
Cross-listed: ECO 389W
Instructor: Engerman, S.
Prerequisites: ECO 207/ECO 209/ECO 231
Description: Independent research on an economic problem chosen by the student and approved by a member of the faculty who agrees to supervise the research. Each student must write a substantial paper that reports on the outcome of that research. Class presentations on the progress of the research are also required.

English

Department: English
Course: ENG 100
Title: Great Books: War
Instructor: Higley, S
Description: Spring 2009. This course aims to introduce students to famous writings considered "great" that examine the nature of war, the strategies of war and political conduct, and the strategies of surviving war. That so many of our great works, especially our "epics," address and describe wars is a concern of the course. Where does heroism end and expediency begin? What voices have been raised against war and the curtailment of freedom? What bonds are made or broken in war? The course is particularly interested in the relationships of men and women in an institution long considered a masculine domain. The course is divided into "Strategies," "Epic Heroes," and "Men and Women." In the first month we'll examine Sun Tzu's Art of War, Aristotle's Politics, Machiavelli's The Prince, Paine's Common Sense among others; in the second we will examine Gilgamesh, The Iliad, Beowulf, The Song of Roland, Shakespeare's Henry V; in the third we will look at Sophocles' The Trojan Women, Aristophanes' Lysistrata, Christine of Pisan on Joan of Arc, Woolf's Three Guineas, and either or both Ozick's The Shawl and Szeman's The Kommandant's Mistress.

Department: English
Course: ENG 111
Title: Introduction to Shakespeare
Instructor: Guenther, G
Description: Spring 2009. This course will focus on plays representing each of Shakespeare's major dramatic forms - comedy, history, tragedy, and romance. We learn about the literary and theatrical conventions that would have been second nature to Shakespeare and his audience 400 years ago; consider how Shakespeare's writing responded to his audiences cultural, literary, political, and religious concerns; and ask how Renaissance stage practices might help us to better understand his plays and better appreciate why Renaissance audiences found them so compelling. We will discuss, among other topics, Shakespeare's method of constructing his characters psychological dilemmas, his depiction of sensational and often violent events, his use of props, his insistent references to contemporary play-writing and performance practices (including the Renaissance tradition of boy actors playing women's roles), and his depiction of relations between ruler and subject, husband and wife, parents and children, and European and non-European characters. Classes will center around careful study of individual plays, including, when possible, analysis of recent interpretations of key passages on the stage or on film. We will proceed through a combination of lecture, class discussion, and small group work. Applicable English Clusters: Plays, Playwrights, and Theater; Great Books, Great Authors.

Department: English
Course: ENG 114
Title: British Literature II
Instructor: Rajan, S
Description: Spring 2009. This course introduces students to some of the most significant literature from the Romantic, Victorian, and Modern literary periods. Beginning with the outbreak of the French

Revolution and ending with World War I, the years covered by this course represent a time of dramatic political, economic, and cultural change. The nineteenth century witnessed the rise of industrialism, rapid imperialist expansion, religious crisis, increasing democracy, and shifts in gender and class identity. In exploring this tumultuous time period, the course will focus on an array of novelists, poets, and essayists who will serve as touchstones for the key political, intellectual, and aesthetic problems of their times (e.g. Blake, Wordsworth, Coleridge, Keats, Dickens, G. Eliot, Browning, J.S. Mill, Arnold, Ruskin, Yeats, and Woolf). During the course, we will address the political, aesthetic, and intellectual issues that are traditionally viewed as characterizing Romantic, Victorian, or Modernist literature. Students will not only gain a greater appreciation for individual authors, but they will also be able to situate them within a larger framework of ideas and historical currents.

Department: English
Course: ENG 115
Title: American Literature
Instructor: Li, S
Description: Spring 2009. This course provides a basic introduction to some of the major works and themes in American literature, focusing primarily on the development of the novel and short story, with limited attention to poetry and drama. We will begin in the 19th century and work our way through such contemporary writers as Toni Morrison and Tony Kushner. Our focus will be on the creation of a national identity and how issues of race, gender, class and sexuality intersect in the formation of an American literary tradition. Students will trace a number of important themes such as the relationship between politics and art, the impact of slavery and the Civil War, immigration, the American dream and the development of a national mythology and ideology. In our study of various movements in the American literary tradition, we will also pay close attention to the intellectual debates concerning audience, language, and the purpose of art that have shaped key texts and historical time periods. Lectures will provide social and cultural background to the literary works discussed in class.

Department: English
Course: ENG 118
Title: Introduction to Media Studies
Cross-listed: FMS 131; AH 102
Instructor: Niu, G
Description: Spring 2009. This course provides a broad overview and introduction to media. We will cover histories of different types of media (internet, radio, audio recordings, television, cable, film, journalism, magazines, advertising, public relations etc.) as well as various theories and approaches to studying media. No prior knowledge is necessary, but a real interest and willingness to explore a variety of media will come in handy. Occasional outside screenings will be required (but if you cannot attend the scheduled screenings, you may watch the films on your own time through the Multimedia Center reserves). Students will be evaluated based on assigned writing, class room discussion leading, participation, short quizzes, midterm exam and final exam. Applicable English Cluster: Media, Culture, and Communication.

Department: English
Course: ENG 120
Title: Introduction to Creative Writing
Instructor: Schottenfeld, S **Class Size:** 15
Restrictions: Permission of instructor required
Description: Spring 2009. This class provides an introduction to the writing of poetry and fiction. Students will experiment with different poetic and literary forms, and will engage in writing exercises to develop and refine their use of images, characters and descriptive language. We will begin by studying the basic components of poetry and the short story. The course will conclude with a workshop in which every student will present material to be reviewed by the entire class.

Department: English
Course: ENG 122
Title: Creative Writing: Poetry
Instructor: Karn, J **Class Size:** 15
Restrictions: Permission of instructor required
Description: Spring 2009. This is an introductory course for students who have already begun to write some poetry on their own. Every week students' poems will be discussed in a workshop format. Selected works by contemporary poets (such as Plath, Walcott, Ginsberg, Ashbery, Rich, Heaney, and others) will provide an essential background for examining various approaches and techniques. Specific or "open" assignments will be given weekly. Permission of instructor required. Please submit 3-5 poems to the instructor, preferably before the first class, since space is limited. Applicable English Clusters: Poems, Poetry, and Poetics; Creative Writing.

Department: English
Course: ENG 123
Title: Playwriting

Instructor: Svich, C **Class Size:** 15
Restrictions: Permission of instructor required
Description: Spring 2009. A course devoted to the understanding and execution of dramatic writing that is unique to the theatre. Students will analyze and discuss selected readings while writing an original one-act play to be completed by the end of the semester. Meets during one half of the semester only. Contact the Theatre Program at 275-4959 for details. Applicable English Cluster: Creative Writing.

Department: English
Course: ENG 132
Title: Feature Writing
Instructor: Memmott, J **Class Size:** 35
Prerequisites: ENG 131 or permission of instructor.
Restrictions: Permission of instructor required
Description: Spring 2009. The study and practice of longer, more complicated newspaper and magazine stories, such as investigations and profiles. Emphasis will be on the consideration of the various techniques of non-fiction writing. Applicable English Cluster: Media, Culture, and Communication.

Department: English
Course: ENG 134
Title: Public Speaking
Instructor: Smith, C **Class Size:** 20
Coursework: ENG 134 contains two quizzes, a final exam, and four speeches to be given by the student. Speeches include a tribute, persuasive, explanatory, and problem solving address. A number of impromptu addresses will also be given.
Description: Spring 2009. Basic public speaking is the focus of this course. Emphasis is placed on researching speeches, using appropriate language and delivery, and listening critically to oral presentations. ENG 134 contains two quizzes, a final exam, and four speeches to be given by the student. The speeches include a tribute, persuasive, explanatory, and problem solving address. Applicable English Cluster: Media, Culture, and Communication.

Department: English
Course: ENG 135
Title: Debate
Instructor: Johnson, K **Class Size:** 25
Description: Spring 2009. The purpose of this course is to give students an appreciation for and knowledge of critical thinking and reasoned decision-making through argumentation. Students will research both sides of a topic, write argument briefs, and participate in formal and informal debates. Students will also be exposed to the major paradigms used in judging debates. Applicable English Cluster: Media, Culture, and Communication.

Department: English
Course: ENG 136
Title: Advanced Debate
Instructor: Johnson, K **Class Size:** 25
Prerequisites: ENG 135 or permission of instructor
Description: Spring 2009. Students will build their knowledge of debate theory and practice through varsity level intercollegiate competition and research. Applicable English Cluster: Media, Culture, and Communication.

Department: English
Course: ENG 138
Title: Journalism Case Studies
Instructor: Memmott, J. **Class Size:** 25
Prerequisites: Eng 131, or permission of the instructor.
Description: Spring 2009. The study and analysis of a few high-impact news stories. Through readings and interviews with the reporters and editors who worked on the story, as well as interviews with the subjects of the stories, the class will gain an understanding of the issues involved in covering major news events.

Department: English
Course: ENG 161
Title: Introductory Video and Sound
Cross-listed: FMS 161; SA 161
Instructor: Middleton, J **Class Size:** 15
Restrictions: Permission of instructor required
Description: Spring 2009. This course introduces the basic aesthetic and technical elements of video production. Emphasis is on the creative use and understanding of the video medium while learning to use the video camera, video editing processes and the fundamental procedures of planning video project. Video techniques will be studied through screenings, group discussions, readings, practice sessions and presentations of original video projects made during the course.

Department: English
Course: ENG 171
Title: Technical Theater
Instructor: Rice, G. **Class Size:** 15
Description: Spring 2009. An introduction to Technical Theatre and Theatre Technology: its materials, techniques and equipment. Focuses on the principles and practice of set construction; the nature and use of electricity; lighting and sound equipment; tools; production

organization and management; and the importance of safety in all areas. Course will include both lecture and significant hands-on experience. Practical laboratory work in association with the productions of the International Theatre Program is included.

Department: English
Course: ENG 175
Title: Acting Techniques
Instructor: Hoskins, D
Description: Spring 2009. Acting Techniques focuses on developing the student's ability to analyze texts from a performer's viewpoint, on heightening the actor's sensitivity to language, on developing the actor's physical and vocal technique, on building a deeper awareness of character and characterization in the student actor, and on engaging and actively developing creativity and imagination. This is done by the constant investigation, rehearsal, and presentation of assorted texts ranging from poetry to contemporary and classical scenes and monologues. Attendance at all classes is mandatory.

Department: English
Course: ENG 177
Title: Voice & Movement For The Actor
Instructor: Browne, P; Ware, S
Description: Spring 2009. This is a 4 credit, full semester course, aimed at helping student performers explore the full range and expressiveness of their speaking voice, explore the relationship between text and vocal expression, expand their movement ranges, while learning a descriptive system for understanding movement and meaning, and analyze their own movement profiles as actors, creating characters through clear movement choices, and embodying these characters fully.

Department: English
Course: ENG 200
Title: History of the English Language
Cross-listed: ENG 400
Instructor: Higley, S
Description: Spring 2009. The history of the English language is a history of upheavals and invasions. Brought to the British Isles by the Angles and the Saxons in the fifth century, "English" and the people who spoke it rapidly ousted the Brythonic (or p-Celtic) people and established the Old English "heptarchy": the seven realms of Anglo-Saxon England. These nations, in turn, were beset by Viking raids and the intrusions of Scandinavians; and after King Alfred had made a treaty with the so-called Danes, and had set the stage for a flowering of English culture and learning that left us the Old English literature we study today, William of Normandy conquered English in 1066, changing forever the direction England would take, and the nature of its language. We will study texts from the Old, Middle, and Modern English periods, and chart the ways in which our language grew from a relatively simple Germanic tongue to the powerful, ductile, and eclectic language it is today, with one of the largest vocabularies in the world. Borrowings from French, Latin, and Greek greatly enriched our lexicon in the Old, Middle, and early Modern Periods, and as the English settled colonies in America, which in turn became a melting pot of different nationalities, increasing its vocabulary. We will read texts about the English language by King Alfred the Great, Aelfric (10th C.), Robert of Gloucester, Chaucer, the Gawain-Poet, Caxton, Shakespeare, Milton, Donne, Mulcaster, Locke, Hume, Defoe, Swift, and Samuel Johnson; Thomas Jefferson, Noah Webster and the start of American dictionaries; and trace writings about 19th and 20th century concerns of language. We will end with discussions of Black Dialect, Ebonics, "uptalk," "Valley Speak," and language issues of concern to women. This class will fulfill the pre-1789 requirement for the major. Applicable English Cluster: Medieval Studies.

Department: English
Course: ENG 211
Title: Milton's Poetry
Cross-listed: ENG 411
Instructor: Gross, K
Description: Spring 2009. The course focuses on the writings of John Milton, one of the most challenging of English poets, famous for his radical religious and political beliefs as much as for his poetic inventiveness. Our work will center Milton's epic poem Paradise Lost, which re-tells the story of the creation of the world and the temptation and fall of Adam and Eve, interwoven with the story of the fall of Satan and the creation of hell. Well also read a number of Milton's shorter works of lyric and dramatic poetry, such as his biblical tragedy, Samson Agonistes, and look at some of his prose writings, particularly his essay on the freedom of writing and thought, Areopagitica. We'll be discussing Milton's poetic language, his ways of transforming both classical and biblical texts, his stark dramas of human desire and moral choice, and his reflections on the nature of power, both human and divine. In order to get an idea of Milton's crucial influence on later English writers, we will end the semester by reading selections from the poetry of William Blake, especially The Marriage of Heaven and Hell, and Mary Shelley's Frankenstein. No prerequisites. The course fulfills the pre-1800 requirement

for the English major, and can be used for English clusters in "Great Books, Great Authors" and "Poems, Poetry, and Poetics."

Department: English
Course: ENG 218
Title: Literature of the American Revolution
Cross-listed: ENG 418
Instructor: Glover, J
Coursework: There will be one or two short papers, a long term paper, and perhaps, an in-class presentation.
Description: Spring 2009. The American Revolution was also a literary revolution. Friends and foes of independence used literature as a vehicle for debating ideas of liberty and nationhood. This course will consider American literature during the period of the revolution. Our readings will span numerous genres, including political tracts, novels and poetry. We will consider a range of authors, such as Thomas Jefferson, Benjamin Franklin, James Fenimore Cooper, Lydia Maria Child, William Apess, Frederick Douglass, Herman Melville, and Nathaniel Hawthorne. Along the way, we will explore the many diverse literary responses to revolutionary ideas, with a special emphasis on how early national ideas of liberty applied to women, slaves, and Native Americans and other people excluded from the newly emergent nation.

Department: English
Course: ENG 233
Title: Modern Poetry
Cross-listed: ENG 433
Instructor: Longenbach, J
Description: Spring 2009. This is a course in four of the most beautiful and difficult long poems written during the twentieth century: T. S. Eliots "Four Quartets," H.D.'s [Hilda Doolittles] "Trilogy," Ezra Pounds "Pisan Cantos," and Wallace Stevens's "Notes toward a Supreme Fiction." As we approach our concentrated experience of these four poems, we will read shorter poems by each poets, and we will explore the particular difficulties of writing a long poem during a time when the given forms of logic, narrative, and representation seemed inadequate or even dishonest. These challenging poems not only record but embody the discovery of alternative ways of inhabiting our cultural and our interior lives.

Department: English
Course: ENG 241
Title: Lyric Poetry
Cross-listed: ENG 441
Instructor: Gross, K.
Description: Spring 2009. This is a course about how to read a poem. It look at poetry's extreme uses of metaphor, its use of a language by turns more raw and more oblique, plainer and more ambiguous than ordinary prose. We'll be thinking about the power of poetic gesture and poetic voice, about poetry's way of telling a story and its way of keeping secrets, and about poetry's attention to peculiarly charged moments of recognition, emotion, memory, and mystery. We will also look closely at the formal tools of poetry, the use of rhyme and meter, lines and stanzas, and the use of traditional genres such as riddle, ballad, hymn, ode, and elegy. Readings will include the work of poets writing from the sixteenth to the twentieth century, with some emphasis on the lyric poetry of William Shakespeare, John Donne, John Keats, Walt Whitman, Emily Dickinson, Wallace Stevens, and Elizabeth Bishop. Evaluation will be based on class participation and written essays. No prerequisites, no final exam. Applicable English cluster: Major Authors; Poems, Poetry, and Poetics.

Department: English
Course: ENG 243
Title: Studies in a Major Author: Jane Austen
Cross-listed: ENG 443; WST 243; WST 443
Instructor: Mannheimer, K
Description: Spring 2009. Blending clear-eyed social commentary with a faith in romantic love, festooning mordant satire with enchantedly happy endings, Jane Austens novels subsist on contradiction and enjoy more popularity than ever. This course will place Austen in the context of her times while also analyzing her continued appeal. Readings include Northanger Abbey, Sense and Sensibility, Pride and Prejudice, Mansfield Park, Emma, and Persuasion, as well as novels by such authors as Frances Burney, Maria Edgeworth, Anne Radcliffe, and the Brontes.

Department: English
Course: ENG 243
Title: Studies in a Major Author: Toni Morrison and Critical Theory
Cross-listed: ENG 443; WST 243; WST 443; AAS 241
Instructor: Li, S **Class Size:** 30
Description: Spring 2009. "Narrative is radical, creating us at the very moment it is being created." T. Morrison Toni Morrison has emerged as one of the most influential writers and critics in contemporary American culture. This course will approach her work from a broad range of critical perspectives including black feminist thought, psychoanalysis, trauma theory, Biblical exegesis, postcolonial analysis, and critical race theory. Although this class will emphasize rigorous study of her literary work, we will also pay close attention to her contributions to literary criticism,

her role in public life as well as her forays into political and national debates. In our study of her novels, we will explore such issues as the importance of history and myth in the creation of personal identity, constructions of race and gender, the dynamic nature of love, the role of the community in social life, and the pressures related to the development of adolescent girls. We will also examine the changing nature of Morrison's reception by critics and academics, and consider how and why she has achieved such widespread acclaim and influence in addition to generating significant controversy and attack. Concluding class discussions will focus on how Morrison has reconfigured the relationship between creative author and academic critic, her literary and popular reputation, and her broad influence on the study of American literature.

Department: English
Course: ENG 243
Title: The Brontes
Cross-listed: ENG 443; WST 243; WST 443
Instructor: London, B
Description: Spring 2009. An isolated country parsonage. A half mad father. A wastrel brother addicted to drugs. Three uniquely gifted sisters who burned their hearts and brains out on the moors but not before leaving us some of the most passionate and revolutionary literature of the 19th century. This is the stuff of the Bronte legend. This course will explore the continuing appeal of the Brontes and the peculiar fascination that they have exercised on the literary imagination. Through intensive study of some of the best-loved novels our culture has produced the literary works of Charlotte, Emily, and Anne Bronte we will explore the roots and reaches of the Bronte myth. We will also consider the Brontes' legacy in today's popular romantic fiction and in some of the many adaptations (and continuations) of their work in print and on the screen. And we will look at our seemingly insatiable appetite for new tellings of the Brontes' life stories. The course, then, will consider not the only the Brontes' literary productions, but also our cultures production and reproduction of the Brontes over the years. Applicable Clusters: Gender and Writing; Great Books, Great Authors; Novels.

Department: English
Course: ENG 244
Title: Early Modern Travel Writing
Cross-listed: ENG 444
Instructor: Mannheimer, K
Description: Spring 2009. The eighteenth century saw the rise of the modern "tourist" (the word itself dates to 1780). At the same time, mercantile capitalism and national interest spurred unprecedented rates of colonial expansion. Explorers, diplomats and scientists engaged with many peoples and places for the first time. The period also witnessed the height of that mass involuntary travel -- slavery -- that gave shape to the Atlantic World. In all of the resulting narratives, an instructive juxtaposition emerges -- sometimes explicit, sometimes implicit -- in which the foreign is discursively "domesticated," while "home" comes to seem strange. Indeed, travel-writings potential for societal critique was one that satirists quickly grasped, and deployed in myriad variations -- from descriptions of invented lands (Gullivers Travels), to accounts of Europe by "Peruvian Princesses" or "Chinese Philosophers." In this course we will examine all of these kinds of travel- writing, while also considering the shape and dimensions of this ill-defined genre, which often branches into historical meditation, autobiography, biography, philosophy, and aesthetics. Authors will include Bacon, Boswell, Cook, Defoe, Equiano, Goethe, Goldsmith, Graffigny, Johnson, Montagu, Montesquieu, Sterne, Swift, and Voltaire.

Department: English
Course: ENG 244
Title: Myth & Fairy Tale
Cross-listed: ENG 444
Instructor: Peck, R
Description: Spring 2009. This course explores ways in which myth functions to create psychological and social identities within cultural frameworks. We will explore tales, visual art, musicals, opera, poetry, and cinema. The texts concentrate primarily on a constellation of Cinderella and Beauty and the Beast adaptations, with excursions into Little Red Riding Hood, Sleeping Beauty, Frog Prince, and Jack stories. Our concern will be with the political, didactic, and gendered implications of action/adventure plots, paradigms of exile and return, ideologies underlying the dynamics of oppression, pain fetishes, aspiration, and recovery. We will examine issues of childhood, adolescence, middle age, and old age as myth addresses the concerns of each. We will be particularly interested in historical perspectives as societies perpetually revise and revitalize their visions of themselves through the rewriting of their mythologies.

Department: English
Course: ENG 244
Title: Ethnicity and American Literature: Native American Literature
Cross-listed: ENG 444
Instructor: Glover, J

Description: Spring 2009. Spanning the history of the Americas, this course will examine a wide array of writings by and about Native people, from the literature of the oral tradition to the poetry, fiction and prose of the twentieth century. Our readings will be motivated by a concern with the many strategies Native writers have used for bringing the past to bear on the present, including reenactment, parody, and protest. We will engage texts by contemporary writers such as Sherman Alexie, Vine Deloria, and Leslie Marmon Silko alongside works by authors from the nineteenth century and earlier, such as William Apess, David Walker, and John Rollin Ridge. We will also consider texts by non-Native authors who have written about Native Americans, such as James Fenimore Cooper and Ian Frazier.

Department: English
Course: ENG 245
Title: The Faerie Queene
Cross-listed: ENG 445
Instructor: Guenther, G
Description: Spring 2009. Public sex? Gruesome violence? Heroic fairies and sinister magicians? Sure: Edmund Spenser's vast epic, The Faerie Queene, contains all of that. It also contains some of the most aesthetically sophisticated and philosophically challenging poetry in the English language. This course will undertake the adventure of reading the entire Faerie Queene--and only The Faerie Queene--over the course of one semester. At the end of our journey, we will understand much about English Renaissance art, magic, politics, theology, psychology, philosophy, gender, sexuality, warcraft, and literary theory, as well as love, ambition, depression, self-control, pleasure, dishonesty, gratitude, aspiration, honor, and much, much more. Course requirements: 3 3-page papers, a midterm and a non-cumulative final of identifications of the text.

Department: English
Course: ENG 250
Title: Asian American Literature & Film
Cross-listed: ENG 450
Instructor: Niu, G
Description: Spring 2009. Asian American Literature is primarily a literature of the 20th and 21st centuries, with dramatic growth in the past half century or so. We will focus on the literary genres of APA works from the past century--drama, fiction, poetry, memoir--and we will also pay attention to cinematic texts. Our literature includes works by Chinese American, Filipina American, Indian American, Korean American, Japanese American, and Vietnamese American authors. Some prior knowledge of 20th century U.S. literature or Asian Pacific Islander American history will be helpful, but not necessary. (For those who have not taken history courses or who wish for a refresher see the books by Such Chan or Ronald Takaki, listed under recommended texts.) In addition to the study of genres, we will analyze Asian/Pacific Islander/American texts by interrogating myths, "foundational fictions", fantasies and the fantastical. Edward Said usefully argues in Orientalism that Europe imagined the "Orient" since it "helped to define Europe (or the West) as its contrasting image, idea, personality, experience" (1978). We will read works of Asian American literature that revise and incorporate Asian myths, and contrast these with the West's popular imagination of the "Orient". Applicable English Cluster: Literature and Cultural Identity.

Department: English
Course: ENG 260
Title: Studies in Film History: Films of the 30's
Cross-listed: ENG 460
Instructor: Grella, G
Restrictions: Not open to freshmen
Description: Spring 2009. The course will deal with a selection of American films from the richest and possibly most important decade in the history of Hollywood. We will screen and discuss a variety of genres, from horror to documentary, concentrating on the films themselves, their place in the history of cinema, their relevance to social, political, and cultural issues. Supplementary reading will include texts on the period and on films of the time. Two or three papers will be required, along with a final examination. Possible films include "King Kong," "Frankenstein," "Our Daily Bread," "Public Enemy," "Golddiggers of 1933," "Dinner at Eight," etc. Applicable English Clusters: Media, Culture, and Communication; Modern and Contemporary Literature.

Department: English
Course: ENG 265
Title: Issues in Film: Documentary, Mock Documentary, Reality TV
Cross-listed: ENG 465, FMS 252C
Instructor: Middleton, J
Description: Spring 2009. This course combines a survey of major historical movements and styles in documentary film with an examination of more recent trends and challenges to the tradition. So, in addition to studying the expository political documentary, ethnographic film, and the direct cinema and cinÈma vÈritÈ movements, we will explore forms including reality TV, mock documentary, and autobiographical film and video. Applicable English cluster: Media, Communication, and Culture.

Department: English
Course: ENG 268
Title: Film History: Museum Studies
Cross-listed: ENG 468;FMS 254;FMS 454;AH 272;AH 472
Instructor: Loughney, P **Class Size:** 20
Description: Spring 2009. Major museums around the world are now collecting motion pictures and other types of moving image and audio-visual art with a level of commitment equal to their traditional interests in paintings, sculptures and other established art forms. These creative works exist in unique formats that bring special challenges to curators and archivists responsible for their conservation and proper exhibition. Taking full advantage of the George Eastman House's rich archival film collection and screening facilities, this course offers instruction in curatorial and preservation standards for motion picture, video, digital and audio materials with a contextual focus on museum, library and archive institutions. Class instruction emphasizes basic concepts of preservation, research, programming, cataloging, digital technologies and preservation; management and interpretation of collections; museum and institutional collections development policies; museum architecture relating to audio-visual media; fund raising and education. Students will be assisted in selecting a topical area of interest in film and media studies, relating to their broader academic pursuits, from which they will develop a special research project. 35mm archival film and other media screenings presented on class night in the Dryden Theatre at 8:00pm are considered part of the class.

Department: English
Course: ENG 271
Title: Advanced Technical Theatre
Instructor: Rice, G
Description: Spring 2009. This course investigates technical theater beyond the realms of Eng 170 (Technical Theatre). It focuses on work related to the scenic design and technical production of the semester's Theatre Program productions. Working in small seminars and one-on-one tutorials, the instructor will assist students in learning more in the chosen technical areas and about problem-solving scenic and technical questions raised by the set/s being built. Course work will consist of supervisory responsibilities, one major and several smaller research projects.

Department: English
Course: ENG 274
Title: Advanced Creative Writing: Creative Prose
Instructor: Scott, J **Class Size:** 15
Restrictions: Permission of instructor required
Description: Spring 2009. This new workshop will offer students a chance to write creatively in the genres of fiction and creative nonfiction. As we explore the murky border that separates the two, well be looking for qualities that are shared by both genres, and well examine the ways their defining differences are reshaped in inventive prose. In particular, well focus on the imaginative representation of real places in fiction, travel literature, and autobiography. The reading list will include a diverse group of writers, including Thoreau, Barry Lopez, Bruce Chatwin, James Joyce, Isak Dinesen, Italo Calvino, and Annie Dillard. This course will fulfill the 200-level requirement for the Creative Writing major and minor and can be used for the Creative Writing cluster.

Department: English
Course: ENG 281
Title: Literary Journalism
Cross-listed: ENG 481
Instructor: Grella, G
Restrictions: Not open to freshmen
Description: Spring 2009. This course, essentially, will attempt to deal with the subject of creative nonfiction, the writing of publishable prose, the sort of writing about literature, film, the arts, culture, etc. that appears in newspapers and magazines. It will also include some work in practical criticism. We will read and discuss numerous examples of various excellent, lively, innovative essays and articles by some of the best writers of the 20th century, in general circulation publications. Students will try their hand at book, film, drama, and art reviewing of the sort that distinguishes some of the best periodicals in the country. We will discuss matters of style, individual voice, and ways to publish one's work.

Department: English
Course: ENG 283
Title: Media ABC: The Amazing Printed Word
Cross-listed: ENG 483; FMS 249
Instructor: Eaves, M,Lee, R
Description: Spring 2009. Media ABC is an introduction to the very idea of medium and media--as in "the medium of photography" and "digital media." The goal is to come to a basic understanding of that concept. The perspective of the course is broadly historical and critical. The guiding assumptions are two: that media are not peculiar to the modern world, and that all media--the human voice, books, paint, electronic files--shape their "content"--words, pictures, sounds, etc.and their authors and their audiences. There

have always been media, and there must be media, because life cannot be lived without them. This year's topic is the printed word--the dominant medium of communication for the past five centuries. Only very recently, because of the "digital revolution," has print begun to lose some of its power and influence as we experience a "digital revolution." This remarkable media shift puts us among the first explorers to arrive on the scene of what later generations will surely see as epoch-making change that we cant yet fully grasp. But we should take advantage of our own unique intellectual opportunity to look back on the history of print from the powerful new perspective of digital media. This is a special year for Media ABC. We are participating in a series of experiments with Humanities Labs, where we will be able to extend our exploration of print by putting facts and theories into practice. Note that students in the Media ABC Humanities Lab must register for the recitation section when registering for this course. Work in the Humanities Lab will replace all formal exams. Applicable English Cluster: Media, Culture, and Communication.

Department: English
Course: ENG 286
Title: Presidential Rhetoric
Instructor: Smith, C **Class Size:** 30
Description: Spring 2009. "Presidential Rhetoric", taught by former Presidential speechwriter Curt Smith, helps students critically examine the public rhetoric and themes of the modern American presidency. Particular attention will be given to the symbolic nature of the office, focusing on the ability of 20th- century presidents to communicate via a variety of forums, including the press conference, inaugural and acceptance speeches, political speech, and prime-time television address. Mr. Smith will draw on many of his experiences in Washington and with ESPN/ABC Television to link the most powerful office in the world and today's dominant medium. Applicable English Cluster: Media, Culture, and Communication.

Department: English
Course: ENG 291
Title: Plays in Production
Instructor: von Steulpnagel, M,Maister, N,Rice, G
Description: Spring 2009. Each student in Plays in Production participates fully in the exciting behind-the-scenes world of theatrical production. Students build sets, create and make props and costumes, hang and rig lighting and sound equipment, and create and distribute publicity materials for the plays currently in production in Todd Theatre. The class comprises a once-weekly lecture and a series of practical labs. This 4.0-credit course meets for the entire semester. Applicable English Cluster: Plays, Playwrights, and Theater.

Department: English
Course: ENG 293
Title: Plays in Performance: Curse of the Starving Class
Instructor: von Steulpnagel, M
Restrictions: Permission of instructor required
Description: Spring 2009. "Plays in Performance" is a class made up of actors and stage managers working on the current production in Todd Theatre. Actors are cast after auditioning at the beginning of each semester. Students wishing to stage manage should approach the director of the production either at the time of auditions or before the beginning of the play's rehearsal process. Although there is no written component for this course (the performance of the play constitutes a final "exam"), a significant time commitment is required of actors and stage managers, both on weekday nights and over weekends. This class meets during the second half of the semester. Applicable English Cluster: Plays, Playwrights, and Theater.

Department: English
Course: ENG 295
Title: Plays in Performance: New Play
Instructor: Maister, N
Restrictions: Permission of instructor required
Description: Spring 2009. "Plays in Performance" is a class made up of actors and stage managers working on the current production in Todd Theatre. Actors are cast after auditioning at the beginning of each semester. Students wishing to stage manage should approach the director of the production either at the time of auditions or before the beginning of the play's rehearsal process. Although there is no written component for this course (the performance of the play constitutes a final "exam"), a significant time commitment is required of actors and stage managers, both on weekday nights and over weekends. This class meets during the first half of the semester. Applicable English Cluster: Plays, Playwrights, and Theater.

Department: English
Course: ENG 297
Title: Stage Management: Spring 2009
Instructor: Rice,G ,Maister, N
Description: Spring 2009. Students in Stage Management: Spring 2009 will get an in-depth introduction to and immersion in stage managing a theatrical production. In addition to class work covering all

areas of management skills, safety procedures, technical knowledge and paperwork, students will be expected to serve as an assistant stage manager or production stage manager on one (or both) Theatre Program productions in their registered semester. Applicable English Clusters: Plays, Playwrights, and Theater; Theatre Production and Performance.

Department: English
Course: ENG 299
Title: Performance Lab: Curse of the Starving Class
Instructor: Childs, R
Restrictions: Permission of instructor required
Description: Spring 2009. Mandatory acting lab for actors in Eng 293. 1.0 credit.

Department: English
Course: ENG 360
Title: Special Projects: Theatre
Instructor: Maister, N **Class Size:** 15
Description: Spring 2009. This is an independently designed course, focusing on specific theatre or theatre-related projects, and demanding significant skill application or acquisition, independent and self-motivated research, including advanced written work, if appropriate. Topics may include elements of theatre related to production, management and/or design.

Department: English
Course: ENG 375
Title: Seminar in Fiction Writing
Cross-listed: ENG 475
Instructor: Schottenfeld, S **Class Size:** 15
Restrictions: Permission of instructor required
Description: Spring 2009. This is a workshop for students who have completed ENG 121 or have some experience writing fiction on their own and are ready to concentrate on more ambitious projects. We'll read short stories by contemporary writers along with fiction by the students in the workshop, and we'll discuss ways writers can sharpen the conversation between text and reader. We'll also consider editing and reviewing techniques. Students will be expected to write and revise three original stories. Applicable English Cluster: Creative Writing.

Department: English
Course: ENG 376
Title: Seminar in Poetry Writing
Cross-listed: Eng 476
Instructor: Longenbach, J **Class Size:** 15
Restrictions: Permission of instructor required
Description: Spring 2009. Advanced creative writing workshop in poetry. Work by various contemporary poets will provide the framework for explorations into technique and poetic narrative. Students' poems will be discussed weekly. Students will be expected to do extensive reading and research on their own and to keep a poetic journal. Assignments will be given, but there is a lot of latitude for students who wish to design a poetic project or work on a series. Prerequisites: Eng 122 or equivalent work. Permission of instructor required. Applicable English Cluster: Creative Writing.

Department: English
Course: ENG 380
Title: The Nobel Prize: Studies in International Literature
Cross-listed: ENG 480
Instructor: London, B **Class Size:** 15
Restrictions: Permission of instructor required
Description: Spring 2009. This course will provide an opportunity to sample an exciting body of contemporary literature, some written by authors already widely acclaimed at the time they received the Nobel Prize and some by writers suddenly catapulted into fame and international recognition. While a central focus of the course will be the reading and discussion of the literature itself, we will also consider how receipt of the prize changed the writers lives and literary reputations. Since its inception, moreover, the Nobel Prize for Literature has been a site of controversy and debate over aesthetics and politics, and over how literature speaks to both local and global audiences. In the US, where less than 5% of the literature published each years is literature in translation, Nobel prize-winning literature (when not originally written in English) is often the only modern literature Americans read in translation. In reading this literature, then, we will consider the question of translation, and the role of the Nobel Prize in creating and promoting an international literature. We will also consider the special challenges this literature poses for us as readers. While the awarding of the prize has often been a source of national pride for the writers home country, some winners have been censured at home and the criteria for the prize heatedly questioned. Finally, then, we will consider how the prize is awarded, and we will look at some of the particular controversies and debates it has generated.

Department: English
Course: ENG 380
Title: Harlem Renaissance
Cross-listed: ENG 480; AAS 352
Instructor: Tucker, J

Restrictions: Open only to Junior and Senior majors of the offering department
Description: Spring 2009. The black cultural explosion of the 1920s known as the Harlem Renaissance produced some of the most importantworks of the African- American literary tradition. This course will provide a survey of texts that reflect the spirit of the era, from writers such as Jessie Fauset, Langston Hughes, Zora Neale Hurston, Nella Larsen, Alain Locke, and Jean Toomer. A variety of genres will be covered, including the poetry of writers such as Countee Cullen and Claude McKay, essays by figures such as George Schuyler and W.E.B. DuBois, and dramatic works by Mary Burrill and Georgia Douglass Johnson. Autobiography, music, and film will also be included. In addition, the course will consider more recent works of fiction that are set in this milieu to ascertain what the Harlem Renaissance has meant for later African- American writers such as Samuel R. Delany, Toni Morrison, and August Wilson. Special attention will be paid to the topic of migration, constructions of black identity, and the ways in which both sets of texts address difference within the African-American community. Applicable English Clusters; Literature and Cultural Identity; American and African American Studies.

Department: English
Course: ENG 398
Title: Theatre Internship: PR & Marketing
Instructor: Maister, N **Class Size:** 8
Restrictions: Permission of instructor required
Description: Spring 2009. The University of Rochester International Theatre Programs PR Internship provides interested students with an introduction to all aspects of Marketing and Public Relations, from writing press releases, to scheduling photo shoots, to creating advertising banners, to developing marketing campaigns for those theatrical events in Todd Theatre. Additionally, PR interns work Front-of-House/Box Office and are responsible for the public face of the Program with regard to other university events (Alumni and Homecoming weekends/Meliora Weekend, etc.) PR Interns report weekly to the Artistic Director of the Theatre Program.

Department: English
Course: ENG 452
Title: Theater in England
Instructor: Peck, R
Restrictions: Open only to graduate students in offering department
Description: Fall 2008. See description for ENG 252.

Film and Media Studies

Department: Film and Media Studies
Course: FMS 131
Title: Introduction to Media Studies
Cross-listed: ENG 118/AH 102
Instructor: Niu, G.
Description: Please see ENG 118 for the course description.

Department: Film and Media Studies
Course: FMS 161
Title: Introductory Video & Sound
Cross-listed: SA 161/ ENG 161
Instructor: Middleton, J. **Class Size:** 10
Restrictions: Permission of instructor required
Description: This course introduces the basic aesthetic and technical elements of video production. Emphasis is on the creative use and understanding of the video medium while learning to use the video camera, video editing processes and the fundamental procedures of planning video projects. Video techniques will be studied through screenings, group discussions, readings, practice sessions and presentations of original video projects made during the course.

