

# The College: Arts & Sciences

## African & African-American Studies

**Department:** African & African-American Studies  
**Course:** AAS 106  
**Title:** Colonial and Contemporary Africa  
**Cross-listed:** HIS 106/ANT 248  
**Instructor:** Mandala, E.  
**Exams:** Midterm and final  
**Coursework:** One 10-15 page paper  
**Description:** Please see HIS 106 for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 122  
**Title:** History of Jazz  
**Cross-listed:** MUR 122  
**Instructor:** Burgett, P **Class Size:** 80  
**Coursework:** three exams, one paper  
**Description:** Please see MUR 122 for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 141  
**Title:** African-American History I  
**Cross-listed:** HIS 165  
**Instructor:** Hudson, L. **Class Size:** 25  
**Exams:** 2 papers, pop quizzes, term paper, final exam  
**Coursework:** Two class papers of 2-3 pages (30%); Mid-Term (10%); term paper 6-8 pages (40%); and Take Home Final Exam (20%).  
**Description:** Please see HIS 165 for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 156  
**Title:** Introduction to African American Literature  
**Cross-listed:** ENG 116  
**Instructor:** Tucker, J. **Class Size:** 25  
**Description:** Applicable English Cluster: American and African-American Studies. This course provides an introduction to the history of African American literary expression, focusing primarily upon the development of black autobiography, poetry, and fiction. Students will trace a number of important themes such as the quest for freedom and literacy, the influence of folk traditions, double consciousness, the process of Northern migration, and the role of the trickster in classic African American texts. In our study of this important 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. We will explore how African American writers used artistic expression as key modes of political protest, creative affirmation of self, cultural validation, and social reform. Lectures will provide social and cultural background to the literary works discussed in class.

**Department:** African & African American Studies  
**Course:** AAS 185  
**Title:** African American Religious History  
**Cross-listed:** REL 157  
**Instructor:** Butler, A.  
**Description:** Please see REL 157 for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 221  
**Title:** Birth and Death I: Vital Events in Our Personal Lives  
**Cross-listed:** ANT 218/WST 217/PM 407/WST 217  
**Instructor:** Carter, A **Class Size:** 40  
**Coursework:** One 75 minute exam, one 3 hour cumulative final exam, and a research paper/project  
**Description:** Please see ANT 218 for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 246  
**Title:** Cry Freedom: Liberation Theologies of Africa and the Americas  
**Cross-listed:** REL 234  
**Instructor:** Cadorette, C. **Class Size:** 10  
**Exams:** There will be a mid-term and final examination  
**Coursework:** Readings will average about eighty pages per week. Students may choose between short, single page reflection papers, three five to seven page essays or a twenty-five page research paper.  
**Description:** Please see REL 234 for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 248  
**Title:** Marriage, Families and Communities in a Global Perspective  
**Cross-listed:** ANT 244/ANT 444  
**Instructor:** Emmett, A. **Class Size:** 25  
**Description:** Please see ANT 244 for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 250  
**Title:** Race in American Fiction  
**Cross-listed:** ENG 250, ENG 450, WST 233  
**Instructor:** Li, Stephanie

**Description:** Please see ENG 250 for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 252  
**Title:** Economies & Society of Latin America & the Caribbean Since 1492  
**Cross-listed:** HIS 203/ECO 252  
**Instructor:** Inikori, J. **Class Size:** 30  
**Exams:** Midterm, Final  
**Description:** Please see HIS 203 for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 253  
**Title:** Economic and Social Conditions of African-Americans in the 20th Century  
**Cross-listed:** ECO 253/ECO 253W/HIS 255  
**Instructor:** Engerman, S., Wolkoff, M.  
**Prerequisites:** ECO 207  
**Description:** Please see ECO 253W for the course description.

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

**Department:** African & African-American Studies  
**Course:** AAS 257  
**Title:** Lincoln and Douglass and Black Freedom  
**Cross-listed:** HIS 247W  
**Instructor:** Hudson, Larry  
**Description:** Please see HIS 247 for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 346  
**Title:** History of South Africa Since 1910  
**Cross-listed:** HIS 346W/HIS 446  
**Instructor:** Mandala, E.  
**Description:** Please see HIS 346W for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 375W  
**Title:** The Atlantic Slave Trade and Africa, 1650-1850  
**Cross-listed:** HIS 356W/HIS 456/ECO 385  
**Instructor:** Inikori, J. **Class Size:** 15  
**Coursework:** Term Papers

**Description:** Please see HIS 356 for the course description.

**Department:** African & African-American Studies  
**Course:** AAS 380  
**Title:** Senior Seminar  
**Instructor:** Wolcott, V.  
**Restrictions:** Permission of Department required  
**Description:** Students will draw upon their exposure to the theory methods of AAS to produce an interdisciplinary research paper on a topic of their own choosing. Open only to senior majors.

**Department:** African & African-American Studies  
**Course:** AAS 391  
**Title:** Independent Studies  
**Description:** Designed for Junior and Senior students who wish to pursue an independent reading program with a professor: it may also be used for readings in an advanced research seminar in which the student does not write the required essay and as such does not meet the 300-level seminar requirement, but it may be used as a distribution requirement within its area.

**Department:** African & African-American Studies  
**Course:** AAS 394  
**Title:** Internship in African and African-American Studies  
**Description:** Experience in an applied setting supervised on site. Approved and overseen by a University Instructor.

## Anthropology

**Department:** Anthropology  
**Course:** ANT 101  
**Title:** Cultural Anthropology  
**Instructor:** Emmett, A **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.

**Department:** Anthropology  
**Course:** ANT 102  
**Title:** Introduction to Medical Anthropology  
**Cross-listed:** WST 115

**Instructor:** Metcalf, Lois **Class Size:** 40  
**Restrictions:** Open only to freshmen & sophomores  
**Coursework:** Lectures, discussions, readings, films  
**Description:** This course will examine selected topics in the study of medical and health care systems from an anthropological and cross cultural perspective. The body of the course will consider several major areas of anthropological work on: ethnomedicine, or "folk medicine" and its interaction with Western medicine, the role of government policies in promoting, or retarding, the health of minority populations, the relationship between patients and healers; transcultural psychiatry; and relations between gender and illness. The course will use studies from a wide range of traditional cultures throughout the world, with frequent reference to the application of this research to modern "Western" medicine.

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

**Department:** Anthropology  
**Course:** ANT 118  
**Title:** From Home to Abroad  
**Cross-listed:** CAS 118  
**Instructor:** Lanning, J **Class Size:** 15  
**Restrictions:** Permission of instructor required for freshmen  
**Coursework:** Lectures, Discussions, Fieldwork Exercises, Reading, Guest Lectures Evaluation based on short papers, fieldnotes, active participation in class and final research project.  
**Description:** This non-major course will structure and connect a study abroad experience with the academic framework of study at home. Study abroad and cultural exchange programs provide university students with transformative experiences in foreign cultures. To maximize time away from home, students will prepare for cultural immersion and academic instruction abroad. We will prepare for study abroad by examining anthropological fieldwork methods, the collection of material culture, documentation of experiences in photo, audio and video, interview methods, handling and understanding culture shock, sharing your/our American culture abroad and framing research opportunities abroad. This is a two credit course - beginning October 20, 2008

**Department:** Anthropology  
**Course:** ANT 202  
**Title:** Modern Social Theory: Key Texts and Issues

**Instructor:** Foster, R. **Class Size:** 25  
**Prerequisites:** At least two previous anthropology courses or permission of instructor  
**Restrictions:** Not open to freshmen  
**Coursework:** Four 5 page papers, participation in class discussions  
**Description:** This course principally involves close reading of selected texts by four authors who established the framework of modern social theory: Adam Smith, Karl Marx, Max Weber and Sigmund Freud. Readings will focus on each author's attempt to comprehend modern society and, more specifically, the possibilities and pathologies of capitalism. The course explores the nature of work, sexuality and power. It considers the future of American democracy in a global market economy and it addresses recurrent questions of how to create community and secure conditions for liberty and justice for all.

**Department:** Anthropology  
**Course:** ANT 203  
**Title:** Ritual, Myth, and Scripture  
**Instructor:** Gibson, T. **Class Size:** 25  
**Prerequisites:** At least two previous anthropology courses or permission of instructor

**Restrictions:** Not open to freshmen  
**Description:** A survey of the major anthropological approaches to the study of the symbolic knowledge embedded in life-cycle rituals, origin myths and religious scriptures, including approaches inspired by the structuralism of Durkheim and Levi-Strauss; the structural functionalism of Turner and Douglas; the relativism of Evans-Pritchard and Winch; the interpretation of Weber and Geertz; and the genealogical method of Nietzsche and Foucault.

**Department:** Anthropology  
**Course:** ANT 213  
**Title:** World Music  
**Cross-listed:** MHS 282/MUR 121  
**Instructor:** Koskoff, E  
**Description:** Explores some of the world's major music traditions, including theater music from China and Japan, Indian and Indonesian classical music, ritual and ceremonial music from West Africa, Eastern Europe, and the United States. Course focuses on musical sound structures as well as social, political, and religious contexts for musical performances. Requirements include readings and a term-long project. No previous musical training necessary.