Department: Film and Media Studies
Course: FMS 207
Title: Broadcasting in the Digital Age
Cross-listed: MUR 161
Instructor: Rogers, S.
Description: A descriptive and critical analysis of the nature of electronic mass media, broadcast practices and impact. Historical development of mass media institutions and role of media in society, including evaluation of news, government regulation, economics, emerging technologies, and audience dynamics, as well as decision-making and organizational aspects of the broadcast industry. Designed to provide a broad, rigorous orientation for understanding basic elements of media production as well as skills training in reporting, writing, editing, delivery and production of broadcast media.

Department: Film and Media Studies
Course: FMS 220
Title: Film as Object
Cross-listed: FMS 420
Instructor: Bernardi, J.
Description: Film Studies involves the critical analysis of the pictorial and narrative qualities of motion pictures, film theory, and film history, understanding film as both industry and creative art. This

course unconventionally focuses on the tangible object at the origin of the onscreen image, and what we can learn about the social, cultural and historical value of motion pictures and national film cinemas through an understanding of Film as an organic element with a finite life cycle. Focus is on the photographical element, but includes a consideration of alternative capture media.

Department: Film and Media Studies
Course: FMS 236
Title: Monster, Ghosts, and Aliens
Cross-listed: GER 212/412/CLT212A/412A
Instructor: Gustafson, S.
Description: This course focuses on the horror genre as popular entertainment in Germany, England, and the US in the 19th and 20th centuries. Particular attention will be paid to the construction of others as monsters (Frankenstein, vampires, devils, aliens, etc). Authors to include: Shelley, Stoker, Rice, and King. Films to include: The Haunting, Alien, The Shining, and Silence of the Lambs. This course is part of the Horror in Literature & Film Cluster.

Department: Film and Media Studies
Course: FMS 246
Title: Bright Lights, Big City
Cross-listed: GER 252/CLT252/452/FMS446
Instructor: J. Hwang
Description: In the early twentieth century, our conceptualization of the city had a significant impact on how we understood our interactions with others and the notion of the individual. In this will look at a wide variety of texts including newspaper articles, essays, films and fiction to explore the following questions. What is the relationship between technology and man? How does the individual navigate the space of the city? What role do class and gender play in our ability to move through the city? What is the relationship between modernity and urban life?

Department: Film and Media Studies
Course: FMS 249
Title: Media ABC
Cross-listed: ENG 283/483
Instructor: Eaves, M
Description: It helps to know first what Media ABC is not. It is not a traditional media studies course; it does not focus on modern mass media or the politics of media. Instead, Media ABC is an introduction to the very idea of medium and media--as in, for example, the "medium of photography" and "contemporary media." The goal is to come to a basic understanding of that concept. The perspective of the course is broadly historical and comparative. The guiding assumptions are four--that media of communication are not peculiar to the modern world --that the form of communication the human voice, the engraving, the telegram, the TV, the digital file--shapes its "content"--words, pictures, sounds, etc.--and that the unique characteristics of any one medium are made more visible by comparison with the characteristics of other media --media never stand alone; they participate in systems of communication there have always been media, and there must be media, because life simply cannot be lived without them.

Department: Film & Media Studies
Course: FMS 252C
Title: Documentary, Mock Documentary, Reality TV
Cross-listed: ENG 262/462
Instructor: Middleton, Jason **Class Size:** 25
Description: This course combines a survey of major historical movements and styles in documentary film with an examination of more recent trends and challenges to the tradition. So, in addition to studying the expository political documentary, ethnographic film, and the direct cinema and cinÈma vÈritÈ movements, we will explore forms including reality TV, mock documentary, and autobiographical film and video.

Department: Film and Media Studies
Course: FMS 254
Title: Museum Studies
Cross-listed: ENG268/468/AH272/472/FMS454
Instructor: Loughney, P. **Class Size:** 20
Description: Please see ENG 268 for the course description.

Department: Film Studies
Course: FMS 254D
Title: Film History: Films of the Thirties
Cross-listed: ENG 260/460
Instructor: Grella, G.
Restrictions: Not open to freshmen
Description: The course will deal with a selection of American films from the richest and possibly most important decade in the history of Hollywood. We will screen and discuss a variety of genres, from horror to documentary, concentrating on the films themselves, their place in the history of cinema, their relevance to social, political, and cultural issues. Supplementary reading will include texts on the period and on films of the time. Two or three papers will be required, along with a final examination. Possible films

include "king Kong," "Frankenstein," "Our Daily Bread," "Public Enemy," "Golddiggers of 1933," "Dinner at Eight," etc.

Department: Film And Media Studies
Course: FMS 260A
Title: Introductory Digital Art
Cross-listed: SA 151
Instructor: Shindelman, M. **Class Size:** 10
Prerequisites: Some familiarity with Macintosh computer required
Description: For the purpose of this course, the computer and software will be a medium of artistic production. Students will use writings, and readings on contemporary art practice and theory to create work within the framework of contemporary digital art. Software, namely Adobe PhotoShop and Macromedia Dreamweaver, will be the medium for materializing conceptual ideas. Prior experience with the software used in this course is not required. Studio Art supplies fee: $50.

Department: Film and Media Studies
Course: FMS 262A
Title: Advanced Video & Sound Art
Cross-listed: SA262A,B,C/FMSB,C
Instructor: Devereaux, E. **Class Size:** 10
Restrictions: Permission of instructor required
Description: In this advanced production course, video and sound, will be considered as independent art forms as well as part of video installations. Students will produce experimental videos and sound pieces. They will also explore the use of these mediums when combined with two- and three-dimensional materials in real time. This course will cover both analogue and digital formats. Studio arts supplies fee: $50.

Department: Film and Media Studies
Course: FMS 262B
Title: Advanced Video & Sound Art
Cross-listed: SA262A,B,C/FMS262A,C
Instructor: Devereaux, E. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Please see FMS 262A for the description.

Department: Film and Media Studies
Course: FMS 262C
Title: Advanced Video & Sound Art
Cross-listed: SA262A,B,C/FMS262A,B
Instructor: Devereaux, E. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Please see FMS 262A for the description.

Department: Film and Media Studies
Course: FMS 263A
Title: 3D Digital Time-Based Media
Cross-listed: SA 263A/B/C/FMS 263B/C
Instructor: Devereaux, E. **Class Size:** 10
Prerequisites: FMS161/SA161
Restrictions: Permission of instructor required
Description: "3D Imaging" introduces the techniques that shape and the theories that inform 3D digital practices. By investigating the unique points of view possible within three-dimensional computer worlds, projects will explore space and time outside of our daily human scale. Techniques covered include 3D modeling, texturing, and animation. Advanced students may independently pursue 3D computer-based production or concentrate exclusively on creating and rigging cyborgs, mecha, or other characters. Final pieces may be created for installation, video, or multimedia applications. Studio arts supplies fee: $50.

Department: Film and Media Studies
Course: FMS 263B
Title: 3D Digital Time-Based Media
Cross-listed: SA 263A/B/C/FMS263A/C
Instructor: Devereaux, E. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Please see FMS 263A for description.

Department: Film and Media Studies
Course: FMS 263C
Title: 3D Digital Time-Based Media
Cross-listed: SA 263A/B/C/FMS 263A/B
Instructor: Devereaux, E. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Please see FMS 263A for the Description.

Department: Film and Media Studies
Course: FMS 271
Title: Asian American Literature and Films
Cross-listed: ENG 250/ ENG 450
Instructor: Niu, G.
Description: In this course we will analyze Asian/Pacific Islander/American textsliterature, novels, poetry, plays, filmsby interrogating myths, foundational fictions, fantasies and the fantastical. The class begins with memoirs, both written and filmed so that we can query mythmaking. We will read works, such as Maxine Hong Kingston's, that revise and incorporate Asian myths, and occasionally contrast these with the West's popular imagination

of the "Orient". Edward Said's usefully argues in Orientalism that Europe imagined the "Orient" since it "helped to define Europe (or the West) as its contrasting image, idea, personality, experience" (1978). Throughout the course, we will investigate constructions of gender, nationalities, ethnicities, sexualities, class and other forms of difference. Our literary works include those by Bangladeshi American, Chinese American, Pakistani American, Filipino American, Indian American, Korean American, Japanese American, Cambodian American, and Vietnamese American authors. We will examine a variety of literary genresmemoir, drama, fiction and poetry and we will also pay attention to Asian diasporic communities through cinematic texts. Students will find their prior knowledge of genre forms such as poetry, short story, longer fiction, drama and memoir very useful. During our poetry unit we will have a review of poetry terms and a workshop session of your own written poetry. (You will receive credit for writing the poems, and I will not grade the poems themselves.)

Department: Film and Media Studies
Course: FMS 355
Title: Feminist Film Theory
Cross-listed: FMS 555/ AH 355/555 /FR 287/487/ CLT 211
Instructor: Willis, S. **Class Size:** 20
Description: Please see AH 355 for the course description.

Department: Film and Media Studies
Course: FMS 390
Title: Supervised Teaching

Department: Film and Media Studies
Course: FMS 391
Title: Independent Study

Department: Film and Media Studies
Course: FMS 394
Title: Internship

Department: Film and Media Studies
Course: FMS 420
Title: Film as Object
Cross-listed: FMS 220
Instructor: Bernardi, J.
Description: Film Studies involves the critical analysis of the pictorial and narrative qualities of motion pictures, film theory, and film history, understanding film as both industry and creative art. This course unconventionally focuses on the tangible object at the origin of the onscreen image, and what we can learn about the social, cultural and historical value of motion pictures and national film cinemas through an understanding of Film as an organic element with a finite life cycle. Focus is on the photographical element, but includes a consideration of alternative capture media.

Department: Film and Media Studies
Course: FMS 555
Title: Feminist Film Theory
Cross-listed: FMS 355/ AH 355/555/ FR 287/487/ CLT 211
Instructor: Willis, S. **Class Size:** 20
Description: Please see AH 355 for the course description.

Health & Society

Department: Health & Society
Course: HLS 217
Title: Peer Health Advocacy II
Instructor: Reynolds, N
Prerequisites: HLS 216
Description: Two-credit continuation of HLS 216, Peer Health Advocacy I

History

Department: History
Course: HIS 102
Title: The West and the World since 1492
Instructor: Lenoe, M.
Description: This course focuses on encounters between Europeans and people of other cultures from 1492 to the 1970s, on the development of the ideals of individual rights and popular sovereignty in Europe, and on the spread of the industrialized nation-state as an organizational model for societies throughout the world. Episodes and topics we may cover include the Spanish conquest of Mexico, English Civil Wars of the 17th century, the French Revolution and human rights, Japanese response to Western imperialism, and stalinism.

Department: History
Course: HIS 110
Title: Introduction to African-American Studies
Cross-listed: AAS 110
Instructor: Hudson, L.
Description: Drawing on the disciplines of History, Anthropology, and Psychology, HIS 110 will introduce students to the

interdisciplinary approach to the examination of the black experience in America.

Department: History
Course: HIS 116
Title: Introduction to History of Poland
Cross-listed: POL 175
Instructor: Rybkowski, R.
Description: The aim of this course is to present a general outline of the cultural, political, as well as social and economic history of Poland in the context of Europe. The complexity of a thousand years of Polish history will be presented in an accessible way. We will also explore the themes of European historical diversity and European identity in the context of Poland.

Department: History
Course: HIS 145
Title: Early America, 1600-1800
Instructor: Borus, D.
Description: This course covers the course of European expansion in North America from the first peopling through the establishment of British domination to colonial revolution and the founding of the new nation in the eighteenth century. Among the topics under consideration is the pressures toward expansion, the economic system that resulted, the interaction among peoples in the continent, the rise of slavery and the slave trade, the divergence of American society from European, the trials and tribulations of colonial rule, the changing balance of political power both within American colonies and between the colonies and European powers, the new ideals that prompted revolution and the reconstruction of government. The course will conclude with the ways in which the new nation developed.

Department: History
Course: HIS 146
Title: Democratic America, 1800-1865
Instructor: Jarvis, M.
Description: Between 1800 and 1865, the fledgling United States nearly tripled in size and increased six-fold in population. The race west to establish a nation stretching from "sea to shining sea" produced two Americas, one increasingly industrial and fueled by free labor and another overwhelmingly agricultural built upon a foundation of slavery. Paying particular attention to New York and Rochester, this course examines the changing face of the United States as it expands across a continent and advances inexorably toward the bloodiest war in our nation's history.

Department: History
Course: HIS 148
Title: Recent America, 1929-1989
Instructor: Borus, D.
Exams: Two hour examinations and a final examination.
Coursework: Active class participation; one short (2000 words) paper.
Description: This course is an examination of the development of American politics, society, and culture between the onset of the Great Depression and the end of the Cold War. It focuses on the creation, consolidation, and eclipse of the "New Deal order" - a liveral political economy centered on a constrained corporate capitalism, a modest welfare state, and a national security apparatus designed to wage the Cold War and extend American power abroad.

Department: History
Course: HIS 151
Title: Imperial Russia
Cross-listed: RST 171
Instructor: Lenoe, M.
Description: This course examines the history of the Russian Empire from the reign of Peter the Great (1692-1725) to the revolutions of 1917. Students will read primary sources in translation, academic articles, and a survey text. About one-half of class time will be devoted to discussion of the readings. Topics will include Peter's westernization of Russian elites and the costs thereof, the Pugachev rebellion of 1773-1775, the spread of Enlightenment ideals to Russia during the Napoleonic Wars, the abolition of serfdom, Sergei Witte;s industrialization drive, socialist movements in Russia, World War I, and the causes of the revolutions of 1917.

Department: History
Course: HIS 168
Title: The Wars of Vietnam, 1917-1980
Instructor: Borus, D.
Description: This course examines the struggles to control Indochina among the French, Vietnamese, and Americans in the twentieth century, with special emphasis on the consequences for the social and political life of all three peoples.

Department: History
Course: HIS 172
Title: Indians and Other Americans
Instructor: Young, M.
Coursework: Three short analytical essays based on readings, lectures, and discussion.

Description: The United States was once Indian country. Parts became English, French, or Spanish, then American. The result of English and European settlement and the succession of the United States to the right of governing their territories was both an intricate set of cultural exchanges, often beneficial to both parties, and the dispossession of the Indians, who kept about five per cent of the land--most of it what no one else wanted. In addition to examining the processes of contact and dispossession, the course will consider the many stories, or "discourses," people have used to interpret contact and dispossession, among them, Indians as Vanishing Americans, Indians as Victims, Indians as Agents, Indians as Privileged Characters, Indian Holocaust and Survival. Common readings will include a comprehensive text, Roger L. Nichols, AMERICAN INDIANS IN AMERICAN HISTORY; a Lakota autobiography, BLACK ELK SPEAKS; a novel by Laguna Pueblo author Leslie Marmon Silko, CEREMONY; and a classic tribal history, Anthony Wallace's THE DEATH AND REBIRTH OF THE SENECA. Students may earn additional credit by offering a written response to the Western Door exhibit on the Senecas at the Rochester Museum and Science Center.

Department: History
Course: HIS 183
Title: Modern China, 1600-Present
Instructor: Li, G.
Exams: Midterm and final
Coursework: Two short papers
Description: This course gives students an overview of modern China from 1600s to the present. The close attention must be given to the complexity and historicity of modern China which goes far beyond national boundary and thus needs attached importance to the intertwined economic, social and cultural elements locally, regionally, and globally. The course covers the political, social, and cultural foundation of late imperial China, imperialisms multiple faces in two opium wars, Qing dynastys response to the internal disturbances and diplomatic challenges posted by European powers and its revival in the last years, Chinese intellectuals re-conceptualization of China and the world at the new age of colonialism, the new page of Chinese revolutionary history opened by the introduction of social theories, the struggles and alliances between two revolutionary parties, the ideology of communism re-enforced in state building, and finally, Chinas zigzags way toward the economic reform. The multiple historical layers of modern China require a pluralistic rather than monolithic approach. The history of modern China has been not only shaped by the practices of different peoples in a long period of history, but also filtered through our contemporary ideological access to the histories we are revisiting.

Department: History
Course: HIS 184
Title: Modern Japan
Cross-listed: CLT 204; JPN 215
Instructor: Hauser, W.
Exams: Midterm and final take-home exams
Coursework: All students will write a ten-page term paper on a subject related to modern Japanese history. Classes will be in lecture format with questions and discussions encouraged.
Description: The course will focus on the modern history of Japan from 1850 into the 1990s. The transformation of Japan from a traditional into a modern, industrial society with its costs, disruptions, and benefits will be emphasized. The emergence of Japan as a major power in East Asia, its expansion into Korea and Manchuria, and the growing conflict with the West, leading to the Pacific War, will also be covered as will Japanese postwar political, social, and economic change. READINGS: A modern Japan history text; G.L. Bernstein, HARUKO'S WORLD; N. Field, IN THE REALM OF A DYING EMPEROR; G. L. Bernstein, ed. RECREATING JAPANESE WOMEN; Arai Shinya, SHOSHAMAN; Nagatsuka Takashi, THE SOIL; Nakano Makiko, MAKIKO'S DIARY; among others.

Department: History
Course: HIS 201
Title: The Third World
Cross-listed: AAS 202
Instructor: Mandala, E.
Exams: Mid-term and final
Coursework: One 10-15 page essay.
Description: The concept of a Third World. The origins of colonialism and "underdevelopment" in the rise of European capitalism. The struggles of the colonial and postcolonial peoples for political independence, cultural autonomy, and economic development.

Department: History
Course: HIS 207
Title: Intellectual History of Science
Instructor: Brown, T.
Exams: Midterm and final exams and a 10-page research paper will be required.
Coursework: Lectures and discussion will center on both primary source documents and secondary analyses.

Description: A study of intellectual continuity and change in science focused on "revolutionary" episodes from the sixteenth to the twentieth century. After a close look at Thomas S. Kuhn's still-relevant THE STRUCTURE OF SCIENTIFIC REVOLUTIONS, the course will direct attention to several often-acknowledged revolutions: Copernicus' in sixteenth century astronomy; Newton's in seventeenth and eighteenth century physics; Darwin's in nineteenth century biology; quantum mechanics and Einsteinian relativity in the early twentieth century; and Freud's revolutionary discovery of the unconscious. Only an intelligent layman's knowledge of science is required.

Department: History
Course: HIS 208
Title: Health, Medicine, and Social Reform
Cross-listed: PM 479
Instructor: Brown, T.
Exams: Midterm, final, and 7-page book review essay.
Coursework: Approximately 100 pages of reading per week.
Description: Examination of the interconnected histories of medical science, public health, and political action promoting social and health reform, from the Scientific Revolution of the seventeenth century to the present. Attention will also be directed to improvements in health status, variations in the distribution of disease and risk, and changes in the social role of medicine and medical institutions. The material includes major primary sources: Frank, Engels,Virchow, Riis, Hamilton, Sigerist, Geiger. Secondary readings will include Rosen's A HISTORY OF PUBLIC HEALTH, and Jones' BAD BLOOD.

Department: History
Course: HIS 209
Title: Changing Concepts of Health and Illness
Cross-listed: PM 480
Instructor: Brown, T.
Exams: Midterm and final; book-review essay.
Coursework: Approximately 100 pages of reading per week.
Description: The long-term intellectual history of essential ideas in the Western medical tradition: illness, health, and mind/body interaction. The time span ranges from Greek antiquity to the present day, with emphasis on the last 250 years and on the relationship between emotional and biological factors in the onset and experience of disease. Primary sources include Hippocrates, Galen, Maimonides, Descartes, Gaub, Charcot, Freud, Alexander, Cannon, Engel. Secondary sources include Porter's THE GREATEST BENEFIT TO MANKIND: A MEDICAL HISTORY OF HUMANITY.

Department: History
Course: HIS 222W
Title: Children, Families, and the State
Cross-listed: WST 227
Instructor: Outram, D.
Description: This course treats the lives of children and their families in the 18th century against the background of important issues of the day, such as the growth of consumerism and the German cultural revival, as well as making contact with great Enlightenment thinkers who wrote extensively on education, such as John Locke and Jean-Jaques Rousseau. Topics studied include other Enlightenment educationists, toys and games, children's books and the training of affect, the importance of fairy tales, including their influence on psychoanalysis and its forerunners, child labour, and the lives of poor children.

Department: History
Course: HIS 224W
Title: German Idealism in Historical Context
Instructor: Steinberg, M.
Description: The age of classical German philosophy--of Kant, Fichte, F. Schlegel, Novalis, Schelling, Halderlin, and Hegel--coincides with the French Revolution and the Revolutionary wars, and in both theory and politics there is an intense confrontation with the varied but related projects of the Enlightenment. The philosophical confrontation was scarcely less influential than the political struggles; idealism shaped Marxism, British Romantic poetry and criticism, American Transcendentalism, and contemporary Protestant theology, among others. The passages between the Enlightenment and the present-day, however, are anything but straightforward, and what happens "between Kant and Hegel" provides a close look at those passages as they were being negotiated. This course will focus on translations of the major philosophical texts of the time, with special attention to the work of Fichte; while little-read in English-speaking countries, Fichte is probably the pivotal figure in this process. Background in European history is preferred but no prior study of philosophy is required, as we will be reading the texts primarily from the point of view of the historian. The course will be taught through a combination of lectures providing social and political context and seminars grappling with the texts themselves. One significant research paper will be required.

Department: History
Course: HIS 226
Title: Hitler's Germany, 1914-1945

Instructor: Applegate, C. **Class Size:** 50
Exams: Final examination
Coursework: Two five-page papers. For upper level writing, three five-page papers, and one revision.
Description: This course covers the political, social, and cultural history of Germany from 1914-1945, with a postscript on Germany since the end of the Second World War. Central to the course is the effort to understand the rise, triumph, and fall of Hitler and the National Socialist party, regime,and ideology. We will pay particular attention to the differing experiences of various segments of the German population under democracy and then Nazism, including workers, women, and ethnic minorities, especially German Jews. Readings, lectures, and papers are designed to acquaint the student with the course subject matter and give practice in historical interpretation and reasoned argument.

Department: History
Course: HIS 231
Title: British History to 1485
Instructor: Kaeuper, R.
Description: This course is being expanded from its former concentration on England to include the relationship between England and the Celtic regions-- Wales, Ireland, and Scotland. The first three-quarters of the course provide an understanding of the growth of High Medieval civilization in England by means of several topically-focused units. An essay on the themes will be written. The final part allows students to choose a research topic based especially on (printed) primary sources, dealing either with England or with a Celtic region. Plentiful assistance in this work will be provided. Readings will include the survey of Hollister/Stacey, Beowulf, a Life of William Marshal, etc.

Department: History
Course: HIS 234
Title: 20th Century European Thought
Instructor: Westbrook, R.
Exams: Two take-home hour exams, a take-home final, and a short paper
Description: An introduction to the main currents of European thought in the twentieth century--what historian Eric Hobsbawm has rightly termed the "Age of Extremes." Focusing on shifting and competing conceptions of reality, truth, selfhood, so-ciety, and culture, the course will take up the work of such thinkers as Nietzsche, Freud, Bergson, Einstein, We-ber, Heidegger, Wittgenstein, Sartre, de Beauvoir, Arendt, Foucault, Derrida, and Habermas. Some consideration as well of literature, drama, painting, music, photography, and film.

Department: History
Course: HIS 238
Title: History of British India
Instructor: Weaver, S.
Description: This course surveys the history of the Indian sub-continent from the coming of the British in the seventeenth century to its partition and independence in 1947. Course readings will emphasize the colonial experience and the results of colonial contact, especially as seen through changes in discourses, social structures, cultural norms, and collective identities. Readings will include essays, novels, and histories by both British and Indian writers. Class format will be a mix of lectures, discussions, and films.

Department: History
Course: HIS 249
Title: The Civil War
Cross-listed: AAS 249
Instructor: Hudson, L.
Description: The course suggests that there existed two distinct views as to how the new nation would be structured. Once these views clashed and became sectional, the nation was thrown into a political, theological, and, ultimately, a military contest the demands of which led to the incorporation of structural changes that had the effect of resolving the very issues that had propelled the nation into war. As we identify and discuss the causes, conduct, and consequences of the Civil War, we will examine the changing ideas about nation, government, work, race, and gender, and ask: How different were Northern and Southern institutions and, to what extent were northern and southern Americans fundamentally different people?

Department: History
Course: HIS 252
Title: Cultural History of the United States, 1876-Present
Instructor: Rubin, J.
Exams: Midterm and final
Coursework: Two short papers (3-5 pages); term paper (10-15 pages)
Description: This course explores the values, assumptions, anxieties, and beliefs of Americans since the late nineteenth century. We will consider both "high" and "popular" cultural artifacts, ranging from literature to the movies, and explore such themes as: the tension between individualism and the quest for community; shifting attitudes toward technology; the impact of gender, race, and class on cultural expression; the search for viable American artistic traditions; and competing visions of social change.

Department: History
Course: HIS 254
Title: History of the American South, 1896-1945
Cross-listed: AAS 288
Instructor: Hudson, L.
Exams: Class tests (25%); Final exam (25%)
Coursework: Two essays 6-8 sides (25%); Term paper 8-10 sides (25%)
Description: Blue States! Red States! Why so many "Red States" in the South? Why such close attachment to family, religion, and community? Why such a penchant for a distinct music, food, and sports culture? Why has the region been for so long associated with social backwardness--violence, racism, and political conservatism? These and other characteristics (real or imagined) have roots that extend back to Europe and Africa while many are the result of more recent events dating back only a few generations. This course will address these and other questions in the search of historical answers to the roots of southern peculiarities and the origins of those "Red States."

Department: History
Course: HIS 272
Title: Africa's Sleeping Giant - Nigeria since the Islamic Revolution of 1804
Cross-listed: AAS 260; ECO 255
Instructor: Inikori, J.
Coursework: Evaluation is based on class participation and quizzes, a term paper, a mid-term, and a final examination.
Description: The course is taught in the context of the global economy, its evolution from the 16th century and the location of different parts of the world within it. Nigeria, the most populous country in Africa, is blessed with vast mineral resources, which include petroleum, natural gas, coal, iron ore, and others. It has agricultural lands capable of producing a wide variety of tropical products and foodstuffs. It is common knowledge that the country's large population is made up of talented and highly resourceful individuals, who are quick to respond to economic incentives. Given all this, it is hard to understand why the country has one of the lowest per capita incomes in the world today, and why the country's economy currently occupies such a lowly position within the global economy today. The course focuses on the historical development of socio-economic and political structures over time to explain why the giant of Africa has continued to slumber. Some of the country's central problems produced by history, such as ethnic and religious contradictions, are similar in some way to those in the United States. The solutions that have been attempted by the governments of both countries, such as affirmative action, are also somewhat similar. The course, therefore, offers an opportunity at some point to conduct a comparative analysis of contemporary historical issues in the two countries.

Department: History
Course: HIS 280W
Title: The Asian-American Experience
Cross-listed: ANT 251
Instructor: Hauser, W. **Class Size:** 25
Coursework: Two 5-page critical papers based on the assigned readings, one 10-15 page research paper on the experience of Asian immigrants and their descendants in America.
Description: The course will include readings and discussion of assigned materials and several weeks at the end of the term for research and writing of the long papers. Readings will include-- Gary Okihiro, MARGINS AND MAINSTREAMS; and Sucheng Chan, ASIAN AMERICANS; Eric Liu, THE ACCIDENTAL ASIAN; Julie Otsuka, WHEN THE EMPEROR WAS DIVINE; Caroline Hwang, IN FULL BLOOM; Helen Zia, ASIAN AMERICAN DREAMS; and other readings. The class will study the history and cultural experiences of Asian immigrants and Asian-Americans in the United States and Hawaii in the 19th and 20th centuries. The long papers will focus on a particular ethnic group or an approach to the Asian American experience selected by each student in consultation with Prof. Hauser.

Department: History
Course: HIS 286W
Title: American Foreign Relations
Instructor: Gordon, L. **Class Size:** 15
Restrictions: Permission of instructor required Open only to Junior and Senior majors of the offering department
Coursework: Completion of weekly reading assignments of documents and/or a monograph; write two 7-10 page "position" papers, each dealing with a particular foreign policy issue of their choice; analyze a set of documents or government reports.
Description: This seminar will explore significant political, economic, and cultural themes in the United State's relationship with other countries from the eighteenth through the twentieth centuries, with the emphasis on the latter. Readings and discussions will focus on such topics/issues as: cultural interactions between Americans and citizens of other countries, relationship between idealism and self-interest in American foreign policy; the role of elites vs. popular opinion in determining foreign policy; and the onset and aftermath of the Spanish-American War, World Wars I and II, the Korean war, Vietnam, and the Cold War.

Department: History
Course: HIS 287
Title: History of International and Global Health
Instructor: Brown, T.
Description: This course examines the initiation, evolution, and transformation of international and global health activities and policies over the course of several centuries. It concentrates on developments in the nineteenth, twentieth and early twenty-first centuries, but it also considers earlier events such as pandemic plague, the exchange of diseases between the Old World and the New, and the role of health concerns in early European and American colonialism and imperialism. The major focus, however, is the evolution of cooperative efforts in international health under governmental, non-governmental, and trans-governmental auspices. Particular attention is given to the role of international conferences and conventions, the work of the International Red Cross and the Rockefeller Foundations International Health Division, and the creation and functioning of the Pan American Health Organization, the Office International dHygiene Publique, the League of Nations Health Organization, and the World Health Organization. For the later twentieth century, attention will be directed to the World Bank, the Gates Foundation, UNAIDS, and other major current players in global health.

Department: History
Course: HIS 289
Title: History of European Exploration
Cross-listed: ANT 289
Instructor: Outram, D.
Description: Exploration is examined as an integral part of European expansion into the rest of the world and of the opening of the U.S. in the eighteenth and nineteenth centuries. Three themes organise the course: Pacific exploration by James Cook; the opening of the American West by Fremont, Louis and Clark, and others; and the exploration of the Arctic by men working for Hudson Bay Company.

Department: History
Course: HIS 296W
Title: Women in East Asia
Cross-listed: ANT 252; WST 251
Instructor: Hauser, W.
Coursework: Students will write an essay on Japan and China and a comparative essay at the end of the term, including Korea. Each essay will be 5-8 pages in length, and must be rewritten and resubmitted after the initial grading.
Description: In seminar format, students will read and discuss books and articles on women's history in Japan, China and Korea. Differences in their responses to the modern world and their role in the history of modern East Asian society will be emphasized. The study of women in modern East Asian history will be used as a vehicle to improve student's critical reading, speaking, and writing skills. READINGS: Zheng Wang, WOMEN IN THE CHINESE ENLIGHTENMENT; Kim, O. & Kang, WORDS OF FAREWELL; Kim & Choi, DANGEROUS WOMEN; Elisabeth Bumiller, THE SECRETS OF MARIKO; Xie Bingying, A WOMAN SOLDIER'S OWN STORY; Xueping Zhong, Wang Zheng, Bai Di, eds., SOME OF US: CHINESE WOMEN GROWING UP IN THE MAO ERA; Laurel Kendall, ed., UNDER CONSTRUCTION: GENDERING...IN KOREA; Xinran, THE GOOD WOMEN OF CHINA.

Department: History
Course: HIS 301W
Title: History Seminar - Stalinism
Instructor: Lenoe, M.
Restrictions: Permission of instructor required
Description: We will devote the first six weeks of this advanced research seminar to intensive readings in the history of Stalinism in the Soviet Union. Class will be based on student discussion of major historiographical debates about Stalinism. During the second six weeks of the semester students will prepare a major research paper, based either on primary sources from the Stalinist period (many have been translated into English) or on the historiographical literature.

Department: History
Course: HIS 301W
Title: History Seminar - John Dos Passo's USA
Instructor: Westbrook, R.
Restrictions: Permission of instructor required
Description: This course considers the career of writer John Dos Passos, seeking to discover the ways in which his work can illuminate the history of the society, politics, and culture of the United States during the years between World War I and World War II (1917-1941). And, as well, to discover how placing Twain's work in the context of this history can help us better understand his life and writing, particularly his great trilogy U.S.A. (1930-36). To this end, we will also read some of the work of a few of Dos Passos's contemporaries: Randolph Bourne, Ernest Hemingway, Edmund Wilson, George Orwell, E.E. Cummings, and Dorothy Parker. Finally, as a History Seminar, the course aims as well to

introduce students to some of the tradecraft of research in American cultural history.

Department: History
Course: HIS 302W
Title: The Power of Print
Cross-listed: HIS 402
Instructor: Rubin, J. **Class Size:** 15
Description: This course will examine the history of books, readers, and literacy in the United States from the colonial period to the present. It will explore how the printed word shaped both public events (e.g. the Civil War) and private experience (e.g. relationships within the family). The course will consider such topics as: the relationships between gender and reading; the connections between reading and citizenship; the impact of technological change on the book; the social uses of various kinds of reading; and the nature and development of literacy.

Department: History
Course: HIS 306W
Title: European Cultural History
Cross-listed: HIS 406
Instructor: Pedersen, J.
Coursework: In addition to weekly readings and responses, each student in this seminar will prepare a research paper and an oral report.
Description: Novels, plays, music, dance, poetry, painting ... How can we use individual artistic creations as a way of learning about the politics, economics, social structures, and psychological attitudes of the past? This course will answer that question by focusing on a series of modern European examples from the French Revolution through the Second World War.

Department: History
Course: HIS 314W
Title: International Human Rights
Cross-listed: HIS 414; WST 296/496
Instructor: Pedersen, J.
Description: What does it mean to be human? What political, economic, religious, social, or sexual rights might be part of different people's working definitions? This course will look at both a) the historical development of conflicting theories of human rights and b) more contemporary debates about their ideal extent, their exercise, and their enforcement. Special topics will include debates over the meaning of the American and French Revolutions, the fight to design an International Declaration of Human Rights in the aftermath of World War II, the history of organizations such as Amnesty International, and the controversy around UN events such as the 1995 World Conference on Women in Beijing, the 2002 World Summit on Sustainable Development in Rio de Janeiro, and the 2000 and 2005 Millennium Summits in New York City.

Department: History
Course: HIS 334W
Title: U.S. Colloquium II
Cross-listed: HIS 434
Instructor: Rubin, J.
Restrictions: Permission of instructor required for undergraduates
Description: This colloquium explores the major interpretations of American history from Reconstruction to the late twentieth century. UNDERGRADUATES MAY REGISTER FOR THIS COURSE BY INVITATION ONLY.

Department: History
Course: HIS 344W
Title: When New York was teh Wild West
Cross-listed: HIS 444
Instructor: Jarvis, M.
Description: This course explores New Yorks history from Seneca settlement to Seneca Falls, using recent scholarship to consider Iroquois, Dutch, English, and American periods of history. Specific topics include New York City and its hinterland, the shift from Dutch to English rule, Slavery in New York City, British-occupied New York and the American Revolution in New York State, 18th and 19th century religious movements, the dynamics of frontier settlement, and the Erie Canal. Students will devise and write an original primary research paper on a particular aspect or period of New York history.

Department: History
Course: HIS 345W
Title: Just Wars
Cross-listed: HIS 445
Instructor: Slaughter, T.
Description: The seminar considers the concept of just war and the application of just war theory to specific historical cases. Together we will discuss several modelsArendt, Augustine, Clauswitz, and Waltzerat the beginning of the semester, and at least one scholars application of theory to a specific case. Students will identify the specific war on which they intend to focus their research, primary and secondary sources they will consult, and the questions they will ask. At different stages we will meet to discuss shared readings, one-page research proposals, bibliographies, thesis statements, first paragraphs, and first drafts of research papers.

Grades will be based on class attendance and participation, timely submission of written assignments, and the quality of the work completed. All papers must be turned in for a grade by the last day of class.

Department: History
Course: HIS 347W
Title: The Political Economy of Food in Africa
Cross-listed: AAS 335; HIS 447
Instructor: Mandala, E.
Description: A three-part exploration of the idea that in the world of African peasants food does not have an independent life apart from the social relations of those who eat it. Part I traces the social biography of food as it moves from the field to the table; Part II seeks to understand whether and to what extent the daily and seasonal processes of Part I acquired new meanings and long-term historical trajectories as a result of Africas engagement with the global economy, and Parts III recasts the issues raised in Parts I and II into a debate between peasant intellectuals and professional historians.

Department: History
Course: HIS 357W
Title: Evolution of the Current World Economic Order from 1500
Cross-listed: AAS 371/W; ECO 371/W; HIS 457
Instructor: Inikori, J. **Class Size:** 15
Coursework: There are no examinations. Evaluation is by class participation and weekly literature summaries, one term paper, and one book review.
Description: The course traces the historical origins of the integration and hierarchical structure of the current global economy. It examines specifically the historical forces which produced the unequal international division of labor between industrial and non-industrial nations, starting with the British Industrial Revolution which occurred within the Atlantic world economy. The rise and fall of the USSR and the command economies of Eastern Europe are examined in the context of efforts by underdeveloped countries to improve their performance and location within the global economy. The more recent successes of some Asian countries and the continuing external debt problems of Latin American and African countries are also examined with the conceptual framework of international political economy to predict the probable future of all poor peoples both in the poor and in the rich countries.

Department: History
Course: HIS 374W
Title: Rochester and Its Radicals
Cross-listed: HIS 474
Instructor: Westbrook, R.
Description: This course examines the remarkable history of the city of Rochester and its environs as a site of radical thought and activism. In our common reading and discussions, we will center our attention on the work of five local dissidents--Frederick Douglass, Susan B. Anthony, Walter Rauschenbusch, Howard Coles, and Christopher Lasch--trying to weave to-gether the story of their careers with that of the city in which they made their home at one time or another. These figures, all of whom have papers in local repositories, will also be the subject of individual student research papers.

Department: History
Course: HIS 388W
Title: Modern China in Film
Instructor: Li, G.
Restrictions: See course description for specific prerequisties required
Description: There is no singular History due to representation and interpretation. This course regards film footage as a unique way to reproduce history of modern China. Students will watch the first-rate Chinese films produced by the most distinguished Chinese directors, in which the major historical events in modern China provided a narrative context. We will examine the multiple, sometime controversial and even contradictory representations of major historical events in modern China, including the Opium War, the Arrow War, the New Cultural Movement, Nanchang Uprising, Nanjing Massacre, the Second Sino-Japanese War, the Great Leap Forward, the Great Proletarian Cultural Revolution, and the Tiananmen Incident.

Department: History
Course: HIS 396W
Title: Film and History Tutorial - American Politics
Instructor: Westbrook, R.
Restrictions: Permission of instructor required
Description: This course involves intensive study of a topic in a special format. Each class will consist of two students and a professor who will meet once a week for an hour. For every class meeting, one of the students will present a short analytical paper on assigned reading while the other student acts as a respondent; the role of the instructor will be to guide and comment but not to lecture. The tutorial considers both the uses of movies as documents of the American past and as vehicles for historical understanding. That is, we will assess the insights that movies can offer into the moment of their making as well as the promise and

pitfalls of film narrative as a way of describing, interpreting, and explaining history. The Spring 2008 tutorial will focus on movies about American politics. Films include YOUNG MR. LINCOLN, MR. SMITH GOES TO WASHINGTON, ALL THE KING'S MEN, THE LAST HURRAH, REDS, BULWORTH, and WAG THE DOG.

Department: History
Course: HIS 501
Title: Introduction to Global History
Instructor: Inikori, J.
Description: Globalization was popularized by the media in the 1990s as a snapshot description of certain critical elements that characterize the observed reality of our modern world, integration and hierarchy, together with the repercussions (good and ill). The attempt by historians and other scholars to trace the long-run historical processes that gave rise to the current socioeconomic phenomena called globalization has given birth to a new field in historical scholarship called global history, with much conceptual and empirical debate. This course will expose our graduate students to this literature in a manner that will help them acquire the conceptual skill to research and write local, regional, and national history with a global perspective.

Judaic Studies

Department: Judaic Studies
Course: JST 102
Title: Elementary Hebrew II
Cross-listed: HEB 102
Instructor: Fix, T.
Description: Please see HEB 102 for the course description.

Department: Judaic Studies
Course: JST 204
Title: Hebrew through Conversation
Cross-listed: HEB 204
Instructor: Fix, T.
Exams: Two short essays, one final paper
Description: Please see HEB 204 for the course description.

Department: Judaic Studies
Course: JST 248
Title: Politics of Identity: Russians, Poles, Jews, and Communists
Cross-listed: RUS 248/HIS 241/RST 248
Instructor: Parthe, K.
Exams: Two short essays, one final paper
Description: Please see RUS 248 for a course description.

Linguistics

Department: Linguistics
Course: LIN 102
Title: Language and Social Identity
Instructor: Paauw, S **Class Size:** 40
Prerequisites: None
Coursework: Course work will consist of several homework problems and some longer written assignments, including a final project.
Description: This course examines the relationships between language and social diversity in the general American speech community. Its aim is to shed light on how individuals and social groups distinguish themselves on the basis of their choice of language and their sharing (or lack of it) of a common norm of social evaluation and interpretation. In particular, it will investigate the relationship between language on the one hand, and such social parameters as social status, ethnicity, race, gender and so on. Finally, it will consider the role of language differences in the creation of social stereotypes and their implications for social advantage or disadvantage. Part of Clusters S1LIN006, S1LIN002

Department: Linguistics
Course: LIN 105
Title: Language in Advertising
Cross-listed: FMS 257F
Instructor: Carlson, G **Class Size:** 50
Exams: 2 Exams plus 4 quizzes
Coursework: Students will be asked to keep a journal and find examples of advertisements that illustrate the topics being considered.
Description: The course examines the use advertisers make of language in selling their products and how it affects our perceptions of the product and ourselves. The emphasis in the course is on learning about the structure of language and how we can use it as a guide to observing and understanding the effectiveness of commercial messages. Part of Clusters S1LIN006, S1LIN002

Department: Linguistics
Course: LIN 110
Title: Introduction to Linguistic Analysis
Cross-listed: ANT 110C
Instructor: Paauw, S. - Section #1 (CRN#58396) Fall'08 and Gunlogson, C. - (CRN#55936) Spr'09 **Class Size:** 30

Description: This course investigates the structure of human language, covering the basic techniques and concepts in the subfields of contemporary linguistic analysis. The course emphasizes work in primary material and data analysis, and focuses on developing skills in data collection and defining relevant questions for the purpose of seeking evidence that will bear on resolving theoretical and empirical questions in analysis of language. Part of Clusters S1LIN004, S1LIN002, S1LIN007, S1LIN001, S1LIN005

Department: Linguistics
Course: LIN 220
Title: Introduction to Grammatical Systems
Cross-listed: LIN 420
Instructor: Runner, J **Class Size:** 30
Prerequisites: LIN 110
Description: This introductory course examines the grammatical structure of words and sentences from the standpoint of modern linguistic theory. The course develops the basic techniques and concepts of morphological and syntactic analysis placing particular emphasis on the ways in which semantic, morphological and lexical information interacts with the syntax. No syntax background is assumed. This course is intended for majors and non-majors alike. Part of Clusters S1LIN004, S1LIN002, S1LIN007

Department: Linguistics
Course: LIN 227
Title: Topics in Phonetics & Phonology
Cross-listed: LIN 427
Instructor: Lehnert-LeHouillier, Heike, **Class Size:** 20
Prerequisites: LIN 110, 210
Description: The course is a laboratory course intended to provide participants with an overview of research in laboratory phonology. Issues vary from term to term but cover areas in segmental, metrical and intonational phonology and the phonology/phonetics interface. Part of Cluster S1LIN001

Department: Linguistics
Course: LIN 389
Title: Senior Seminar: Linguistic Field Methods
Instructor: Paauw, S **Class Size:** 15
Prerequisites: Senior year, linguistics major
Restrictions: See course description for specific prerequisites required
Description: A seminar course for senior linguistic majors in their last semester of coursework. This seminar is a linguistics field methods course. We will work with a native speaker to elicit data and provide a description of the grammar of that speaker's language based on our data. This course is designed for senior Linguistics majors; for interested non-Linguistics majors or those who are not in their last semester of Linguistics coursework, please contact the instructor.

Department: Linguistics
Course: LIN 420
Title: Introduction to Grammatical Systems
Cross-listed: LIN 220
Instructor: Runner, J.
Prerequisites: LIN 110 or LIN 201
Description: Refer to LIN 220 for course description.

Department: Linguistics
Course: LIN 427
Title: Topics in Phonetics & Phonology
Cross-listed: LIN 227
Instructor: Lehnert-LeHouillier, Heike **Class Size:** 30
Description: This course picks up where LIN 410 leaves off, examining research issues in phonetics and phonology, topics may include speech production and perception, tone and intonation, or rhythm and meter within a broadly defined laboratory phonology approach. This goal of this course is to familiarize students with current issues on a given topic through readings and discussion, and to design and run an experiment or research project on the semester's topic.

Department: Linguistics
Course: LIN 430
Title: Signed Language Structure
Cross-listed: BCS 264/564(P); LIN 430; ASL 200
Instructor: Supalla T.
Coursework: See BCS 264 for description
Description: See BCS 264 for description

Department: Linguistics
Course: LIN 535
Title: Formal Pragmatics
Instructor: Gunlogson, C.
Prerequisites: LIN 465 or equivalent (semantics background preferred)
Description: Pragmatics, under one conception, is the study of systematic relationships between what linguistic expressions mean and what people mean when they utter such expressions in a particular place, at a particular time, to a particular audience. This course will provide an overview of selected topics in the field, including indexicality, Grice and implicature, speech acts and sentence type, information structure, presupposition, and experimental

pragmatics. The emphasis on formal pragmatics means that wherever possible we will concentrate on theoretical approaches that attempt to model pragmatic effects in a rigorous way, using methods adopted from formal semantics and neighboring fields.

Mathematics

Department: Mathematics
Course: MTH 130
Title: Excursions in Mathematics
Instructor: Lubkin
Exams: Midterm and final
Coursework: Homework
Description: The nature of mathematics and its application. Emphasis on concepts and understanding rather than acquisition of techniques. Intended for concentrators in the humanities and social sciences.

Department: Mathematics
Course: MTH 141
Title: Calculus I
Instructor: Bailey, S.
Exams:
Coursework: Homework and quizzes
Description: Analysis of the elementary real functions: algebraic, trigonometric, exponentials and their inverses and composites. Their graphs, derivatives, and integrals. Mean value theorem, maxima and minima, curve plotting. The fundamental theorem of calculus, with geometric and physical applications. MTH 141, 142, and 143 is a three semester sequence that covers, at a slower pace, exactly the same material as the two semester sequence MTH 161 and 162.

Department: Mathematics
Course: MTH 141A
Title: Calculus IA
Instructor: Ortiz-Navarro, J.
Prerequisites: MTH 140A. This is a continuation of MTH 140A.
Exams: Two or three hourly exams and weekly quizzes.
Description: This course is a continuation of MTH 140A. It combines and integrates the learning of calculus together with precalculus mathematics. MTH 141A (together with its prerequisite MTH 140A) covers all the material in MTH 141 together with a thorough presentation of the standard 'precalculus' material.

Department: Mathematics
Course: MTH 142
Title: Calculus II
Instructor: Pearson, P.,Mavinga, N.,
Prerequisites: MTH 141
Exams: Hourly exams and a final exam
Coursework: Homework and quizzes
Description: This course will consist of applications of the finite integrals, techniques of integration, calculus of the trancendental functions, improper integrals and the use of l'Hopital's rule.

Department: Mathematics
Course: MTH 143
Title: Calculus III
Instructor: Unal, I.
Prerequisites: MTH 141, MTH 142
Exams: Hourly exams and a final exam
Coursework: Homework and quizzes
Description: Textbook is a standard calculus text. This is the third semester of a three-semester calculus sequence. Topics include improper integrals, l'Hopital's rules, infinite sequences and series, Taylor's series, three-dimensional geometry and vector algebra, curves in space, partial derivatives. Weekly lists of exercises form the syllabus for the weekly quizzes.

Department: Mathematics
Course: MTH 150
Title: Discrete Mathematics
Instructor: Ledoan, A.,
Description: Logic, functions, algorithms, mathematical reasoning, mathematical induction, recurrence relations, techniques of counting, equivalence relations, graphs, trees, as well as specific questions given by the "Towers of Hanoi", and Euler's "7 bridges of Konigsberg problem". Required for Computer Science majors.

Department: Mathematics
Course: MTH 161
Title: Calculus IA
Instructor: Pearson, P., ,
Exams: Two or three hourly exams and a final exam
Coursework: Lectures with assignments or problems to be discussed in weekly recitation sections. Quizzes given in recitations.
Description: This is an introductory calculus course, intended for students whose interests lie in the physical sciences and engineering. The course requires a thorough command of high school algebra and some knowledge of trigonometry. Topics include: analysis of the elementary real functions: algebraic, trigonometric, exponentials and their inverses and composites; their graphs, derivatives and integrals; Limits, l'Hopital's rules, Mean value theorem, maxima

and minima, curve plotting. The fundamental theorem of calculus, with geometric and physical applications.

Department: Mathematics
Course: MTH 162
Title: Calculus IIA
Instructor: Lavine, R.,Ledoan, A.
Prerequisites: MTH 161
Exams: Hourly exams, final exam
Coursework: Homework and quizzes
Description: This course is a continuation of MTH 161. It covers techniques of integration, improper integrals, applications of integration, parametric and polar equations, infinite series, Taylor's series, vectors in two and three dimensions, lines and planes, vector-valued functions, velocity and acceleration, arc length, curvature.

Department: Mathematics
Course: MTH 162Q
Title: Quest Calculus IIA
Instructor: Bailey, S.
Prerequisites: Quest Calculus IA
Exams: Two or three exams and a final
Description: This is the second semester of the Quest version of MTH 161-162 which places emphasis on understanding concepts as well as on learning techniques. Homework includes more challenging and occasionally more theoretical problems. Students contemplating majoring in mathematics as well as others desiring a strong foundation in calculus are encouraged to take this course or the honors calculus course. The Quest versions of MTH 161-2 are considered to be year-long courses; both semesters will be taught by the same professor and students are strongly encouraged to stay with the same professor for the entire year. The course introduces the techniques of the differential and integral calculus of functions; reinforces algebraic manipulation and trig techniques learned in high school; provides tools for use in other disciplines; uses proofs to help make the techniques a coherent whole rather than a set of isolated tricks; rigorous proofs. Topics covered: analysis of the elementary real functions: algebraic, trigonometric, exponentials and their inverse and composites. Their graphs, derivatives, and integrals. Mean value theorem, maxima and minima, curve plotting. The fundamental theorem of calculus, with geometric and physical applications.

Department: Mathematics
Course: MTH 163
Title: Ordinary Differential Equations
Instructor: Greenleaf, A.,
Prerequisites: MTH 143, MTH 162 or MTH 172.
Exams: Two or three hourly exams and a final
Coursework: Homework and weekly quizzes
Description: This course concentrates on the foundations of the subject, emphasizing those techniques which are important in physics and engineering. The emphasis in this course, as in the other calculus courses, is on learning techniques for solving, or at least understanding, certain equations (which occur frequently in physics and engineering), rather than on the theoretical aspects of the subject. Topics covered: First order differential equations, linear equations, and systems with constant coefficients, solutions in series, phase plane analysis and stability.

Department: Mathematics
Course: MTH 164
Title: Multidimensional Calculus
Instructor: Pakianathan, J.
Prerequisites: MTH 143, MTH 162, or MTH 172.
Exams: Two or three hourly exams and a final exam
Coursework: Lectures, homework and quizzes
Description: This course studies the calculus in more than one dimension. Topics include partial derivatives, multiple integrals, and the major theorems of Green, Gauss, and Stokes. NOTE: Either MTH 164 or MTH 163 can be taken after MTH 162 or MTH 143. The usual procedure would be to take MTH 164 followed by MTH 163. USUALLY MTH 164 (Multidimensional Calculus) is taken first since its subject matter is more closely related to MTH 162. However, some Engineering majors require MTH 163 (Differential Equations) to be completed by the end of the fall semester of the sophomore year.

Department: Mathematics
Course: MTH 165
Title: Linear Alegbra with Differential Equations
Instructor: Gage, M.,Arikan, M.
Prerequisites: MTH 143, 162, or MTH 172Q. However, MTH 164 is not a prerequisite for MTH 165.
Exams: Two or three hourly exams and a final
Description: An introduction to the basic concepts of linear algebra: matrices, determinants, vector spaces and linear transformations, as well as to ordinary differential equations with an emphasis on linear differential equations, second order equations with constant coefficients and systems of differential equations. Applications to physical, engineering, and life sciences. This course differs from MTH163 in that it has more material on linear algebra (including a discussion of eigenvalues), and the only differential equations covered are linear ones with constant coefficients, along with

systems thereof. For many students, taking MTH165 will eliminate the need to take MTH235 (linear algebra). Topics covered: Elementary methods, linear equations, and systems with constant coefficients, solutions in series, special functions, phase plane analysis and stability, Laplace transform, extremal problems.

Department: Mathematics
Course: MTH 172Q
Title: Honors Calculus II
Instructor: Cohen, F.,Rogers, N.
Prerequisites: MTH 171 or permission of the instructor
Description: This is the second semester of the honors calculus sequence, covering the material from MTH 161, MTH 162, MTH 163, and MTH 164 in greater depth from the standpoint of both theory and application.

Department: Mathematics
Course: MTH 174Q
Title: Honors Calculus IV
Instructor: Tucker, T.
Prerequisites: MTH 162, MTH 172, MTH 173
Description: This is the last semester of the honors sequence of MTH 171, MTH 172,MTH 173,MTH 174

Department: Mathematics
Course: MTH 200
Title: Transition to Advanced Mathematics
Instructor: Haessig, D.
Description: Introduces some of the basic techniques and methods of proof used in mathematics and computer science. Methods of logical reasoning, mathematical induction, relations, functions, and more. The course also contains some applications of these techniques.

Department: Mathematics
Course: MTH 202
Title: Intro. to Stochastic Processes
Instructor: Vermesi, B.
Prerequisites: MTH 201/STT 201 or equivalent
Coursework: Three hours of lectures, and a weekly problem set
Description: This course covers the Poisson process, discrete-time random walks and Markov chains, and renewal theory. Special cases such as birth and death processes, and queuing processes, are also discussed. Time permitting, continuous-time Markov chains will be introduced. It is taken mainly by statistics and mathematics majors, and together with MTH 201/STT 201, provides a solid mathematical foundation in probability and stochastic processes.

Department: Mathematics
Course: MTH 203
Title: Intro. to Mathematical Statistics
Instructor: Rao, S.R.S.
Prerequisites: MTH 201. Same as STT 203.
Description: Principles of statistical decision theory, point and interval estimation, tests of hypotheses, multivariate normal distribution, linear hypotheses, selected topics. (Same as STT 203.)

Department: Mathematics
Course: MTH 235
Title: Linear Algebra
Instructor: Haessig, D.
Prerequisites: MTH 165
Description: In this course we develop matrix methods for determining the solvability of and finding solutions to systems of linear equations in several variables. We study linear transformations on finite-dimensional vector spaces over R (real numbers)and C (complex numbers), which includes a development of the concepts of an inner product, orthogonality, a basis of a vector space, and eigenspaces of linear transformations.

Department: Mathematics
Course: MTH 236
Title: Introduction to Algebra I
Instructor: Rogers, N.
Prerequisites: MTH 235
Exams: irregular quizzes, 2 hourly exams and a final
Description: The course will treat introductory group theory topics. Finite dimensional vector spaces over R and C axiomatically and with coordinate calculations. Forms, linear transformation, matrices, eigenspaces.

Department: Mathematics
Course: MTH 236H
Title: Introduction to Algebra I (Honors)
Instructor: Jochnowitz, N.
Exams: irregular quizzes, 2 hourly exams and a final
Description: An honors version of MTH 236.

Department: Mathematics
Course: MTH 240
Title: Introduction to Topology
Instructor: Ortiz-Navarro, J.

Description: Introduction to topology. Review of set theory. Metric spaces and topological spaces. Functions and continuous functions. The concepts of convergence, completeness, connectedness, and compactness. Applications to surfaces.

Department: Mathematics
Course: MTH 240H
Title: Introduction to Topology (Honors).
Instructor: Harper, J.
Description: An honors version of MTH 240.

Department: Mathematics
Course: MTH 248
Title: Theory of Graphs
Instructor: Harper, J.
Prerequisites: MTH 235 recommended
Description: Paths, circuits, trees. Bipartite graphs, matching problems. Unicursal graphs, Hamiltonian circuits, factors. Independent paths and sets. Matrix representations. Planar graphs. Coloring problems.

Department: Mathematics
Course: MTH 256
Title: Differential Geometry II
Instructor: Unal, I.
Prerequisites: MTH 255
Description: Riemannian geometry.

Department: Mathematics
Course: MTH 266
Title: Topics in Real Analysis
Instructor: Geba, D.
Description: This is the second semester of Math 265, which prepares students for graduate courses in analysis. It may also be very useful for those planning graduate work in statistics, operations research, mathematical economics, and business. The course deals with the rigorous concepts that lie at the foundation of calculus, which form an essential part of mathematical reasoning.

Department: Mathematics
Course: MTH 282
Title: Intro. to Complex Variables w/ Application
Cross-listed: ME 202
Instructor: Hladky, R.
Prerequisites: MTH 164/MTH 174
Description: Complex differentiation and integration, analytic functions, singularities, residues, poles, series expansions, conformal mapping, with some applications. This course is independent of MTH 281.

Department: Mathematics
Course: MTH 285
Title: Methods of Applied Mathematics
Instructor: Mueller, C.
Prerequisites: MTH 235
Description: This is a new course which aims to introduce some of the methods of applied mathematics: minimum principles; eigenvalues and dynamical systems; constraints and lagrange multipliers; applications to electrical networks; differential equations of equilibrium; calculus of variations; stability and chaos; nonlinear conservation laws.

Department: Mathematics
Course: MTH 287
Title: Math Methods in Optics and Physics
Description: This course introduces techniques used in mathematical study of optical phenomena. Emphasis is placed on gaining insight and experience in the use of these powerful and elegant tools for describing, solving and resolving optical systems and schema. Prerequisites: MTH 164 and MTH 281.

Department: Mathematics
Course: MTH 290
Title: Mathematical Biology
Cross-listed: MTH 490
Instructor: Vermesi, B. **Class Size:** 30
Prerequisites: MTH 162 or equivalent; some familiarity with probability
Description: This course focuses on concepts and real-world applications (e.g., in engineering of products and in business where optimization is equated to design synthesis and decision- making, respectively) where variability, in fact, is all-important. Thus the course coherently ties together mathematical modeling, design of experiments, probability & statistics, approximation methods, analysis, and optimization, and addresses deterministic and probabilistic treatments. In doing so, all is put in context and much of applied mathematics is simplified, enabling enlightenment and easy retention of material for future applications. New advanced concepts and capabilities covered (i) are essential for all who specialize in probability and optimization, and (ii) will empower students with a sense of doability in attacking any type of simple-to-complex problem as well as a sense of liberation.

Department: Mathematics

Course: MTH 302W
Title: History of Mathematics II
Instructor: Lavine, R.
Prerequisites: MTH 162 or equivalent
Description: The style and development of European mathematics from roughly 1650 to roughly 1950. The development of calculus and analysis, algebra, probability, geometry (including non-Euclidean geometry), set theory, will all be touched on. The introduction of the idea of rigorous proof. This course is independent of Math 300W, and may be taken independently of it.

Department: Mathematics
Course: MTH 437
Title: Alegbra II
Instructor: Jochnowitz, N.
Prerequisites: MTH 436
Restrictions: Permission of instructor required for undergraduates
Description: Multilinear algebra, quadratic forms, simple and semi-simple rings and modules.

Department: Mathematics
Course: MTH 443
Title: Algebraic Topology I
Instructor: Harper, J.
Prerequisites: MTH 436 and MTH 440
Restrictions: Permission of instructor required for undergraduates
Description: The combinatorial structure of complexes and the homology of polyhedra. Applications of algebraic techniques in topology to classification of surfaces, fixed point theory, and analysis.

Department: Mathematics
Course: MTH 471
Title: Measure and Integration
Instructor: Mueller, C.
Prerequisites: MTH 265 or equivalent
Restrictions: Permission of instructor required for undergraduates
Description: Lebesgue measure on the line. Measure spaces. Integration. Convergence theorems. The Radon-Nikodym theorem. Differentiation. Fubini's theorem. The function spaces Lp and C.

Modern Languages & Cultures -- Chinese

Department: Modern Languages & Cultures -- Chinese
Course: CHI 102
Title: Elementary Chinese II
Instructor: Yu, S.,Pian, P. **Class Size:** 22
Prerequisites: CHI 101 or equivalent 400 characters
Description: This 6-credit course is the continuation of CHI 101. Knowledge of Pinyin is required. The focus continues to be on developing listening and speaking skills with an increasing emphasis on reading and writing in ideographic characters. It aims to build a vocabulary based on 800 characters.

Department: Modern Languages & Cultures -- Chinese
Course: CHI 114
Title: Conversational Chinese
Instructor: Yu, S **Class Size:** 15
Prerequisites: CHI 102 or equivalent, 1200 characters.
Description: This is a 2 credit course which may be taken twice for credit. Emphasis on speaking skills with a focus on current issues in Chinese culture and society. May be taken concurrently with CHI 151 or CHI 152.

Department: Modern Languages & Cultures -- Chinese
Course: CHI 152
Title: Intermediate Chinese II
Instructor: Yu, S. **Class Size:** 15
Prerequisites: Completion CHI 151 or equivalent Completion CHI 151 or equivalent, 1200 characters.
Exams: Weekly quizzes, midterm, final
Description: This 6 credit course is a continuation of CHI 151. Grammar structures will be reviewed. Communicating skills are the focus and special emphasis will be given to expanding vocabulary and reading and writing at some length. Course work includes 3 weekly recitation sessions. It aims to build a vocabulary based on 1600 characters.

Department: Modern Languages & Cultures -- Chinese
Course: CHI 203
Title: Adv Intermediate Chinese II
Instructor: Yu, S. **Class Size:** 15
Prerequisites: CHI 202 or equivalent, 2000 characters.
Description: This 4 credit course covers various aspects of contemporary Chinese culture as found in magazines, journals, television, film and videos. Class taught in Chinese.

Modern Languages & Cultures -- Comparative Literature

Department: Modern Languages & Cultures -- Comparative Literature
Course: CLT 111Q
Title: Latin American Women Writers

Cross-listed: SP 260/460, CLT 226d,426d WST 256
Instructor: Jorgensen, B.
Description: See SP 260 for course description

Department: Modern Languages & Cultures -- Comparative Literature
Course: CLT 117Q
Title: Dante's Divine Comedy II
Cross-listed: IT196Q,221/CLT 253D/REL198Q,286/ENG266
Instructor: Stocchi-Perucchio, D
Prerequisites: IT 195Q, CLT 116Q,REL 197Q, IT 220, CLT 253C, REL 285, IT 190Q, CLT 190Q, REL 190Q
Description: Please see IT 221 for the course description.

Department: Modern Languages & Cultures -- Comparative Literature
Course: CLT 204
Title: Modern Japan
Cross-listed: HIS 184, JPN 215
Instructor: Hauser, W.
Description: Please see HIS 184 for Course Description.

Department: Modern Languages & Cultures -- Comparative Literature
Course: CLT 208C
Title: Issues in Contemporary Japanese Culture
Cross-listed: CLT 408C, JPN 246, WST 268, HIS 278
Instructor: Pollack, D.
Description: Please see JPN 246 for the course description.

Department: Modern Languages & Cultures -- Comparative Literature
Course: CLT 209A
Title: Russian Civilization
Cross-listed: RST 128,128W/HIS 150/RUS 128,128W
Instructor: Parthe, K.
Description: Please see RUS 128 for the course description.

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 211G
Title: Feminist Film Theory
Cross-listed: FR 287/487, FMS 355/555, ENG 261/461, WS
Instructor: Willis, S.
Description: Please see AH 355 for course description

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 212A
Title: Monsters, Ghosts and Aliens
Cross-listed: GER 212/412, CLT 212a/412a, FMS 236
Instructor: Gustafson, S.
Description: For course description see GER 212

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 214N
Title: Tourist Japan
Cross-listed: JPN 219A, 219W, 419A/CLT 414N, FMS 298
Instructor: Bernardi, J.
Description: Please see JPN 219A for course description

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 222B
Title: Gender and Sexuality in the 20th Century
Cross-listed: CLT 422B/GER 272/WST 272
Instructor: Creech, J.
Description: Please see GER 272 for course description

Department: Modern Languages & Cultures -- Comparative Literature
Course: CLT 226D
Title: Latin American Women Writers
Cross-listed: SP 260/460, CLT 110Q,426D,WST 256
Instructor: Jorgensen, B.
Description: See SP 260 for the course description.

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 230
Title: FILM AS OBJECT
Cross-listed: JPN 207/407. FMS 220/420, CLT 430
Instructor: Bernardi, J.
Description: For course description see JPN 207

Department: Modern Languages & Cultures -- Comparative Literature
Course: CLT 236B
Title: U.S. Latinos/Latinas
Cross-listed: CLT 436B/WST 287/AAS 251/SP 282,482
Instructor: Rodriguez, R.
Description: Please see SP 282 for the course description.

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 252
Title: Bright Lights, Big City: The Urban Imagination
Cross-listed: Ger 252/452,FMS246/446,CLT252/452
Instructor: Hwang, J.
Description: Please see GER 252 for description

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 253D
Title: Dante's Divine Comedy II
Cross-listed: IT 196Q,221/CLT117Q/REL198Q,286/ENG 266

Instructor: Stocchi-Perucchio, D
Description: Please see IT 221 for the course description.

Department: Modern Languages & Cultures -- Comparative Literature
Course: CLT 389
Title: Major Seminar
Instructor: Gustafson, S.
Description: CLT 389 is an introduction to theories and critical approaches as strategies for reading and interpreting texts, films, and other cultural objects. Students in this course will read a variety of literature and theory with an eye toward understanding what criticism's roles are, why and how the study of literature and culture (still) matters, and how they can develop their own critical skills based on their personal interests and concerns. This course teaches reading strategies that will help students to get to the heart of what they are studying, and very significant amounts of coursework will be devoted to the art of writing the literary essay. How do you choose a thesis, what methods of investigation do you employ, and how do you synthesize your analysis? Required of all Majors in MLC, this course is also open to students with a Minor in an MLC discipline, or by permission of the instructor.

Department: Modern Languages & Cultures -- Comparative Literature
Course: CLT 408C
Title: Issues in Contemporary Japanese Culture
Cross-listed: CLT 208C, JPN 246, WST 268, HIS 278
Instructor: Pollack, D.
Description: See JPN 246 for description.

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 412A
Title: Monsters, Ghosts and Aliens
Cross-listed: GER 212/412, CLT 212a/412a, FMS 236
Instructor: Gustafson, S.
Description: For course description see GER 212

Department: Modern Languages & Cultures -- Comparative Literature
Course: CLT 426D
Title: Latin American Women Writers
Cross-listed: SP 260/460, CLT 111Q, 226D,WST 256
Instructor: Jorgensen, B.
Description: See SP 260 for course description

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 430
Title: FILM AS OBJECT
Cross-listed: JPN 207/407. FMS 220/420, CLT 230
Instructor: Bernardi, J.
Description: For course description see JPN 207

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 431A
Title: Introduction to Francophone Lit
Cross-listed: FR 271/471, CLT 431A/231A, AAS 236
Instructor: Kemedjio, C.
Description: See FR 271 for Course description

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 436B
Title: U.S. Latinos/Latinas
Cross-listed: SP 282, SP 482, CLT 236b,436b, WST 287,
Instructor: Rodriguez, R.
Description: See SP 282 for course description

Department: Modern Languages & Cultures - Comparative Literature
Course: CLT 452
Title: Bright Lights, Big City: The Urban Imagination
Cross-listed: CLT 252,GER 252/452, FMS 246/446
Instructor: Hwang, J.
Description: See GER 252 for Course description

Modern Languages & Cultures -- French

Department: Modern Languages & Cultures -- French
Course: FR 102
Title: Elementary French II
Instructor: Lutkus, A. **Class Size:** 22
Prerequisites: FR 101 or equivalent
Exams: occasional quizzes; final exam
Description: French 102 continues the work of the beginning course. There is an additional emphasis on reading comprehension and vocabulary building.

Department: Modern Languages & Cultures -- French
Course: FR 114
Title: Conversational French (2 credits)
Instructor: Lutkus, A. **Class Size:** 15
Prerequisites: FR 102, 151, or equivalent
Exams: Oral Examinations
Description: This course will use short readings on a variety of topics to encourage development of speaking skills. Emphasis on oral practice and acquisition of vocabulary from the book. May be taken concurrently with FR 151 or FR 152 and may be taken twice for credit.

Department: Modern Languages & Cultures -- French
Course: FR 151
Title: Intermediate French I
Instructor: Lutkus, A. **Class Size:** 15
Prerequisites: ETS score of 500 or permission of instructor
Exams: Quizzes, compositions, hour exams
Description: Continuing study of French in its spoken and written forms. Readings in modern French culture and literature will provide a basis for improvement of language skills. Stress will be placed on both personal expression and the development of critical reading technique.

Department: Modern Languages & Cultures -- French
Course: FR 152
Title: Intermediate French II
Instructor: Douchin, A. **Class Size:** 15
Prerequisites: FR 151, or ETS score of 550
Exams: Quizzes, compositions, final exam
Description: A continuation of French 151, this course further develops language skills in the context of readings on French culture and literature. A major work of literature will be read in its entirety.

Department: Modern Languages & Cultures -- French
Course: FR 155
Title: French Conversation and Composition
Instructor: Lelay, N.
Description: The most advanced conversation and composition course aims to bring students to a level of proficiency with the spoken language, including its idiomatic forms, and to refine composition skills. Course materials include extensive use of popular French culture, including film.

Department: Modern Languages & Cultures -- French
Course: FR 200
Title: Advanced French I
Instructor: Papaioannou, J. **Class Size:** 20
Prerequisites: FR 152 or equivalent
Description: Intensive practice in reading, writing, and speaking French, based on rigorous grammar review and on close readings of short literary and cultural texts. Classroom work emphasizes grammar, speaking, reading and writing French.

Department: Modern Languages & Cultures -- French
Course: FR 202
Title: Introduction to Literature in French
Instructor: DiPiero, T. **Class Size:** 20
Prerequisites: FR 200 or equivalent
Description: This course is designed to provide students with intensive practice in reading French from a wide variety of sources. Texts drawn from literature, popular culture, journalism and other specialized fields will be read and discussed with an eye toward improving students' comprehension, developing their vocabulary, and expanding their interpretive and analytic capabilities.

Department: Modern Languages & Cultures - French
Course: FR 211
Title: Aspects of French Grammar
Cross-listed: FR 411
Instructor: Douchin, A.
Description: Close analysis of selected texts. Discussion and practice of advanced topics.

Department: Modern Languages & Cultures -- French
Course: FR 212
Title: Translation Workshop
Cross-listed: FR 412
Instructor: Douchin, A. **Class Size:** 30
Description: A Course in "French Translation" is intended for those who wish both to improve their comprehension of the written text and to interpret it at an appropriate stylistic level through translation into English. The course will be based on a great variety of texts, elementary to highly sophisticated. selected both by the teacher and by the students. A basic reference work, combining grammar and texts, will be required.

Department: Modern Languages & Cultures -- French
Course: FR 234
Title: Paris: Capital of the 19th Century
Cross-listed: FR 434, AH 434, CLT 234
Instructor: Doran, Robert
Description: Course studies how Paris became the archetypal modern city. Examination of literary forms specially attuned to depicting the new urban realities, such as the realist novel and Baudelaire's poetry, as well as paintings, illustrations, and photographs. Haussmann's spatial and architectural transformation of the city during the second half of the 19th century. Walter Benjamin's writings on Paris analyzed in light of recent work by cultural historians. In English.

Department: Modern Languages & Cultures -- French
Course: FR 238
Title: Romantic Orientalism
Cross-listed: FR 438

Instructor: Doran, Robert
Description: This course studies the way in which the "orient" (North Africa, the Middle East, Persia) was represented in the literature and painting of French Romanticism. Analysis of Edward Said's famous thesis concerning the West's "orientalism" against the backdrop of nineteenth-century French colonialism. Authors studied included Chateaubriand, Hugo, Gautier, Nerval, Baudelaire, Flaubert. Paintings by Delacroix, Ingres, GÈrme, Fromentin, Vernet. In French.

Department: Modern Languages & Cultures -- French
Course: FR 270
Title: Post Colonial Women's Writing
Instructor: Papaioannou, J.
Description: This course will examine the postcolonial literary production of Francophone women writers from Africa and the Caribbean. We will focus on the theoretical questions of postcolonial literature and issues of representation of women hood. A close reading of texts will help us investigate how Francophone women writers treat their cultures and societies from the feminine point of view to illustrate, confront, and negotiate patriarchy, tradition, exile, and migration.

Department: Modern Languages & Cultures -- French
Course: FR 279A
Title: Colonial France: 19th to 20th Century
Instructor: Papaioannou, J.
Description: This course examines the role of France as a colonial empire that, although it began to take shape in the 17th century, was solidified at the end of the 19th and beginning of 20th centuries by a great acquisition of colonial land and intense civilizing mission in place. Course readings will primarily date back to and focus on the most prominent period of colonialism, that of the Third Republic (1871-1945) up to the time of Decolonization in the 1960s, to address notions of imperialism, national identity, as well as the development of colonial discourse in relation to the advancement of scientific knowledge. Readings, films, and class discussions primarily in English.

Department: Modern Languages & Cultures -- French
Course: FR 287
Title: Feminist Film Theory
Cross-listed: CLT 211G/FR 487/ENG 261/461/FMS 355/555,
Instructor: Willis, S.
Description: Please see AH 355 for the course description.

Department: Modern Languages & Cultures -- French
Course: FR 411
Title: Aspects of French Grammar
Cross-listed: FR 211
Instructor: Douchin, A.
Description: See FR 211 for course description

Department: Modern Languages & Cultures - French
Course: FR 412
Title: Translation Workshop
Cross-listed: FR 212
Instructor: Douchin, A.
Description: Please see Course Description for FR 212.

Department: Modern Languages & Cultures -- French
Course: FR 434
Title: Paris: Capital of the 19th Century
Cross-listed: FR 234, CLT 234, AH 434
Instructor: Doran, Robert
Description: For course description see FR 234

Department: Modern Languages & Cultures -- French
Course: FR 438
Title: Romantic Orientalism
Cross-listed: FR 238
Instructor: Doran, Robert
Description: For course description see FR 238

Department: Modern Languages & Cultures -- French
Course: FR 482
Title: The Films of Jean-Luc Godard
Cross-listed: Fr282AH211/411CLT211/411ENG264/464FMS253
Instructor: Willis, S.
Description: See AH 211 for course description

Modern Languages & Cultures -- German

Department: Modern Languages & Cultures -- German
Course: GER 102
Title: Elementary German II
Instructor: Kuzmich, A., **Class Size:** 25
Exams: Quizzes, midterm, final exam
Description: This is the continuation of a two-semester sequence using an exciting new interactive approach to language learning. Students are encouraged, right from the start, to communicate in German utilizing basic vocabulary and authentic expressions in their spoken and written work. Listening comprehension is honed using audio taped material featuring a variety of native speakers,

while a series of video tapes provide a basic introduction to the cultures of German speaking countries.

Department: Modern Languages & Cultures -- German
Course: GER 152
Title: Intermediate German II
Instructor: Peck, J. **Class Size:** 15
Prerequisites: GER 151 or equivalent
Exams: 4-5 quizzes; final exam
Description: In GER 152, the focus is shifted slightly toward reading authentic material; short pieces of fiction and newspaper articles. Goal of this two-semester sequence is communicative proficiency. The "Zertifikat Deutsch als Fremdsprache" examination, attesting to this proficiency, is offered at the end of each spring semester. (see also description for GER 151). Please note; This course uses the same textbook as GER 151, but does require a lab fee of $45.00.

Department: Modern Languages & Cultures -- German
Course: GER 202
Title: Intro: German Cultural Studies
Cross-listed: GER 202W
Instructor: Creech, J. **Class Size:** 15
Prerequisites: GER 200 or equivalent
Description: This is one of several core classes required for the major. Students should have completed at least 152 and preferably 200. This course will introduce students to basic principles of cultural analysis at the heart of the discipline of German Studies. Emphasis will focus on how the media act to form and facilitate various aspects of issues in contemporary German culture.