**Department:** Anthropology  
**Course:** ANT 214

<b>Title:</b>	Love, Friendship and Community	
<b>Cross-listed:</b>	SOC 221	
<b>Instructor:</b>	Smith, T.	<b>Class Size:</b> 20
<b>Description:</b>	See SOC 221 for course description.	
<b>Department:</b>	Anthropology	
<b>Course:</b>	ANT 218	
<b>Title:</b>	Birth and Death I: Vital Events in Our Personal Lives	
<b>Cross-listed:</b>	AAS 221/WST 217/PM 407	
<b>Instructor:</b>	Carter, A.	<b>Class Size:</b> 35
<b>Restrictions:</b>	Permission of instructor required for freshmen	
<b>Coursework:</b>	Two short papers (5 percent each), two longer papers (20 and 30 percent), and two hourly exams (20 percent each)	
<b>Description:</b>	How do human beings experience, make sense of, cope with and shape birth illness, and death in their own lives and in the lives of those who are close to them? Historical and contemporary examples from North America, Latin America, Europe, the Middle East, Africa, and Asia.	
<b>Department:</b>	Anthropology	
<b>Course:</b>	ANT 224	
<b>Title:</b>	Anthropology of Development	
<b>Instructor:</b>	Reichman, D.	<b>Class Size:</b> 25
<b>Description:</b>	What is progress? Are universal theories of development possible? This course introduces students to major trends in the anthropological study of international development through ethnographic case studies from around the world. Topics include: indigenous people and development, the debate over sweatshops, global sustainability, and the role of culture in economic life. Previous experience in anthropology, macroeconomics, or economic history is suggested but not required.	
<b>Department:</b>	Anthropology	
<b>Course:</b>	ANT 225	
<b>Title:</b>	The Social Issues of Media: Anthro Persp on Media in Global & Local Contexts	
<b>Cross-listed:</b>	AH 230; FMS 225	
<b>Instructor:</b>	Kim, E.	<b>Class Size:</b> 20
<b>Description:</b>	This course introduces students to the study of media from an anthropological perspective. We will examine constructions of media as objects of social scientific analysis, as both textual artifacts and social practice. Questions that guide the course are, What is "the media"? How have recent transformations in global capital and communications technology altered how we consume, analyze and produce media? What can the study of media tell us about social life and the imagination? We will seek to understand the medias role in producing national and transnational public	

spheres, focusing on a range of media formations, from multinational corporate structures to indigenous and diasporic productions, to question media's power to shape subjectivities and conceptions of cultural difference. We will examine print journalism, television, film, radio, advertising, and visual art in both local and global contexts. Students will be encouraged to incorporate media analysis and media production in their own ethnographic projects.

<b>Department:</b>	Anthropology	
<b>Course:</b>	ANT 227	
<b>Title:</b>	Local and Global Market Research	
<b>Instructor:</b>	McCabe, Maryann	<b>Class Size:</b> 20
<b>Restrictions:</b>	Not open to freshmen	
<b>Description:</b>	This course focuses on the use of cultural anthropology in marketing and market research. Why has an anthropological approach to understanding consumer behavior become important in the business world? How do marketers and advertisers develop brand images? We will look at the process of constructing brands in terms of cultural symbols and values. Students will learn how to apply anthropological concepts and methods to U.S. and international market research. At the same time, we will look at the social impact of transnational brands in terms of the political economy of globalization. As part of the course, students will conduct ethnographic research on sustainable agriculture. We will partner with the Genesee Valley Organic Community Supported Agriculture. Students will present their research findings to the GVOCSA and the community.	

<b>Department:</b>	Anthropology	
<b>Course:</b>	ANT 239	
<b>Title:</b>	Latin American Immigration: Anthropology Without Borders	
<b>Instructor:</b>	Reichman, D	<b>Class Size:</b> 20
<b>Description:</b>	How has migration from Latin America to the United States and Canada reshaped culture, society, and economy on both sides of the US/Mexico border? This course will use the contemporary experiences of Latin American migrants to explore broader themes of globalization, transnationalism, and international justice. Course materials will include scholarly studies of contemporary migration, investigative journalism, and film.	

<b>Department:</b>	Anthropology	
<b>Course:</b>	ANT 241	
<b>Title:</b>	Women and Religion	
<b>Cross-listed:</b>	ANR 240; WST 240	
<b>Instructor:</b>	McHugh, E.	<b>Class Size:</b> 20

**Restrictions:** Not open to freshmen  
**Description:** A study of conceptions of women embodied in the imagery of various religious traditions, the role of women in worship, and the impact of religious traditions on feminine experience and social definitions of gender roles. For each region, we consider both religious doctrine and the lives of women in the context of societies holding to these religious beliefs. This is a three credit course taught at the Eastman School of Music.

**Department:** Anthropology  
**Course:** ANT 244  
**Title:** Marriage, Families and Communities in a Global Perspective  
**Cross-listed:** AAS 248/WST 218  
**Instructor:** Emmett, A. **Class Size:** 25  
**Description:** What is the impact of a new global economy on families, love and marriage in the United States and in other countries? Are there new forms of transnational marriage, love, families? Are families still seen as enduring/reassuring 'building blocks' of their respective societies? How does global labor migration of women and men affect families they leave behind? Does women's migration change local understandings of gender roles, families and communities? In this new global context how do people view attachment to 'place'?

**Department:** Anthropology  
**Course:** ANT 248  
**Title:** Colonial & Contemporary Africa  
**Cross-listed:** HIS 106/AAS 266  
**Instructor:** Mandala, E. **Class Size:** 30  
**Exams:** Midterm/Final, one 10-15 page paper  
**Description:** For description see HIS 106

**Department:** Anthropology  
**Course:** ANT 264  
**Title:** Islam and Global Politics  
**Cross-listed:** REL 248  
**Instructor:** Gibson, T. **Class Size:** 40  
**Description:** Recent events like the 9/11/01 attack on the World Trade Center have revealed the existence of a deep hostility toward the United States within certain groups in the Islamic world. In the first part of the course, we will explore the roots of this hostility in the centuries-old encounter between European colonialism and Muslim Asia. In the second part of the course, we will turn to how, in the twentieth century, the USA took on the imperial role once played by discredited European powers, and how radical Islam took on the role of resistance once played by discredited socialist and nationalist ideologies. Basic Texts: G. Kepel

"Jihad: The Trail of Political Islam"; G. Starrett "Putting Islam to Work"; Ahmad Rashid "Descent into Chaos"; M. McAlister "Epic Encounters"

**Department:** Anthropology  
**Course:** ANT 301  
**Title:** Advanced Topic Seminar: Nature  
**Instructor:** Kim, E. **Class Size:** 12  
**Prerequisites:** ANT 101 Cultural Anthropology ANT 201 Theory and Method in Anthropology  
**Restrictions:** Not open to freshmen and sophomores Open only to Junior and Senior majors of the offering department  
**Description:** This weekly seminar will closely examine "nature"--as biology, kinship, and environment--in anthropology. How have anthropologists historically understood the relationship between culture and nature? How have contemporary developments in biogenetics and the natural sciences informed or challenged anthropological approaches to studying human life and its relationship to other forms of life? How have categories such as personhood, kinship, religion, and environment been rethought in recent social theory and anthropological analysis? Students will work in groups to examine these questions, organizing mini-seminars on a topic of their choice. Each student will also submit a final research paper.

## 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 201  
**Title:** Literature in American Sign Language      **Class Size:** 10  
**Prerequisites:** ASL 106  
**Description:** Study of selected videotapes and films ranging from the early 1900's to the present. Emphasis will be placed on historical background and meaning of the story content, with discussion of grammatical features and styles revealed in these contexts. This course satisfies the upper level writing requirement.

**Department:** American Sign Language  
**Course:** ASL 202      **Class Size:** 18  
**Title:** History and Culture of the American Deaf Community  
**Prerequisites:** ASL 105  
**Description:** Discussion of various aspects of American Deaf Culture, including descriptions of deafness, and the Deaf community.

**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 260  
**Title:** Language and Psycholinguistics  
**Cross-listed:** BCS 152.  
**Description:** For description, see BCS 152.

**Department:** American Sign Language  
**Course:** ASL 280  
**Title:** Current Trends in Deaf-Related Careers      **Class Size:** 18  
**Prerequisites:** ASL 106 with a grade of B or better  
**Description:** Bringing together historical information and career preparation strategies for teaching, service provision and other related fields, this course is designed to provide an understanding of signed language as used in various settings and to explore professional service approaches to the Deaf community. The course also provides an overview of topics ranging from child language development to brain-cognition relationships, from educational interventions to technological advances, and social, psychological and linguistic characteristics of Deaf communities and sign languages.