Department: Modern Languages & Cultures -- German
Course: GER 211
Title: Conversational German Through Drama (4 credit course)
Description: This course is primarily a conversation course in which the students will concentrate on self expression through dramatic texts. You will be able to improve pronunciation and intonation through character roles. The course will include a final public reading.

Department: Modern Languages & Cultures -- German
Course: GER 212
Title: Monsters, Ghosts and Aliens
Cross-listed: GER 412, CLT 212a/412a, FMS 236
Instructor: Gustafson, S.
Description: This course focuses on the horror genre as popular entertainment in Ger- many, England, and the US in the 19th and 20th centuries. Particular attention will be paid to the construction of "others" as monsters (Frankenstein, Vampires, Devils, Aliens, etc.). Authors include: Schillere, Tieck, Hoffmann, Goethe, Droste-Huelshoff, Meyer, Shelley, Stoker, Bradbury, Rice, and King. This course is part of the Horror in Literature & Film Cluster.

Department: Modern Languages & Cultures -- German
Course: GER 252
Title: Bright Lights, Big City: The Urban Imagination
Cross-listed: GER 452,FMS 246/FMS 446/CLT 248/CLT 452
Instructor: Hwang, J.
Description: The city in film and literature is never just a physical space - discourses of modernity and urban life are mapped onto real and imagined urban spaces. In this course we will explore how the relationship between the spaces of the city and the stories told about and through them shape our understanding of urban life. Some of the texts we will examine are: Fritz Lang's M, Arthur Schnitzler's Dream Story, and Lloyd Bacon's 42nd Street.

Department: Modern Languages & Cultures -- German
Course: GER 272
Title: Gender and Sexuality in the 20th Century
Cross-listed: GER 472, CLT 222B, 422B/WST 272/472
Instructor: Creech, J.
Description: This course will examine literary, artistic, and theoretical representations of gender and sexuality as they have changed in the course of the 20th Century. The focus will be on texts from Western Europe and the US, but we will also consider other perspectives. From the New Woman to French Feminists and transnational feminism, from homophile societies to "queer nation" and gay marriage, from Sigmund Freud to Michel Foucault and Judith Butler, we will explore the contested and politically charged debates around gender and sexuality that have shaped our views of identity over the last century.

Department: Modern Languages & Cultures -- German
Course: GER 291
Title: Weimar Culture
Instructor: Hwang, J.
Description: During the Weimar period (1918-1933), Germany was the center of many innovations in the arts, literature, film and architecture. Looking at various movements such as Expressionism and New Objectivity, this course will explore the connections between social change and art. The texts and discussions will be in German; German 200 or its equivalent is a prerequisite.

Department: Modern Languages & Cultures -- German
Course: GER 292
Title: Energy Decisions in the USA and Germany
Cross-listed: EES 318W
Instructor: Fehn, U.
Description: Please see EES 319W, Earth & Environmental Sciences, for the course description. Students in this segment will be required to read and work with source material in German. Permission of the Instructor is required.

Department: Modern Languages & Cultures -- German
Course: GER 412
Title: Monsters, Ghosts and Aliens
Cross-listed: GER 212, CLT 212a/412a, FMS 236
Instructor: Gustafson, S.
Description: For course description see GER 212

Department: Modern Languages & Cultures - German
Course: GER 452
Title: Bright Lights, Big City: The Urban Imagination
Cross-listed: GER 252, FMS 246/446, CLT 248, CLT 452
Instructor: Hwang, J.
Description: For Course description see GER 252

Department: Modern Languages & Cultures -- German
Course: GER 472
Title: Gender and Sexuality in the 20th Century
Cross-listed: GER 272, CLT 222b/422b, WST 272/472
Instructor: Creech, J.
Description: For course description see GER 272

Department: Modern Languages & Cultures -- German
Course: GER 488
Title: Mothers Comrades & Whores
Cross-listed: Ger 288,CLT 212p/412p,WST 288, FMS 256d
Instructor: Creech, J.
Description: See GER 288 for course description

Modern Languages & Cultures -- Italian

Department: Modern Languages & Cultures -- Italian
Course: IT 102
Title: Elementary Italian II
Instructor: O'Keefe, L. **Class Size:** 45
Prerequisites: IT 101 or equivalent
Exams: Weekly tests and a final exam
Coursework: Daily preparation for classes, including language laboratory. Three cultural events (evenings, participation mandatory)
Description: Continuation of IT 101. The objective of the course is to provide beginners with a thorough grounding in all language skills: listening, speaking, reading and writing. Emphasis is placed on both grammar and cultural information. Classes meet five times a week and combine language theory and practice. Each class is fifty minutes long. Students must sign up for both a MWF and a TR block. As far as Italian is concerned, the terms "lecture" and "recitation" conventionally used to identify the blocks have a purely bureaucratic significance and do not reflect in any way the pedagogical approach of the course.

Department: Modern Languages & Cultures -- Italian
Course: IT 114
Title: Conversational Italian (2 credits) **Class Size:** 15
Prerequisites: At least one semester of College Italian or equivalent, with permission of the instructor.
Description: This conversation course designed to help students with some knowledge of Italian grammar develop facility with the spoken language. Emphasis is placed on vocabulary- building. Class time devoted to debate, discussions, and conversations about current topics and aspects of contemporary Italian culture. Themes for discussion are both extemporaneous and planned. Students are expected to prepare for the assigned themes in advance. Recommended in conjunction with any Italian course, except for IT 101, for extra oral practice. May be taken twice.

Department: Modern Languages & Cultures -- Italian
Course: IT 124
Title: Italian Culture
Instructor: Mariuz, S.
Description: Topics may include politics, economics, mass media, intellectual life, education, popular culture; as well as the ethnic, economic, and cultural relations between Italy and Eastern Europe, Asia, Africa, the European community, and the United States. Since the specific topic of the course varies each year, IT 124 may be taken more than once.

Department: Modern Languages & Cultures -- Italian
Course: IT 152
Title: Intermediate Italian II
Instructor: O'Keefe, L. **Class Size:** 15
Prerequisites: IT 102 or permission of the instructor.
Exams: Seven quizzes, one 4-5 page final paper

Coursework: One additional hour of instruction per week in the Multimedia Center (individualized scheduling). Daily preparation for classes, including language laboratory. Four compositions.

Description: Continuation of IT 151. The aim of the course is to reinforce the student's reading, writing, listening and speaking skills in a meaningful cultural context. This objective is achieved through both a systematic study of the fundamentals of grammar and the analysis of a variety of cultural materials. Topics for study, writing practice, and discussion include literature, history, film, and popular culture.

Department: Modern Languages & Cultures -- Italian
Course: IT 155
Title: Advanced Italian Conversation and Composition
Instructor: Stocchi-Perucchio, D.
Prerequisites: IT 152, or 4 semesters of college Italian for transfers, or 3 semesters of Italian and 1 semester of study abroad.
Description: The goal of this course is to bring students to a level of proficiency in the spoken language and to refine their writing skills. The course addresses a great variety of contemporary cultural issues concerning family, society, education, religion, art, music, style, and entertainment. Course materials may include newspapers, magazines, the Internet, and satellite television.

Department: Modern Languages & Cultures -- Italian
Course: IT 196Q
Title: Dante's Divine Comedy II
Cross-listed: HIS 157, IT 221, CLT 117Q, CLT 253D, REL
Instructor: Stocchi-Perucchio, D.
Description: (Continuation of Dante's Divine Comedy I.) This course is the second segment of a two-semester sequence on the Divine Comedy. The purpose of the sequence is to introduce students to the liberal arts through one of the most significant texts in Western civilization. While reading about Dante's adventurous journey from Inferno to Paradise, students will gain a perspective on the Biblical, Christian, and Classical traditions, and on the political, literary, philosophical, and theological dimensions of medieval European culture. The sequence will also provide students with an avenue of investigation on the problem of knowledge --one of the poem's central concerns--and guide them in developing critical tools and research skills. This course will consist on a close reading of the second part of Purgatory and on Paradiso. Lectures and class discussion will be complemented by a weekly recitation session. Students enrolled for the upper level cross listings will be assigned a separate complementary reading list with additional primary and secondary sources. Prerequisites; IT 195Q, CLT 116Q, REL 197Q/IT 220, CLT 253C, REL 285, IT 190Q, CLT 190Q, REL 190Q.

Department: Modern Languages & Cultures -- Italian
Course: IT 200
Title: Topics in Italian Culture and Advanced Italian Language
Description: Designed for students who already have a basic knowledge of spoken and written Italian, this course addresses different aspects of modern and contemporary Italian culture emphasizing, at the same time, the usage of Italian language. Topics may include politics, economics, mass media, intellectual life, education, popular culture: as well as the ethnic, economic, and cultural relations between Italy and Eastern Europe, Asia, Africa, the European Community, and the United States. Since the specific topic of the course varies each year and the course is typically taught by a different visiting professor from the University of Siena/Arezzo, Italy, IT 200 may be taken more than once. The course meets three times a week and coincides for two thirds with IT 124. Language of Instruction: Italian and English.

Department: Modern Languages & Cultures - Italian
Course: IT 221
Title: Dante's Divine Comedy II
Cross-listed: IT 196Q/CLT117Q,253D/REL198Q/286/ENG 266
Instructor: Stocchi-Perucchio, D.
Prerequisites: Prerequisites: IT 195Q, CLT 116Q, REL 197Q/IT 220, CLT 253C, REL 285, IT 190Q, CLT 190Q, REL 190Q.
Description: (Continuation of Dante's Divine Comedy I.) This course is the second segment of a two-semester sequence on the Divine Comedy. The purpose of the sequence is to introduce students to the liberal arts through one of the most significant texts in Western civilization. While reading about Dante's adventurous journey from Inferno to Paradise, students will gain a perspective on the Biblical, Christian, and Classical traditions, and on the political, literary, philosophical, and theological dimensions of medieval European culture. The sequence will also provide students with an avenue of investigation on the problem of knowledge--one of the poem's central concerns--and guide them in developing critical tools and research skills. This course will consist on a close reading of the second part of Purgatory and on Paradiso. Lectures and class discussion will be complemented by a weekly recitation session. Students enrolled for the upper level cross listings will be assigned a separate complementary reading list with additional primary and secondary sources.

Modern Languages & Cultures -- Japanese

Department: Modern Languages & Cultures -- Japanese
Course: JPN 102
Title: Elementary Japanese II (six credits)
Instructor: Shino, F. **Class Size:** 40
Prerequisites: JPN 101 or equivalent
Exams: Regular assignments; frequent quizzes; final exam
Description: Sequel to JPN 101. Lecture and recitation designed to help the students at the advanced beginning level acquire a practical command of modern Japanese in all areas. Six credits: the student must register for both lecture and recitation. (This does not apply to the summer session). Although the main emphasis is still on speaking and listening, the students will have more opportunities for writing than in JPN 101. The classes will be conducted in both Japanese and English. The students will master, among other things, "keigo" (polite language), female vs. male speech style, and "direct" style verbals. Text; "Introduction to Modern Japanese" by Mizutani. Video and audio tapes are frequently used.

Department: Modern Languages & Cultures -- Japanese
Course: JPN 114
Title: Intermediatae Conversational Japanese
Instructor: Tamate, M.
Prerequisites: JPN 102 or equivalent
Description: Emphasis on speaking skills with focus on current issues in Japanese culture and society. May be taken concurrently with JPN 151 or JPN 152. This is a two-credit course which may be taken twice for credit.

Department: Modern Languages & Cultures -- Japanese
Course: JPN 152
Title: Intermediate Japanese II
Instructor: Tamate, M. **Class Size:** 30
Prerequisites: JPN 151 or Permission of the instructor
Exams: Regular assignments; frequent quizzes; final exam
Description: STUDENTS MUST REGISTER FOR BOTH LECTURE AND RECITATION. Sequel to JPN 151. Lecture and recitation designed to help the students at the intermediate level acquire a practical command of modern Japanese in all areas. The classes will be conducted in Japanese except in the grammar lecture. Requirements include daily quizzes and performing skits. TEXT: An Integrated Approach to Intermediate Japanese by Akira Miura & Naomi Hanaoka McGloin (The Japan Times). This course covers L.7 through 12 of the textbook. 6 credits

Department: Modern Languages & Cultures -- Japanese
Course: JPN 203
Title: Advanced Intermediate Japanese II
Instructor: Tamate, M **Class Size:** 20
Prerequisites: JPN 202 or Permission of the Instructor
Exams: Kanji quizzes, Unit quizzes, a comprehensive final.
Coursework: Essay assignments
Description: This course aims at further improvement of student's overall proficiency in the Japanese language. Students will start learning more of colloquial speech style used heavily among family members and/or close friends through the video program based on a Japanese TV drama. Reading skills will be improved through reading various "raw" materials. Essay assignments will be given to students regularly in order to brush up their writing skills.

Department: Modern Languages & Cultures -- Japanese
Course: JPN 204
Title: Advanced Conversational Japanese (two credits)
Instructor: Tamate, M. **Class Size:** 20
Prerequisites: JPN 152 or Permission of Instructor
Description: Provides students of JPN 202 level or higher with the opportunity to improve their speaking skills. Class activities include discussion of current issues and oral drills. The class will be conducted in Japanese, and is not intended for students who have already acquired near-native fluency.

Department: Modern Languages & Cultures -- Japanese
Course: JPN 206
Title: Advanced Japanese II
Cross-listed: JPN 206W
Instructor: Tamate, M. **Class Size:** 30
Exams: Kanji quizzes, Unit quizzes, a comprehensive final.
Coursework: Essays or Presentations
Description: Reading fiction, essays and newspaper articles. A popular Japanese drama series, will enhance students' ability to understand different speech styles adopted by people at at various social levels. Class taught in Japanese.

Department: Modern Languages & Cultures -- Japanese
Course: JPN 206W
Title: Modern Japanese Literature
Cross-listed: JPN 206
Instructor: Tamate, M.
Description: For course description see JPN 206

Department: Modern Languages & Cultures -- Japanese
Course: JPN 207
Title: FILM AS OBJECT

Cross-listed: JPN 407,FMS 220/420, CLT 230/430
Instructor: Bernardi, J.
Description: Film Studies involves the critical analysis of the pictorial and narrative qualities of motion pictures, film theory, and film history, understanding film as both industry and creative art. This course unconventionally focuses on the tangible object at the origin of the onscreen image, and what we can learn about the social, cultural and historical value of motion pictures and national film cinemas through and understanding of "Film" as an organic element with a finite life cycle. Focus is on the photographic element, but includes a consideration of alternative "capture media."

Department: Modern Languages & Cultures -- Japanese
Course: JPN 215
Title: Modern Japan
Cross-listed: HIS 184, CLT 204
Instructor: Hauser, W.
Description: Please see HIS 184 for Course Description

Department: Modern Languages & Cultures -- Japanese
Course: JPN 219A
Title: Tourist Japan
Cross-listed: CLT 214N, 414N/FMS 298/JPN 219W, 419A
Instructor: Bernardi, J.
Description: A study of Japan as a tourist destination, focusing on the late nineteenth century to the present, with an emphasis on the role of visual culture (images generated by the tourist industry as well as those that advertise and promote Japan as a tourist destination more inadvertently). We will look at the ways in which the development and significance of tourism and the artifacts that sustain it construct a rich history of how Japan has both defined itself and been defined by others. For example, what has been the role of visual culture, in the context of tourism, in creating a concept of Japan in a global context? How do illustrations, photography, and film reflect changing concepts of urban space, rural culture, industry, geography, and military and political authority at both the national level and beyond? What is the phenomenon of postcard culture; its origins, significance, and development? Can we, for example, identify patterns (for example, recurrent iconography) that provide a link between the visual culture generated by tourism and changing concepts of nationalism and cultural identity? In what ways can such an investigation be useful?

Department: Modern Languages & Cultures -- Japanese
Course: JPN 246
Title: Issues in Contemporary Japanese Culture
Cross-listed: CLT 208C/408C, WST 268, HIS 278
Instructor: Pollack, D.
Description: Reading and discussion of items in recent popular and scholarly media in Japan and the west on issues of contemporary concern, including national and racial identity, gender and sex roles, immigration and work, war and history, cultural authenticity, and Japan's place in Asia and the world.

Department: Modern Languages & Cultures -- Japanese
Course: JPN 269
Title: Art of the Floating World
Cross-listed: AH 269, WST 270
Instructor: Pollack, D.
Description: This course explores the urban, theatrical, poetic, pastoral, and erotic worlds of Japanese paintings and woodblock prints called ukiyo-e or "floating world pictures", a reference to the world of pleasures offered by urban Edo (modern-day Tokyo) during the Edo period (1603-1867). These works include images of Kabuki actors, theatrical battles and romances, tea-house dandies and beautiful women, historical allegories, erotica, landscapes, nature, historical battles and events, and foreign visitors to Japan. Special attention will be given to the social contexts in which these works were created and consumed.

Department: Modern Languages & Cultures -- Japanese
Course: JPN 407
Title: FILM AS OBJECT
Cross-listed: JPN 207, FMS 220/420, CLT 230/430
Instructor: Bernardi, J.
Description: See JPN 207 for course description

Modern Languages & Cultures -- Polish

Department: Modern Languages & Cultures -- Polish
Course: POL 102
Title: Elementary Polish II
Instructor: Polakowski, K.
Prerequisites: Polish 101 or equivalent
Description: Elementary Polish II is a continuation of Elementary Polish I, and a pre-requisite for Intermediate Polish.

Department: Modern Languages & Cultures -- Polish
Course: POL 152
Title: Polish Review
Instructor: Polakowski, K.

Description: The main objective of this course is to refine the participants' language skills and to familiarize them with political and cultural issues of contemporary Poland. The course will require a working knowledge of the Polish language necessary to discuss the content of source materials (e.g. articles and essays in the Polish Press, recent Polish films.) It will focus on group discussions based on source materials and papers prepared by it participants.

Modern Languages & Cultures -- Russian

Department: Modern Languages & Cultures -- Russian
Course: RUS 102
Title: Elementary Russian II
Instructor: Givens, J. **Class Size:** 45
Prerequisites: RUS 101 or equivalent
Description: Continuing introduction to Russian grammar, phonetics and conversation. Emphasis will be on practical Russian language skills. Lectures will combine drills in Russian with presentations in English. Recitations will be conducted primarily in Russian. Students must sign up for lecture AND a recitation section. Attendance at both the lecture and recitation section is mandatory.

Department: Modern Languages & Cultures -- Russian
Course: RUS 128
Title: Russian Civilization
Cross-listed: RUS 128W/RST 128,128W/HIS 150/CLT 209A
Instructor: Parthe, K.
Description: Russian Civilization from its beginnings a thousand years ago to the present day. Each unit will cover historical and cultural background as well as literary texts. We will examine important national "myths" (narratives with a variable connection to the historical record) that govern the Russians' understanding of their history and culture, including: the Golden Age of Kiev, Moscow as the Third Rome, and the myths surrounding the city of Petersburg. We will analyze traditional tensions in Russian civilization which prevail today, such as those between; chaos and order, foreign influence and a strong national identity, innovation and tradition, and between radical skepticism and faith. Readings will include: Russian fairy tales and saints' lives, excerpts from the autobiography of the 17th century heretic Avvakum, tales by Pushkin and Gogol, one of Dostoevsky's most powerful and influential novels ("The Devils/Possessed"), and a wide range of materials from the twentieth century. In English.

Department: Modern Languages & Cultures -- Russian
Course: RUS 128W
Title: Russian Civilization
Cross-listed: RUS 128, CLT 209a,HIS 150, RST 128/128w,
Instructor: Parthe, K.
Description: For course description see RUS 128

Department: Modern Languages & Cultures -- Russian
Course: RUS 152
Title: Intermediate Russian II
Instructor: Givens, L. **Class Size:** 25
Prerequisites: RUS 151 or Permission of the Instructor
Description: Continuation of RUS 151. Grammatical review and increasing attention to conversation and composition.

Department: Modern Languages & Cultures -- Russian
Course: RUS 200
Title: Advanced Russian
Instructor: Givens, L. **Class Size:** 15
Prerequisites: RUS 152 or permission of instructor
Restrictions: Permission of instructor required
Exams: 3-4 exams and several quizzes
Description: This course will emphasize reading and writing skills. Students will read and analyze our course text, paying attention to questions of grammar and style. We will also devote attention to speaking through discussions of our reading and through periodic class presentations. In addition, selected aspects of advanced Russian grammar will be presented throughout the semester. The aim of this course is to raise the overall competence of students to an advanced level

Department: Modern Languages & Cultures -- Russian
Course: RUS 209
Title: Topics in Advanced Russian Grammar
Instructor: Givens, L.
Description: Students study various topics in advanced grammar, lexicon and syntax through viewing, discussing and writing about Russian films.

Department: Modern Languages & Cultures -- Russian
Course: RUS 238
Title: Solzhenitsyn: Writer, Prophet, Witness
Cross-listed: RST 238, RUS 238w, HIS 242/242w
Instructor: Parthe, K.
Description: For course description see RST 238

Department: Modern Languages & Cultures -- Russian
Course: RUS 238W

Title: Solzhenitsyn: Writer, Prophet, Witness
Cross-listed: RST 238, RUS 238, HIS 242/242w
Instructor: Parthe, K.
Description: For Course description see RST 238

Modern Languages & Cultures -- Russian Studies

Department: Modern Languages & Cultures -- Russian Studies
Course: RST 128
Title: Russian Civilization
Cross-listed: RST 128W/RUS 128,128W/HIS 150/CLT 209A
Instructor: Parthe, K.
Description: Please see RUS 128 for the course description.

Department: Modern Languages & Cultures -- Russian Studies
Course: RST 238
Title: Solzhenitsyn: Writer, Prophet, Witness
Cross-listed: RUS 238, RUS 238w, HIS 242/242w
Instructor: Parthe, K.
Description: In fiction (Ivan Denisovich, First Circle) and non-fiction (Gulag Archipelago, Oak and Calif, Alexander Solzhenitsyn witnessed history and changed it.

Department: Modern Languages & Cultures -- Russian Studies
Course: RST 238W
Title: Solzhenitsyn: Writer, Prophet, Witness
Cross-listed: RST 238, RUS 238, RUS 238w
Instructor: Parthe, K.
Description: For Course description see RST 238

Modern Languages & Cultures -- Spanish

Department: Modern Languages & Cultures -- Spanish
Course: SP 101
Title: Elementary Spanish I
Instructor: Kouroublakis, B. **Class Size:** 20
Exams: Frequent quizzes, midterm, final.
Coursework: Daily assignments.
Description: Intended for students with no background in Spanish, or whose background does not make placement in a higher-level course advisable. Training in speaking, comprehension, reading and writing through classroom instruction and recitation periods. Students must also register for an associated recitation section.

Department: Modern Languages & Cultures -- Spanish
Course: SP 102
Title: Elementary Spanish II
Instructor: Cole, A. **Class Size:** 20
Prerequisites: SP 101 or equivalent SP 101 or equivalent.
Exams: Frequent quizzes, midterm, final. Daily assignments.
Description: Spanish 102 continues the work of the beginning course Spanish 101. There is added emphasis on reading comprehension, vocabulary building, and culture. Students must also register for an associated recitation session.

Department: Modern Languages & Cultures -- Spanish
Course: SP 151
Title: Intermediate Spanish I
Instructor: Cole, A.,Kouroublakis, B.,. **Class Size:** 20
Prerequisites: SP 102, ETS score of 500 or Placement by dept.
Exams: Midterm, Final.
Coursework: Four Compositions and rewrites. Daily assignments.
Description: Continuing study of modern Spanish in its spoken and written forms. Emphasis is given to cultural and literary readings and discussions, as well as basic composition writing skills and Multimedia Center activities related to the text.

Department: Modern Languages & Cultures -- Spanish
Course: SP 152
Title: Intermediate Spanish II
Instructor: Cole, A., **Class Size:** 20
Exams: Midterm and Final.
Coursework: Four compositions and rewrites. Daily assignments.
Description: Continuation of SP 151. Intended to advance conversational skills and refine writing techniques through cultural and literary readings, discussions, and Multimedia Center assignments related to the text.

Department: Modern Languages & Cultures -- Spanish
Course: SP 200
Title: Advanced Spanish Composition
Instructor: Jorgensen, B.,Kersch, P., Prendergast, R. **Class Size:** 15
Prerequisites: SP 151, SP 152 or equivalent, permission SP section.
Exams: Midterm and Final.
Coursework: Four compositions and rewrites. Film review. Daily assignments.
Description: This course is designed to refine the student's writing and reading skills in Spanish in preparation for entering upper-level Spanish courses. The class time and the assignments are divided between developing composition -writing skills, a variety of readings in

Hispanic literature and culture, and some review of targeted grammatical structures. Class taught in Spanish. This course counts as upper-level writing for the SP major.

Department: Modern Languages & Cultures -- Spanish
Course: SP 202
Title: Intro to Modern Spanish Literature
Instructor: Schaefer, C.
Prerequisites: SP 200 or SP 201 or permission of instructor.
Coursework: Several short papers; 2 exams in class
Description: Introduction to key works of 19th and 20th century Spanish literature, including short fiction, theater, and poetry. Emphasis on terms and techniques of literary analysis, and on the texts themselves within the changing culture of modern Spain. Class taught in Spanish.

Department: Modern Languages & Cultures -- Spanish
Course: SP 205
Title: Spanish Culture
Cross-listed: SP 405
Instructor: Kersch, P.
Prerequisites: SP 200 or equivalent.
Coursework: 2 in-class exams, 4 short papers, final project.
Description: This course explores the history and cultural development of modern Spain through a variety of media such as art, literature, and film. Although topics range from the early cultural life of the peninsula to the implications of the expulsion of Moslems and Jews, and from Spain's overseas empire to the Spanish Civil War, emphasis is placed on contemporary issues, such as autonomous regions, Basque and Catalan separatisms, immigration from Africa, membership in the European Union, terrorism, and the liberalizing of society.

Department: Modern Languages & Cultures -- Spanish
Course: SP 249
Title: Topics in Spanish Literature and Culture
Cross-listed: SP 449
Instructor: Prendergast, R.
Coursework: Several short papers; final project.
Description: Topics vary and may include Cervantes "novelas ejemplares," the visual arts and the Spanish Civil War, the works of Garcia Lorca, Spanish womens writing, and other topics that consider the relations between literature and other disciplines (film, philosophy, history, music, etc.).

Department: Modern Languages & Cultures -- Spanish
Course: SP 260
Title: Latin American Women Writers
Cross-listed: SP 460/CLT 111Q,226D,426D/WST 256
Instructor: Jorgensen, B.
Prerequisites: Prerequisite: SP 200 or 201.
Coursework: Several short papers; final paper.
Description: Through study of texts (mostly novels) written by women from Latin America, we will ask broad questions concerning cultural contexts with respect to sexuality and gender, language, aesthetics, psychology, and social issues. The course will use materials from a variety of fields (literary and cultural theory, film studies, psychology, history, sociology, anthropology, feminist studies) in addition to the primary texts. All texts and discussions in English. Emphasis on collaborative research and progressive writing assignments. Campus visit by one of the authors planned.

Department: Modern Languages & Cultures -- Spanish
Course: SP 282/482
Title: Modern Spanish Poetry
Instructor: Ríos-Font
Description: Proximity to the United States ensures that first-time visitors to Mexico already have Hollywood versions of the country in their heads. However, the 'real' Mexico is a much more complex place than most movies allow. Archetypes of tough hombres, renegade outlaws, Stetson hats, dark and sultry women and strange beach bums lolling under the hot sun fall by the wayside quickly when Mexican productions initiate viewers into the grittier and much more varied realities of contemporary urban and rural Mexico. This course explores both historical antecedents and contemporary visions of the Mexican nation by directors such as the exiled Spanish director Luis Bunuel to Alejandro GonzalezAnalysis of selected works of poetry from the generation of 1927 to the present. May include readings by Juan Ramn Jimnez, Rafael Alberti, Jorge Guilln, Federico Garca Lorca, Luis Cernuda, Pedro etc.

Department: Modern Languages & Cultures -- Spanish
Course: SP 282
Title: U.S. Latinos/Latinas
Cross-listed: SP 482/CLT 236B, 436B/WST 287, AAS 251
Instructor: Rodriguez, R. **Class Size:** 25
Description: This course introduces students to the emergent field of U.S. Latino/Latina writing and culture. Does the rich diversity of Latino communities in the U.S.--stretching from Los Angeles and the southwest to Miami and New York via Texas, Chicago, Minneapolis, and all stops in-between --frustrate or cancel any attempt to group their experiences under a single ethnic-racial

term like "Latino/a"? What exactly is "the browning of the Midwest"? To what kind of gender, sexual, and racial codes are the inhabitants of these communities subjected? How do Latino/a narratives map the conflicted terrains of "utopias without borders," free-trade zones, diasporas, nomadic workforces, and even the Internet? Latinos, Latin Americans, immigrants, exiles, refugees, border peoples, rafters--it is increasingly as difficult to define the legal status of individuals and communities as it is to talk about social, economic, and cultural identities. To be Latino in the United States is to participate in a unique process of cultural syncretism that some day may become a transformative template for the whole society. We will examine two among the many provocative questions for the twenty-first century; 1) what will be the effects of further Latinization of the American urban landscape? and 2) what does "buscando America" mean for different cultural groups and social classes? Readings and discussions include; Mike Davis, MAGICAL URBANISM; LATINOS REINVENT THE U.S. BIG CITY; Junot Diaz, DROWN; Sandra Cisneros, THE HOUSE ON MANGO STREET; and texts by Piri Thomas, Julia Alvarez, John Rechy, Ana Castillo (THE GODDESS OF THE AMERICAS), Richard Rodriguez (DAYS OF OBLIGATION), Rodolfo Acuna, Helena Maria Viramontes, Gustavo Prez Firmat, Ilan Stavans, and others. Class taught in English.

Department: Modern Languages & Cultures - Spanish
Course: SP 405
Title: Spanish Culture
Cross-listed: SP 205
Instructor: Schaefer, C.
Description: Please see SP 205 for Course Description.

Department: Modern Languages & Cultures -- Spanish
Course: SP 449
Title: Topics in Spanish Literature and Culture
Cross-listed: SP 249
Instructor: Prendergast, R.
Description: For course description see SP 249

Department: Modern Languages & Cultures -- Spanish
Course: SP 460
Title: Latin American Women Writers
Cross-listed: SP 260, CLT 111Q,226D, 426D, WST 256
Instructor: Jorgensen, B.
Description: See Sp 260 for Course Description

Department: Modern Languages & Cultures -- Spanish
Course: SP 482
Title: U.S. Latinos/Latinas
Cross-listed: SP 282, CLT 236b,436b, WST 287, AAS251
Instructor: Rodriguez, R.
Description: See SP 282 for course description

Music

Department: Music
Course: MUR 101
Title: Elements of Music
Instructor: Hanson J **Class Size:** 24
Prerequisites: Inability to read music
Exams: Mid-term, final, some quizzes
Description: A course for the student with no previous musical experience. Topics include notation, intervals, chords, and other basic concepts of tonal harmony, with application to the study of a wide range of styles including popular idioms.

Department: Music
Course: MUR 109
Title: Musicianship I -- Literacy Skills
Instructor: Staff **Class Size:** 10
Prerequisites: Prior experience in reading music notation in treble or bass clef.
Description: Extensive work with clefs, notation, intervals, and scales. Aural work through sight-singing and dictation, emphasizing melody and rhythm. Music-reading work emphasizes speed and fluency in recognizing structures in musical score. (1 credit)

Department: Music
Course: MUR 112
Title: Theory II
Instructor: Frank B,Titus J,Titus, J **Class Size:** 25
Prerequisites: MUR 111
Exams: Mid-term, final
Description: Continuation of MUR 111. This course continues with chorale and keyboard-style harmony exercises, but introduces chromaticism, modulation, and analysis of form and phrase structure.

Department: Music
Course: MUR 113
Title: Musicianship II **Class Size:** 10
Prerequisites: MUR 109 or permission of theory coordinator
Description: Continuation of MUR 109. Also open to students who have some knowledge of treble and bass clefs, scales, and intervals. Concurrent enrollment in MUR 111 recommended. (1 credit)

Department: Music
Course: MUR 114
Title: Musicianship III
Instructor: Staff,Staff **Class Size:** 10
Prerequisites: MUR 113 or permission of theory coordinator
Description: Continuation of MUR 113. Introduction to harmonic dictation and polyphonic sight-singing. Concurrent enrollment in MUR 112 recommended. (1 credit)

Department: Music
Course: MUR 115
Title: Musicianship IV
Instructor: Staff **Class Size:** 10
Prerequisites: MUR 114 or permission of theory coordinator
Description: Continuation of MUR 114. Concurrent enrollment in MUR 211 recommended. (1 credit)

Department: Music
Course: MUR 116
Title: Keyboard Skills I
Instructor: Frank, B. **Class Size:** 6
Restrictions: Permission of instructor required
Description: Introduces students to the keyboard as a vehicle for broader musical development. Covers basic piano technique, sight-reading of simple chord progressions, realization of figured bass, and basic improvisation. No prior keyboard training required.

Department: Music
Course: MUR 117
Title: Keyboard Skills II
Instructor: Frank, B. **Class Size:** 6
Prerequisites: MUR 116 or permission of instructor.
Restrictions: Permission of instructor required
Description: Continuation of MUR 116. Students who complete this course will fulfill the piano proficiency requirement for the music major.

Department: Music
Course: MUR 119
Title: Beginning Piano for Non-Music Majors II **Class Size:** 6
Prerequisites: MUR 118 or permission of instructor
Restrictions: Permission of instructor required
Description: Continuation of MUR 118

Department: Music
Course: MUR 120
Title: Symphony and the Conductor
Instructor: Harman D **Class Size:** 80
Prerequisites: MUR 111
Description: Offers the student a glimpse into the world of standard orchestral performance as well as an overview of the metier of the orchestra conductor. Although some background in basic music theory is helpful, there are no technical musical prerequisites; only a love for and active interest in symphonic music and the process of its preparation and performance. In addition to class lectures, students will visit orchestral rehearsals off- and on-campus, view video tapes on reserve, enjoy guest lectures by local conductors, arts managers, and orchestral musicians, and attend orchestra concerts. (Spring only)

Department: Music
Course: MUR 125
Title: History of Rock Music
Instructor: Covach, J **Class Size:** 30
Description: This course will explore the history of rock music, emphasizing primarily the period between 1955 and 1990. The periods preceding (1900-1955) and following (1990- present) will be considered to a limited extent. Discussion and reading will focus mostly on the music, identifying a wide variety of rock-music styles within the historical context of the development, transformation, and interaction of pop styles of these decades in general. Issues of technological development, social, political, and cultural context, race and gender, and music-business practices will also be considered. No prerequisites. Knowledge of technical musical terms and an ability to read music are NOT required for this course.

Department: Music
Course: MUR 133
Title: Musical Theater Workshop
Instructor: Kowalke K,Runzo D **Class Size:** 20
Prerequisites: Permission of instructor (by audition)
Restrictions: Permission of instructor required
Description: Intensive practical experience with scene-and-song work in the repertory of popular musical theater genres. Weekly rehearsals and critique sessions, with emphasis on characterization, technical skills, subtextual dimensions, and stylistic considerations. Some reading assignments, but emphasis on preparation for performance. Initial and concluding videotaping of "audition piece." Audition required.

Department: Music
Course: MUR 134
Title: Style & Genre - Introduction to Music History

Instructor: Luko, A **Class Size:** 25
Prerequisites: MUR 110 or MUR 111
Coursework: Short writing assignments, midterm, final, and miscellaneous assignments
Description: An introduction to the history of Western classical music from the Middle Ages to the present, with emphasis on recognition of the chief stylistic characteristics and understanding of major genres of each period. (Spring only)

Department: Music
Course: MUR 150
Title: Women's Glee Club
Instructor: Conkling, S. **Class Size:** 40
Prerequisites: Audition
Restrictions: Permission of instructor required
Coursework: participation in all rehearsals, dress rehearsals, and concerts
Description: The women's glee club, a group of students, alumni, faculty, staff and community members, performs a wide variety of music. Joint concerts with the men's glee club and various instrumental groups within the college are regularly programmed. To join, simply register for the class. Auditions will be held during the first class.

Department: Music
Course: MUR 151
Title: Men's Glee Club
Instructor: McAulliffe, H. **Class Size:** 40
Prerequisites: Audition
Coursework: Participation in all regular rehearsals, dress rehearsals, and concerts.
Description: The men's glee club continues the century-old tradition of singing at the University of Rochester. This group of students, faculty, staff and community members performs a wide repertoire of music. The men's and women's glee clubs regularly combine with various instrumental groups to perform large oratorio-style works. To join, simply register for the class. Auditions will be held during the first class.

Department: Music
Course: MUR 152
Title: Chamber Singers
Instructor: Georgieva, I. **Class Size:** 30
Prerequisites: Audition
Restrictions: Permission of instructor required
Coursework: Participate in all regular rehearsals, dress rehearsals, and concerts
Description: Chamber singers is a select 28- to 32-member ensemble which performs a cappella and chamber music from the 14th to 21st centuries -- and the group is as comfortable singing jazz as performing Renaissance motets. All members of the undergraduate and graduate student body are welcome to audition for the ensemble. Auditions are held every semester.

Department: Music
Course: MUR 153
Title: Symphony Orchestra
Instructor: Harman D **Class Size:** 100
Prerequisites: Limited number of players. Admission by audition only.
Coursework: One rehearsal per week; individual practice; at least two concerts each semester
Description: URSO (University of Rochester Symphony Orchestra) is a university-civic orchestra whose members are selected from both UR student body and greater Rochester community. The orchestra has been a vital part of Rochester's cultural community for over 52 years. Membership is granted by the music director through auditions, which occur prior to the first scheduled rehearsal of each season. Other auditions may be held as needed throughout the season. For more info, see http://www.rochester.edu/College/MUR/ensembles/ursourco/index.html.

Department: Music
Course: MUR 154
Title: Chamber Orchestra
Instructor: Harman D **Class Size:** 40
Prerequisites: Limited number of players. Admission by audition only.
Coursework: Two rehearsals per week; individual practice. At least four concerts per academic year. Also, off-campus performances in local schools. Some touring (the orchestra has toured to Italy, Jamaica, Cayman Islands, Montreal, and Cleveland).
Description: URCO (University of Rochester Chamber Orchestra) draws its membership primarily from UR's River Campus student body. Membership is limited and is granted by the music director through competitive auditions, which occur prior to the first scheduled rehearsal of each season. Other auditions may be held as needed during the year. For more info: http://www.rochester.edu/College/MUR/ensembles/ursourco/index.html.

Department: Music
Course: MUR 155
Title: Chamber Ensembles
Instructor: Harman D **Class Size:** 20
Prerequisites: Advanced accomplishment on an instrument or voice; permission of the coordinator (an audition may be required).
Exams: At least once concert appearance each semester

Coursework: One performance each semester. Students are encouraged to obtain and promote formal or informal performances on and off campus (retirement homes, hospitals, and other venues).

Description: The chamber music program facilitates formation and coaching of serious advanced chamber ensembles. One academic credit may be earned by registering and successfully completing all requirements listed under course work. Admission by permission of the coordinator.

Department: Music
Course: MUR 156
Title: Wind Symphony
Instructor: Tiberio, W **Class Size:** 70
Prerequisites: Admission by audition only
Restrictions: Permission of instructor required
Coursework: One rehearsal per week; individual practice. At least four concerts per academic year. May also be some off-campus performances locally and on tour.

Description: Wind Symphony draws its membership primarily from the student body on River Campus and performs music of various styles, genres, and eras. Membership by audition. Attendance required at all rehearsals, dress rehearsals, and concerts, unless excused in advance by conductor.

Department: Music
Course: MUR 157
Title: Jazz Ensemble
Instructor: Tiberio, W. **Class Size:** 17
Prerequisites: Audition
Coursework: Rehearsals (2 per week), dress rehearsals, concerts

Description: The Jazz Ensemble is open by audition to all members of the University community. Performs a wide variety of music. Occasional guest artists and clinicians.

Department: Music
Course: MUR 158
Title: Gospel Choir
Instructor: Holmes, J **Class Size:** 25
Prerequisites: Strong sense of rhythm and pitch
Coursework: One rehearsal per week. Two concerts per semester. In addition, there may be off-campus performances in local colleges, churches, and other venues in the greater- Rochester community.

Description: The Gospel Choir performs a varied repertoire of sacred music -- spirituals, hymns, traditional and contemporary Gospel, music of the praise-and-worship genre. Students may register for credit or simply sing as choir participants. NOTE: There is no cap on enrollment in this ensemble.

Department: Music
Course: MUR 159
Title: Gamelan Ensemble
Cross-listed: 6ENS 215
Instructor: Alajaji, S.

Description: See course description for 6ENS 215

Department: Music
Course: MUR 160
Title: Advanced Piano Study
Instructor: Mihailovich, Z **Class Size:** 5
Prerequisites: Audition
Restrictions: Permission of instructor required

Description: Weekly one-hour private studio instruction, comparable to ESM's PA 160, with occasional master classes, group workshops and coaching. Course is designed for advanced students to develop their abilities for piano performance by learning new repertoire, improving piano skills/technique and learning how to practice efficiently. Repertoire will be selected based on individual student's level and will include pieces of different styles and characters.

Department: Music
Course: MUR 161
Title: Broadcasting in the Digital Age
Instructor: Rogers S **Class Size:** 20
Coursework: Discussion/seminar format with associated hands-on experience. Assigned readings, practicum experiences and project work. Frequent guest lectures. Laboratory work includes use of production equipment.

Description: A descriptive and critical analysis of the nature of electronic mass media, broadcast practices and impact. Historical development of mass media institutions and role of media in society, including evaluation of news, government regulation, economics, emerging technologies, and audience dynamics, as well as decision-making and organizational aspects of the broadcast industry. Designed to provide a broad, rigorous orientation for understanding basic elements of media production as well as skills training in reporting, writing, editing, delivery and production of broadcast media.

Department: Music
Course: MUR 162
Title: Music and the Mind
Cross-listed: 6TH 460, 1BCS 260, 1BCS 559
Instructor: Marvin, E. **Class Size:** 20

Prerequisites: One semester of collegiate music theory for College music majors (MUR 111)
Description: See course description for 6TH 260.

Department: Music
Course: MUR 202
Title: Basic Jazz Theory & Improv II **Class Size:** 10
Prerequisites: MUR 201 or permission of instructor
Description: Continuation of MUR 201. (Spring only) (2 credits)

Department: Music
Course: MUR 212
Title: Theory IV
Instructor: Bailey-Shea M,Titus J **Class Size:** 20
Prerequisites: MUR 211
Exams: Mid-term, final
Description: Continuation of MUR 211. Explores the theoretical and aesthetic principles of 20th-century music, especially in relation to earlier compositional procedures. Introduces basic post-tonal theory, including set-class analysis, transformational theory, and serial techniques. (Spring only)

Department: Music
Course: MUR 214B
Title: Analysis of Rock Music
Instructor: Covach, J **Class Size:** 25
Prerequisites: MUR 112
Description: Many people love pop music for its simplicity, but this course will reveal that pop music can often be surprisingly complex in the ways it projects structure and creates musical relationships. Many dimensions of pop music will be analyzed, including harmony, melody, rhythm and meter, texture, form, recording technique, and text- music relationships.

Department: Music
Course: MUR 222
Title: History of Western Music 1850 - Present
Instructor: Luko, A **Class Size:** 35
Prerequisites: MUR 221
Coursework: Midterm, final, research paper, and miscellaneous assignments
Description: Survey of Western classical music from ca. 1600 to the mid-eighteenth century, with emphasis on the stylistic, generic, and performance innovations of the period; opera receives special attention. Workshops investigate specific problems posted by notation, performance, ethics, and so on. (Spring only, offered in alternate years) (5 credits)

Department: Music
Course: MUR 233
Title: Advanced Musical Theater Workshop
Instructor: Kowalke, K.,Runzo, D. **Class Size:** 10
Prerequisites: MUR 133 and permission of instructors/Audition required
Restrictions: Permission of instructor required for freshmen
Description: Continuation of MUR 133

Naval Science

Department: Naval Science
Course: NAV 098
Title: Navigation I
Instructor: Hays, Matthew, LT, USN **Class Size:** 30
Exams: 3 exams
Description: This course is a study of the international and United States inland rules of the nautical road, relative motion, Vector-Analysis Theory, formation tactics and ship employment. Also included is an introduction to naval operations and operations analysis, ship behavior and characteristics in maneuvering, applied aspects of ship handling, and afloat communications.

Department: Naval Science
Course: NAV 099
Title: Amphibious Warfare
Instructor: Palmiter, T., Capt, USMC **Class Size:** 20
Exams: 2 exams, 1 Practical Exercise, 1 Presentation
Description: This course examines the organization, techniques and strategies employed by the U.S. Navy and Marine Corps in the conduct of amphibious operations. The course tracks the evolution of amphibious warfare from antiquity through the 20th century. Students become familiar with amphibious ships, landing craft and vehicles as they are used by today's military.

Department: Naval Science
Course: NAV 249
Title: Ship Systems II (Weapon Systems)
Instructor: Lyle, Michael, LT, USN **Class Size:** 30
Exams: 2 Exams, Various Quizzes
Coursework: Homework, Final Project
Description: This course investigates the theories and implementation of Naval weapons systems. The student explores the fundamentals of target detection (using RADAR and SONAR), warhead and fuse design, guidance and control principles, propulsion and launching, fire control, and mine warfare. Case studies are utilized during the course to aid the student in understanding the concepts of Command, Control, and Communication and as a

starting point for discussions on leadership and ethics. Current world events and historical issues are discussed as applicable.

Department: Naval Science
Course: NAV 250
Title: Sea Power and Maritime Affairs
Instructor: White, John, LT, USN **Class Size:** 40
Exams: 2 exams, quizzes, 1 paper
Description: The course surveys U.S. naval history from the American Revolution to the present with emphasis on major developments. Included is a discussion of the geopolitical theory of Mahan, applied to the current maritime strategies of the United States. The method of instruction will include lecture, discussion and films. Two texts will be used in conjunction with handouts.

Department: Naval Science
Course: NAV 266
Title: Leadership and Ethics
Instructor: Borden, Steven, Capt., USN **Class Size:** 30
Exams: Two exams, 1 paper, 2-4 short essays
Description: This course explores the moral, ethical, and legal issues facing leaders in industry, society, and the military while reinforcing the key underlying principles of leadership. Case studies are used in a seminar format to underscore the issues. The overall objective of this course is to develop critical thinking and reasoning skills in leadership situations, particularly those that pose a moral or ethical dilemma to the individual.

Neuroscience

Department: Neuroscience
Course: NSC 203W
Title: Laboratory in Neurobiology
Cross-listed: BCS 203
Instructor: Nordeen, K **Class Size:** 16/section
Prerequisites: NSC 201, AND NSC 201L, AND BCS 200
Restrictions: Permission of instructor required
Exams: Quizzes, practica, take-home exercises and 3-4 papers, written in journal format
Description: Introduces the various methods used in neurobiological research. Covers anatomical, behavioral, chemical, and physiological approaches to studying neural organization and function and concludes with a research project that extends over a period of five weeks.

Department: Neuroscience
Course: NSC 242
Title: Neuropsychology
Cross-listed: BCS/PSY 242
Instructor: Como, P. **Class Size:** 35
Prerequisites: NSC 201 (BCS 240) or BCS 110 or permission of instructor.
Description: Examines clinical neuropsychology, which bridges neurology, neuroscience, and clinical psychology. Covers history of clinical neuropsychology, principles of neuropsychological assessment, and the interpretation of cognition and behavior as they relate to brain dysfunction. Considers specific neurological syndromes including neurodegenerative, cerebrovascular, toxic, and memory disorders; epilepsy; head trauma; toxic disorders; infectious processes; pediatric neuropsychology; psychiatric syndromes; and forensic neuropsychology. Patient presentations (videotape and in-person interviews) supplement lectures.

Department: Neuroscience
Course: NSC 244
Title: Neuroethology
Instructor: Holtzman, D.
Prerequisites: NSC 201 (BCS 240) or permission of instructor
Description: Explores the neural basis of naturally occurring animal behaviors. Emphasizes how information is integrated from interactions between molecules, cells, and groups of cells, all of which are necessary to produce behavior. Considers how hormones, neural development, anatomy, physiology, and evolution lead to behaviors such as orientation, communication, feeding, and reproduction.

Department: Neuroscience
Course: NSC 245
Title: Sensory & Motor Neuroscience
Cross-listed: BCS 245/CVS 245
Instructor: DeAngelis, G. **Class Size:** 30
Prerequisites: NSC 201 (BCS 240), Basic Neurobiology, or equivalent background with instructor's permission.
Exams: Two mid-terms and a final.
Coursework: Lectures and reading from a text and selected journal articles
Description: Focuses on how single neurons and populations of neurons represent sensory information, how sensory signals are transformed and decoded to mediate perception, and how perceptual signals are converted into neural commands to initiate actions. Explores how simple behaviors (such as detection and discrimination) can be quantified and explained in terms of neural activity. Introduces students to quantitative approaches for linking neural activity to perception and decision-making. Emphasizes studies of the visual, oculomotor, and somatosensory

systems, with some attention to the auditory and vestibular systems as well.

Department: Neuroscience
Course: NSC 249
Title: Developmental Neurobiology
Cross-listed: BCS 249
Instructor: Nordeen, E. **Class Size:** 30
Prerequisites: NSC 201 (BCS 240) or equivalent
Exams: 2-3 exams during the semester and a final.
Coursework: Lectures, reading assigned from the research literature. Typically, 3 exams are given and students have the opportunity to prepare a paper on a research topic of their choice.
Description: Advanced treatment of the development of the nervous system, including the nature/nurture issue and factors that influence the development of neural organization and function. Topics include the production, migration, differentiation and survival of neurons; functional specialization of neural regions; axonal navigation; target mapping. Compares and contrasts developmental plasticity with forms of neural plasticity exhibited in adults.

Department: Neuroscience
Course: NSC 302
Title: Senior Seminar in Neuroscience
Instructor: Holtzman, D.
Prerequisites: Senior Neuroscience concentrators.
Restrictions: Open only to senior majors or by permission of instructor
Exams: No exams, oral and written reports
Description: To be taken for one semester (2 credits). Emphasizes "Neuroscience as a scientific career." Students read and lead discussions of issues of general professional concern: peer review and the evaluation of research; the function of federal research agencies; science education and teaching; and scientific ethics, and biomedical research and neuroscience in the news. Students also prepare brief reviews of current research problems for class presentation, discussion and critique.

Philosophy

Department: Philosophy
Course: PHL 101
Title: Introduction to Philosophy
Instructor: Conee, E. **Class Size:** 100
Exams: Three in-class short essay tests
Description: The course is an introductory investigation of a few main philosophical topics. Potential topics include the nature of free action, personal identity, the existence of a supreme being, and the possibility of knowledge.

Department: Philosophy
Course: PHL 102
Title: Ethics
Instructor: Barrios, E. **Class Size:** 100
Exams: Three in class tests, not cumulative final
Description: This course is an introduction to basic issues in the philosophical investigation of ethics. Topics include general theories of the nature of right and wrong and theories of the funtions of ethical language. Classes are in the lecture and question format. The texts are Introductory Ethics by Fred Feldman, and an anthology of brief readings on some of our topics. Assignments are readings from these texts.

Department: Philosophy
Course: PHL 103A
Title: Moral Problems
Instructor: Holmes, R. **Class Size:** 100
Description: An analysis of contemporary issues, including hunger, world poverty, abortion, sexual morality, animal rights, environmental ethics, and the death penalty. 103A is not a prerequisite for 103B.

Department: Philosophy
Course: PHL 110
Title: Introductory Logic
Instructor: Glick, J. **Class Size:** 30
Exams: Four mid-terms and a final exam.
Description: Philosophy 110 is a first course in symbolic logic through first order quantification theory. It treats deductive inference through the mechanism of an artifical language; the language is rigorously defined, and students learn to translate English arguments into this artifical language, to construct proofs in this language using a rigorously defined stock of inference rules, and to use models to show the invalidity of arguments.

Department: Philosophy
Course: PHL 118
Title: Business Ethics
Instructor: Bennett, J. **Class Size:** 30
Description: This course will focus on selected ethical topics issues related to business in order to explore fundamental principles of business morality. We will begin by looking at the fundamental question of moral responsibility of business corporations. Then we will explore issues related to relations between business firms and

others, including truth in advertising, sales practices, bribery, environmental issues, and economic justice. Then we will look at issues that arise within business firms, including the nature of the employment contract, whistle-blowing, affirmative action, sexual harassment, and the organization of the corporation. Student presentations and class discussion will be important parts of the course.

Department: Philosophy
Course: PHL 145Q
Title: Minds and Machines
Instructor: Ney, A. **Class Size:** 21
Restrictions: Open to freshmen only
Description: What is it to have a mind? Does the mind have boundaries (for example, the boundaries of the brain)? How could creatures like us exhibit such a phenomenon as consciousness? Could we build a robot that was able to experience the world in the same way we do? This course will introduce students to the way that philosophers think about the mind, harnessing contemporary work in brain and cognitive science to help us answer these questions. No prior background in either philosophy or cognitive science is presupposed. This course will be largely discussion-oriented.

Department: Philosophy
Course: PHL 152
Title: Science and Reason
Instructor: Weslake, B.
Coursework: Two essays and one presentation.
Description: This course is an introduction to the epistemological side of philosophy of science, focusing firstly on questions concerning the nature of science, and secondly on questions at the intersection of science and religion. Is scientific knowledge different in principle from other forms of knowledge? Are there criteria which can be used to distinguish scientific knowledge from other forms of knowledge? Is there such a thing as the scientific method? Can the history of science be seen as an ever-increasing advance of knowledge? After addressing these questions, we will turn to questions about the relation of science to values and religion: What role do values play in science? Is there a conflict between science and religion? These questions will be addressed in part via the issue of intelligent design in biology: Is intelligent design science? Should it be taught alongside evolutionary biology?

Department: Philosophy
Course: PHL 171
Title: Philosophical Foundations of Feminism
Cross-listed: WST 205F, WST 205W
Instructor: Modrak, D. **Class Size:** 40
Exams: Mid-term exam, final paper or exam.
Description: The study of contemporary feminist theory. The course considers the conception of women expressed through our practices, laws, theories and literature. Is this conception that of an inessential Other as one philosopher has argued? Other topics to be discussed include: equality and equal rights, sex roles and gender specific language, power relations and self-determination, marriage and maternity.

Department: Philosophy
Course: PHL 202
Title: History of Modern Philosophy
Instructor: Meerbote, R. **Class Size:** 25
Exams: There may or may not be a final exam. There may be some exams during term.
Coursework: A number of short papers will be assigned.
Description: The course will develop the main philosophical responses of the 17th and 18th centuries (other than Kant's) to the new science and scientific methodology found, for example, in Galileo. We'll start out by reading some Galileo and then go on to study Descartes' universal methodology. Motion, space and time, causality, and the mind-body problem (including the problem of perception) will also turn out to be important topics. The next part of the course will consist of Leibniz and of Newton and Locke, to be followed by Berkeley and Hume. The problems listed above will continue to occupy center stage. There will be both lectures and discussion meetings. Texts: Galileo, Discoveries and Opinions (tr. S. Drake; Doubleday); Descartes, Philosophical Writings (tr. J. Cottingham; Cambridge); From Descartes to Locke (ed. Smith & Grene; Phoenix); Berkeley, Hume, and Kant (ed. Smith & Grene; Phoenix).

Department: Philosophy
Course: PHL 220
Title: Recent Ethical Theory
Cross-listed: PHL 220/PHL 420
Instructor: Conee, E. **Class Size:** 30
Prerequisites: One previous course in ethics.
Exams: Two in-class short essay answer tests and one 5-8 page paper
Description: The course will be a study of the work of major twentieth century philosophers on fundamental questions in ethics, such as: What makes some acts morally right? How could we ever know what has value and what we morally ought to do? Are there any universally applicable ethical norms, or is morality subjective or

otherwise relativized? Reading from recent and contemporary works.

Department: Philosophy
Course: PHL 223
Title: Social and Political Philosophy
Cross-listed: PHL 223W, PHL 423
Instructor: Curren, R. **Class Size:**
Prerequisites: One previous course in philosophy.
Exams: Mid-term and final
Coursework: Two short papers
Description: This course will discuss a number of fundamental issues pertaining to the nature and justification of government: the arguments for government, conflict and revolution, relations between church and state, the moral relations of individuals to government, concepts of individual freedom, the arguments for democracy, and justice in the production and distribution of goods. Students will read from the works of several of the most important philosophers who have addressed these questions. This course may be taken for upper-level writing credit.

Department: Philosophy
Course: PHL 225
Title: Ethical Decisions in Medicine
Instructor: Dees, R.
Exams: Final examination
Coursework: You must sign up for one of the four discussion sections as well as the lecture to enroll in the class. You will be required to write three short papers.
Description: Medicine now produces some of the most troubling ethical questions that our society faces. We are now confronted with extremely premature infants, elderly people incapacitated by Alzheimer's Disease, and others have sunk into permanent vegetative state. We can now diagnose horrible diseases with genetic testing, we have a myriad of options of reproduction if the old-fashioned way is not possible, and we now have the option to replace the failing organs and even to enhance our mental and physical abilities. Lying behind all these issues are deep questions about social justice in the allocation of resources of health care. In this class, we will examine some of these ethical controversies, both in lectures and in small groups in which students will have more opportunity to present their own views and explore those of others. The class will meet for 50 minutes twice a week in the TR 9:40-10:55 slot, and then each student should attend one of the four discussion sections (two will be held R afternoon, two on Friday morning).

Department: Philosophy
Course: PHL 242
Title: Metaphysics
Cross-listed: PHL 442
Instructor: Ney, A. **Class Size:** 40
Prerequisites: One previous course in philosophy.
Description: The course will investigate issues in contemporary metaphysics, including questions about the existence and persistence conditions of abstract and material objects; the nature of space and time; the possibility of time travel; and the status of quantum mechanics. No prior courses in science are required.

Department: Philosophy
Course: PHL 247
Title: Philosophy of Language
Cross-listed: PHL 247W, PHL 447
Instructor: Barrios, E. **Class Size:** 30
Prerequisites: 1 previous course in philosophy; PHL 110 is recommended
Exams: Mid-term exam, three papers, a final exam
Description: This course is about meaning. Speakers of natural language are capable of understanding sentences they've never heard before, so somehow they must derive the meaning of a sentence from the meanings of the words in that sentence. But what is the meaning of a word, and what are those rules? Readings will be from figures such as Frege, Russell, Quine, Kripke and Putnam. This course may be taken for upper level writing credit with permission of instructor.

Department: Philosophy
Course: PHL 252
Title: Philosophy of Science
Cross-listed: PHL 252W, PHL 452
Instructor: Weslake, B. **Class Size:** 35
Coursework: Two essays and one presentation.
Description: This is a survey course in general philosophy of science, focusing on metaphysical questions concerning the nature of science. Representative questions include: Must a scientific theory work because the entities it posits exist in the real world? Or is there some other way of explaining the success of science? Should we believe our best current scientific theories even though all of our past theories have been false? How should we understand scientific laws? Do the laws of nature govern the world or simply encapsulate some interesting patterns in the world? What is the relationship between lower level and higher level laws, and between lower level and higher level scientific theories? Do scientific explanations work because they tell us about laws, or

because they tell us about causes, or for some other reason? The course may taken for upper level writing credit.

Department: Philosophy
Course: PHL 260
Title: Topics in Philosophical Theology
Cross-listed: PHL 260/460, REL 291
Instructor: Wierenga, E. **Class Size:** 30
Description: See Religion and Classics, REL 291.

Department: Philosophy
Course: PHL 300
Title: Seminar for Majors
Instructor: Feldman, R. **Class Size:** 20
Prerequisites: Open to philosophy majors and minors only, and others with permission of the instructor.
Coursework: Approximately eight short written commentaries on the readings, two papers of 5-10 pages during the semester, and a final paper at the end of the semester. Participation in class discussion.
Description: This course is intended to prepare students to do upper level work in philosophy. It also serves as the main writing course for philosophy majors. The course will focus on three diverse problems in contemporary philosophy. For each unit, there will be some introductory lectures to prepare students to read recent influential writings on the topic. The remaining class periods will be devoted to discussion of those articles and to discussion of students' papers on those articles.

Department: Philosophy
Course: PHL 308
Title: Morality and War
Instructor: Holmes, R. **Class Size:** 12
Prerequisites: One previous course in philosophy.
Exams: One short paper, one term paper. No exams.
Description: This course will be conducted as a seminar. It will undertake a critical examination of political realism, the just-war theory, and the problem of the killing of innocents in wartime.

Department: Philosophy
Course: PHL 396
Title: Teaching Internship
Instructor: Feldman, R. **Class Size:** 10
Restrictions: Permission of instructor required
Description: Interns work with elementary school children, usually in the fourth and fifth grade, on thinking and writing strategies. Specific projects taken up in classes include organizing debates among students on contemporary issues, writing argumentative essays, and analyzing the persuasive techniques used in advertising. Interns spend several hours per week in their classes and attend biweekly internship meetings. Meetings will be scheduled at a mutually convenient time. Academic credit for the internship is based on a satisfactory report from the supervising teacher, participation in internship meetings, and a final paper which describes and reflects on the intern's classroom activities and examines the connections between those activities and selected readings.

Physics and Astronomy

Department: Physics and Astronomy
Course: PHY 100
Title: The Nature of the Physical World
Instructor: Garcia-Bellido, A.
Exams: Two in-class exams and one final
Coursework: Weekly homework assignments will be given.
Description: This is an introductory course designed especially for students in the humanities and other non-scientific fields who are interested in learning something about the physical world in perspective. Topics include the scale of the universe from galaxies to atoms and quarks; the fundamental forces of nature, motion and relativity, energy, electromagnetism and its everyday applications, the structure of matter, atoms, light and quantum mechanics. There are no prerequisites, no background knowledge is required and the material will be presented essentially without mathematics. Substantial use will be made of demonstrations and movies.

Department: Physics and Astronomy
Course: PHY 114
Title: General Physics II
Instructor: Orr, L. **Class Size:** 200
Prerequisites: Phy 113, MTH 142-43, or 162 (may be taken concurrently)
Coursework: Five three-hour laboratories are required, as are weekly workshop or recitations. The workshop or recitation are determined by the instructor.
Description: Second semester of a two-semester sequence suitable for students in the life of sciences. Electricity and magnetism, optics, electromagnetic waves, and modern physics (introduction to relativity, quantum physics, etc.). Students must register for a PHY-114 laboratory during course registration. In addition to the Two 75-minute lectures each week, one approximate two-hour and forty-minute laboratory every other week are required. Offered in the Spring and Summer Session II (B-6).

Department: Physics and Astronomy
Course: PHY 121
Title: Mechanics
Instructor: Cline, D. **Class Size:** 200
Prerequisites: MTH 141 or 161 (may be taken concurrently); knowledge of introductory calculus (simple integration and differentiation)
Coursework: Five three-hour laboratories are required, as are weekly workshop or recitations.
Description: First course of a three-semester sequence for all students intending to major in physics, other physical sciences and engineering. Motion in one and two dimensions, Newton's Laws, work and energy, conservation of energy, system of particles, rotations, oscillations, gravity, thermodynamics. In addition to Two 75-minutes lectures each week, One workshop or recitation each week and one approximate two-hour and forty-minute every other week is required. Students must register for laboratory and workshop or during course registration. This course is offered in Spring and Summer session (A-6).

Department: Physics and Astronomy
Course: PHY 123
Title: Waves and Modern Physics
Instructor: Eberly, J.
Prerequisites: PHY 121- PHY 122 MTH 163 or or 165 (may be taken concurrently).
Coursework: Five three-hour laboratories are required, as are weekly workshop or recitation.
Description: Third semester of a three-course sequence for all students intending to major in physics, other physical sciences, and engineering. Wave motion, physical optics, special relativity, photoelectric effect, Compton effect, x-rays, wave properties of particles. Schrodinger's equation applied to a particle in a box, penetration of a barrier, the hydrogen atom, the harmonic oscillator, the uncertainty principle, Rutherford scattering, the time dependent Schrodinger equation and radioactive transitions, many electron atoms and molecules, statistical mechanics, selected topics in solid state physics, nuclear physics, and particle physics. In addition to Two 75-minutes lectures each week, one workshop or recitation each week and one approximate two-hour and forty-minute laboratory every other week are required. Students must register for laboratory and workshop or recitation during course registration. Course offered in the Spring and Summer session II (B-6).

Department: Physics and Astronomy
Course: PHY 143
Title: Waves and Modern Physics (Honors)
Instructor: Eberly, J.
Prerequisites: PHY 141 and MTH 162 or MTH 172 (may be taken concurrently).
Restrictions: Open to freshmen only
Coursework: Five three-hour laboratories, as are weekly workshop or recitations. The times of the workshop or recitation are determined by the instructor.
Description: Second course of a three-semester honors sequence (PHY 141, 143, 142), recommended for prospective departmental concentrators and other science or engineering students with a strong interest in physics or mathematics. Topics are the same as those in PHY 123 but in greater depth. Introductory examinations of Bohr's atomic models, de Broglie waves, momentum and energy quantization, Heisenberg's uncertainty relation, Schrodinger's cat, electron spon, photon interference, and Bell's inequalities; as well as, selected applications to solid-state, nuclear, particle, and astrophysics. Student must register for laboratory and workshop during course registration. In addition to Two 75-minute lectures each week, one workshop or recitation each week and one approximate two-hour and forty-minute laboratory every other week are required.

Department: Physics and Astronomy
Course: PHY 181
Title: Mechanics Laboratory
Instructor: Demina R.
Prerequisites: For transfer students that have taken the equivalent of PHY 113 or PHY 121, but have not taken to laboratories.
Description: Laboratories experiments in Mechanics, statistics and measurement, acceleration of gravity, conservation of energy and momentum, moment of inertia, oscillations, and mechanical equivalent of heat. Students must contact physlabs@pas.rochester.edu to signup for a laboratory section.

Department: Physics and Astronomy
Course: PHY 218
Title: Electricity and Magnetism II
Instructor: Thorndike, E.
Prerequisites: PHY 217.
Description: Electromagnetic induction; displacement current; Maxwell's equations; the wave equation; plane wave guides; Poynting vector; reflection and refraction; radiation; waveguides; transmission lines; propagation of light; radiation by charged particles; relativistic formulation of Maxwell's equations.

Department: Physics and Astronomy

Course: PHY 227
Title: Thermodynamics and Statistical Mechanics
Instructor: Gao, Y. **Class Size:** 30
Prerequisites: MTH 281 or ME 201 (may be taken concurrently); PHY 237
Description: Multiplicity of physical states, equilibrium entropy and temperature, Boltzmann factor and partition function, statistical approach to free energy, chemical potential, distribution functions for ideal classical and quantum gases, applications to chemical reactions, thermal engines, equations of state, and phase transitions.

Department: Physics and Astronomy
Course: PHY 237
Title: Quantum Mechanics of Physical Systems
Instructor: Wolfs, F.
Prerequisites: Prerequisite: PHY 122/PHY 142, PHY 123/PHY 143, and MTH 165/174 (may be taken concurrently).
Description: Introduction to quantum mechanics with emphasis on applications to physical systems. Includes Schroedinger theory, solutions to the one-dimentional Schroedinger equation, the hydrogen atom, and selected applications from atomic and molecular physics, quantum statistics, lasers, solids, nuclei, and elementary particles. `

Department: Physics and Astronomy
Course: PHY 246
Title: Quantum Mechanics
Cross-listed:
Instructor: Hagen, C.
Prerequisites: PHY 237; MTH 281 (or close equivalent)
Description: Formalism of quantum theory with more advanced applications that PHY237. Includes postulates of Quantum Mechanics; function spaces; Hermitian operators, completeness of basis sets; super- positon, compatible observables, conservation theorems, operations in abstract vector space, spin and angular momentum matrices; addition of angular momentum; perturbation theory, and simple scattering theory.

Department: Physics and Astronomy
Course: PHY 252
Title: Biomedical Ultrasound
Cross-listed: BME 251
Instructor: Dalecki, D.
Prerequisites: MTH 163, MTH 164, and PHY 122 or PHY 142 or permission of instructor.
Description: This course provides analyses of the physical bases for the use of high-frequency sound in medicine (diagnosis, therapy and surgery) and biology. Topics include acoustic interactions of ultrasound with gas bodies (acoustic cavitation and contrast agents), thermal and non-thermal biological effects of ultrasound, ultrsonography, dosimetry, hyperthermia and lithotripsy.

Department: Physics and Astronomy
Course: PHY 261
Title: Interference and Diffraction
Instructor: Fienup, J.
Description: Cross-listed with OPT 261 - see Department of Optical Engineering section for course information

Department: Physics and Astronomy
Course: PHY 262
Title: Electromagnetic Theory
Instructor: Berger, A.
Description: Cross-listed with OPT 262 - see Department of Optical Engineering section for course information.

Department: Physics & Astronomy
Course: PHY 301
Title: Seminar in the Physics of Medical Imaging
Restrictions: Permission of instructor required
Description: This seminar course includes the basic physical theory, mathematics, and instrumentation of medical imaging. he course covers the basic properties of matter, radiation, radioactive decay, X-ray systems, digital imaging systems, nuclear medicine systems, radiobiology, ultrasound systems, and magnetic resonance. (same material, different problems Physics Students). (Cross-listed with PHY 421) . This 2 credit course is offered to Radiology Residents and is restricted to Physics students. The course is cross-listed with Physics for students who plan to earn a Certificate in Biological or Medical Physics, or students who are in the BS/MS Physics 3-2 program (and plan to do an MS thesis in Medical Physics). The course starts in the latter half of the spring semester (and may run beyond the end of classes). Lectures are typically given during noon-1pm.

Department: Physics & Astronomy
Course: PHY 321A
Title: Condensed Matter Physics I
Instructor: Teitel, S.
Prerequisites: PHY 121-123 or PHY 141-143, MTH 161-164.
Description: Introduction to computer control, interfacing, and data acquisition in the laboratory. Topics include introduction to digital electronics, interface devices, data conversion devices, A/D converters, I/O ports, interface standards, micro-processor basics,

introduction to P-Basic, and application of microprocessor with PC. This is a 2-credit course held the first six weeks of he semester.

Department: Physics & Astronomy
Course: PHY 328
Title: Physics of Radiobiology II
Instructor: Keng, P.
Restrictions: Permission of instructor required
Coursework: One lecture per week is presented along with assignments and three exams during the academic year.
Description: This course 2 credit course evaluates the effects of radiation in mammalian cell systems ranging from cell cultures to whole animals and is the second half of Radiobiology I. Please note the course is offered at the same time as the Medical Center's course schedule for Spring and will end approximately in March. Emphasis is on the application of radiobiological principles to radiotherapy practices in the clinical treatment of cancer. Topics include: Mechanism of radiation damage and repair, cell cycle effects, influence of oxygen, and tumor versus normal tissue effects of radiation.(Cross-listed with PHY428). One lecture per week is presented along with assignments and three exams during the academic year. (Course offered every other year, alternates with PHY326/PHY426).

Department: Physics and Astronomy
Course: PHY 387
Title: Teaching Internship II, Pedagogy and Group Leadership
Instructor: Manly
Prerequisites: PHY 386 or proof of attended the two-day teaching internship training program.
Description: This course is designed as the second follow-up course for an experienced Workshop Leader, Laboratory or Recitation Teaching Intern who plans to use this experience to fulfill part of the requirements for the Citation for achievement in College Leadership. The TI is expected to attend the weekly Leader Training meeting which offers specialized support and feedback, as well as training/seminars to develop leadership skills, foster ongoing communication among faculty members and TIs, and to provide an environment for review of study group related issues. Students spend the semester teaching one workshop, lab or recitation section during the Spring semester introductory physics courses: PHY 114, PHY 121, PHY143. Additional requirements are: Attendance of weekly content meetings with supervising professor, giving feedback to other leaders in a constructive evaluation process and a project designed in concert with the supervising professor and the PHY 387 instructor. (Course is similar to CAS 355).

Department: Physics and Astronomy
Course: PHY 389
Title: Teaching Internship II Program
Instructor: Auchincloss, P.,Orr, L.,Bigelow, N. **Class Size:** 30
Prerequisites: Must have taken a physics or astronomy sequence
Restrictions: Special application required
Description: Student must apply by application by contacting Connie Jones at 5-5306 A student typically spends one or two semesters teaching an introductory physics laboratory or recitation section, working with a graduate TA. Faculty supervision is augmented by training, ongoing teaching seminars, and a constructive evaluation process.

Department: Physics and Astronomy
Course: PHY 390
Title: Supervised Teaching
Instructor: Manly, S.,Demina, R.,Bigelow, N
Prerequisites: Permission of the instructor and department
Description: Two credit course. Introduction to the techniques of physics instruction, active observation, and participation in the teaching of an undergraduate course under the guidance of a faculty member.

Physics and Astronomy -- Astronomy

Department: Physics and Astronomy -- Astronomy
Course: AST 142
Title: Elementary Astrophysics
Instructor: Quillen, A.
Prerequisites: PHY 121, 122 (may be taken concurrently) MTH 142, MTH 161, 162, AST 111 recommended.
Exams: Midterm and final exams.
Coursework: Laboratory required. Weekly homework.
Description: The techniques learned in the first year of physics and math are applied in this course to study the stars, interstellar matter, galaxies, and cosmology. A laboratory is included and required; it involves experiments in the lab and with telescopes, on spectroscopy, distance determination, and imaging of some celestial objects discussed in the lecture portion of the course. Textbooks typically used are: "The Physical Universe," by F. Shu and "Astronomy: A physical Perspective," by M. Kutner.

Department: Physics and Astronomy
Course: AST 242

Title: Astrophysics II
Instructor: Frank, A. **Class Size:** open
Prerequisites: PHY 237 (may be taken concurrently); familiarity with the subject matter of AST 142 and/or AST 111 is advised
Restrictions: Not open to freshmen and sophomores
Description: This introduction to the physical processes in astronomical objects is taken primarily by juniors and seniors majoring in physics, physics and astronomy, optics, or mathematics. Topics discussed include physical processes in the interstellar medium; star formation and molecular clouds; the structure of galaxies; and interaction to cosmology. Offered Spring, even years only.

Political Science

Department: Political Science
Course: PSC 101
Title: Introduction to Comparative Politics
Instructor: Meguid, B.
Restrictions: Open to freshmen only
Description: This course will introduce students to comparative politics the study of domestic political institutions, processes, and outcomes across and within countries. These important themes and concepts of contemporary comparative politics include the vibrancy of democracy, the centrality of political and electoral institutions, the possibility of revolution and the power of ethnicity. Cases will be drawn from different countries and historical periods to give students a grounding in the method of comparative analysis. This course is recommended for those thinking about a major, minor, or cluster in Political Science and others who are simply interested in learning more about the politics of developed and developing countries. It is a required course for the International Relations major.

Department: Political Science
Course: PSC 105
Title: Introduction to American Politics
Instructor: Sinclair-Chapman, V.
Description: This course will introduce students to the foundations of American government. Students will examine important political institutions and the linkage mechanisms that connect institutions, political actors, and ordinary American citizens. This course is appropriate for majors and non-majors with an interest in understanding how and why the American political system works as it does. Students will be graded on two midterms, a comprehensive final exam, and short writing assignments.

Department: Political Science
Course: PSC 106
Title: Introduction to International Relations
Instructor: Goemans, H.
Description: This course provides students with the background and conceptual tools they need to understand contemporary international relations. The course will introduce students to the wide range of issues that make up the study of international relations, including the workings of the state system, the causes of international conflict and violence, and international economic relations. Students will be introduced to the literature in a broad way, to make them familiar with the main theoretical traditions in the field. Students will be asked, as much as possible, to read original texts, rather than a textbook. Time permitting, we will also examine topics of particular current interest, such as the evolving nature of power in the post-Cold War environment as well as special global challenges like nation-building and the proliferation of weapons of mass destruction.

Department: Political Science
Course: PSC 201
Title: Political Inquiry
Instructor: Clarke, K.
Description: This course introduces students to data analysis in political science. We begin by learning how to describe political data, and then move on to making inferences about political phenomena. Along the way, we address the "science" in political science and the development of hypotheses about political behavior. We will read published research from political science journals that use the techniques we discuss in class. No mathematical knowledge beyond high school algebra is assumed. PSC 201 satisfies the Techniques of Analysis requirement for undergraduate majors and minors in Political Science.