## Art & Art History

**Department:** Art & Art History  
**Course:** AH 101  
**Title:** Introduction to Art History  
**Instructor:** Duro, P.      **Class Size:** 30  
**Description:** Fall 2009. This course is designed to introduce the student to aspects of the history of Western painting, sculpture, and architecture from the Renaissance through the present. We will examine the various schools and movements in their historical contexts, while paying particular attention to the histories that bear upon them such as the influence of the classical past, religion, gender, political power, and the rise of the artist. Rather than assuming there is one, totalizing, art history, we will examine the histories of art through the lens of these various discourses. The course will therefore attempt two goals: one, to

familiarize students with the principal monuments of the western tradition from about 1400 onward, that is, the paintings, sculptures, buildings, and artifacts which form the substance of this narrative; two, to develop visual literacy, that is, the ability not only to identify but also to discuss art works in a way that develops critical competence and an understanding of how the western tradition of art has come about.

**Department:** Art & Art History  
**Course:** AH 128  
**Title:** Modern Art  
**Instructor:** Haidu, R.  
**Exams:** Midterm and final  
**Coursework:** Two short papers  
**Description:** Fall 2009. This course introduces students to art made from the late 19th century to the present day. Broad coverage of a long time span will be supplemented with a consideration of selected key works to familiarize students with points of reference and to introduce concepts. Readings will introduce ideas from contemporary theory. Issues of the artists approach to the object, the interplay of art and technology, and the way in which institutions have influenced the production and reception of modern art will be considered. The course will be taught by a combination of lecture and discussion.

**Department:** Art & Art History  
**Course:** AH 136  
**Title:** Introduction to the Art of Film  
**Cross-listed:** ENG 117/FMS 132  
**Instructor:** Middleton, J.  
**Description:** Fall 2009. Please see ENG 117 for the course description.

**Department:** Art & Art History  
**Course:** AH 137  
**Title:** Introduction to Modern Architecture  
**Instructor:** Walsh, D. **Class Size:** No Limit  
**Description:** Fall 2009. Topics include major figures such as Richardson, Sullivan, Voysey, Wright, Corbusier, or Mies van der Rohe, and topics such as the architectural development of structural metal, Art Nouveau, urban spaces, or the Bauhaus.

**Department:** Art & Art History  
**Course:** AH 208  
**Title:** Traditions in Japanese Art  
**Cross-listed:** JPN 208/CLT  
**Instructor:** Pollack, D.  
**Description:** Fall 2009. Please see JPN 208 for description.

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

**Department:** Art & Art History  
**Course:** AH 210  
**Title:** Woman as Image and Text  
**Cross-listed:** AH 410, WST 214  
**Instructor:** Seiberling, G. **Class Size:** 25  
**Coursework:** Classes will center around discussion of readings and images. There will be a take-home mid-term and final exam. Students will keep a journal and write a term paper with a draft.  
**Description:** Fall 2009. Feminist art historians have changed the way we think about images of women, works by women artists, and the very notion of artistic genius. This course will investigate the ways in which visual images of women participate with other cultural and social factors in the construction of the idea of woman. It will look at types and conventions in works by male and female artists, as well as in anonymous images and advertising from different periods, with concentration on the 19th and 20th centuries.

**Department:** Art & Art History  
**Course:** AH 222  
**Title:** Traditional Japanese Culture  
**Cross-listed:** JPN 210  
**Instructor:** Pollack, D.  
**Description:** Fall 09. Please see JPN 210 for description.

**Department:** Art and Art History  
**Course:** AH 224  
**Title:** Russian Art  
**Cross-listed:** RST 224, RUS 224  
**Instructor:** Maslennikova, A.  
**Description:** Fall 2009. Please see RUS 224 for the description.

**Department:** Art & Art History  
**Course:** AH 230  
**Title:** The Social Uses of Media: Anthropological Perspectives on Media in Global and Lo  
**Cross-listed:** ANT 225, FMS 223  
**Instructor:** Eleana Kim

**Description:** Fall 2009. Please see ANT 225 for description.

**Department:** Art & Art History  
**Course:** AH 244  
**Title:** Piero-Vasari: 15th Century Italian Artists  
**Cross-listed:** IT 244  
**Instructor:** Capacci, M. **Class Size:** 30  
**Description:** Fall 2009. Please see IT 244 for the course description.

**Department:** Art & Art History  
**Course:** AH 245  
**Title:** Architecture in the High Middle Ages: Structure and Meaning  
**Instructor:** D. Walsh **Class Size:** 30  
**Description:** Fall 2009. This course introduces the architecture of Western Europe from the eleventh to the fifteenth century. Building of this era is usually divided into two principal phases, Romanesque and Gothic. While there are numerous regional and chronological variations during these centuries, many instances of exchange across Europe and exotic influences through cross cultural contact, the course stresses the pan-European development of structural and aesthetic inventiveness and the extraordinary relation between form and content in buildings, whether churches, monastic communities, houses or castles. All of the works are examined against the changing values of cultures which constitute the transformation of the West.

**Department:** Art & Art History  
**Course:** AH 249  
**Title:** Napoleon: Image, Myth, History  
**Cross-listed:** FR 249/CL/HIS/FMS 221  
**Instructor:** Doran, R.  
**Description:** Fall 2009. Please see FR 249 for description.

**Department:** Art & Art History  
**Course:** AH 253  
**Title:** Film History: Sound Cinema 1959 - Present  
**Cross-listed:** ENG 256, ENG 456, FMS 249, CLT 218  
**Instructor:** Niu, G.  
**Description:** Fall 2009. See ENG 256 for Description.

**Department:** Art & Art History  
**Course:** AH 260  
**Title:** Cultural Tourism  
**Cross-listed:** AH 460  
**Instructor:** Seiberling, G. **Class Size:** 25  
**Description:** Fall 2009. Tourism is a phenomenon in which art, money, media, colonialism, and ideas about culture come together. From

religious pilgrimages to study abroad or the contemporary urbanite's search for contact with exotic cultures, journeys to unfamiliar places have served many purposes. This seminar will present students with varied perspectives and methodologies through discussion of readings drawn from different fields, and will consider tourism in the past, looking at phenomena such as medieval pilgrimages or the Grand Tour in the 18th century, and the present, such as the shaping of the Other in Western eyes, or the implications of new media. Students' research projects will connect subject matter drawn from their own interests with the idea of tourism, taken in its broadest sense. When feasible, resources at local museums and archives will be tapped.

**Department:** Art & Art History  
**Course:** AH 283  
**Title:** Contemporary French Film  
**Cross-listed:** AH 483, FMS 291, FR 283/483, CLT 211D/41  
**Instructor:** Willis, S.  
**Description:** Fall 09. Through close analysis of popular film, this course will explore contemporary French culture as it reworks national identity. Focusing on changing definitions of "Frenchness" we will examine its articulations with shifting conceptions of tradition, of the popular, and of the nation. We will read central cultural conflicts around identity and difference in the context of the emergent European economic community, as well as the specifically French context of "immigration" and "assimilation." Of particular interest, for our purposes, will be comparative analysis of French and US popular discourses on social issues involving sexuality and gender, race, ethnicity, and "multiculturalism." Films will include works by Bertrand Blier, Luc Besson, Andre Techine, Cyril Collard [SAVAGE NIGHTS], Mathieu Kassovitz, Claire Denis, Francois Ozon, Ahmed Bouchaala [KRIM], Karim Dridi [Bye-Bye] as well as recent works by such widely known auteurs as Claude Chabrol and Jean-Luc Godard. Attendance at a weekly film screening will be required.

**Department:** Art and Art History  
**Course:** AH 308  
**Title:** Art & Imitation--Mimesis and the Origins of Modern Picturing in Art & Culture  
**Cross-listed:** AH 508  
**Instructor:** Duro, P.  
**Coursework:** One term paper and one research paper.  
**Description:** Fall 2009. This seminar course will address the issue of imitation and mimesis through the consideration of key texts from antiquity to the present. Texts will include the foundational philosophies of



Plato and Aristotle, the many theorists of literature and art of the sixteen and seventeenth-centuries who wrote on imitation, and the reaction against imitation in modern art. We will select from this mass of material case studies in order to test these arguments. Throughout the course we will pay considerable attention to pivotal debates in theory, such as the association between painting and poetry (ut pictura poesis), imitation of past art, the question of the imitation of nature (imitatio sapiens) versus servile copying (imitatio insipiens), and related concepts such as originality, invention, the imagination, and representation. Both graduate and undergraduate students will have the opportunity to select a topic related to their own interests and develop it into a research paper (graduate students will in addition present their paper in class).

**Department:** Art & Art History  
**Course:** AH 311  
**Title:** Dance, Art, and Film  
**Cross-listed:** AH 511/FMS 308/FMS 508  
**Instructor:** Crimp, D. **Class Size:** 20  
**Description:** Fall 2009. This course explores relations among dance, art, and film at significant moments in the 20th and 21st centuries. We will study instances in which the forms are particularly closely aligned, including the famous productions by artists such as Gontcharova, Picasso, and Matisse, for Diaghilev's Ballets Russes; Martha Graham's partnership with Isamu Noguchi; and Merce Cunningham's work with Robert Rauschenberg. We will also look simply at how dance is filmed or how dance uses film. The course will concentrate on two figures of the postwar American avant-garde: Merce Cunningham and Yvonne Rainer. Cunningham's dances choreographed for film in collaboration with film- and video-makers and Rainer's move from choreography to filmmaking and eventually to hybrids of the two will constitute the core of the course.