Department: Political Science
Course: PSC 202
Title: Argument in Political Science
Instructor: Jordan, S.
Restrictions: Permission of instructor required for freshmen
Description: Students generally take PSC 202 in their sophomore year, but the course is also open to junior and seniors. The course introduces students to the questions, concepts, and analytical approaches of political scientists.

Department: Political Science
Course: PSC 203
Title: Survey Research Methods
Instructor: Peress, M.

Restrictions: Permission of instructor required for freshmen
Description: This course offers an introduction to the understanding of politics through data analysis, with particular emphasis on surveys of the mass public. We will study selecting a sample, designing and conducting a survey, interpreting the results of a survey, correcting for bias in a survey, and measuring the accuracy of a survey. This semester, we will pay special attention to the accuracy of public opinion polling preceding the 2008 primary and Presidential elections. PSC 203 satisfies the Techniques of Analysis requirement for undergraduate majors and minors in political science.

Department: Political Science
Course: PSC 212
Title: The Supreme Court in U.S. History
Instructor: Seligman, J.
Description: This seminar will study leading constitutional law cases decided by the United States Supreme Court and their impact on the evolution of the Court, the balance of powers among our three governmental branches, relations between the federal government and the states, and individual express and implied rights. The seminar is intended to introduce students to legal reasoning and will make use of casebook and teaching methods typical of law schools.

Department: Political Science
Course: PSC 217
Title: Politics and Mass Media
Instructor: Regenstreif, P.
Prerequisites: PSC 101, 103, 105, or PSC 202
Exams: Exam toward end of course
Description: This course analyzes how public opinion is formed through the media. It also examines the interaction of public opinion, mass media, and political leadership. Lecturing will take up the first segment of class, followed by discussion. In several of the sessions an entire campaign will be analyzed, with commercials produced for the candidates shown, followed by discussion and comment. Students will be asked to watch TV, read popular press, etc., for the class discussion.

Department: Political Science
Course: PSC 238
Title: Business and Politics
Instructor: Primo, D.
Description: In this course we will use the tools of political science and economics to study how corporations affect and are affected by politics. Each meeting will feature a general topic as well as in-depth analysis of cases related to that topic. We will cover a broad range of issues affecting the business world, including regulation, lawmaking, campaign finance, the mass media, interest group mobilization, corporate social responsibility, and ethics. Cases will be drawn from areas such as antitrust, transportation safety, international trade, the environment, and the internet. Course meetings will generally begin with a short lecture followed by extensive class discussion.

Department: Political Science
Course: PSC 240
Title: Criminal Procedures & Constitutional Principles
Instructor: Fiandach, E.
Restrictions: Not open to freshmen
Description: Through analysis of the Constitution and the Bill of Rights, we examine criminal procedure as elaborated by federal and state court decisions. Topics include arrest procedures, search and seizure, right to counsel, and police interrogation and confessions. We will discuss the theoretical principles of criminal procedure and the application of those principles to the actual operation of the criminal court system. We will also discuss issues such as technology and the law, gender and race, terrorism, and the USA Patriot Act and civil liberties.

Department: Political Science
Course: PSC 243
Title: Seminar on Environmental Politics
Instructor: Rothenberg, L. **Class Size:** course cap
Exams: Midterm and final exams
Description: An examination of environmental issues from a social scientific perspective. Topics include the reasons for environmental regulation, the history of environmental policy, the state of contemporary environmental policy, the role of state and local governments, the impact of environmental activists, and a comparison of domestic and international regulation of environmental affairs. Although there is considerable time devoted to lecture, students are encouraged to participate, and part of the grade will be based on student participation. Each student will also develop and briefly present a research paper which investigates a relevant issue of interest.

Department: Political Science
Course: PSC 255
Title: Political Films
Cross-listed: FMS 256B
Instructor: Hauser, E.

Description: The course will examine film as the dominant form of political expression under state patronage, with examples from the Soviet Union, Nazi Germany, and, after World War II, from Poland, Hungary, Czechoslovakia, and the former Yugoslavia. The course will also examine the transformation of political film in post-communist Eastern Europe. Requirements include short film reviews, a midterm, and a final exam.

Department: Political Science
Course: PSC 260
Title: Cold War: Europe between the U.S. and the USSR
Instructor: Orla-Bukowska, A.
Description: The Cold War is typically seen as a political struggle between the U.S. and the USSR, yet it was played out on and directly affected the peoples of Europe Western, Central and Eastern. Through the prism of the continents societies, the course will trace the splitting, and then deepening, divides as well as their overriding consequences for states across the continent. From a socio-political perspective focused on Central Europe, we will analyze the most dramatic and significant turning points such as the Berlin Airlift in 1949 and the Polish Solidarity strikes in 1980 as well as survey internal and external actions and reactions across nearly five decades until the implosion of the entire communist system between 1989 and 1991. The course will close with a look at currently rising tensions between Europe and Russia, already referred to as a new Cold War.

Department: Political Science
Course: PSC 262
Title: Globalization Past and Present
Instructor: Kayser, M.
Description: This course examines the implications of economic globalization for domestic and international politics. Emphasis will be given to the lessons of 19th-century globalization for politically relevant issues of the present such as the effect of greater factor mobility on income distribution, economic growth, political coalitions, policy-setting autonomy, and the viability of the welfare state. Classes will feature a short introductory lecture followed by active discussion of the week's topic(s) and readings.

Department: Political Science
Course: PSC 268
Title: Economics and Elections
Instructor: Kayser, M. **Class Size:** course cap
Restrictions: Not open to freshmen
Description: This undergraduate seminar examines the effect of elections and electoral systems on economic outcomes as well as the converse, how economic variation influences elections and the choice of electoral systems. More specifically, we will examine topics such as how electoral competitiveness and electoral institutions influence taxation, price levels, income distribution and trade protectionism as well as how change in domestic and international economic aggregates affect the probability of incumbent reelection, opportunistic election timing, and institutional reform. This course is organized as a seminar in which students present and critique each week's readings. While neither PSC 200 nor PSC 201 is a prerequisite, elementary familiarity with statistics is helpful for understanding much of the reading in this course.

Department: Political Science
Course: PSC 269
Title: Russian Politics
Instructor: Epstein, D. **Class Size:**
Description: This course will focus on the politics of the Russian Federation in the post-Soviet period. After a brief review of the decline and fall of the USSR, it will concentrate on Russian political development under the presidencies of Boris Yeltsin and Vladimir Putin, especially on the power politics of elections, parties, struggles between center and periphery, the increasing dominance of the executive branch and the decline of competitive politics. In mapping the emergence of Russia's political terrain, it will address some of the forces that have contributed to shaping it, including the results of economic transition, and the interplay of domestic politics and Russia's changing geo-political status, including the Chechen wars and Russia's interests in other former Soviet republics such as Georgia and Ukraine.

Department: Political Science
Course: PSC 272
Title: Theories of International Relations
Cross-listed: PSC 272W
Instructor: Stone, R
Description: How do we explain patterns of war and peace? Why do states with common interests often fail to cooperate? This course surveys theories of international relations, focusing on explanations of conflict and cooperation. In particular, it examines the roles of individual choice, strategic interaction, uncertainty, power, domestic politics, and anarchy. Students participate in an internet-based simulation of an international crisis. The course also serves as an introduction to game theory, and students will be expected to solve game theory problems in homework and exams. Students taking the course for writing

credit register for PSC 272W and write a substantial research paperin addition t the other course requirements.

Department: Political Science
Course: PSC 273
Title: Political Economy of East Asia
Instructor: Cho, H.J.
Description: This course focuses on three East Asian countries China, Japan, and South Korea from the perspective of international political economy. The course will examine the postwar developmental strategies of these countries and how the globalized world economy has transformed their state-led economies. It will address the challenges posed for East Asian countries by the Asian financial crisis and how the financial turbulence has led to institutional and policy reforms in these countries. We will also discuss the international trade relations between these countries and the U.S. and explore the domestic and international political implications of their trade relations.

Department: Political Science
Course: PSC 275
Title: American Foreign Policy
Instructor: Dolan, T.
Description: This course examines both the historic roots and contemporary practice of U.S. foreign policy. It will begin with a brief survey of U.S. foreign policies from the earliest days of the Republic to the challenges of the twenty-first century, with a particular emphasis on debates over the best strategy and role for the U.S. in the world. It will then move to an analysis of the policy process and the determinants of U.S. policy, with a particular focus on the relationships between the executive, public opinion, the Congress, and the bureaucracy, as well as relationships with allies and international organizations. Last, it will analyze in detail the challenges, options, and limits of contemporary American foreign and national security policy, including the rise of China, increasing globalization, and terrorism.

Department: Political Science
Course: PSC 278
Title: War and Political Violence
Instructor: Dolan, T. **Class Size:** course cap
Description: This class addresses several key questions about war: How do states decide how to fight a war? Why do wars end when they do? How should we think about the nature of war? We will delve into these issues by addressing the theoretical and empirical literature on how wars are fought and how they are ended. Readings will include both classics of military theory by the likes of Clausewitz, Sun Tzu, and Mao, and work on the nature of war and war termination by modern political scientists. Then we will address non-traditional forms of political violence like guerilla warfare and insurgency, civil wars, terrorism, and rioting. The domestic politics of war-fighting, particularly those involving public opinion will also be examined, as will some of the challenges of conflict resolution.

Department: Political Science
Course: PSC 281
Title: Formal Models in Political Science
Instructor: Duggan, J.
Description: This course explores the rational choice approach to understanding political phenomena. The main results of social choice theory, game theory, and spatial modeling are presented through application to a broad range of political situations: voting, legislative politics, political campaigns, comparison of electoral systems, the evolution of cooperation, and international relations. While there are no formal mathematical prerequisites for the course, some familiarity with mathematical reasoning and formalism is a must.

Department: Political Science
Course: PSC 291
Title: The First Amendment and Religion in America
Cross-listed: REL 297
Instructor: Jackson, T **Class Size:** cap 25
Description: The Constitution helps define, as it perhaps reflects, American society. In this scheme, religion has a special role. It, arguably uniquely, is given both Constitutional protection (free exercise) as well as Constitutional limitation (no establishment). Religions placement in the Bill of Rights (as a part of the First Amendment) suggests its importance (both in protection and in limitation) to the founders, and religions role in society today remains important and controversial. This course examines the historical forces that led to the adoption of the religion clauses of the First Amendment, the subsequent development of those clauses (importantly through the close reading of key Supreme Court opinions), and religions role in modern American society.

Department: Political Science
Course: PSC 318
Title: Emergence of the Modern Congress
Cross-listed: PSC 518, HIS 342W, HIS442
Restrictions: Permission of instructor required
Description: Through intensive reading and discussion, we will analyze major issues in congressional history and legislative institutions. We

will examine the basic institutions of the House and Senate--committees, parties, leaders, and rules. The course is designed to introduce students to the principal approaches used by political scientists to study Congress, with special emphasis on the development of congressional institutions over time. This is an advanced seminar, appropriate for juniors and seniors with substantial background in political science, economics, and/or history.

Department: Political Science
Course: PSC 389W
Title: Junior Honors Seminar
Instructor: Niemi, R.
Description: Through reading and critiquing political science research, students learn how to select a research question, find and evaluate relevant literature, locate data that addresses their research question, analyze the data, and write a research report. The primary task for the semester is to complete a research paper on a topic students choose jointly with the instructor. Students may work on joint projects or on individual papers. Toward the end of the semester, students who are interested in doing an honors project during the senior year work with the department in identifying a faculty member with whom they will work and write a draft prospectus for the project.

Department: Political Science
Course: PSC 394
Title: Local Law and Politics Internships
Instructor: Powell, L.
Description: Most internship placements are in the District Attorney's or Public Defender's offices. Occasionally one or two other law placements are available. Students may also propose an alternative political or law placement. Interns work 10-12 hours per week through the entire semester. Grades are primarily based on a research paper. Applicants should have an appropriate course background for the internship and at least a B average. Students must be accepted in the course before approaching an agency for an internship. Students interested in an internship should pick up an application in the Political Science office (Harkness 333). Applications are available a week before registration starts, and an interest meeting is also held at that time.

Department: Political Science
Course: PSC 396
Title: Washington Semester Program
Instructor: Jordan, S.
Prerequisites: Selection by application process
Description: One semester's work in Washington, D.C., as a member of the staff of a U.S. Senator or Representative. Interest meeting typically held in September or October of preceding fall semester. All details are provided at that meeting.

Department: Political Science
Course: PSC 397
Title: European Political Internships
Instructor: Powell, L.
Description: Internships are available for students in Edinburgh, London, Brussels, Bonn, Berlin and Madrid. Internships are in English in Edinburgh, London, and Brussels, and students need proficiency in the language for the latter three placements. For applications and information, students should contact the Study Abroad Office in Lattimore 206.

Psychology

Department: Psychology
Course: PSY 101
Title: Introduction to Psychology
Instructor: Manly, John
Description: Provides familiarity with the major domains of, and the methods of discovery used in, the field of psychology. Topics covered include biopsychology, cognition and intelligence, child development, social processes, personality, and clinical psychology. The course provides an opportunity to "sample" many of the domains of psychology, both in preparation for taking more focused courses in the discipline, and to permit the application of psychological insights to other fields of endeavor.

Department: Psychology
Course: PSY 112
Title: Cognitive Psychology
Cross-listed: BCS 112
Instructor: Tanenhaus, M.
Prerequisites: No prerequisites. NOTE: This course is recommended for PSY majors. Students CANNOT receive credit for BOTH BCS/PSY 111 AND BCS
Description: Same as BCS 112; see description in Brain & Cognitive Sciences listing. The course satisfies one of the natural science courses required for the PSY concentration.

Department: Psychology
Course: PSY 113
Title: Biopsychology of Social and Clinical Behaviors

Instructor: McAdam, D.
Description: A natural science psychology core course that explores biopsychological explanations of emotions, sexuality, psychopathology, addiction and others.

Department: Psychology
Course: PSY 153
Title: Cognition
Cross-listed: BCS 153
Instructor: Bavelier, D. **Class Size:** 50
Prerequisites: BCS/PSY 110 Required; BCS/PSY 111 recommended
Description: Same as BCS 153. See description in Brain and Cognitive Sciences listing.

Department: Psychology
Course: PSY 161
Title: Social Psychology & Individual Differences
Cross-listed: CSP 161
Instructor: Rempala, D.
Description: Same as CSP 161. See Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 172
Title: Development of Mind & Brain
Cross-listed: BCS 172
Instructor: Newport, E.,Aslin, R. **Class Size:** 100
Description: Same as BCS 172. See description in Brain & Cognitive Sciences listing.

Department: Psychology
Course: PSY 208W
Title: Lab in Perception & Cognition
Cross-listed: BCS/CVS 208 **Class Size:** 20 (cap)
Prerequisites: BCS/CVS/PSY 151 and a course in statistics, or equivalent background, with permission of the instructor.
Description: Same as BCS 208. See description in Brain & Cognitive Sciences listing.

Department: Psychology
Course: PSY 219W
Title: Research Methods in Psychology
Cross-listed: CSP 219W
Instructor: Thrash, T. **Class Size:** 25
Prerequisites: PSY 101
Description: See CSP 219W. Same as Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 219W
Title: Research Methods of Psychology
Cross-listed: CSP 219W
Instructor: Rogge, R. **Class Size:** 25
Prerequisites: PSY 101
Description: See CSP 219W. Same as Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 228
Title: The Human-Machine Interface
Cross-listed: BCS/CVS 228
Instructor: Staff **Class Size:** 15
Prerequisites: PSY 110 or PSY 112 AND PSY 151 or PSY 153
Description: Same as BCS 228. See description in Brain & Cognitive Sciences listing.

Department: Psychology
Course: PSY 246
Title: The Biology of Mental Disorders
Cross-listed: BCS/NSC 246
Instructor: Kellogg, C.,Como, P. **Class Size:** 25
Prerequisites: BCS 110, BCS 240 (NSC 201) or equivalent background.
Description: Same as BCS 246. See description in Brain & Cognitive Sciences listing.

Department: Psychology
Course: PSY 259
Title: Language Development
Cross-listed: BCS 259, LIN 208
Instructor: Staff **Class Size:** 50
Prerequisites: One of the following: BCS/PSY 110, 111, 112, 172; LIN 110; PSY 101, or equivalent backgraound.
Description: Same as BCS 259. See description in Brain & Cognitive Sciences listing.

Department: Psychology
Course: PSY 261
Title: Language Use and Understanding
Cross-listed: BCS 261, LIN 241
Instructor: Tanenhaus, M. **Class Size:** 30
Prerequisites: PSY 110 or BCS 111 or PSY 112 AND PSY 152
Description: Same as BCS 261. See description in Brain & Cognitive Sciences listing.

Department: Psychology
Course: PSY 262
Title: Human Motivation and Emotion
Cross-listed: CSP 262
Instructor: Niemec, C. **Class Size:** open
Description: See CSP 262. Same as Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 265
Title: Language and the Brain
Cross-listed: BCS 265, LIN 218
Instructor: Vannest, J.
Prerequisites: BCS/PSY 110 or BCS 240 AND PSY 152 or LIN 110
Description: Same as BCS 265. See description in Brain & Cognitive Sciences listing.

Department: Psychology
Course: PSY 278
Title: Adolescent Development
Cross-listed: CSP 278
Instructor: Rempala, D.
Description: Same as CSP 278. See Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 280
Title: Clinical Psychology
Cross-listed: CSP 280
Instructor: Manly, John **Class Size:** open
Description: Same as CSP 280. See Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 282
Title: Abnormal Psychology
Cross-listed: CSP 282
Instructor: Burnette, M.
Description: See CSP 282. Same as Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 283
Title: Behavioral Medicine
Cross-listed: CSP 283
Instructor: Patrick, H. **Class Size:** open
Prerequisites: PSY 101
Description: Same as CSP 283. See Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 309
Title: Honors Seminar
Instructor: McAdam, D.,Klorman, R.
Restrictions: Permission of instructor required
Description: See CSP 309. Same as Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 311
Title: Honors Research
Instructor: McAdam, D.,Klorman, R.
Restrictions: Permission of instructor required
Description: See CSP 311. Same as Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 352
Title: Research in Developmental Neuropsychology
Cross-listed: CSP 352
Instructor: Bennetto, L.
Restrictions: Permission of instructor required
Description: Same as CSP 352. Same as Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 356
Title: Research in Adolescent Development
Cross-listed: CSP 356
Instructor: Smetana, J.
Prerequisites: Prerequisite: CSP 171 or 278
Restrictions: Permission of instructor required
Description: Same as CSP 356 See Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 374
Title: Exploring Research in Social Psychology II
Instructor: Elliot, A.
Restrictions: Permission of instructor required
Description: See CSP 374. Same as Clinical and Social Sciences in Psychology course description listing.

Department: Psychology

Course: PSY 378
Title: Exploring Research in Family Psychology II
Cross-listed: CSP 378
Instructor: Davies, P.
Restrictions: Permission of instructor required
Description: See PSY 378. Same as Clinical and Social Sciences in Psychology course description listing.

Department: Psychology
Course: PSY 385
Title: Practicum in Developmental Disabilities
Cross-listed: PSY 385
Instructor: Bennetto, L.
Restrictions: Permission of instructor required
Description: See CSP 385. Same as Clinical and Social Sciences in Psychology course description listing.

Religion & Classics

Department: Religion & Classics
Course: REL 102
Title: Introduction to the New Testament
Cross-listed: REL 102W
Instructor: Merideth, A.
Exams: Quiz, 2 papers, Final exam
Description: The aim of the course is to examine the texts of the New Testament, as well as other ancient sources, in an attempt to reconstruct a picture of Christianity in its beginnings. We will study the New Testament and the early Jesus movement within the wider context of Second Temple Judaism and the Greco-Roman world. Issues such as the development of the canon, the divisions within the Jesus Movement between Jews and Gentiles, the different understandings of the figure of Jesus, the conflicts which shaped the institutional development of the early church, and the conflict between Rome and the early church will receive particular attention and analysis. We will approach the texts of the New Testament as we would any other texts in antiquity, namely from an historical perspective. Students will be exposed to the traditional tools of biblical scholarship. No previous knowledge of the New Testament or of early Christianity is assumed.

Department: Religion & Classics
Course: REL 106
Title: From Confucius to Zen
Instructor: Brooks, D.
Exams: Mid-term, term paper, final examination
Description: An introduction to the major religious traditions of China and Japan. In order of treatment, we will examine early Chinese religion, Confucianism, Taoism, Chinese Buddhism, Shinto, and Japanese Buddhism. While our main emphasis will be on basic teachings, we will also consider religious practices and social impact of these traditions. Readings include primary sources in translation and contemporary scholarship.

Department: Religion and Classics
Course: REL 149
Title: Contemporary Fiction from the Arab World in Translation
Cross-listed: ARA 149
Instructor: Beaumont, D.
Description: Please see ARA 149 for the course description.

Department: Religion & Classics
Course: REL 198Q
Title: Dante's Divine Comedy II
Cross-listed: IT 196Q, CLT 117Q, IT 221, CLT 253D, REL
Instructor: Stocchi-Perucchio, D.
Description: Please see IT 196Q for the course description.

Department: Religion & Classics
Course: REL 202
Title: Eros and Madness in Plato
Cross-listed: CLA 202
Instructor: Geier, A.
Description: A careful and thorough line by line study of Plato's PHAEDRUS and SYMPOSIUM with a view to understanding each dialogue in itself and Plato's philosophic art of poetic composition. Some major themes in Plato will be intensively explored, such as The Soul and its parts, the immortality of The Soul, the nature of learning, Eros and philosophic passion, and others. Mostly discussion.

Department: Religion & Classics
Course: REL 208A
Title: Medicine, Magic, and Miracle in the Greco-Roman World
Cross-listed: CLA 208
Instructor: Merideth, A.
Restrictions: Not open to freshmen
Description: Using a wide range of materials (medical treatises, magical papyri, gospel stories, inscriptions, etc.), we will examine the range of understandings of disease and of healing practices in the Greco-Roman world. We will focus on the development of competing healing cults in antiquity (such as the Asklepios cult, early Christianity) as well as the development of the medical

"profession" during this period. Additionally, we will examine and critique both ancient and modern debates over the differences between science, magic, and religion.

Department: Religion & Classics
Course: REL 238
Title: Native American Art & Religion
Cross-listed: AH 280
Instructor: Berlo, J.
Description: Please see AH 280 for the course description.

Department: Religion & Classics
Course: REL 240W
Title: Muhammad and the Qur'an
Cross-listed: AAS 243W
Instructor: Homerin, Th. E.
Description: This course will study the prophet Muhammad, the Qur'an, and their importance to medieval and modern Muslim culture. The prophet's life and major themes of the Qur'an will be discussed together with interpretations of them found in Islamic legal, theological, philosophical, and mystical writings.

Department: Religion & Classics
Course: REL 243W
Title: Islamic Mysticism
Instructor: Homerin, Th. E.
Exams: 3 papers
Description: An advanced introduction to mystical life in Islam which will study Islamic mystical experience and theory, and trace the importance of Islamic mysticism to religion, philosophy, art and literature as found in medieval and modern Muslim societies.

Department: Religion & Classics
Course: REL 286
Title: Dante's Divine Comedy II
Cross-listed: IT 206/IT 206W/CLT 206/CLT 406
Instructor: Stocchi-Perucchio, D.
Description: Please see IT 196Q for the course description.

Department: Religion & Classics
Course: REL 291
Title: Topics in Philosophical Theology
Cross-listed: PHL 260/460
Instructor: Wierenga, E.
Coursework: Students will write eight 2-page papers in advance of the seminar meetings and one more substantial (8-10 pp.) course paper.
Description: This seminar will consider the problem of evil, variously understood as the claim that the existence of evil and of a good God are logically incompatible, or as the claim that the existence of evil renders the existence of God unlikely or unreasonable. We will probably read: Adams and Adams, eds., The Problem of Evil (Oxford, 1990) and van Inwagen, The Problem of Evil (Oxford, 2006).

Department: Religion & Classics
Course: REL 297
Title: The First Amendment & Religion in America
Cross-listed: PSC 291
Instructor: Jackson, T.
Description: Please see PSC 291 for the course description.

Department: Religion & Classics
Course: REL 310
Title: Seminar in Mahabarata
Instructor: Brooks, D.
Prerequisites: Students must have taken either REL 105 or have the permission of the instructor.
Coursework: Three short papers, plus a revision
Description: This course will focus exclusively on the MAHABHARATA, the great Hindu epic of nearly ninety thousand lines in eighteen books which takes as its central matter the struggle for legitimate succession to the throne of Kuruksetra, the ancestral realm of the clan of the Bharatas. MAHABHARATA recounts the story, as far as Hindus are concerned, of their cultural and historical past. It is, however, more than a story of war and familial intrigues: it is a repository for the myths, rituals, concepts, values, and moral issues that shape classical Hinduism. We will begin by outlining the entire epic by reading a "condensed" version. We will then read selections from the first five books in J.A.B. van Buitenen's line-by-line translation. We will focus our discussion of the text on several issues, particularly the literary and historical development of the epic and its transmission, and the definition and development of myth, ritual, social, moral, and cultural values in epic Hinduism. Primary text will be augmented by contemporary scholarship and a case study of the living cultic traditions derived from the epic.

Department: Religion & Classics
Course: REL 389W
Title: Senior Seminar
Instructor: Merideth, A.
Description: This advanced seminar focuses on topics, methods, and theoretical models in the study of religion. Specific subjects are

determined on a yearly basis. Restricted to Senior Religion Majors.

Religion & Classics -- Arabic

Department: Religion & Classics -- Arabic
Course: ARA 102
Title: Elementary Arabic II
Instructor: Beaumont, C.
Prerequisites: ARA 101 or permission of the instructor
Exams: Weekly quizzes; final exam.
Description: A continuation of ARA 101, with increased emphasis on reading comprehension of Arabic texts. Homework includes written exercises and text preparation.

Department: Religion & Classics -- Arabic
Course: ARA 104
Title: Intermediate Arabic II
Instructor: Beaumont, C.
Description: A continuation of ARA 103.

Department: Religion and Classics - Arabic
Course: ARA 149
Title: Contemporary Fiction from the Arab World in Translation
Cross-listed: REL 149
Instructor: Beaumont, D.
Description: This course introduces the students to major Arab authors of contemporary novels and short stories in excellent translations. Works include Palace Walk by the Nobel Prize winner Naguib Mahfouz, prize-winning short stories of Yusuf Idris, Abdurrahman al-Munif's classic vision of Saudi Arabia Cities of Salt, as well as works by Ghassan Kanafani, Gamal Al-Ghitani and many others. The goal is to give the student an understanding of life in the contemporary Arab World that transcends mass media stereotypes. The selected works reflect literary merit, but the readings also attempt to bring in lesser-known voices from places such as Libya, the Sudan and the Gulf states. Classes will be in seminar form, and class participation and written essays will form the basis of the grade.

Department: Religion & Classics -- Arabic
Course: ARA 206
Title: Advanced Prose Seminar III
Instructor: Beaumont, D.
Description: The course continues the sequence 201-205. Readings may be drawn from contemporary Arabic short stories or medieval works depending on students' interests and abilities. Students write brief essays to expand their vocabulary and improve the speed with which they read and understand literary Arabic. Tests consist of dictations and vocabulary quizzes.

Religion & Classics -- Classical Greek

Department: Religion & Classics -- Classical Greek
Course: CGR 102
Title: New Testament & Classical Greek II
Instructor: Heyman, G.
Prerequisites: CGR 101 or permission of instructor
Description: The primary focus of this course is to continue the study of basic grammar, vocabulary, and syntax in order to read ancient Greek texts. By the end of the semester you will have read selections from some of the foundational works of the western canon, including the philosophical writings of Plato and the New Testament.

Department: Religion & Classics -- Classical Greek
Course: CGR 210
Title: Euripides
Instructor: Geier, A.
Description: Through a reading of one of his best-known tragedies -- either the Medea, Hippolytos, Bacchae, or Alcestis -- we will explore the language and thought of Euripides, the tragedian who is both poet and social critic.

Religion & Classics -- Classical Studies

Department: Religion & Classics -- Classical Studies
Course: CLA 202
Title: Eros and Madness in Plato
Cross-listed: REL 202
Instructor: Geier, A.
Description: A careful and thorough line by line study of Plato's PHAEDRUS and SYMPOSIUM with a view to understanding each dialogue in itself and Plato's philosophic art of poetic composition. Some major themes in Plato will be intensively explored, such as The Soul and its parts, the immortality of The Soul, the nature of learning, Eros and philosophic passion, and others. Mostly discussion.

Department: Religion & Classics -- Classical Studies
Course: CLA 221
Title: Classical Archaeology: Roman Art and Archaeology
Cross-listed: AH 221

Instructor: Colantoni, E.
Description: This course examines the physical remains of ancient Roman civilization, with an emphasis on architecture, sculpture, painting, and other visual arts, in order to understand Roman culture and society. Covering a span of time from the ninth century BC through the fifth century AD, we will first look at the Etruscan background to Roman civilization; we will then trace the development of art and architecture in the city of Rome, with a particular emphasis on the monuments in the city during the period in which Rome was the capital of a vast empire. Along the way, we will also examine evidence from other sites around the Roman Empire, such as Ostia, Pompeii, and Constantinople.

Religion & Classics -- Hebrew

Department: Religion & Classics -- Hebrew
Course: HEB 102
Title: Elementary Hebrew II
Cross-listed: JST 102
Instructor: Fix, T.
Prerequisites: Hebrew 101 or equivalent
Description: Direct continuation of Hebrew 101 with emphasis on enhancing reading, writing, and speaking skills. Several unit exams throughout the course, no final. May not be taken for credit by anyone who has successfully completed HEB 103 or higher.

Department: Religion & Classics -- Hebrew
Course: HEB 204
Title: Hebrew through Conversation
Cross-listed: JST 204
Instructor: Fix, T.
Prerequisites: HEB 103, or equivalent
Description: This is a fourth semester course in the Hebrew language series designed to enhance and advance conversational skills using various sources including Israeli newspapers, Hebrew stories, and topical discussions based on students' interests and Israeli life. There will be writing assignments, quizzes and tests throughout the semester. No final exam.

Religion & Classics -- Latin

Department: Religion & Classics -- Latin
Course: LAT 102
Title: Elementary Latin II
Instructor: Davison, M.
Prerequisites: LAT 101 or permission of instructor
Exams: Two hour exams, frequent quizzes, final exam
Description: The elementary Latin sequence (Latin 101-103) emphasizes reading skills and is based on the ancient authors. Readings are accompanied by ample drills of forms, syntax, and vocabulary.

Department: Religion & Classics - Latin
Course: LAT 220
Title: Plautus and Roman Comedy
Instructor: Colantoni, E.
Prerequisites: LAT 103 or permission of instructor
Description: A study and translation of one whole play of Plautus and passages from several others. The purpose of the course is to help students improve their Latin, become familiar with colloquial expressions used in every-day Latin, and explore the cultural implications concerning Roman Life as depicted in Roman Comedy.

Religion & Classics -- Sanskrit

Department: Religion & Classics -- Sanskrit
Course: SKT 104
Title: Sanskrit IV
Instructor: Brooks, D.
Description: Readings from intermediate sources in Sanskrit.

Russian Studies – Please see Modern Languages & Cultures

Sociology

Department: Sociology
Course: SOC 262
Title: Medical Sociology
Instructor: Harper, D. **Class Size:** 75
Exams: No term papers; three midterm exams; final exam
Coursework: Reading: No single textbook. Six or seven book length monographs. Examples: Forgive and remember - a study of the training of surgeons; Experiment perilous-a study of medical research; Do We Need Doctors - an essay on the role of physicia

Description: Sociological ideas are used to examine health, disease, medicine and a number of related topics: doctor-patient relationships; the recruitment and training of physicians; social, psychological and cultural factors in the cause and treatment of disease; psychiatric disorder; changing organization of health care; research methods in the study of disease; controversies in medicine and health care.

Department: Sociology
Course: SOC 310K
Title: Soc Network Theory and Entrep Activity in Silicon Valley
Cross-listed: ANT310K
Instructor: Thomas Smith **Class Size:** 20
Description: Network theory is at the forefront of an emerging collaboration among academics, with many new and interesting interdisciplinary implications, especially those for entrepreneurship. In this course, students will analyze cutting-edge research an network modelling techniques. They will then apply that knowledge by analogy in the context of a semester-long role-played entrepreneurial exercise. Students will engage in ongoing synthesis to help foster a deep understanding of not only thge importance of network concepts, but also their real-world applications. Designed for students with entrepreneurial zeal, this course will constitute a real-world how-to guide.

Department: Sociology
Course: SOC 311K
Title: Social Network Theory and Entrepreneurial Activity in Silicon Valley II
Cross-listed: ANT 311K
Instructor: Smith T,Silon D **Class Size:** 30
Prerequisites: SOC/ANT 310K
Description: This course is designed for students who have already taken SOC/ANT 310K. It aims to deepen and extend skills in the same areas for which 310K was an introductionsocial network theory and the new sociology of business and entrepreneurial activity. Students will read further in this new literature, and also learn to use the advanced features of network software to analyze network data. Significantly, 311K will coincide with 310K, allowing enrollees to serve as second-generation entrepreneurs, engineers, managers, and marketers in ongoing classroom simulations, while also playing an instructional role in the network laboratory accompanying the class.

Department: Sociology
Course: SOC 312
Title: Studies in Medical Sociology
Instructor: Harper, D. **Class Size:** 12
Prerequisites: Permission of instructor; good knowledge of statistics.
Restrictions: Permission of instructor required Not open to freshmen and sophomores
Exams: No exams; 2 or 3 term papers
Description: CONTENT: Two or three problems in the study of the sociological aspects of disease or mental disorder, (e.g., how can the higher rates of anxiety among women as compared with men be explained?) will be closely examined. METHOD OF INSTRUCTION: The course will be taught as a seminar with class discussion and class reports; students will conduct library research and analyze data. READINGS: Selected journal and research papers.

Statistics

Department: Statistics
Course: STT 203
Title: Introduction to Mathematical Statistics
Cross-listed: MTH 203 **Class Size:** 20
Prerequisites: STT 201 or familiarity with the elementary principles of probability, expected value, variance and covariance. Same as MTH 203.
Coursework: Lectures and a weekly recitation section. Weekly homework, two midterms, and a final.
Description: Discrete and continuous probability distributions and their properties. Principle of statistical estimation and inference. Point and interval estimation. Maximum likelihood method for estimation and inference. Tests of hypotheses and confidence intervals, contingency tables, and related topics.

Department: Statistics
Course: STT 211
Title: Applied Statistics for the Social Sciences I
Exams: 2 midterms and a final
Coursework: Lectures plus weekly recitation section meeting. Weekly homework.
Description: Descriptive statistics, statistical analysis, and statistical inference as used in the social sciences; including elements of correlation, regression, and analysis of variance. Excel, Minitab and similar programs.

Department: Statistics
Course: STT 212
Title: Applied Statistics for the Biological & Physical Sciences I
Exams: Two mid-terms and a final **Class Size:** 75-100
Coursework: Lectures plus a weekly recitation section. Weekly homework.

Description: Descriptive statistics, statistical analysis, and statistical inference as used in the biological and physical sciences; including elements of correlation, regression, and analysis of variance. Excel, Minitab and similar programs.

Department: Statistics
Course: STT 216
Title: Applied Statistics II **Class Size:** 20
Prerequisites: STT 211, STT 212, or STT 213.
Exams: Midterm and final
Coursework: Lectures plus a weekly recitation section. Weekly homework.
Description: Continuation of 211 or 212. Analysis of variance, regression, correlation contingency table analysis, and associated topics. Excel, Minitab and similar programs.

Department: Statistics
Course: STT 222
Title: Design of Experiments
Cross-listed: STT 422 **Class Size:** 10-15
Prerequisites: STT 211, STT 212, STT 216 or equiv
Exams: Final
Description: Randomized blocks and Latin squares, one- and two-way classifications, factorial experiments, analysis of variance and covariance, t-tests and F-tests. Excel, Minitab and JMP and SAS and similar programs.

Department: Statistics
Course: STT 241
Title: Applied Multivariate Analysis
Cross-listed: STT 441 **Class Size:** 15
Prerequisites: STT 226.
Exams: None: Evaluation based on homework and projects.
Coursework: Homework, project
Description: (2 credits; second half of the semester.) Methodology and applications of multivariate analysis. Hotelling's T-square, multivariate regression and analysis of variance. Classification and discrimination. Principal components, clustering, multidimensional scaling. Computer programs including JMP and SAS.

Department: Statistics
Course: STT 391
Title: Independent Study in Statistics
Prerequisites: Consent of the advisor.
Coursework: Supervised reading arranged on an individual basis.

W. Allen Wallis Institute of Political Economy

Department: Political Economy
Course: PEC 582
Title: Political Economy II
Cross-listed: Eco 582, PSC 582
Instructor: Alex Debs
Prerequisites: PEC 575 is recommended (but not necessary)
Description: This course reviews recent advances in nondemocratic politics and the political economy of developing countries. We will tackle such issues as the economic foundations of democratic transitions and the economic impact of power struggles in dictatorships. The course combines the use of formal models with case studies and econometrics.

Women's Studies

Department: Women's Studies
Course: WST 100
Title: Intro to Womens Studies: Gender, Feminism and Women in Sport
Instructor: Yerdon, M. **Class Size:** 25
Description: This is an interdisciplinary course on gender, feminism and women in sport. We consider how theories of gender, social organization, and biological sex shape the questions asked and explanations and interventions offered in the social structure of sports. We examine the interactions between gender, social class, and race, with special emphasis given to examining women in sport from historical, economic, sociological, psychological, scientific, religious, and political perspectives. Collectively, we will examine women in sport from personal and institutional angles, with specific foci on the impact of the social construction of biological sex and gender, the diversity of women, and the interactions of race, class, gender, and sexuality on womens health.

Department: Women's Studies
Course: WST 177W
Title: Creative Middle Eastern Dance
Cross-listed: DAN 180
Instructor: K. Scott
Description: 2.0 credits Unveil the grace and beauty residing in the creative nature of Middle Eastern Dance. Improve strength, flexibility and self awareness of the body. Class work will include meditative

movement, dance technique, improvisation and rhythm identification through music and drumming. Specific dance forms such as Egyptian & Turkish Oriental, Tunisian, American Tribal and Folkloric/Bedouin styles of North Africa will be taught. Discourse and research topics will explore issues of gender, body image, historical perspectives and Orientalism.