**Department:** Art & Art History  
**Course:** AH 313  
**Title:** Architecture/Photography, Modernism/Postmodernism  
**Cross-listed:** AH 513  
**Instructor:** Crimp, D. **Class Size:** 20  
**Description:** Fall 2009. The subject of this course is inspired by a series of photographs commissioned from Hiroshi Sugimoto for the Los Angeles Museum of Contemporary Arts exhibition *At the End of the Century: On Hundred Years of Architecture*. Sugimoto's photographs show canonical works of modern architecture shot out of focus, reduced to both icon and phantom. In the seminar we will consider the changing relations between photography and

architecture between image and space, between picture and object from the advent of modernism to the present. We will look at these relations in the New Objectivity and the New Vision, Surrealism, the International Style, Mid-Century Modern, and we will end by considering the uses of the photography of architecture in Conceptual art and the fascination with modernist architecture in contemporary photographic work. We will read critical studies of modernist architecture and photography and plot the relations between these discourses and practices.

**Department:** Art & Art History  
**Course:** AH 385  
**Title:** The Visual Culture of Heritage and Identity  
**Cross-listed:** AH 585/ANT 384/HIS 372W/HIS472  
**Instructor:** Berlo, J. **Class Size:** 15  
**Prerequisites:** No prerequisites are required but familiarity with the language and theoretical concerns of cultural studies or anthropology would be helpful.  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. Cultural critic Stuart Hall has observed that Heritage is a discursive practice. It is one of the ways in which the nation slowly constructs for itself a sort of collective social memory. In this upper level seminar, we will look at case studies of how people (through the collectivities of gender, ethnicity, race, or nation) construct visual narratives about the past. Among the topics for consideration are Holocaust memorials, Native American and Polynesian museums and cultural centers, African American quilt histories, and even individual artists' projects of the last few decades (Judy Chicago, Fred Wilson, Silvia Gruner, José Bedía, and Jolene Rickard, among others). We will see how various constituencies have borrowed from what Arjun Appadurai has called a warehouse of cultural scenarios in order to construct a useable past that supplies what is needed in the present, irrespective of its relationship to the verifiable realities of the past. Readings will be drawn principally from the disciplines of history, anthropology, cultural studies, and art criticism. Juniors and Seniors in Art History, Anthropology and History, as well as graduate students, will have preference in registering for this course. Familiarity with the language and theoretical concerns of cultural studies or anthropology would be helpful.

**Department:** Art & Art History  
**Course:** AH 398  
**Title:** Senior Seminar: Art & Catastrophe  
**Cross-listed:** AH 598  
**Instructor:** Haidu, R. **Class Size:** 20  
**Description:** Fall 2009. This seminar focuses on art's role in relation to catastrophes both man-made and natural. We examine art that

responds directly to political and social catastrophe as well as art made in the shadow of wars or during periods of political and social repression. We will discuss readings that range from Stephen Eisenman's recent book "The Abu Ghraib Effect," Susan Sontag's "Regarding the Pain of Others," and Ariella Azoulay's "Death's Showcase: The Power of Image in Contemporary Democracy" three books that focus particularly on photography and its social role to Mark Godfrey's study of Abstract Expressionism, "Abstraction and the Holocaust" and Eyal Weizman's study of the relationship between military planning and urban and architectural planning in the Israeli-Palestinian conflict.

**Department:** Art & Art History  
**Course:** AH 410  
**Title:** Women as Image and Text  
**Cross-listed:** AH 210, WST 214  
**Instructor:** Seibertling, G. **Class Size:** 25  
**Description:** Fall 2009. Please see AH 210 for description.

**Department:** Art & Art History  
**Course:** AH 460  
**Title:** Cultural Tourism  
**Cross-listed:** AH 260  
**Instructor:** Seiberling, G. **Class Size:** 25  
**Description:** Fall 2009. Please refer to description on AH 260.

**Department:** Art & Art History  
**Course:** AH 483  
**Title:** Contemporary French Film  
**Cross-listed:** AH 283, FMS 291, FR 283/483, CLT 211D/CL  
**Instructor:** Willis, S.  
**Description:** Fall 09. Please see AH 283 for description.

**Department:** Art & Art History  
**Course:** AH 508  
**Title:** Art & Imitation--Mimesis and the Origins of Modern Picturing in Art & Culture  
**Cross-listed:** AH 308  
**Instructor:** Duro, P.  
**Description:** Fall 09. Please see AH 308 for the description.

**Department:** Art & Art History  
**Course:** AH 511  
**Title:** Dance, Art, and Film  
**Cross-listed:** AH 311/FMS 308/FMS 508  
**Instructor:** Crimp, D. **Class Size:** 20

**Description:** Please refer to description on AH 311.

**Department:** Art & Art History  
**Course:** AH 513  
**Title:** Architecture/Photography, Modernism/Postmodernism  
**Cross-listed:** AH 313  
**Instructor:** Crimp, D. **Class Size:** 20  
**Description:** Fall 2009. See AH 313 for description.

**Department:** Art & Art History  
**Course:** AH 583  
**Title:** Visual and Cultural Studies Colloquium  
**Cross-listed:** CLT 462  
**Instructor:** Saab, J. **Class Size:** 20  
**Restrictions:** Permission of instructor required for undergraduates  
**Description:** Fall 2009. The VCS Colloquium will introduce students in the program to aspects of the histories, theories, and methodologies of our field of study. We will proceed in three ways: First, we will read and discuss together a series of texts on and in visual and cultural studies. Second, various faculty members in the program will conduct sessions based on readings that they will select for us. And third, each student will present his or her own work to the colloquium. For this final part, it is important that students engage with visual and cultural studies models and provide relevant readings to other members of the colloquium.

**Department:** Art & Art History  
**Course:** AH 585  
**Title:** The Visual Culture of Heritage and Identity  
**Cross-listed:** AH 585/ANT 384/HIS 372W/HIS 472  
**Instructor:** Berlo, J. **Class Size:** 15  
**Prerequisites:** No prerequisites required but familiarity with the language and theoretical concerns of cultural studies or anthropology would b  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. Please see AH 385 for description

**Department:** African & African-American Studies  
**Course:** AH 598  
**Title:** Senior Seminar: Art & Catastrophe  
**Cross-listed:** AH 398  
**Instructor:** Haidu, R. **Class Size:** 20  
**Description:** Fall 09. Please see AH 398 for description.

## Art & Art History -- Studio Arts

**Department:** Art & Art History -- Studio Arts  
**Course:** SA 111

**Title:** Introductory Drawing  
**Instructor:** Ashenfelder, S. **Class Size:** 10  
**Restrictions:** Not open to seniors  
**Description:** Fall 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. Not open to seniors. Studio art supplies fee: \$50.

**Department:** Art & Art History - Studio Arts  
**Course:** SA 112  
**Title:** Concepts in Introductory Drawing  
**Instructor:** Ashenfelder, S. **Class Size:** 10  
**Restrictions:** Not open to seniors  
**Coursework:** Art production, critiques, written papers (when applicable), participation in class discussions.  
**Description:** Fall 2009. Why are we so fascinated with urban legends and international folklore? This studio course will use various forms of storytelling such as myths, fairytales, rituals, and legends as source material for creating traditional and nontraditional works of art. In addition, we will explore the visual language of religion, politics, and mass media in an effort to create our own contemporary folklore. In this course, students will have the opportunity to work with a wide variety of drawing media and techniques as well as experiment with creative alternatives. An emphasis will be placed on direct studio production. One-on-one discussions and large group critiques will support the studio experience and serve as a primary source of evaluation. Students who have taken SA 111 or SA 121 are encouraged to take this class. No previous studio art experience is necessary. Studio art supplies fee: \$50.

**Department:** Art & Art History -- Studio Arts  
**Course:** SA 121  
**Title:** Introductory Painting  
**Instructor:** Layton, H. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 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 student's 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 for H. Layton's class not S. Ashenfelder's class. Not open to seniors. Studio art supplies fee: \$50.

**Department:** Art & Art History -- Studio Arts  
**Course:** SA 131  
**Title:** Introductory 3D  
**Instructor:** Cohen, E. **Class Size:** 10  
**Restrictions:** Not open to seniors  
**Description:** Fall 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 student's own working creative vocabulary. Not open to seniors. Studio art supplies fee: \$50.

**Department:** Art & Art History -- Studio Arts  
**Course:** SA 141  
**Title:** Introductory Photography

**Instructor:** Ashenfelder, S. **Class Size:** 10  
**Restrictions:** Not open to seniors  
**Description:** Fall 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. 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 205  
**Instructor:** Ashenfelder, S. **Class Size:** 10  
**Prerequisites:** Some familiarity with Macintosh computer required  
**Restrictions:** Not open to seniors  
**Description:** Fall 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. 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 161, ENG 161  
**Instructor:** Ashenfelder, S. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 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 190  
**Title:** Introduction to Studio Practice  
**Instructor:** Ashenfelder, S. **Class Size:** 10  
**Description:** Fall 2009. Provides a broad framework for contemporary art practice through studio production, discussion, presentation & critique. While many courses, including Photography, 3D, Painting & Digital Art, often start with the medium & work toward the concept, the projects in this class will immediately integrate conceptual challenges approaches with material &

technique. While some projects may include traditional media such as silverpoint, pencils & paper, others may invite nontraditional media such as cyanotype prints, text, earth & sound. Presentations & discussions will address historical & theoretical approaches to art as a way of supporting expansive studio practice. Practice, critique, readings & discussion combine to place emphasis on the visual investigation necessary to create educated and challenging art. While Introduction to Visual & Cultural Studies (AH 100) would provide a strong base, it is not a prerequisite for this course. Not open to seniors. Studio art supplies fee: \$50.

**Department:** Art & Art History - Studio Arts  
**Course:** SA 192  
**Title:** Concepts in Introductory Visual Production--Techniques in Animation  
**Cross-listed:** FMS 192  
**Instructor:** Ashenfelder, S. **Class Size:** 10  
**Restrictions:** Not open to seniors  
**Description:** Fall 2009. This introductory course explores a variety of materials and approaches to time-based concepts and techniques. Time-based work is explored at its point of intersection between ephemeral art form and the tools and materials shaping the production. Class topics reference the development of media technologies as a foundation for realizing works combining forms of installation, drawing, sound, painting, and sculptural elements. Readings and screenings provide examples of both historical and contemporary approaches using light and shadow projections, lightning sketches, flipbooks, claymation, stop-motion, model-building, as well as digital and interactive techniques. While drawing, sculpture and time-based production courses are a good introduction to this course, they are not required. Not Open to seniors. Permission of instructor required. Studio art supplies fee: \$50.

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

**Department:** Art & Art History -- Studio Arts  
**Course:** SA 222A  
**Title:** Advanced Painting  
**Cross-listed:** SA 222B/SA 222C

**Instructor:** Layton, H. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. This course provides a continuation of Introductory Painting with an intense emphasis on independent proposals, research, and studio production. Regular group discussions, individual meetings, and peer critiques will serve to enhance the experience. Various readings and short films will provide a foundation in theoretical frameworks and a platform for understanding the history and future of painting. An exploration of the broadest examination of painting and related media is to be expected. With faculty and peer support, students will develop professional-quality artist statements and will write reviews of each others work. Within the context of the class, students will discuss the logistics of acquiring, promoting, and installing a professional exhibition, including multiple strategies for display. Students should expect to leave this class with the artistic maturity required to respond to and challenge a wide range of contemporary painting topics. This course may be taken more than once. Permission of instructor required. Studio art supplies fee: \$50.

**Department:** Art & Art History -- Studio Arts  
**Course:** SA 222B  
**Title:** Advanced Painting  
**Cross-listed:** SA 222A/SA 222C  
**Instructor:** Layton, H. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. Please see SA 222A for the course description.

**Department:** Art & Art History -- Studio Arts  
**Course:** SA 222C  
**Title:** Advanced Painting  
**Cross-listed:** SA 222A/SA 222B  
**Instructor:** Layton, H. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. Please see SA 222A for the course description.

**Department:** Art & Art History - Studio Arts  
**Course:** SA 232A  
**Title:** Advanced 3D: Object Install  
**Cross-listed:** SA, 232B, SA 232C  
**Instructor:** Cohen, E. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. This class broadens the investigation undertaken in introductory 3D classes to include other materials and processes as well as focus on working in an interdisciplinary fashion. Projects open up the practice of sculpture to include an expanded

notion of space and form to further the development of the student's three- dimensional vocabulary and further their options for articulating ideas. The scheduled class days will consist of studio production, slide presentations, technical demonstrations, discussion of assigned readings, one on one meetings, project critiques. Permission of instructor required. Studio arts supplies fee: \$50.

**Department:** Art & Art History - Studio Arts  
**Course:** SA 232B  
**Title:** Advanced 3-D Object Install  
**Cross-listed:** SA 232A, SA 232C  
**Instructor:** Cohen, E. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 09. Please see SA 232A for the course description.

**Department:** Art & Art History - Studio Arts  
**Course:** SA 232C  
**Title:** Advanced 3-D Object Install  
**Cross-listed:** SA 232A, SA 2323B  
**Instructor:** Cohen, E. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. Please see SA 232A for the course description.

**Department:** Art & Art History - Studio Arts  
**Course:** SA 242A  
**Title:** Advanced Photography  
**Cross-listed:** SA 242B/242C  
**Instructor:** Shindelman, M. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. Advanced Photography will examine and expand upon the issues and practice of contemporary photography. Large format photography, studio lighting, fine silver Printing and toning will be covered within a conceptual framework. Students entering this course are expected to have an understanding of contemporary art, artistic writing and be willing to advance their studio practice. Students will be encouraged to combine their work with written research. Permission of instructor only. Studio art supplies fee: \$50.

**Department:** Art & Art History - Studio Arts  
**Course:** SA 242B  
**Title:** Advanced Photography  
**Cross-listed:** SA 242A/242C  
**Instructor:** Shindelman, M. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. Please see SA 242A for the course description.

**Department:** Art & Art History - Studio Arts  
**Course:** SA 242C  
**Title:** Advanced Photography  
**Cross-listed:** SA 242A/242B  
**Instructor:** Shindelman, M. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. Please see SA 242A for the course description.

**Department:** Art & Art History -- Studio Arts  
**Course:** SA 273A  
**Title:** Issues in Advanced 2D: Image Text  
**Cross-listed:** SA 273B/273C  
**Instructor:** Shindelman, M. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. There is a historical relationship between text and the visual image. This course will cover basic typography and typographic theory, layout writing, and the conceptual incorporation of text into work. Various methods of text application, including digital printing, screen printing, and mixed media will be covered. Four basic areas of text will be explored: autobiographical, political, appropriated and text as image. Permission of instructor required. Studio arts supplies fee: \$50.

**Department:** Art & Art History -- Studio Arts  
**Course:** SA 273B  
**Title:** Issues in Advanced 2D--Image Text  
**Cross-listed:** SA 273A/SA 273C  
**Instructor:** Shindelman, M. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. Please see SA 273A for the course description.

**Department:** Art & Art History -- Studio Arts  
**Course:** SA 273C  
**Title:** Issues in Advanced 2D--Image Text  
**Cross-listed:** SA 273A/SA 273B  
**Instructor:** Shindelman, M. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. Please see SA 273A for the course description.

**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.

**Department:** Art & Art History -- Studio Arts

**Course:** SA 396  
**Title:** Senior Studio and Seminar - Fall  
**Instructor:** Topolski, A. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. This course is designed to support the transition between undergraduate coursework in the arts and independent, professional, and post-graduate pursuits. The course has three essential components: (1) Studio Production and Critique, (2) the Mechanics of the Profession, and (3) Contemporary Artists and Issues as they relate to Visual and Cultural Theory, Art History, and Art Criticism. The production component will consist of the intensive critique of ongoing studio work with an emphasis on the importance of shifting toward self-motivated production. Students should expect and be prepared for one-on-one, small group, large group, and visiting critiques. Discussion on the mechanics of the profession will include detailed and individually tailored guidance on career choices, graduate school preparation, and group and solo exhibition. Contemporary issues and artists will be thoughtfully considered through readings, discussions, and written responses. The fall semester will serve as the first half of the development toward a solo thesis exhibition and includes an artist talk, which includes documentation, explanation, reference, and an explanation of the relevance of the students work in the context of contemporary art. The spring semester includes a solo exhibition of the students work that is the culmination of their research and production. This class is limited to and required of senior studio majors. Permission of instructor required. Studio art supplies fee: \$50.

## Biology

**Department:** Biology  
**Course:** BIO 104K  
**Title:** Ecosystem Conservation and Human Society  
**Instructor:** Robert Minckley  
**Prerequisites:** None  
**Coursework:** 2 tests, 1 group project, 1 independent project  
**Description:** As the natural resources on which human society depends are depleted, the need for sound conservation policies increases. The course examines a new approach in conservation biology that identifies and places economic value on the services that natural ecosystems provide. Such services are basic to sustainable societies and include clean water and air, waste decomposition, pollination and farm land productivity. Major themes the course covers include an overview of other approaches in conservation biology, a review of the services that ecosystems provide, ways

the value of these services are determined, and how this novel approach is influencing economic and political policy at local, national, and international levels.

**Department:** Biology  
**Course:** BIO 110  
**Title:** Principles of Biology I  
**Instructor:** Olek, A. **Class Size:** 150  
**Prerequisites:** Completion or concurrent enrollment in CHM 131 or equivalent  
**Exams:** Three 90 minute exams and one 3 hour final exam  
**Coursework:** Three 50 min lectures and one 2 hour problem based workshop per week  
**Description:** The first semester in a year long course sequence designed for majors and minors in biology. Major topics include: biochemistry, molecular and cellular evolution, cell reproduction, fundamentals of genetics and molecular biology.