Department: Women's Studies
Course: WST 200W
Title: Colloquium in Women's Studies
Instructor: Bredes, N. **Class Size:** 30
Prerequisites: At least one course in Women's Studies recommended
Coursework: substantial research paper(see description)
Description: The colloquium explores the diversity of feminist thought and practice in its importance in forming the intellectual grounding in Women's Studies, in its impact on a variety of disciplines, and in its articulation with lives and social practices. The course follows a three fold structure. First,we consider several major systems of feminist thought; second, through discussions and reading with guest faculty Associates of the Susan B. Anthony Institute, we consider the interdisciplinary methods that under gird these forms of feminist theory in a variety of academic disciplines. Third, in class discussions and writings we consider the experiences of women and men situated in diverse and changing cultural, economic, political, and psychological climates with an emphasis on problem areas of interest to class members. The course will support and develop in students the ability to write intensively in Women's Studies as an inherently interdisciplinary field; it meets the upper-level writing requirement in Women's Studies for the college. A variety of forms of writing will be explored for their value as feminist expression. Students will receive support in the development of a substantial research paper, which comprises a short proposal outlining the paper's major themes and goals, an annotated bibliography, peer review, rough and final drafts. THIS IS A WOMEN'S STUDIES FOUNDATION COURSE. THIS COURSE COUNTS TOWARDS ALL WOMEN'S STUDIES CLUSTERS.

Department: Women's Studies
Course: WST 204F
Title: Feminist Film Theory
Cross-listed: AH 355/555, FR 287, CLT 211G, FMS 355/45
Instructor: S. Willis
Description: Please see AH 355 for the course description.

Department: Women's Studies
Course: WST 205F
Title: Philosophical Foundations of Feminism
Cross-listed: PHL 171
Instructor: Modrak, D. **Class Size:** 30
Description: The study of contemporary feminist theory. The course considers the conception of women expressed through our practices, laws, theories and literature. Is this conception that of an inessential Other as one philosopher has argued? Other topics to be discussed include: equality and equal rights, sex roles and gender specific language, power relations and self-determination, marriage and maternity. THIS IS A WOMENS STUDIES FOUNDATION COURSE.

Department: Women's Studies
Course: WST 215
Title: Community, Earth, and Body
Cross-listed: DAN 214
Instructor: Hook, J.
Description: How does our relationship with our body affect the way we interact with the world? What does it mean to be truly human and to renew and deepen communication with our natural world and society? What is love and how do we practice it? What is transformative learning? These questions and others will be addressed through experimental practice, autobiographical writing and stories, reading, discussion and CONVERSATION.

Department: Women's Studies
Course: WST 229
Title: War and Migration
Cross-listed: ANT 229
Instructor: Kim, E.
Description: Please see ANT 229 for the course description.

Department: Women's Studies
Course: WST 243
Title: Toni Morrison
Cross-listed: ENG 243, ENG 443, AAS 241
Instructor: S. Li
Coursework: Written assignments include three short papers. Attendance at weekly screenings is required.
Description: Please see ENG 243 for the course description.

Department: Women's Studies
Course: WST 243A
Title: Major Author: Jane Austen
Cross-listed: ENG 243, ENG 443, WST 443
Instructor: K.Mannheimer

Description: Blending clear-eyed social commentary with a faith in romantic love, festooning mordant satire with enchantedly happy endings, Jane Austens novels subsist on contradiction and enjoy more popularity than ever. This course will place Austen in the context of her times while also analyzing her continued appeal. Readings include Northanger Abbey, Sense and Sensibility, Pride and Prejudice, Mansfield Park, Emma, and Persuasion, as well as novels by such authors as Frances Burney, Maria Edgeworth, Anne Radcliffe, and the Brontes.

Department: Women's Studies
Course: WST 244
Title: Mutilated Bodies, Mutilated Discourse
Cross-listed: FR 243, AAS 244, CLT 221, CLT 421
Instructor: C. Kemedjio
Description: "Transnational sisterhood" or cultural imperialism? Legitimate ritualized practice or outdated violent ritual? Genital cutting, female circumcision, female genital surgery? The controversy over this practice already begins with the act of its naming. Who is qualified to speak the 'truth' about the assaulted female body? How can we explain the fact that western feminist discourses and right wing politicians tend to agree on the issue of genital mutilations? If there seems to be a consensus about the physical violence imposed on the female body, why is it that western feminist discourse is suspected of perpetuating the mutilation of African voices? This course seeks to provide an understanding of the context in which a fragmented "transnational sisterhood" allows for a proliferation of mutilated discourses on mutilated postcolonial (African, poor and defenseless) bodies. Readings include Alice Walker, Evelyne Accad, Fauziya Kassindja and critical feminist readings from African, French and North American authors. In English.

Department: Women Studies
Course: WST 251
Title: Women in East Asia
Cross-listed: HIS 296W, ANT 252
Instructor: Hauser, E
Coursework: Students will write an essay on Japan and China and a comparative essay at the end of the term, including Korea. Each essay will be 5-8 pages in length, and can be rewritten and resubmitted after the initial grading.
Description: Please see HIS 296W for the course description.

Department: Women's Studies
Course: WST 252
Title: The Biochemistry of Male-Female Differences in Health and Disease
Cross-listed: BIO 255
Instructor: Terry Platt
Prerequisites: BIO 250
Description: In many instances, women display different biochemical patterns than men in their metabolic responses to foods, nutrients, drugs, and other macromolecules, as well as to certain diseases. This course is designed to examine the relatively uncharted territory of such biochemical differences between males and females that are a consequence of their sex. Topics to be covered include alcohol metabolism, lipid metabolism, cardiovascular disease, osteoporosis, Parkinsons disease, the cytochrome p450 system, and gene expression. Lecture and discussions will be integrated with areas of environmental and public health concern. [Note: The course will NOT be concerned with anatomical or physiological sexual responses, sexual development, or aspects of reproduction per se.]

Department: Women's Studies
Course: WST 256
Title: Latin American Women Writers
Cross-listed: CLT 111Q, SP 260, SP 460, CLT 226, CLT 4
Instructor: B. Jorgensen
Description: Through study of texts (mostly novels) written by women from Latin America, we will ask broad questions concerning cultural contexts with respect to sexuality and gender, language, aesthetics, psychology, and social issues. The course will use materials from a variety of fields (literary and cultural theory, film studies, psychology, history, sociology, anthropology, feminist studies) in addition to the primary texts. All texts and discussions in English. Emphasis on collaborative research and progressive writing assignments.

Department: Women's Studies
Course: WST 268
Title: Contemporary Japanese Culture
Cross-listed: JPN 246, CLT 208C, CLT 408C, HIS 278
Instructor: D. Pollack
Exams: Midterm & Final
Description: Fall 2008. Reading and discussion of items in recent popular and scholarly media in Japan and the west on issues of contemporary concern, including national and racial identity, gender and sex roles, immigration and work, war and history, cultural authenticity, and Japan's place in Asia and the world.

Department: Women's Studies

Course: WST 270
Title: Art of the Floating World
Cross-listed: JPN 269, AH 269
Instructor: D. Pollock
Description: Please see JPN 269 for the course description.

Department: Women's Studies
Course: WST 287
Title: U.S. Latinos/Latinas
Cross-listed: SP 282/482, CLT 236B,/436B, AAS 251, WST
Instructor: R. Rodriguez
Description: Please see SP 282 for the course description.

Department: Women's Studies
Course: WST 296
Title: International Human Rights
Cross-listed: HIS 314W, HIS 414, WST 496
Instructor: Pedersen, J.
Description: What does it mean to be human? What political, economic, religious, social, or sexual rights might be part of different people's working definitions? This course will look at both a) the historical development of conflicting theories of human rights and b) more contemporary debates about their ideal extent, their exercise, and their enforcement. Special topics will include debates over the meaning of the American and French Revolutions, the fight to design an International Declaration of Human Rights in the aftermath of World War II, the history of organizations such as Amnesty International, and the controversy around UN events such as the 1995 World Conference on Women in Beijing or the 2002 World Summit on Sustainable Development in Rio de Janeiro.

Department: Women's Studies
Course: WST 391
Title: INDEPENDENT STUDY
Restrictions: Permission of instructor required
Coursework: Students interested in Indepenent Study should contact the Women's Studies Curriculum Director.

Department: Women's Studies
Course: WST 393
Title: HONORS - INDEPENDENT RESEARCH
Restrictions: Open only to senior majors or by permission of instructor
Description: Independent research with substantial supervised research and written work in gender and women's studies. This research should be directed toward work in WST 397.

Department: Women's Studies
Course: WST 393H
Title: Independent Research
Restrictions: Open only to senior majors or by permission of instructor
Description: Honors - see WST 397 Independent research with substantial supervised research and written work in gender and women's studies. This research should be directed toward work in WST 397.

Department: Women's Studies
Course: WST 394
Title: Women's Studies Internship
Instructor: see description
Restrictions: Permission of instructor required
Description: WST 394 It is the Student's responsibility to arrange the internship with the organization and to find a professor as an advisor for the internship. Organizations/Companies currently offering internships (Descriptions available in Lattimore 538) Afterimage, Alternatives for Battered Women, Center for Dispute Settlement, City Council of Rochester, Division of Human Rights, New York, Gay Alliance of Genesee Valley, Monroe County District Attorney's Office, Planned Parenthood, St. Joseph's Villa, Sojourner House, Susan B. Anthony House, TV Dinner/Metro Justice, Urban League of Rochester, Visual Studies Workshop (Media Center) (1-2 positions), Wheatley Branch Library, YWCA.

Department: Women's Studies
Course: WST 396
Title: Women's Studies Seminar
Cross-listed: HIS
Instructor: Pederson, J
Restrictions: Not open to freshmen and sophomores
Coursework: Juniors and seniors only or prerequisite course in African American Literature, American Literature, or Women's Studies.
Description: This course will be announced at a later date. This course fulfills the requirement for WST 396 Women's Studies Seminar

Department: Women's Studies
Course: WST 397
Title: Independent Honors Thesis
Restrictions: Open only to senior majors or by permission of instructor
Description: Honors in Research recognizes the completion of a distinguished honors thesis, research paper of approximately 35 pages researched and written under the direction of afaculty advisor, and approved by the faculty advisor and a second reader. It is

expected that this thesis will be based on research undertaken through WST 393H or WST 394H, and completed in WST 397.

Department: Women's Studies
Course: WST 404
Title: Feminist Film Theory
Cross-listed: AH 355/555, FR 287, CLT 211G, FMS 355/45
Instructor: S. Willis
Description: Please see AH 355 for the course description.

Department: Women's Studies
Course: WST 443
Title: Major Author: Toni Morrison
Cross-listed: ENG 243/443, AAS 241, WST 243
Instructor: S. Li
Description: Please see ENG 243 for the course description.

Department: Women's Studies
Course: WST 443A
Title: Major Authors: Jane Austen
Cross-listed: ENG 243/443, WST 243
Instructor: K. Mannheimer
Coursework: Blending clear-eyed social commentary with a faith in romantic love, festooning mordant satire with enchantedly happy endings, Jane Austens novels subsist on contradiction and enjoy more popularity than ever. This course will place Austen i

Department: Women's Studies
Course: WST 443B
Title: Major Author: The Brontes
Cross-listed: ENG 243/443, WST 243
Instructor: B. London
Description: An isolated country parsonage. A half mad father. A wastrel brother addicted to drugs. Three uniquely gifted sisters who burned their hearts and brains out on the moors but not before leaving us some of the most passionate and revolutionary literature of the 19th century. This course will explore the continuing appeal of the Brontes and the peculiar fascination that they have exercised on the literary imagination. Through intensive study of some of the best-loved novels our culture has produced the literary works of Charlotte, Emily, and Anne Bronte we will explore the roots and reaches of the Bronte myth. We will also consider the Brontes' legacy in todays popular romantic fiction and in some of the many adaptations of their work in print and on the screen. And we will look at our seemingly insatiable appetite for new tellings of the Brontes' life stories.

Department: Women's Studies
Course: WST 456
Title: Latin American Women Writers
Cross-listed: CLT 111Q, SP 260, SP 460, CLT 226, CLT 4
Description: Through study of texts (mostly novels) written by women from Latin America, we will ask broad questions concerning cultural contexts with respect to sexuality and gender, language, aesthetics, psychology, and social issues. The course will use materials from a variety of fields (literary and cultural theory, film studies, psychology, history, sociology, anthropology, feminist studies) in addition to the primary texts. All texts and discussions in English. Emphasis on collaborative research and progressive writing assignments.

Department: Women's Studies
Course: WST 468
Title: Contemporary Japanese Culture
Cross-listed: JPN 246, CLT 208C/408C, WST 268, HIS 278
Instructor: D Pollack
Description: Reading and discussion of items in recent popular and scholarly media in Japan and the west on issues of contemporary concern, including national and racial identity, gender and sex roles, immigration and work, war and history, cultural authenticity, and Japan's place in Asia and the world.

Department: Women's Studies
Course: WST 472
Title: Gender and Sexuality
Cross-listed: GER 272/472, CLT 222B/422B
Instructor: J Creech
Description: This course will examine literary, artistic, and theoretical representations of gender and sexuality as they have changed in the course of the 20th Century. The focus will be on texts from Western Europe and the US, but we will also consider other perspectives. From the New Woman to French Feminists and transnational feminism, from homophile societies to "queer nation" and gay marriage, from Sigmund Freud to Michel Foucault and Judith Butler, we will explore the contested and politically charged debates around gender and sexuality that have shaped our views of identity over the last century.

Department: Women's Studies
Course: WST 487
Title: US Latinos/Latinas
Cross-listed: SP 282/482, CLT 236B,/436B, AAS 251, WST
Instructor: R. Rodriguez
Description: Please see SP 282 for the course description.

Writing Program

Department: Writing Program
Course: WRT 105
Title: Reasoning and Writing in the College **Class Size:** 15
Description: WRT 105 introduces students to disciplinary writing at the college level by offering instruction in small sections that focus on the act of writing. It provides instruction and practice in clear and effective writing and in constructing cogent and compelling arguments, as students draft and revise numerous papers of different forms and lengths. These papers will introduce some of the forms of writing students will be expected to produce later in their college careers as well as in their public and professional lives after graduation. The subject of the course is writing, but since writing is about something, each section of 105 will present various texts, mostly written, for analysis and discussion in preparation for constructing extended argumentative essays and a final research paper. Students will consider the roles of audience and purpose in shaping the organization, style and argumentative strategies of their own papers, and they will learn to become critical readers of their writing through peer critiques and revision and editing workshops. Each section has unique content. Please refer to http://writing.rochester.edu for a full list of course descriptions.

Department: Writing Program
Course: WRT 105E
Title: Reasoning and Writing in the College **Class Size:** 10
Restrictions: Permission of Department required
Description: This course is an extended version of Reasoning and Writing in the College, WRT 105, and as such introduces students to disciplinary writing at the college level. It provides instruction and practice in clear and effective writing and in constructing cogent and compelling arguments, as students draft and revise numerous papers of different forms and lengths. These papers will introduce some of the forms of writing students will be expected to produce later in their college careers as well as in their public and professional lives after graduation. The subject of the course is writing, but since writing is about something, each section of 105E will present various texts, mostly written, for analysis and discussion in preparation for constructing extended argumentative essays and a final research paper. Students will consider the roles of audience and purpose in shaping the organization, style and argumentative strategies of their own papers, and they will learn to become critical readers of their writing through peer critiques and revision and editing workshops. All extended versions of Reasoning and Writing in the College will include an additional class session each week and will be taught in computer labs and limited to 10 students. Places in these sections will be reserved for students whose writing placement results suggest that they need a more intensive writing experience to meet the demands of college and professional writing. Each section has unique content. Please refer to http://writing.rochester.edu for a full list of course descriptions.

Department: Writing Program
Course: WRT 108
Title: Workshop in Writing
Prerequisites: Fulfillment of primary writing requirement
Description: Workshop in Writing (CAS 108) offers ongoing practice and instruction in writing and critiquing writing. Students meet weekly with a Writing Center Consultant to work on forms of academic writing relevant to their spring coursework -- forms which may include summary, critical response, the argumentative essay, the lab report, and others. Students may also choose to revise essays completed in previous semesters or work on other non-fiction prose projects of interest. Guided by a Writing Center Consultant, students plan, draft and revise their writing, critique each other's work, assess their own writing, and participate in group sessions on writing issues of shared concern. The semester's work will culminate in a final portfolio that features polished essays and an overall self-assessment. This course is graded pass/fail.

School of Engineering and Applied Sciences

Biomedical Engineering

Department: Biomedical Engineering
Course: BME 210
Title: Biosystems & Circuits
Instructor: Carney, L **Class Size:** 30
Prerequisites: Physics 122; Math 162; BME201L
Exams: Quizzes, Mid-term exam, Final exam
Coursework: Problem sets
Description: Introduction to linear systems theory and electrical circuit theory. Examples will include bioelectric systems and signals and models of biological systems.

Department: Biomedical Engineering

Course: BME 228
Title: Physiological Control Systems
Cross-listed: BME 428
Instructor: Gdowski, G ,Derefinko, V **Class Size:** 30
Prerequisites: Juniors required to have: Math 164 or 163/165, BME201L and ECE 241 or equivalent. Seniors required to have:BME 230 in place of E
Exams: Three 1.5 hour in-class exams and 1 comprehensive exam at the end of the semester
Coursework: 12 homework assignments examples will be taken from the fields of respiratory mechanics, circulatory control and glucose-insulin regulation. Students will perform simulations using LABVIEW 5 Lab assignments and final project for groups of
Description: The course focuses on the application of control theory to physiological systems. Lectures present modern control theory in the context of physiological systems that utilized feedback mechanisms. Lectures begin with an overview of linear systems analysis including: Laplace Transforms and Trasfer functions. The response dynamics of open-and closed-loop systems such as the regulation of cardiac output and level of glucose are discussed. Other topics include: stability analysis and identification of physiological control systems. 4 credits

Department: Biomedical Engineering
Course: BME 230
Title: Biomedical Signals & Measurements
Instructor: McAleavey, S **Class Size:** 45
Prerequisites: ECE113 or 210 or permission of instructor
Exams: two mid-term exams and a final exam
Coursework: Students will participate in 6 laboratory sessions and will prepare written laboratory reports on their results.
Description: This course examines the array of instrumentation and techniques used in the acquisition, processing, and presentation of biomedical signals. Topics include transducers, sensors, Fourier analysis, the ECG signal, flow measurement, medical imaging, and biosensors. Laboratory sessions cover amplifiers, bridge circuits, and the measurement of physical parameters (temperature, pressure, strain) and electrophysiological signals. 4 credits

Department: Biomedical Engineering
Course: BME 251
Title: Biomedical Ultrasound
Instructor: Dalecki, D **Class Size:** 30
Prerequisites: Math 163, Math 164, Physics 122 or Permission of instructor
Restrictions: Not open to freshmen and sophomores
Description: The course presents the physical basis for the use of high-frequency sound in medicine (diagnosis, therapy, and surgery) and biology. Topics include acoustic properties of tissues, sound propagation (both linear and nonlinear) in tissues, interactions of ultrasound with gas bodies (acoustic cavitation and contrast agents), thermal and non-thermal biological effects of ultrasound, ultrasonography, dosimetry, hyperthermia and lithotripsy. 4 credits

Department: Biomedical Engineering
Course: BME 262
Title: Cell & Tissue Engineering
Instructor: Awad, H **Class Size:** 30
Prerequisites: BME 260, CHE 225, CHE 243, CHE 244 or permission of instructor
Exams: 2 mid-terms and 1 final exam
Coursework: Term research paper with presentation
Description: This course teaches the principles of modern cell and tissue engineering with a focus on understanding and manipulating the interactions between cells and their environment. After a brief overview of Cell and Tissue Engineering, the course covers 5 areas of the field. These are: 1) Physiology for Tissue Engineering; 2) Bioreactors and Biomolecule Production; 3) Materials for Tissue Engineering; 4) Cell Cultures and Bioreactors and 5) Drug Delivery and Drug Discovery. Within each of these topics the emphasis is on analytical skills and instructors will assume knowledge of chemistry, mass transfer, fluid mechanics, thermodynamics and physiology consistent with the Cell and Tissue Engineering Track in BME. In a term project, students must present written and oral reports on a developing or existing application of Cell and Tissue Engineering. The reports must address the technology behind the application, the clinical need and any ethical implications. . 4 Credits

Department: Biomedical Engineering
Course: BME 296
Title: BME Design Project
Cross-listed:
Instructor: Lerner, A,Seidman, S **Class Size:** 50
Prerequisites: math, science,and engineering courses appropriate for fourth-year students in BME, BME 201, BME 221, BME 230, BME 295, BME 260.
Restrictions: Open only to senior majors or by permission of instructor
Exams: Design reports, both oral and written are required throughout the semester.
Description: Senior capstone design course in the Biomedical Engineering Program. Students work in teams to design, build, and test a

medical device or instrument for a faculty, community or industrial sponsor. Accompanying lectures and discussions introduce issues related to ethics, economics, project management, regulation, safety, and reliability. 4 credits

Department: Biomedical Engineering
Course: BME 396
Title: Biomedical Instrumentation
Instructor: Seidman, S **Class Size:** 20
Prerequisites: BME 230 or ECE 241 or permission of instructor
Exams: 2 mid-terms and 1 comprehensive final exam
Description: Course will cover circuits and sensors used to measure physiological systems at an advanced level. Both signal conditioning and sensor characteristics will be addressed. Topics will include measurement of strain, pressure, flow, temperature, biopotentials, data acquisition, and electrical safety.

Department: Biomedical Engineering
Course: BME 418
Title: Introduction to Neuroengineering
Cross-listed: ANA 518, BME 218
Instructor: Pinto, D **Class Size:** 15
Prerequisites: BME260, strong math/computational skills recommended
Restrictions: Permission of instructor required
Coursework: 6-7 weekly homeworks before break; after break there will be weekly quizzes based on readings; final project. This is the graduate level of BME 218
Description: This course introduces many aspects of neuroengineering research, with an emphasis on biologically plausible models of neurons, circuits, and systems.

Department: Biomedical Engineering
Course: BME 442
Title: Cell Motility and Molecular Machines
Instructor: McGrath, J **Class Size:** 20
Prerequisites: permission of instructor
Description: From single molecule motors transporting materials within cells to contracting muscle fibers, molecular engines come in a range of sizes and produce some of the most fascinating phenomena in biology. This course teaches the modern theories behind molecular engines, presuming only an elementary background in cell biology and mechanics. Course offered the second 1/2 of the spring semester

Department: Biomedical Engineering
Course: BME 451
Title: Biomedical Ultrasound
Cross-listed: ECE 451
Instructor: Dalecki, D **Class Size:** 30
Prerequisites: MATH 163, MATH 164, PHYSICS 122 or permission of instructor
Coursework: Course assignments and projects are advanced in comparison to the undergraduate level course.
Description: The physical basis for the use of high-frequency sound in medicine (diagnosis, therapy, and surgery) and biology. Topics include acoustic properties of tissues, sound propagation (both linear and nonlinear) in tissues, interactions of ultrasound with gas bodies(acoustic cavitation and contrast agents), thermal and non-thermal biological effects of ultrasound, ultrasonography, dosimetry, hyperthermia and lithotripsy. This course is the graduate complement to BME251. 4 Credits

Department: Biomedical Engineering
Course: BME 452
Title: Medical Imaging-Theory & Implementation
Cross-listed: ECE 452
Instructor: Parker, K J **Class Size:** 30
Prerequisites: ECE 242
Description: Physics and implementation of X-ray, ultrasonic, and MR imaging systems. Special attention is given to the Fourier transform relations and reconstruction algorithms of X-ray and ultrasonic-computed tomography, and MRI. 4 credits

Department: Biomedical Engineering
Course: BME 462
Title: Cell & Tissue Engineering
Instructor: McGrath, J **Class Size:** 20
Prerequisites: BME 260, CHE225, CHE243, CHE244 or permission of instructor
Exams: 2 mid-terms and 1 final
Coursework: Term research paper with presentation
Description: This course teaches the principles of modern cell and tissue engineering with a focus on understanding and manipulating the interactions between cells and their environment. After a brief overview of Cell and Tissue Engineering, the course covers 5 areas of the field. These are: 1) Physiology for Tissue Engineering; 2) Bioreactors and biomolecule production; 3) Materials for Tissue Engineering; 4) Cell Cultures and bioreactors and 5) Drug Delivery and Drug Discovery. Within each of these topics the emphasis is on analytical skills and instructors will assume knowledge of chemistry, mass transfer, fluid mechanics, thermodynamics and physiology consistent with the Cell and Tissue Engineering Track in BME. In a term project,

graduate students must identify a technological need and present orally and in writing a proposal to meet the need. 4 Credits

Department: Biomedical Engineering
Course: BME 485
Title: Cell & Membrane Mechanics
Instructor: Waugh, R **Class Size:** 15
Restrictions: Permission of instructor required
Description: The primary focus of this course is on the fundamental science underlying the mechanical behavior of cell membranes, with some additional attention given to the mechanical behavior of leukocytes. Our approach is to explore mathematical descriptions of the physical properties biomembrane structures. Basic aspects of the structure and composition of cell membranes are reviewed as a basis for the mathematical treatments. The course is typically taught in the first half of the spring semester. Prerequisites: This course is designed for upper level undergraduates and graduate students. Some background in solid mechanics is required, and some cell biology is desirable. Course offered first 1/2 of spring semester . Course is taught alternate years.

Department: Biomedical Engineering
Course: BME 486
Title: Finite Elements
Cross-listed: ME 441, ME254
Instructor: Perucchio, R **Class Size:** 30
Prerequisites: ME226, finite elements & programming capability in Fortran, C, C++ ME 226 Finite elements and programming capability in FORTRAN
Exams: 2 exams, term project and weekly homework
Coursework: Term project requires the implantation of a finite element program
Description: This course provides a thorough grounding on the theory and application of linear finite element analysis in solid and structural mechanics and related disciplines. Topics: matrix structural analysis concepts and computational procedures, review of linear elasticity, variational methods and energy formulation, weighted residual methods and Galerkin techniques, shape functions based on assumed displacements, isoparametric formulation, FE solution of heat transfer problems, global analysis aspects, error estimation and convergence. MATLAB is used extensively througout the course. 4 credits

Department: Biomedical Engineering
Course: BME 487
Title: Nonlinear Finite Element Analysis
Cross-listed: ME 458
Instructor: Gans, R **Class Size:** 30
Prerequisites: ME 441 ME 441 or equivalent, resaonable fluency in scientific computing ME 441 or equivalent, resaonable fluency in sc
Exams: 1 mid term exam and a project
Description: Theory and application of nonlinear finite element analysis (FEA) with a focus on applications in fluid mechanics. Quick review of basic FEA and generalization to nonlinear situations. Review of fluid mechanics (at the undergraduate level). Linearization and iterative techniques. Illustrations from classical fluids problems. Extension to modern problems. Non-Newtonian fluids (if time allows). There will be a focused project requiring the writing of code. 4 Credits

Department: Biomedical Engineering
Course: BME 593
Title: Lab Rotations in BME
Instructor: Waugh, R
Description: Students rotate in at least 3 different labs during the first year of graduate study to learn of the diversity of research opportunities for PhD research. 2 credits

Chemical Engineering

Department: Chemical Engineering
Course: CHE 116
Title: Fundamentals of Computing
Instructor: Weinstein, M **Class Size:** 30
Exams: 1 exam and project
Description: This 7-week course provides an introduction to Microsoft Excel and its powerful VBA (Visual Basic for Applications) programming environment. Although chemical engineering concepts are integrated into the curriculum, no prior chemical engineering experience is required. This course will be of value to engineers and analytically oriented individuals of many disciplines. Students will learn and apply a number of general tools/approaches that will facilitate analytical problem solving in a wide variety of situations. Although no prior Excel or programming experience is required, the course does provide instruction on a select set of more advanced topics such as non-linear curve fitting and non-linear optimization. The course meets 2x per week in the Gavett 244 computer lab. Each class will consist of a lecture + hands-on computer time.

Department: Chemical Engineering
Course: CHE 150
Title: Green Engineering for a Sustainable Environment

Instructor: Chimowitz, E ,Ebenhack, B **Class Size:** 30
Restrictions: Open only to freshmen & sophomores
Coursework: Only open to Juniors and Seniors of majors other than the offering department
Description: This course will study the issue of green engineering ideas in pursuit of sustainable technology which is emerging as a critical one in advanced industrial societies. By sustainable technology we mean the development of environmentally benign processes that have minimal adverse impact on the surrounding earths ecosystem. This new course will provide an introduction to these issues, focusing upon renewable clean energy technologies, like electrochemically based fuel cell driven power systems that use hydrogen gas as the input fuel, and the prospects for solar power in the future. We will also discuss the current regulatory context and growing interest in this topic amid the world-wide debate about the greenhouse effect, climate change and the potential for global warming. 4 Credits

Department: Chemical Engineering
Course: CHE 211
Title: Probability for Chemical Engineers
Cross-listed: CHE411
Instructor: Chimowitz, E.
Prerequisites: MTH161, MHT162
Coursework: Project and regular homework assignments
Description: This course will provide an introduction theory applied to engineering problems. We will study the basic elements of probability theory including the properties of special random variables like the Normal, Poisson and Exponential distributions. Applications to chemical/environmental engineering problems will be discussed as well as the use of statistical simulations using Wiener sampling methods. 2-credits (alternate semesters)

Department: Chemical Engineering
Course: CHE 213
Title: Molecular Self-Assembly
Cross-listed: CHE 413
Instructor: Anthamatten, M **Class Size:** 30
Prerequisites: CHE 203 CHE 225 or CHM 251 (or equivalent).
Restrictions: Permission of instructor required for undergraduates
Coursework: Homework assignments and a technical presentation or paper will be required.
Description: This four-credit graduate course will provide an overview of several contemporary research topics pertaining to structured organic materials. Lectures will focus on intermolecular interactions and the thermodynamics of self-assembly. Additional lectures will introduce molecular crystals, polymer crystallinity, liquid crystals, self-assembled monolayers, surfactants, block copolymers, and biomimetic materials. Homework assignments and a brief technical presentation will be required. Advanced undergraduate students are welcome. 4-credits

Department: Chemical Engineering
Course: CHE 231
Title: Chemical Reactor Design
Instructor: Yang, H **Class Size:** 30
Prerequisites: MTH 163, CHE 113
Exams: 2 hrly exam + final
Description: Review of chemical kinetics; methods of kinetic data collection, analysis, and interpretation; calculation of simple reactor designs. Emphasis is on homogeneous uncatalyzed reactions, but heterogeneous and catalyzed reactions are considered. 4-credits

Department: Chemical Engineering
Course: CHE 243
Title: Fluid Dynamics
Instructor: Foster, D **Class Size:** 30
Prerequisites: PHY 121, MTH 165 (may be concurrent)
Exams: 2 hourly exams, final
Coursework: weekly homework sets, design project
Description: Basic principles of fluid flow, conservation of mass, momentum,laminar flow problems, dimensional analysis, macroscopic balances, and design of fluid flow systems. 4-credits

Department: Chemical Engineering
Course: CHE 246
Title: ChE Principles Lab
Instructor: Olsen, T ,Ebenhack, B **Class Size:** 15/section
Prerequisites: MTH 161, 162 and CHM 103, equivalent
Description: Hands-on experience with concepts in phase equilibrium, heat and mass transfer, and chemical kinetics. Emphasis on measurement techniques, data analysis, and experimental design. Involves structured experiments, open-ended projects,and oral or written reports. 3-credits

Department: Chemical Engineering
Course: CHE 250
Title: Separation Processes
Instructor: Jorne, J., **Class Size:** 30
Prerequisites: CHE 113, CHE 225, CHE 244, or permission of instructor
Exams: 2 quizzes, final exam, design project
Description: Application of mass transfer and thermodynamics to chemical separation techniques. Fundamentals and design of processes such as distillation, absorption, extraction, and crystallization.

Fixed-bed operations, such as ion exchange and chromatography, and membrane processes are also considered. 4-credits

Department: Chemical Engineering
Course: CHE 272
Title: Process Dynamics and Control
Instructor: Chimowitz, E **Class Size:** 30
Prerequisites: CHE 113, CHE 116 or by permission of instructor.
Restrictions: Not open to freshmen and sophomores
Exams: 1 oral exam.
Description: Lectures,problem sets,and design projects. Introduction to the dynamic behavior of chemical engineering systems and to the analysis of feedback control systems. Methods of design of single feedback loops and multivariable systems are covered. 2-credits

Department: Chemical Engineering
Course: CHE 277
Title: Energy Resources & Utilization
Cross-listed: AAS 277
Instructor: Ebenhack, B **Class Size:** 20
Description: Emphasis on technical and development aspects of energy resource problems. Applications of resource exploration and development in energy prospective locales which lack commercial energy development: such as the rift basins and embayments of Africa. Consideration of quality of life impacts of energy. Problems considered include: combustion of fossil fuels for heat and work, combustion products and environmental impact, comparison of fuels on environmental grounds, benefits of energy in social development, technology of energy exploration and development, and economics of energy development and acquisition. 4-credits

Department: Chemical Engineering
Course: CHE 279
Title: Chemical Engineering Practices
Instructor: Jorne, J. **Class Size:** 30
Description: Issues of relevance to the practice of chemical engineering. Topics include basic economic principles and marketing issues,ethics, plant safety, worker education and training and environmental implications in process designs. Students visit a local industry to gain perspective on the scale of a chemical process. Presentations by practicing engineers expose the versatility of a chemical engineering education. 1-credit

Department: Chemical Engineering
Course: CHE 281K
Title: Solving UR's Enviro-Footprnt
Cross-listed: ANT281K
Instructor: Ebenhack, B
Description: The intent of the course is to develop marketable concepts for the University to consider as opportunities to reduce our impact on the local and global environment. Students will establish teams to analyze data on the energy consumption and greenhouse gas emission of the University from facilities operations and transportation. This situation analysis will cover direct financial costs and indirect external and societal effects. Based on the audit, the student teams will identify opportunities for reducing energy consumption and greenhouse gas emission and then assess their proposed solutions in terms of cost-effectiveness, technical feasibility, and consumer values and motivation to participate in more sustainable solutions. The course is for students with a commitment to doing something meaningful about sustainability globally and locally in Rochester. The student process of developing solutions will be guided by a multidisciplinary team of faculty with expertise in architecture, business, engineering, and social science. The faculty team will not lecture in traditional manner but provide data on University facilities operations, training in team-building, and consultation on business analysis, life cycle energy analysis, cultural analysis and market research, and persuasive business presentations. At the end of the course, student teams will present the results of their work to UR facilities management for action to reduce the environmental footprint of the University.

Department: Chemical Engineering
Course: CHE 411
Title: Introduction to Probability for Chemical Engineers
Cross-listed: CHE211
Instructor: Chimowitz, E
Prerequisites: MTH 161, MTH162
Coursework: Project and regular homework assignments
Description: This course will provide an introduction to probability theory applied to engineering problems. We will study the basic elements of probability theory including the properties of special random variables like the Normal, Poisson and Exponential distributions. Applications to chemical/environmental engineering problems will be discussed as well as the use of statistical simulations using Wiener sampling methods. 2-Credits

Department: Chemical Engineering
Course: CHE 413
Title: Molecular Self-Assembly
Cross-listed: CHE 213
Instructor: Anthamatten, M **Class Size:** 30

Prerequisites: CHE 225 or CHM 251 (or equivalent).
Restrictions: Permission of instructor required for undergraduates
Exams: two exams
Coursework: Homework assignments and a brief technical presentation or paper will be required.
Description: This course will provide an overview of several contemporary research topics pertaining to structured organic materials. Lectures will focus on intermolecular interactions, the thermodynamics of self-assembly, and interfacial phenomena. Specific research topics to be addressed include molecular crystals, polymer crystallinity, liquid crystals, surface functionalization, self-assembled monolayers, surfactants, functional block copolymers, and biomimetic materials. 4-credits

Department: Chemical Engineering
Course: CHE 430
Title: Organic Electronics
Instructor: Tang, Ching **Class Size:** 60
Description: Basic optical and electronic processes of organic molecules and polymers. Charge transport and luminescent properties of organic solids. Metal/organic contacts and charge injection. Applications in thin-film organic electronic devices including organic light emitting diodes, solar cells, photoconductors, and transistors. Review of selected papers. 4 Credits

Department: Chemical Engineering
Course: CHE 454
Title: Interfacial Engineering
Instructor: Yates, M
Description: Lectures on the fundamentals of colloids and interfaces, systems with high interfacial area and their role in modern processes and products. Topics include interfacial tension, contact angle, adsorption, surfactants, micelles, microemulsions and colloidal dispersions. Techniques for formation and characterization of interfaces and colloids will be reviewed.

Department: Chemical Engineering
Course: CHE 462
Title: Cell & Tissue Engineering
Cross-listed: BME 462
Instructor: McGrath, J **Class Size:** 20
Prerequisites: BME 260, CHE 225, CHE 243, CHE 244 or permission of instructor
Exams: 2 mid-terms and 1 final
Coursework: Term research paper with presentation
Description: See BME 462

Department: Chemical Engineering
Course: CHE 466
Title: Microhydrodynamics
Cross-listed: BME 466
Instructor: King, M **Class Size:** 30
Description: In this course we develop insight into the motion of small particles in a viscous fluid. Such problems are encountered in biology, biotechnology, and composite materials processing. Specific topics include flow past spheres and arbitrary bodies, (thermally driven) motion of bubbles and drops, slender body theory, and leading-order inertial corrections. 4-credits

Department: Chemical Engineering
Course: CHE 469
Title: Biotechnology and Bioengineering
Instructor: Wu, J **Class Size:** 30
Prerequisites: BIO 150, CHE 113, CHE 231
Restrictions: Open only to senior majors or by permission of instructor
Description: The life science and engineering principles underlying biotechnology processes are covered. The topics include microbial conversions, recombinant DNA, immune technology, and tissue cultures. Emphasis will be on both life science fundamentals and process design. 4-credits

Department: Chemical Engineering
Course: CHE 508
Title: Genes, Development and Disease
Cross-listed: GEN 508
Instructor: R. Jiange
Description: See GEN 508

Electrical & Computer Engineering

Department: Electrical & Computer Engineering
Course: ECE 113
Title: Circuits and Signals
Instructor: Hsiang, T **Class Size:** 30
Prerequisites: ECE111, MTH163 or MTH165 or ME163; concurrent with MTH164 or ME164
Exams: 2 midterms and 1 final
Coursework: 12 problem sets, 9 labs, and 2 computer-based design projects
Description: Signal representation with applications to circuits: AC circuits and phasors, complex frequency, amplifiers and filters, resonance, two-port networks, Laplace transforms. Fourier series, Fourier transforms.