**Department:** Biology  
**Course:** BIO 112  
**Title:** Perspectives in Biology I  
**Instructor:** Platt, T. **Class Size:** 100  
**Prerequisites:** See Description below  
**Restrictions:** Open to freshmen only  
**Exams:** Two exams during the term and a final examination  
**Description:** The first semester of a two-course introductory sequence for students with a strong background in science. Topics include biochemistry, molecular and cellular evolution, cell reproduction, fundamentals of genetics and molecular biology. This course differs from BIO 110: there will be greater emphasis on the chemistry underlying biological processes and on experimental approaches, data analysis, and quantitative methods. It will also include reading original papers, and a significant writing component (e.g. preparation of a book review from among selected titles, such as The Selfish Gene). Note both BIO 110 and BIO 112 are designed to prepare students who intend to major in biology. Prerequisites: Students with a score of 4 or 5 on the AP Biology test, particularly those who have an interest in research. Completion or concurrent enrollment in CHM 131 or equivalent.

**Department:** Biology  
**Course:** BIO 198  
**Title:** Principles of Genetics  
**Instructor:** Sia, E. **Class Size:** 250  
**Prerequisites:** BIO 110 and completion or concurrent enrollment in CHM 203 or CHM 205  
**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:** Methods of genetic analysis are stressed. Topics include: Mendelian assortment; gene interaction; linkage and mapping; methods of genetic analysis in yeast, bacteria and phage; DNA replication, recombination, repair and mutation; gene expression and its regulation; transposons and retroviruses; recombinant DNA technologies; cancer as a genetic disease.

**Department:** Biology  
**Course:** BIO 198L  
**Title:** Principles of Genetics Lab  
**Instructor:** Ramsey, T. **Class Size:** 150  
**Prerequisites:** Concurrent with BIO 198 or after completion of BIO 198.  
**Exams:** Quizzes, laboratory reports and other assignments  
**Coursework:** One 3.5 hour laboratory per week  
**Description:** This course is an introduction to basic genetic theory and laboratory practices. Topics include classical inheritance in eukaryotes, bacterial genetics and molecular technology techniques. Emphasis is on data analysis and experimental design.

**Department:** Biology  
**Course:** BIO 202  
**Title:** Molecular Biology  
**Cross-listed:** BIO 402  
**Instructor:** Benyajati, C., Bi X., Bi, X.  
**Prerequisites:** BIO 198, and BIO 250; should have completed biology core as well as chemistry requirements  
**Exams:** Three midterm exams and a comprehensive final exam  
**Coursework:** Two 75 minute lectures and one 75 minute recitation per week.  
**Description:** This course deals with the molecular mechanisms of gene replication, gene expression, and the control of gene expression in both prokaryotic and eukaryotic cells. Topics include: enzymatic mechanisms of DNA replication, recombination and repair; transposable elements; DNA transcription; RNA splicing; RNA translation; repressors, activators and attenuators; recombinant DNA and genetic engineering.

**Department:** Biology  
**Course:** BIO 203  
**Title:** Mammalian Anatomy  
**Instructor:** Dietsche, A **Class Size:** 120  
**Prerequisites:** BIO 110 or BIO 112 and BIO 111 or BIO 113 or permission of instructor  
**Exams:** Four 50 min exams  
**Coursework:** Three 50 min lectures and one three-hour laboratory per week.

**Description:** This course deals with the structural and systematic anatomy of animals with special emphasis on human beings. Laboratory includes the dissection of fresh and preserved tissue plus analysis of structures and systems.

**Department:** Biology  
**Course:** BIO 205  
**Title:** Evolution  
**Instructor:** Orr, A. **Class Size:** 100  
**Prerequisites:** BIO 111 or BIO 113 and BIO 198  
**Exams:** Two 70 min exams plus a comprehensive final exam.  
**Coursework:** Two 75 min lectures and one 50 min recitation per week.  
**Description:** Fundamentals of Evolution. Topics include natural selection and its ecological basis, population genetics including selection and drift, speciation, and molecular evolution including the neutral theory, molecular phylogeny and the molecular clock.

**Department:** Biology  
**Course:** BIO 210  
**Title:** Molecular Cell Biology  
**Instructor:** David Goldfarb **Class Size:** 200  
**Prerequisites:** BIO 110 or BIO 112 and BIO 111 or BIO 113. BIO 198 and BIO 250 are strongly suggested.  
**Restrictions:** Not open to freshmen and sophomores  
**Description:** An intermediate level course that covers fundamental cell processes at the molecular level. Topics include organelle structure and functions, membrane biogenesis, cytoskeleton, cell signaling, cell cycle growth and death.

**Department:** Biology  
**Course:** BIO 220  
**Title:** Advanced Cell Biology  
**Cross-listed:** IND 420, BIO 420  
**Instructor:** Welte, M.  
**Prerequisites:** BIO 198, BIO 210, BIO 250  
**Description:** An advanced course focusing on a mechanistic understanding of cellular organization and function. This course relies heavily on the primary research literature, classic and recent, and the design and interpretation of experiments, drawn from biochemistry, microscopy and genetics. Topics include the cytoskeleton, membrane traffic, cell-cell signaling and the cell cycle. Active participation in classroom discussions is an essential feature of the course.

**Department:** Biology  
**Course:** BIO 222  
**Title:** Biology of Aging

**Cross-listed:** BIO 422  
**Instructor:** Gorbunova, V. **Class Size:** 50  
**Prerequisites:** Genetics or Molecular Biology recommended.  
**Exams:** Two exams: midterm and end of semester.  
**Coursework:** Two 75-min lectures and one 50 min recitation per week  
**Description:** This course focuses on molecular mechanisms of aging. We will discuss popular theories of aging, model organisms used in aging research, evolution of aging, relation between aging and cancer, human progeroid syndromes, and interventions to slow aging.

**Department:** Biology  
**Course:** BIO 225  
**Title:** Laboratory in Ecology and Evolutionary Biology  
**Instructor:** Ramsey, T., Minckley, R. **Class Size:** 24  
**Prerequisites:** Past or current enrollment in BIO 205 or BIO 263  
**Restrictions:** Permission of instructor required  
**Coursework:** Two 4-hour labs and one 50-minute recitation per week  
**Description:** This course emphasizes the development of testable questions and implementation of appropriate observations and experiments on a series of topics in ecology and evolution. Many of the mini-studies will be done in the field on non-model organisms native to New York. Students will gain experience on field and lab methods used in ecology and evolutionary biology (including relevant computer applications), critiquing published scientific studies, writing scientific reports, and presentation of scientific results.

**Department:** Biology  
**Course:** BIO 226  
**Title:** Developmental Biology  
**Cross-listed:** BIO 426  
**Instructor:** Lambert, D. **Class Size:** 80  
**Prerequisites:** BIO 198 or permission of the instructor  
**Exams:** Three 75-min exams and a comprehensive final exam  
**Coursework:** Two 75-min lectures per week and a 50 min recitation per week.  
**Description:** This course deals with the cellular and molecular aspects of animal development, with emphasis on processes and underlying mechanisms. Topics include embryonic cleavage, gastrulation, early development of model vertebrates and invertebrates, patterning of cell fates along embryonic axes of Drosophila and vertebrates, organogenesis and stem cells.

**Department:** Biology  
**Course:** BIO 228  
**Title:** Laboratory in Cell and Developmental Biology  
**Cross-listed:** BIO 428  
**Instructor:** Benyajati, C. and Bi, X. **Class Size:** 24



**Prerequisites:** Strongly recommended BIO 250; should have completed biology core as well as chemistry requirements  
**Exams:** Laboratory reports and other assignments  
**Coursework:** Two four-hour labs and one 50 min recitation per week  
**Description:** This course is designed to provide (i) training in specific methods used in molecular, cell and developmental biology research, with emphasis on data acquisition and analysis (ii) experience in the design and execution of experiments, writing scientific reports, and public scientific presentation.

**Department:** Biology  
**Course:** BIO 260  
**Title:** Animal Behavior  
**Cross-listed:** BIO 460  
**Instructor:** Werren, J, **Class Size:** 75  
**Prerequisites:** BIO 111 or BIO 113  
**Exams:** ???  
**Coursework:** Three 50 min lectures and one 50 min recitation per week  
**Description:** Examines animal behavior from an ecological and evolutionary perspective. Topics include social organization, mating systems, foraging, aggression, and animal learning. Students also learn quantitative techniques in behavioral biology.

**Department:** Biology  
**Course:** BIO 263  
**Title:** Ecology  
**Instructor:** Ramsey, J  
**Prerequisites:** BIO 111 or BIO 113 and MTH 142 or MTH 161  
**Exams:** Three 50 min exams and a comprehensive final exam  
**Coursework:** Three 50 min lectures and one 50 min recitation per week  
**Description:** A survey of adaptations to the physical environment, dynamics of natural populations, interactions between species, and human impact on the environment.