Department: Electrical & Computer Engineering

Course: ECE 114
Title: Introduction to Computers and Programming
Instructor: Huang, M. **Class Size:** 60
Exams: 5 quizzes, midterm & final exams
Coursework: 10 programming assignments
Description: Introduction to principles of well-structured and efficient computer programming in the C++ language. Topics covered:
1. Introduction to computer organization, architecture, operating systems,and programming mechanics;
2. Introduction to algorithm and complexity
3. Object-oriented programming (OOP) philosophy, principles, and mechanisms(encapsulation, abstraction, inheritance, and polymorphism)
4. Programming language fundamentals and OOP with C++
5. Data structure primer (linked list, hash table, etc.)

Department: Electrical & Computer Engineering
Course: ECE 200
Title: Computer Organization
Instructor: Dery, H. **Class Size:** 40
Prerequisites: ECE 114 or CSC171 or permission of Instructor
Exams: Final Exam
Description: Instruction set principles; processor design, pipelining, data and control hazards; datapath and computer arithmetic; memory systems; I/O and peripheral devices; internetworking. Students learn the challenges, opportunities, and tradeoffs involved in modern microprocessor design. Assignments and labs involve processor and memory subsystem design using hardware description languages (HDL).

Department: Electrical & Computer Engineering
Course: ECE 210
Title: Circuits and Microcontrollers for Scientists and Engineers
Instructor: Mottley **Class Size:** 60
Prerequisites: MTH 163 or MTH 165, PHY 122
Exams: 3 in calss exams
Coursework:

Description: Description: 4 credit hour course, with laboratory, intended for physical scientists and (non-electrical) engineers. Electrical concepts will be developed based on modern needs and techniques: Current, Voltage, Components, Microcontrollers, Sources, Operational Amplifiers, Analysis Techniques, First and Second Order Circuits, Timing with Microcontrollers, Sinusoids and AC, Controlling Motors and Power Circuits.

Department: Electrical & Computer Engineering
Course: ECE 216
Title: Microprocessors and Data Conversion
Instructor: Derefinko, V. **Class Size:** 20
Prerequisites: ECE112, ECE113, ECE114
Coursework:

Description: Overview of the architecture of microprocessor and embedded micro-controller systems. Including the central processing unit, memory, bus structures (internal and external such as PCI, USB, CAN GPIB), I/O including programmable peripheral interface controllers. Timer/counters, analog-to-digital converters, digital-to-analog converters, multiplexers, and interrupt structures. The focus is on the development of applications written in assembly language and in high level programming language such as C or C++. Efficient methods for designing and developing programs for embedded microcomputer systems will be covered with an emphasis on processing data from peripheral devices in real-time applications. Serial and parallel I/O, interrupt applications, use of A/D and D/A converters, and applications of timer/counters are studied, with special attention given to interfacing the microcontroller to the analog world.

Department: Electrical & Computer Engineering
Course: ECE 222
Title: Integrated Circuits Design & Analysis
Instructor: H. Wu **Class Size:** 20
Prerequisites: ECE 221
Exams: Midterm & final
Coursework: homeworks and labs
Description: An introduction to the design and analysis of digital and analog integrated circuits. Technologies, such as NMOS, CMOS, GaAs, Bipolar, and BiCMOS will be discussed. Semiconductor processing and device models will be developed and applied. Specific circuit structures will be analyzed and their time/frequency responses evaluated and interpreted. The course includes a laboratory which integrates both experimental design and analysis and computer simulation. Problem sets and assigned reading will be handed out regularly.

Department: Electrical & Computer Engineering
Course: ECE 242
Title: Communications Systems
Instructor: Sharma, G. **Class Size:** 40
Prerequisites: ECE 241, MTH201
Exams: Midterm and final
Coursework: five/bin Matlab band labs; MATLAB required
Description: Communication systems overview, Analog signal transmission and reception, Amplitude and Frequency Modulation: bandwith,

power, and complexity trade-offs, elements of random processes. Noise in communication systems, Performance of analog communication systems in the presence of noise. Digital communication system overview, Sampling and quantization, Digital baseband transmisson over aditive white Gaussian noise channels, Optimum reeiver principles, Baseband binary PAM and matched filter receiver, Geometric signal representaion. Introductory information theory.

Department: Electrical & Computer Engineering
Course: ECE 245
Title: Wireless Communications
Cross-listed: ECE445
Instructor: W. Heinzelman **Class Size:** 30
Prerequisites: ECE 242 or 244 or permission of instructor

Exams: Midterm and final
Coursework: Bi-weekly homework assignments. Term Project.

Description: This course teaches the underlying concepts behind traditional cellular radio and wireless data networks (e.g., channel modeling, modulation, media-access, channel coding) as well as design trade-offs among RF bandwith, transmitter and receiver power and cost, and system performance. This course will provide an in-depth look at modern cellular systems, wireless local area and personal area networks, ad-hoc data networks, and sensor networks. Topics will include media access control, routing, flow control, and cross-layer architectures. Issues such as quality of service (QoS), energy conservation, reliability and mobility management will be discussed. Students will be required to complete a semester-long research project related to the theme of this course.

Department: Electrical & Computer Engineering
Course: ECE 262
Title: Advanced CMOS VLSI Design
Cross-listed: ECE 462
Instructor: T. Soyata
Prerequisites: ECE261 or ECE222

Coursework: 1 large VLSI design project

Description: Review of CMOS Subsystem design. Team project on complex digital systems, such as a simple microprocessor, a self-timed multiplier, or a digital filter. Project design requirements include architectural design, logic and timing verification, layout design, and test pattern generation. The resulting VLSI chips may be fabricated.

Department: Electrical and Computer Engineering
Course: ECE 349
Title: Senior Design
Instructor: Bocko, M.
Prerequisites: Must have taken all courses designated for the chosen concentration option. All courses in the first 7 semesters of this progra
Description: Senior design course. Prior faculty approval required or design project proposal.

Department: Electrical & Computer Engineering
Course: ECE 399
Title: Junior Seminar
Instructor: Mottley, J. **Class Size:** 50
Prerequisites: Accepted as an ECE Major
Coursework: Participation in course discussions, write many one page reaction papers, 2 longer papers (3-6 pages) on two different topics, one with revision.
Description: Study of ethical, social, economic and safety considerations
that arise in engineering practice by discussion of
appropriate novels, movies, essays, videos and other
materials. Presentations by outside speakers. Required course for all electrical and computer engineering students.

Department: Electrical & Computer Engineering
Course: ECE 443
Title: Mobile Communications
Instructor: Vosoughi, A **Class Size:** 15
Prerequisites: ECE 440, ECE 444
Exams: midterm, final
Coursework:

Description: In this course we study mobile wireless communications with emphasis on physical layer issues. The course begins with a brief review of current mobile wireless systems and standards. We then characterize the mobile radio channels (path loss, shadowing, multipath fading effects, frequency selective and time dispersive channels). We consider the performance of practical digital modulation schemes under wireless channel impairments, and investigate transmitter and receiver design techniques that will improve the performance. The design strategies that will be covered includes: adaptive modulation, diversity techniques (time, frequency, and spatial diversity), equalization, multicarrier modulation (OFDM), spread spectrum (CDMA), multiple transmit and receive antennas (MIMO, spatial multiplexing, space-time coding). The course concludes with studying multi-user wireless systems and multiple access schemes.

Department: Electrical & Computer Engineering
Course: ECE 445
Title: Wireless Communications
Cross-listed: ECE 245
Instructor: Heinzelman, W. **Class Size:** 40
Prerequisites: ECE242 and ECE 244 or permission of Instructor

Exams: midterm and final
Coursework: Bi-weekly homework assignments. Term project.

Description: This course teaches the underlying concepts behind traditional cellular radio and wireless data networks (e.g., channel modeling, modulation, media-access, channel coding) as well as design trade-offs among RF bandwith, transmitter and receiver power and cost, and system performance. This course will provide an in-depth look at modern cellular systems, wireless local area and personal area networks, ad-hoc data networks, and sensor networks. Topics will include media access control, routing, flow control, and cross-layer architectures. Issues such as quality of service (QoS), energy conservation, reliability and mobility management will be discussed. Students will be required to complete a semester-long research project related to the theme of this course.

Department: Electrical & Computer Engineering
Course: ECE 452
Title: Medical Imaging - Theory and Implementation
Cross-listed: OPT 452
Instructor: Parker, K. J. **Class Size:** 20
Prerequisites: ECE 242
Exams: Midterm and Final Project
Coursework: Weekly problem sets, matlab simulations, extensive simulations and image analysis.
Description: Physics and implementation of X-ray, ultrasonic, and MR imaging systems. Special attention given to the Fourier transform relations and reconstruction algorithms of X-ray and ultrasonic-computed tomography, and MRI.

Department: Electrical & Computer Engineering
Course: ECE 462
Title: Advanced CMOS VLSI Design
Cross-listed: ECE262
Instructor: Soyata, T. **Class Size:** 20
Prerequisites: ECE261 or ECE222

Coursework: 1 large VLSI design project.

Description: Review of CMOS Subsystem design. Team project on complex digital systems, such as a simple microprocessor, a self-timed multiplier, or a digital filter. Project design requirements include architectural design, logic and timing verification, layout design, and test pattern generation. The resulting VLSI chips may be fabricated.

Department: Electrical & Computer Engineering
Course: ECE 463
Title: VLSI Error Control Systems
Instructor: Ampadu, P. **Class Size:** 15
Prerequisites: ECE461 or permission of Instructor
Description: Device scaling beyond 100nm presents unique reliability challenges for future electronic systems. As these nanometer-scale transistors are integrated onto a single chip, error rates are expected to degrade due to increased susceptibility to noise and PVT variations. This course reviews the reliability challenges introduced by the multi-core gigascale integration era, and discusses circuit, architectural, and algorithm level solutions to address them. The course draws from lectures, assigned readings, discussions, guest lectures, student presentations, review reports of the research literature, computer simulations and modeling, design projects of varying complexity, and a final scholarly paper. It is intended for students interested in pursuing research in reliability and error control of complex systems and networks-on-chip.

Department: Electrical & Computer Engineering
Course: ECE 465
Title: Performance Issues in VLSI/IC Design & Analysis
Instructor: Friedman, E. **Class Size:** 30
Restrictions: Permission of instructor required
Exams: 1 midterm, 1 final report,1 topical presentation
Coursework: Reading course; participation in discussions and lead discussions for a number of papers.
Description: Primary and recent research in the fields of high performance digital and analog VLSI design and analysis. Provides background and insight into some of the more active performance related research topics of the field such as CMOS design techniques, speed/area/power tradeoffs in CMOS circuits, low power design, RLC interconnect, synchronization and clock distribution, pipelining/retiming, and many other related areas.

Department: Electrical & Computer Engineering
Course: ECE 467
Title: Advanced Analog Integrated Circuit Design
Instructor: Z. Ignjatovic **Class Size:** 20
Prerequisites: ECE113 and ECE221
Exams: mid-term, final, design project
Coursework: Lecture, homework

Description: Analysis and design of analog CMOS integrated circuits. MOS and bipolar device structures and models. Modern opamp design with noise, offset and distortion anaylsis, feedback, frequency compensation, and stability. Current mirrors and bandgap references. Sampling devices and structures. Switched-capacitor filters and other digital and digital-to-analog converters. Requires more advanced design projects and use of design aids or tools. Includes material on CAD tools for analog design including simulation and synthesis.

Department: Electrical & Computer Engineering
Course: ECE 471
Title: Computational Music
Instructor: D. Hedlam **Class Size:** 20
Prerequisites:

Coursework:

Description: Fundamentals of computational music representation including selected topics in music theory and analysis, encoding and interpretation of music information by computers, musical sound programming, automated music transcription, musical applications of information and communication theory, human-computer music interfaces and music informatics.

Department: Electrical & Computer Engineering
Course: ECE 472
Title: Audio Signal Processing for Analysis and Synthesis of Music
Instructor: M. Bocko 5-4879
Description: Acoustics and Digital Signal Processing techniques applied to the analysis and synthesis of musical sound. Topics will include sampling, quantization and audio quality metrics, time-frequency analysis and sound representations, audio filter design and implementation, musical sound synthesis techniques including spectral-based synthesis and physical modeling - additional special topics based on class interests.

Department: Electrical & Computer Engineering
Course: ECE 520
Title: Spin-based electronics: theory, devices & applications
Instructor: H. Dery **Class Size:** 30
Prerequisites: Permission of Instructor & familiarity with elementary quantum mechanics

Coursework:

Description: The course is intended for students who are interested in research frontiers of future electronics technologies. The course begins with introduction to the basic physics of magnetism and of quantum mechanical spin. Then it covers aspects of spin transport with emphasis on spin-diffusion in semiconductors. The second part of the course is comprised of student and lecturer presentations of selected spintronics topics which may include: spin transistors, magnetic random access memories, spin-based logic paradigms, spin-based lasers and light emitting diodes, magnetic semiconductors, spin-torque devices for memory applications and the spin Hall effect.

Department: Electrical & Computer Engineering
Course: ECE 580
Title: Nano-Electro-Opto-Bio
Instructor: Fauchet, P. **Class Size:** 20
Restrictions: Permission of instructor required for undergraduates
Description: Nanoscience (giving nanometer-size objects properties their constituent material does not have in Nature) and nanotechnology (the use of these objects to perform useful functions in devices) allow scientists and engineers to routinely do what was long thought to be impossible. The purposes of this course are to provide an introduction to the scientific foundations of nanoscience and the materials science that makes it possible, and to focus on developments in three major domains of applications, electronics, photonics, and biosensing.

Graduate students from all the engineering departments, physics, and chemistry should find this course of interest. Graduate students from other departments or qualified undergraduate students may enroll with permission of the instructor.

Mechanical Engineering

Department: Mechanical Engineering
Course: ME 110
Title: Introduction to CAD
Instructor: Ronald, C. **Class Size:** 30
Restrictions: Permission of Department required
Exams: 2 exams, midterm and a final
Description: This course covers engineering drawing, and modeling using the Computer Aided Design software Pro/ENGINEER. Topics include orthographic projections, solid modeling, assemblies, and dimensioning. Students will complete the course with a fundamental ability to create and understand solid modeling, and engineering drawings using state of the art PC CAD software. Lectures will make use of a computer projection screen as well as 30 individual computers.

Department: Mechanical Engineering
Course: ME 120
Title: Engineering Mechanics I Statics

Instructor: Quesnel, D. **Class Size:** 90
Prerequisites: MTH 161
Exams: 3 midterms and 1 final
Description: Basic concepts; units; vector algebra; forces; moments; force systems; equilibrium. Plane trusses; method of joints; method of sections; space trusses; frames and machines. Centroids of lines, areas, and volumes; center of mass. Distributed loads on beams; internal forces in beams; distributed loads on cables; hydrostatics. Basic concepts of friction; dry friction; friction in machines.

Department: Mechanical Engineering
Course: ME 123
Title: Thermodynamics
Instructor: Ren, C. **Class Size:** 40
Prerequisites: MTH 162, Physics 121
Restrictions: Permission of instructor required for freshmen
Exams: 3 hourly exams plus a 3-hr final exam
Coursework: Three lectures per week, assigned reading, numerous homework problems, problem-solving workshops.
Description: Course Content: thermodynamic systems, properties, equilibrium, and processes; energy and the first law; properties of simple compressible substances; control volume analysis; steady and transient states; entropy and the second law, general thermodynamic relations. Method of Instruction: three lectures per week, assigned reading, numerous homework problems, problem-solving workshops.

Department: Mechanical Engineering
Course: ME 205
Title: Advanced Mechanical Design
Instructor: Becene, A. **Class Size:** 35
Prerequisites: ME 204
Exams: One Exam
Coursework: Project based grading: Several design projects including concept design and selection, teamwork, written reports and oral presentations.
Description: This course capstones the ME curricula by drawing on all skills the students have acquired throughout the previous four years. It is organized to provide a series of team design projects requiring students to design and test their prototype designs. Lectures concentrate on machine design, manufacturing methods, project planning, and any special topics appropriate for the specific design challenges

Department: Mechanical Engineering
Course: ME 206
Title: Building Engineering and Technology in Antiquity
Instructor: Perucchio, R.
Coursework: No term project
Description: The application of engineering principles and technology to building design and construction from antiquity to the pre-industrial world. Topics: introduction to statics, strength of materials, and structural design; building materials; geometry and surveying; soils and foundations; columns and trabeated systems; timber frames and roofing systems; arches; domes; vaults; hydraulics and water systems; heating systems; the construction site; construction machines. Case studies of large-scale buildings include examples from Classic Antiquities, the Middle Ages, and non- European civilizations.

Department: Mechanical Engineering
Course: ME 213
Title: Mechanical Systems
Instructor: Gans, R. **Class Size:** 30-40
Prerequisites: ME 121, ME 226, MTH 163,MTH 164
Exams: 2 exams, project
Description: Free and forced vibration in one, two, and many degrees-of-freedom systems. Complex representation, damping, matrix methods, applications. Laplace transforms and introduction to control theory.

Department: Mechanical Engineering
Course: ME 222
Title: Introduction to Robust Design and Quality Engineering
Cross-listed: ME 424
Instructor: Funkenbusch, P. **Class Size:** 30
Prerequisites: ME 164 or Equivalent
Exams: 2-3 exams
Description: Description: Definition and pursuit of "quality" as a design criterion. The concept of robust design. Selection of the quality characteristic, incorporation of noise, and experimental design to improve robustness. Analysis and interpretation of results.

Department: Mechanical Engineering
Course: ME 223
Title: Heat Transfer
Instructor: Lambropoulos, J. **Class Size:** 50
Prerequisites: ME 123, ME 225, and MTH 163 or 165
Exams: Two 75-minute exams and a three-hour final
Coursework: Ten homework assignments and a project
Description: Review of thermodynamic concepts; energy balances; heat transfer mechanisms. Steady-state heat conduction; concept of thermal resistance; conduction in walls, cylinders, and spheres; cooling fins. Transient heat conduction; lumped parameter systems; transient conduction in plane walls; transient conduction

in semi-infinite solids. Numerical analysis of conduction; finite difference analysis; one-dimensional steady conduction; two-dimensional steady conduction; transient conduction. Fundamentals of convection; fluid flow and heat transfer; energy equation; convective heat transfer from flat plate; use of dimensional analysis. External forced convection; flow over flat plates; flow past cylinders and spheres; flow across tube banks. Internal forced convection; thermal analysis of flow in tubes; laminar flow in tubes; turbulent flow in tubes. Heat exchangers; overall heat transfer coefficient; log mean temperature analysis; effectiveness-NTU method.

Department: Mechanical Engineering
Course: ME 226
Title: Introduction to Solid Mechanics
Instructor: Gracewski, S. **Class Size:** 40-60
Prerequisites: ME 120
Exams: 2 tests plus final
Coursework: Weekly homework, 2 labs
Description: Loads and displacements, stress and strain in solid medium. Laws of elasticity. Mechanical properties of materials. Thermal stresses. Axial loading. Pressure vessels. Plane stress and plane strain. Torsion and bending of beams. Energy methods. Buckling.

Department: Mechanical Engineering
Course: ME 232
Title: Opto-Mechanics
Cross-listed: ME 432, OPT 232, OPT 432
Instructor: Genberg, V.
Exams: (2) Open Book
Coursework: Homework: Weekly assignments Project: Required for ME 432. Mechanical design and analysis of an optical system subjected to environmental loads. Text: (not required, reference only) Yoder, Opto-Mechanical Systems Design, 3rd Ed, SPIE
Description: The mechanical design and analysis of optical components and systems will be studied. Topics will include kinematic mounting of optical elements, the analysis of adhesive bonds, and the influence of environmental effects such as gravity, temperature, and vibration on the performance of optical systems. Additional topics include analysis of adaptive optics, the design of lightweight mirrors, thermo-optic and stress-optic (stress birefringence) effects. Emphasis will be placed on integrated analysis which includes the data transfer between optical design codes and mechanical FEA codes. A term project is required for ME 432.

Department: Mechanical Engineering
Course: ME 241
Title: Fluid & Thermal Engineering Laboratory
Instructor: Gans, R. **Class Size:** 50
Prerequisites: ME 225
Exams: One quiz, early in the semester.
Description: course. Introductory Lecture(s) on lab practice and data analysis. The lab itself consists of two parts: The first part uses simple experiments to familiarize the student with computer data acquisitions and some basic instrumentation. In the second part, students (working in groups of three) perform independent experimental projects. The course has significant writing content and makes formal use of the Writing Center. In addition to written and oral laboratory reports, each group is expected to make a final poster presentation of its work.

Department: Mechanical Engineering
Course: ME 253
Title: Introduction to Nuclear Engineering
Instructor: Gordon Verdin
Description: A first course in nuclear engineering with emphasis on the fundamental physics and technology of modern water-cooled power reactors, the nuclear fuel cycle, and the regulatory environment surrounding nuclear power in the United States

Department: Mechanical Engineering
Course: ME 281
Title: Mechanical Properties of Solids
Cross-listed: ME 481,MSC 409, MSC 203
Instructor: Gao, J. **Class Size:** 70
Prerequisites: ME 280, MTH 163 or equivalent
Exams: 2 take-home exams, final project
Description: The mechanical response of crystalline (metals, ceramics, semiconductors)and amorphous solids (glasses, polymers) and their composites in terms of the relationships between stress, strain, damage, fracture, strain-rate, temperature, and microstructure. Topics include: (1) Material structure and property overview. (2) Isotropic and anisotropic elasticity and viscoelasticity. (3) Properties of composites. (4) Plasticity. (5) Point and line defects. (6) Interfacial and volumetric defects. (7) Yield surfaces and flow rules in plasticity of polycrystals and single crystals. (8) Macro and micro aspects of fractures in metals, ceramics and polymers.(9) Creep and superplasticity. (10) Deformation and fracture mechanism maps. (11) Fatigue damage and failure; fracture and failure in composites (If time permits).

Department: Mechanical Engineering
Course: ME 401

Title: Methods of Applied Mathematics
Instructor: Thomas, J. **Class Size:** 15
Prerequisites: ME201/MTH281 (Boundary-Value Problems), MTH282 (Complex Variables), or equivalent courses.
Exams: Midterm and final
Coursework: Three hours a week of lectures; weekly problem sets.
Description: Description: First-order linear and nonlinear ordinary differential equations (ODEs). Second-order ODEs in the real and complex domains: power series solutions, singular points, special functions; integral representations, analytic continuation; eigenvalue problems, Sturm-Liouville theory; Greens functions. Nonlinear second-order ODEs and dynamical systems: phase-plane methods; periodic solutions, limit cycles; stability, Liapunov methods; introduction to bifurcation theory, strange attractors and chaos. Perturbation methods and asymptotic methods: regular and singular perturbations, boundary layers; asymptotic series; asymptotic evaluation of integrals; WKBJ method.

Department: Mechanical Engineering
Course: ME 424
Title: Introduction to Robust Design and Quality Engineering
Cross-listed: ME 222
Instructor: Funkenbusch, P. **Class Size:** 30
Prerequisites: ME 164 or equivalent
Exams: 2-3 exams
Description: Description: Definition and pursuit of "quality" as a design criterion. The concept of robust design. Selection of the quality characteristic, incorporation of noise, and experimental design to improve robustness. Analysis and interpretation of results.

Department: Mechanical Engineering
Course: ME 432
Title: Opto-Mechanics
Cross-listed: ME 232
Instructor: Genberg, V.
Exams: (2) Open Book
Coursework: Homework: Weekly assignments Project: Required for ME 432. Mechanical design and analysis of an optical system subjected to environmental loads. Text: (not required, reference only) Yoder, Opto-Mechanical Systems Design, 3rd Ed, SPI
Description: The mechanical design and analysis of optical components and systems will be studied. Topics will include kinematic mounting of optical elements, the analysis of adhesive bonds, and the influence of environmental effects such as gravity, temperature, and vibration on the performance of optical systems. Additional topics include analysis of adaptive optics, the design of lightweight mirrors, thermo-optic and stress-optic (stress birefringence) effects. Emphasis will be placed on integrated analysis which includes the data transfer between optical design codes and mechanical FEA codes. A term project is required for ME 432.

Department: Mechanical Engineering
Course: ME 435
Title: Intro. to Plasma Physics II
Cross-listed: PHY 455
Instructor: Meyerhofer, D. **Class Size:** 10
Prerequisites: ME 434 or consent of the instructor
Description: Vlasov equation, Landau damping. VanKampen modes, shield clouds, two-stream instability, micro-instabilities, nonlinear instability theory, laser-plasma interactions.

Department: Mechanical Engineering
Course: ME 443
Title: Applied Vibrations
Instructor: Gracewski, S.
Prerequisites: ME 213
Description: The objectives of this course are to obtain a deeper understanding of vibrating systems and to learn a variety of numerical, analytical, and experimental techniques for obtaining the dynamic characteristics and response of a system. In particular, an introduction to the numerical techniques underlying finite element computer codes will be discussed. NASTRAN will be used to obtain finite element results. Mathematica will be used for numerical calculations and to obtain plots of results. Vibration measurement techniques will be demonstrated and there will be 1 or 2 labs that include both experiments and analysis. Both discrete and continuous models will be considered, including the vibration of strings, beams, and membranes. Free, steady state, and transient responses will be discussed.

Department: Mechanical Engineering
Course: ME 458
Title: Nonlinear Finite Elements Analysis
Cross-listed: BME 487
Instructor: Perucchio, R
Prerequisites: ME 441 or equivalent, reasonable fluency in scientific computing
Exams: 1 midterm exam and a project
Description: The theory and application of nonlinear finite element analysis in solid mechanics. Topics: generalization of FE concepts, review of solid mechanics, nonlinear incremental analysis, displacement based FE formulation for large displacements and large strains, nonlinear constitutive relations, incompressibility and contact

conditions, rubberlike materials, biomechanical materials, inelastic material.

Department: Mechanical Engineering
Course: ME 463
Title: Microstructures
Cross-listed: MSC 408
Instructor: Li, J. **Class Size:** 30
Prerequisites: ME 280
Exams: 1 or 2 midterms and a final
Description: Point, line, 2-D and 3-D defects. Diffusion of interstitial and substitutional solutes. Random walk and correlation effects. Thermal diffusion. Irreversible thermodynamics. Diffusion-induced stresses. Dos;pcatopms. graom bpimdaroes and interfaces. Precipitates and inclusions. Amorphous materials, polymers, and composite structures.

Department: Mechanical Engineering
Course: ME 481
Title: Mechanical Properties of Solids
Cross-listed: ME 281, MSC 409, MSC 203
Instructor: Gao, J.
Prerequisites: ME 280, MTH 163 or equivalent
Exams: 2 take-home exams, final project
Description: The mechanical response of crystalline (metals, ceramics, semiconductors)and amorphous solids (glasses, polymers) and their composites in terms of the relationships between stress, strain, damage, fracture, strain-rate, temperature, and microstructure. Topics include: (1) Material structure and property overview. (2) Isotropic and anisotropic elasticity and viscoelasticity. (3) Properties of composites. (4) Plasticity. (5) Point and line defects. (6) Interfacial and volumetric defects. (7) Yield surfaces and flow rules in plasticity of polycrystals and single crystals. (8) Macro and micro aspects of fractures in metals, ceramics and polymers.(9) Creep and superplasticity. (10) Deformation and fracture mechanism maps. (11) Fatigue damage and failure; fracture and failure in composites (If time permits).

Department: Mechanical Engineering
Course: ME 535
Title: Laser Plasma Interactions
Cross-listed: PHY 553
Instructor: Maximov, A. **Class Size:** 15
Exams: 1 midterm exam and 1 final exam
Description: Breakeven conditions for inertial confinement fusion. The coronal plasma. Inverse bremsstrahlung absorption. Resonance absorption. Parametric instabilities. Nonlinear plasma waves. Zakharov equations and collapse.

Department: Mechanical Engineering
Course: ME 545
Title: Advanced Topics in Plasma Science
Cross-listed: PHY 493
Instructor: Betti, R.

Optics

Department: Optics
Course: OPT 223
Title: Quantum Theory of Optical Materials and Devices
Instructor: Lukas Novotny **Class Size:** 30
Prerequisites: PHY 123 or 143, MTH 281 (may be taken concurrently)
Description: This course is an introduction to quantum mechanics in the context of modern optics and optical technology. The course starts with a historical sketch followed by a short review of statistical mechanics. After a discussion of Lagrangian and Hamiltonian mechanics, Schroedinger's equation is introduced and the postulates of quantum mechanics are explained. Once the foundation is established the following important topics are studied: - Scattering & tunneling of free particles (electron diffrac.,tunneljunctions) - Particles in confined structures (quantum wells/wires/dots) - Free electron gas (density of states in one, two and three dimensions) - Bound particles (hydrogen atom, atomic structure, periodic table) - Quantum harmonic oscillator (phonons, creation and annihilation operators) - Particles in periodic potentials (energy bands, insulators/semiconductors/metals) - Perturbation theory (time-independent and time-dependent) - Interaction of optical radiation with matter (absorption and emission, optical properties of materials)

Department: Optics
Course: OPT 241
Title: Geometrical Optics
Instructor: Jim Zavislan **Class Size:** 50
Prerequisites: MTH 161, PHY 121 may be taken concurrently
Description: Optical instruments and their use. First-order Gaussian optics and thin-lens system layout. Photometric theory applied to optical systems. The eye, magnifier, microscope, matrix optics, nature of Seidel aberrations. Optics students must also sign up for OPT 197, the 1-credit lab for this course.

Department: Optics

Course: OPT 243
Title: Optical Fabrication and Testing Laboratory
Instructor: Jacobs, S.
Prerequisites: Optics seniors only (or with permission of instructor)
Description: Fabrication of a plane parallel plate, lens, or prism from a variety of optical glasses; controlled loose abrasive grinding pitch polishing skills; optical metrology, including interferometry and evaluation of roughness.

Department: Optics
Course: OPT 256
Title: Optics Laboratory
Instructor: Ken Teegarden,David Berg **Class Size:** 16
Prerequisites: OPT 242, OPT 261, OPT 262
Restrictions: Open only to senior majors or by permission of instructor
Description: Intensive laboratory course with experiments on optical imaging systems, testing of optical instruments, diffraction, interference, holography, lasers, detectors, spectroscopic instruments. Optics Seniors should take this course in the Fall semester. OPT 257 Optics Laboratory II is offered along with OPT 256 in the spring

Department: Optics
Course: OPT 261
Title: Interference and Diffraction
Instructor: James Fienup
Prerequisites: MTH 164 PHY 122 or 142
Description: Complex representation of waves; scalar diffraction theory; Fresnel and Fraunhofer diffraction and application to measurement; diffraction and image formation; optical transfer function; coherent optical systems, optical data processing, and holography.

Department: Optics
Course: OPT 262
Title: Electromagnetic Theory
Instructor: Andrew Berger **Class Size:** 30
Prerequisites: MTH 163 or 165, 164 PHY 122 or 142
Description: Vector analysis, Maxwell's equations, electromagnetic waves in free space, dielectrics and conductors, energy flow in electromagnetic fields, dipole radiation from Lorentz atoms, dispersion, reflection and transmission, polarization, birefringence.

Department: Optics
Course: OPT 287
Title: Math Methods for Optics and Physics
Cross-listed: MTH 287
Instructor: Miguel Alonso **Class Size:** 50
Prerequisites: MTH 164, ME 201/MTH 281
Description: This course introduces techniques used in mathematical study of optical phenomena. Emphasis is placed on gaining insight and experience in the use of these powerful and elegant tools for describing, solving and resolving optical systems and schema.

Department: Optics
Course: OPT 300
Title: Current Optics and Optics Technology
Instructor: Douglas Goodman
Prerequisites: OPT 241, 224, 242, 256, 261, and 262 OPT 223 may be taken concurrently
Restrictions: Not open to freshmen and sophomores
Description: The course prepares students for careers in optical science or engineering by providing a broadly-based overview of current technology, techniques and trends in optics. The course content is likely to change from year to year, but will cover topics such as: Advanced detection systems, semiconductor optoelectronics, optical system performance specification.

Department: Optics
Course: OPT 396
Title: Honors Project
Instructor: Brown, T.
Restrictions: Permission of instructor required
Description: The Undergraduate Honors Program at The Institute of Optics is offered to those seniors who have qualified for the optics major and have an overall grade point average of at least 3.6 after the fall semester of their junior year. Qualifying students will spend two semesters (8 semester hours of credit) doing research under the supervision of an optics faculty member.

William E. Simon Graduate School of Business Administration

Department: Simon School
Course: ACC 201
Title: Principles of Accounting **Class Size:** 40-60
Restrictions: Permission of instructor required for freshmen
Description: An introduction to the principles and procedures used by organizations to record economic transactions that affect them, and to report the net effect of these transactions to interested external parties. The course will cover the judgment inherent in certain aspects of the recording and reporting process, the acceptable alternatives for recording a given transaction, and the

effect these judgements and alternatives have on comparisons of financial reports for different organizations, and on the usefulness of financial reports in general. Also covered will be cases where the financial reports fail to fully incorporate the economic condition of an organization, and why.

Department: Simon School
Course: ACC 221
Title: Cost Accounting **Class Size:** 35
Prerequisites: ACC 201
Description: A study of the accounting problems involved in determining, analyzing, and controlling production and distribution costs, and income determination for financial statements. Budgetary control, standard costs, and other topics are discussed from the viewpoint of management use in planning and control.

Department: Simon School
Course: BSI 241
Title: Fundamentals of Personnel Administration **Class Size:** 20-25
Restrictions: Not open to freshmen and sophomores
Description: An introduction to how human resources are managed to maximize employee and organizational goals. Current human resource issues are explored. Topics include strategic planning, staffing, training and development, compensation, benefits, health and safety, union relations, and laws governing how organizations must treat people.

Department: Simon School
Course: CIS 225
Title: Data Management **Class Size:** 10
Prerequisites: CIS 215
Description: An in-depth study of data management, data processing, and database techniques. Topics include input and output processing; data structures; sequential, direct and indexed access methods; report generation; and theory and practice of database management systems. Microsoft ACCESS is used to design and use several databases.

Department: Simon School
Course: FIN 205
Title: Financial Management **Class Size:** 45-55
Prerequisites: ACC 201; ECO 207 or equivalent
Restrictions: Not open to freshmen and sophomores Permission of instructor required for freshmen
Description: This course provides a market oriented framework for analyzing the major types of financial decisions made by corporations. Discounted cashflow techniques are introduced and applied to the capital budgeting problem (the choice among alternative investment projects) and financial asset valuation. Security markets are discussed and topics of capital market efficiency and portfolio theory introduced. The effects of capital structure and dividend policy on the value of the firm are analyzed.

Department: Simon School
Course: FIN 206
Title: Investments
Instructor: Kurt Wojdat **Class Size:** 25
Prerequisites: MTH210, FIN205
Restrictions: Not open to freshmen and sophomores
Exams: three or four exams
Coursework: The course will consist of lectures and class discussions. Lecture notes will be handed out, but the student is responsible for all of the discussion occurring during a class.
Description: The course will focus on financial investments. Coverage will include securities markets and how they work. Stock price behavior will be studied. This study will include topics such as market efficiency and the relationship of market efficiency to technical analysis. The study will also include anomalies; and behavioral finance. The structure of financial derivatives will be discussed. This discussion will focus on options, including the Black Scholes option pricing model, forwards, futures and swaps, as well as the use of these vehicles in hedging. Bonds will be examined along with the concepts of duration and reinvestment risk, and hybrids such as convertible securities will also be examined. Mutual funds will be studied along with other topics such as arbitrage pricing theory and multifactor models of risk and return. If time permits, topics such as financial statement analysis and international finance may be covered.

Department: Simon School
Course: GBA 157
Title: Fundamentals of Business - Why Businesses Succeed and Fail **Class Size:** 30-34
Restrictions: Not open to freshmen and sophomores
Description: An introduction to the principles of business, examining a wide range of problems businesses face today, using commercial successes and failures. The issues include how companies should consider identifying the markets for their products, leadership and motivation of employees, fund raising considerations and ethical issues facing business men and women. The class concludes with small group presentations and presentation of a modified business plan which integrates information studied during the semester.

Department: Simon School

Course: LAW 205
Title: Business Law **Class Size:** 30-40
Restrictions: Not open to freshmen and sophomores
Description: A study of basic principles in several fields of law of significance to businesses, including the formation and legal liability of business organizations. This will be preceded by a review of certain environmental and historical aspects of the law, including the legal processes by which our laws are created, the functions of the courts and the rule of law in American society. Throughout, the emphasis is on developing an understanding of the reasoning process used by the courts to resolve disputes and define new law.

Department: Simon School
Course: MKT 203
Title: Principles of Marketing **Class Size:** 30
Prerequisites: ACC 201; ECO 207 or equivalent
Description: A broad overview of the marketing function in the modern organization, with a central focus on customers and the management of response to their needs, expectations and behaviors. Study covers the evolution of 20th century marketing theory and practice, the emergence of technology-driven relationship marketing, and the robust nature of traditional marketing theory. Students gain practical experience applying strategic knowledge and tools to the market planning process. Upon completion students understand marketing's deep impact within organizations, with ability to recognize and use marketing concepts in real world settings.

Department: Simon School
Course: MKT 213
Title: Marketing Projects and Cases **Class Size:** 20
Prerequisites: MKT 203
Description: This is a course that provides the student with an opportunity to focus on the practical application, in a real world business(profit or not-for-profit)environment of sound marketing principles and concepts. Students will be assigned to work with a local organization in terms of addressing a specific marketing opportunity or issue in the form of the development of a marketing plan for the organization. The typical marketing plan would include recommendations in the areas of: product, price, promotion and distribution, and overall marketing strategy. Student support in terms of problem analysis and marketing plan creation will be provided in the form of: case studies, guest speakers, and selected readings and lectures. Upon completion of the course, the student should be able to effectively develop and deploy a sound marketing plan.