## Brain & Cognitive Sciences

**Department:** Brain & Cognitive Sciences  
**Course:** BCS 110  
**Title:** Neural Foundations of Behavior  
**Cross-listed:** PSY/ CVS 110  
**Instructor:** Pouget, A. **Class Size:** 200  
**Prerequisites:** None  
**Exams:** Three mid-terms and a final, all multiple choice.  
**Coursework:** Lectures, weekly recitations (optional).  
**Description:** Introduces the structure and organization of the brain, and its role in perception, movement, thinking, and other behavior. Topics include the brain as a special kind of computer, localization of

function, effects of brain damage and disorders, differences between human and animal brains, sex differences, perception and control of movement, sleep, regulation of body states and emotions, and development and aging.

**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 artificial intelligence and cognitive neuroscience.

**Department:** Brain & Cognitive Sciences  
**Course:** BCS 151  
**Title:** Perception and Action  
**Cross-listed:** PSY/ CVS 151  
**Instructor:** Tadin, D. **Class Size:** 60  
**Prerequisites:** BCS/PSY 110 or BCS 111 or BCS/PSY 112  
**Exams:** Two mid-term exams and a cumulative final.  
**Description:** Explores how the biology of our senses shapes perceptual experiences of reality. Emphasizes sense of sight primarily and hearing secondarily. An important theme is that our sensory systems play a crucial role in the execution of coordinated movements of our bodies, as we navigate in, and interact with, the environment.

**Department:** Brain & Cognitive Sciences  
**Course:** BCS 152  
**Title:** Language and Psycholinguistics  
**Cross-listed:** PSY 152, ASL 260, LIN 217  
**Instructor:** Jaeger, F. **Class Size:** 50  
**Prerequisites:** BCS 110 or 111 or 112; or LIN 110  
**Description:** Overviews the nature and processing of human languages, including comparisons between language and animal communication systems, the biological bases of human language, and the cognitive mechanisms used in producing, understanding, and learning language.

**Department:** Brain & Cognitive Sciences  
**Course:** BCS 200  
**Title:** Statistical Analysis and Experimental Design  
**Cross-listed:** PSY 200  
**Instructor:** Knill, D. **Class Size:** 60

**Exams:** Quizzes. Computer problem sets. Take-home assignments and a final exam.

**Coursework:** There are two lectures and a computer lab per week. Students should sign up for one lab section as well as for the lecture.

**Description:** Introduces statistical methods including descriptive statistics (count, central tendency, dispersion), hypothesis testing (significance, t-test, chi-square, etc.) and elements of correlation, regression, and interaction. Emphasis is on what a technique does at a conceptual level, how a technique is reported in the literature, and how to execute a technique.

**Department:** Brain & Cognitive Sciences  
**Course:** BCS 204  
**Title:** Lab in Cognitive Neuroscience  
**Instructor:** Holtzman, D.  
**Prerequisites:** BCS 200 and BCS 153  
**Description:** Introduces methods used in cognitive neuroscience, a field that examines cognitive phenomena in terms of their underpinnings in the brain. Covers functional anatomical approaches to studying brain function and dysfunction, behavioral and brain imaging approaches to studying learning and memory, and neuropsychological approaches to understanding sensory, motor, and cognitive processing and disorders.

**Department:** Brain & Cognitive Sciences  
**Course:** BCS 205  
**Title:** Lab in Development & Learning  
**Cross-listed:** PSY 205  
**Instructor:** Aslin, R. **Class Size:** 15  
**Prerequisites:** BCS 200 and one of the BCS core courses (151, 152, 153) or BCS 172  
**Coursework:** This course carries upper-level writing credit. Papers are written and graded both for content and form.  
**Description:** Introduces behavioral methods used to study the development of perception, cognition, and language, and provides hands-on experience in the testing of human infants and children. Includes two research projects and a final powerpoint presentation.

**Department:** Brain & Cognitive Sciences  
**Course:** BCS 240  
**Title:** Basic Neurobiology  
**Cross-listed:** NSC 201  
**Instructor:** Nordeen, E. , **Class Size:** 70  
**Prerequisites:** BIO 110 or BIO 112 AND BIO 111 or BIO 113 AND BIO 111L or BIO 113L  
**Exams:** 4-5 mid-term exams, cumulative final; 2 papers

**Coursework:** The associated laboratory (BCS 240L) is for students intending to take the spring Lab in Neurobiology (BCS 203). Please see NSC 201 for the course description.

**Description:**

**Department:** Brain & Cognitive Sciences  
**Course:** BCS 243  
**Title:** Neurochemical Foundations of Behavior  
**Cross-listed:** NSC 243  
**Instructor:** Kellogg, C. **Class Size:** 20  
**Prerequisites:** NSC 201 (BCS 240) or equivalent background; biochemistry recommended  
**Exams:** 3 exams, a take-home final  
**Coursework:** Lectures and problem sets, with emphasis on problem solving and data analysis. One paper.  
**Description:** Please see NSC 243for the course description.

**Department:** Brain & Cognitive Sciences  
**Course:** BCS 246  
**Title:** The Biology of Mental Disorders  
**Cross-listed:** NSC/PSY 246  
**Instructor:** Kellogg, C.,Como, P. **Class Size:** 40  
**Prerequisites:** BCS 110 and BIO 110 (or equivalent), or NSC 201.  
**Exams:** 5 exams, a combination of take-home and in-class  
**Description:** Examines the neurobiology of anxiety/phobic conditions, mood disorders, and chronic psychotic states, particularly schizophrenia. Considers definitions of psychiatric syndromes, the problems of diagnosis, brain organization, and neurotransmitter systems involved in state functions. Introduces research approaches including epidemiologic, phenomenologic, family/adoption, longitudinal descriptive, psychophysiologic, neuropharmacologic, genetic linkage, and postmortem studies; emphasizes recent in vivo brain imaging and neuroreceptor studies.

**Department:** Brain & Cognitive Sciences  
**Course:** BCS 310  
**Title:** Senior Seminar **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.

# Chemistry

**Department:** Chemistry  
**Course:** CHM 131  
**Title:** Chemical Concepts, Systems and Practices I  
**Instructor:** Krauss, T., Krugh, T. **Class Size:** 250  
**Prerequisites:** High school Chemistry course  
**Exams:** Three Exams and a Final  
**Description:** This 5 credit course is an introduction to the concepts of chemistry for science and engineering students, health professions students, and as a science course for students of the humanities and social sciences. Properties of chemical systems are discussed from a macroscopic and molecular perspective with examples developed from a wide range of disciplines. The Topics covered include stoichiometry, atoms and molecules, properties of gases, thermochemistry, chemical equilibrium, acids and bases, solubility equilibria, and oxidation-reduction reactions. M W F - Krauss: Three 50 minute lectures per week. T R - Krugh: Two 75 minute lectures per week. In addition, there is a three-hour laboratory in alternate weeks, a 50 minute laboratory lecture and a 75 minute workshop (Krauss) or a 75 minute recitation (Krugh). Laboratories are held Monday to Thursday, 1400-1700 and 1730-2030, and Friday, 1400-1700. Recitations and workshops are offered at multiple times during the week. During the first week of classes you will be assigned a laboratory section and recitation/workshop section that fits into your schedule.

**Department:** Chemistry  
**Course:** CHM 171Q  
**Title:** Quest Organic Chemistry  
**Instructor:** Frontier, A. **Class Size:** 30  
**Prerequisites:** Two years of general chemistry and an Advanced Placement score of 4 or 5, or equivalent preparation.  
**Description:** CHM171Q / 172Q 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). Coregistration in CHM 173Q (laboratory and lab/lecture) is required.

**Department:** Chemistry  
**Course:** CHM 173Q  
**Title:** Quest Organic Chemistry Laboratory  
**Instructor:** Nilsson, B. **Class Size:** 30  
**Prerequisites:** Two years of general chemistry and an Advanced Placement score of 4 or 5, or equivalent preparation. Co-registration in CHM 171Q  
**Restrictions:** Open to freshmen only  
**Description:** CHM 173Q is the fall semester, one credit laboratory accompanying CHM 171Q, 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 with 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 Chemistry is designed for first year students with good preparation in chemistry (see prerequisites).

**Department:** Chemistry  
**Course:** CHM 203  
**Title:** Organic Chemistry I  
**Instructor:** Goodman, J. **Class Size:** 350  
**Prerequisites:** CHM 131 & CHM 132 or the equivalent.  
**Exams:** Four 1-hour Exams and Final.  
**Description:** An introduction to organic chemistry that focuses on chemical bonding, structure and stereochemistry, reactions and reaction mechanisms of organic compounds. There are three 50 minute lectures and one workshop per week. The workshop is an informal, interactive two-hour session in which groups of eight students work on specially designed problems under the guidance of a trained leader. The purpose of the workshop is to provide a mechanism for students to work actively with the material and with each other. Coregistration in CHM 207 is required.

**Department:** Chemistry  
**Course:** CHM 207  
**Title:** Organic Chemistry I Laboratory  
**Instructor:** Toder, B. **Class Size:** 350  
**Prerequisites:** Co-registration in CHM 203.  
**Exams:** Several lab quizzes during lecture.  
**Coursework:** One 3-hour laboratory & one 50 minute laboratory lecture per week.

**Description:** A one credit organic chemistry laboratory course that provides an introduction to the characterization and reactivity of organic molecules using modern laboratory techniques. There is one 3-hour laboratory and one 50 minute laboratory lecture per week.

**Department:** Chemistry  
**Course:** CHM 211  
**Title:** Inorganic Chemistry  
**Cross-listed:** CHM 411  
**Instructor:** Eisenberg, R. **Class Size:** 45  
**Prerequisites:** Organic Chemistry  
**Description:** This course covers descriptive chemistry of main group elements, bonding in inorganic systems, coordination chemistry and the properties and reactions of transition metal complexes. Two 75 minute lectures per week. Three 90 minute examinations plus group projects and problem sets.

**Department:** Chemistry  
**Course:** CHM 231  
**Title:** Chemical Instrumentation  
**Instructor:** McCamant, D. **Class Size:** 36  
**Prerequisites:** CHM 131, CHM 132, CHM 203, CHM 204, plus one year each of college level physics and mathematics.  
**Restrictions:** Not open to freshmen and sophomores  
**Exams:** One 1-hour exam and a final exam, laboratory work, 10 written lab reports.  
**Description:** This course will provide an understanding of both the method and the application of modern chemical instrumentation to chemical problems and systems. The problems will be deliberately chosen to cover a range of different chemical systems. One lecture and 2 labs week. Prereq: One each year of Freshman and Organic Chemistry. One year each of college physics and mathematics. Concurrent registration in CHM 251 is recommended. This class is 4 credit hours.

**Department:** Chemistry  
**Course:** CHM 251  
**Title:** Physical Chemistry I  
**Cross-listed:** CHM 441  
**Instructor:** Farrar, J. **Class Size:** 60  
**Prerequisites:** PHY 121-123 or 113-114; MTH 163 or 165.  
**Exams:** Three 1-hour exams and Final.  
**Description:** This course is an introduction to quantum mechanics with applications to spectroscopy and to atomic and molecular structure. There are weekly problem sets. Students also participate in workshops each week.

**Department:** Chemistry  
**Course:** CHM 352  
**Title:** Issues in Workshop Leadership  
**Cross-listed:** CAS 352 F/ CAS 355 S  
**Instructor:** Perez, C., Dinnocenzo, J., Goodman, J., Farrar, J., Frontier, A.  
**Description:** A 2-credit course (fall; 1-credit in spring) 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 (fall) and CAS 355 (spring - one credit). 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 391  
**Title:** Independent Study  
**Instructor:** Various  
**Restrictions:** Special application required  
**Description:** Individual study of advanced topics arranged by students.

**Department:** Chemistry  
**Course:** CHM 393  
**Title:** Senior Thesis Research  
**Instructor:** Various  
**Restrictions:** Special application required  
**Description:** Independent research directed by faculty member to be arranged during semester preceding registration. Written report and participation in a department poster session required. For BS Chemistry majors, two semesters of CHM 393 are required (8 credits).

**Department:** Chemistry  
**Course:** CHM 395  
**Title:** Independent Research  
**Instructor:** Various  
**Restrictions:** Special application required  
**Description:** A research course designed by individual arrangement with a faculty member. Plan on spending at least the equivalent of two afternoons (eight hours) a week in the lab. The basis for determining your grade for the research course is worked out between the student and the professor as part of registration for independent research.

**Department:** Chemistry

<b>Course:</b>	CHM 411	
<b>Title:</b>	Advanced Inorganic Chemistry I	
<b>Cross-listed:</b>	CHM 211	
<b>Instructor:</b>	Eisenberg, R.	<b>Class Size:</b> 30
<b>Restrictions:</b>	Open only to graduate students in offering department	
<b>Description:</b>	Please see CHM 211 for the course description.	
<b>Department:</b>	Chemistry	
<b>Course:</b>	CHM 414	
<b>Title:</b>	Bio-Inorganic Chemistry	
<b>Instructor:</b>	Holland, P.	<b>Class Size:</b> 30
<b>Prerequisites:</b>	CHM 211 / CHM 411 or a course in inorganic chemistry or by permission of the instructor.	
<b>Coursework:</b>	Problem sets, proposal	
<b>Description:</b>	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.	
<b>Department:</b>	Chemistry	
<b>Course:</b>	CHM 415	
<b>Title:</b>	Group Theory	
<b>Instructor:</b>	Jones, W.	<b>Class Size:</b> 20
<b>Exams:</b>	Final Exam	
<b>Coursework:</b>	Weekly Problem Sets	
<b>Description:</b>	2 credits - Development of symmetry and group theory concepts and scope of applications to chemical problems. Offered Fall, 1st half of semester	
<b>Department:</b>	Chemistry	
<b>Course:</b>	CHM 417	
<b>Title:</b>	X-ray Crystallography	
<b>Instructor:</b>	Holland, P., Brennessel, W.	<b>Class Size:</b> 20
<b>Coursework:</b>	Weekly assignments: problem sets, simple lab work, or computer work.	
<b>Description:</b>	2 Credit hours. Students will learn the basic principles of X-ray diffraction, symmetry, and space groups. Students will also experience the single crystal diffraction experiment, which includes crystal mounting, data collection, structure solution and refinement, and the reporting of crystallographic data. Fall, 2nd half of semester	
<b>Department:</b>	Chemistry	
<b>Course:</b>	CHM 421	
<b>Title:</b>	Basic Organometallic Chemistry	

<b>Instructor:</b>	Jones, W.	<b>Class Size:</b> 30
<b>Description:</b>	2 credits - Examination of the concepts, systems, reactions and applications of organometallic chemistry. Structure and bonding of complexes having carbonyl, alkyl, carbene, olefin, CnHn and related pi ligands. Oxidative addition, insertion, elimination reactions, and other fundamental reactions of organometallic compounds. (Fall, second half of semester)	
<b>Department:</b>	Chemistry	
<b>Course:</b>	CHM 422	
<b>Title:</b>	Nuclear Magnetic Resonance Spectroscopy	
<b>Instructor:</b>	Bren, K.	
<b>Prerequisites:</b>	One year of organic chemistry and one semester of physical chemistry (CHM 251).	
<b>Description:</b>	2 credits - 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. (Fall, 2nd half of semester)	
<b>Department:</b>	Chemistry	
<b>Course:</b>	CHM 433	
<b>Title:</b>	Advanced Physical Organic Chemistry I	
<b>Instructor:</b>	Dinnocenzo, J.	<b>Class Size:</b> 20
<b>Prerequisites:</b>	One year of organic chemistry or equivalent.	
<b>Restrictions:</b>	Not open to freshmen and sophomores	
<b>Exams:</b>	Two exams (midterm and final).	
<b>Description:</b>	An understanding of the structure and reactivity of organic compounds by using molecular orbital theory will be provided. Some perspectives on the relationships between structure, mechanism and reactivity will be discussed in the context of a number of fundamental concepts and principles, such as molecular orbital theory, frontier molecular orbital theory, stereochemistry, conformational analysis, stereoelectronic effects, thermodynamics and equilibria, kinetics, linear free-energy relationships, acids and bases catalysis, nonclassical ions, and concerted pericyclic reactions.	
<b>Department:</b>	Chemistry	
<b>Course:</b>	CHM 435	
<b>Title:</b>	Organic Reactions	
<b>Instructor:</b>	Weix, D.	<b>Class Size:</b> 20
<b>Prerequisites:</b>	One year of college Organic Chemistry.	
<b>Coursework:</b>	Two 75-minute lectures per week with extensive reading assignments from original literature.	

**Description:** A survey of reactions of organic compounds with emphasis on those with practical synthetic utility will be provided. Mechanisms of reactions will be considered as well as their scope and limitations. Stereochemical and stereoelectronic issues will be discussed. Selected topics to be covered are conformational analysis, olefin addition reactions, oxidation and reduction methods, pericyclic reactions, chemistry of enolates and metalloenamines, organosilicon chemistry, chemistry of nitrogen- and sulfur-based functional groups, chemistry of reactive intermediates, such as carbocations and carbenes. A solid background of college organic chemistry, including a good knowledge of reaction mechanisms, will be assumed as a prerequisite.

**Department:** Chemistry  
**Course:** CHM 437  
**Title:** Bioorganic Chemistry  
**Instructor:** R. Fasan **Class Size:** 20  
**Prerequisites:** One year of organic chemistry; 1 semester undergraduate biochemistry or biology recommended.  
**Restrictions:** Not open to freshmen and sophomores  
**Exams:** Two 1-hour exams and a paper.  
**Description:** An introduction to bioorganic chemistry and chemical biology. The course will present a survey of how the principles of organic chemistry have been applied to understand and exploit biological phenomena and address fundamental questions in life sciences. The course is primarily based upon the primary literature. Covered topics include the design and mechanism of enzyme mimics and small molecule catalysts (organocatalysts), synthesis and chemical modification of biomolecules (oligonucleotides, proteins, oligosaccharides), design and application of oligonucleotide and peptide mimetics, and chemical approaches to proteomic and genetic analyses.

**Department:** Chemistry  
**Course:** CHM 441  
**Title:** Physical Chemistry I  
**Cross-listed:** CHM 251  
**Instructor:** Farrar, J. **Class Size:** 24  
**Prerequisites:** PHY 121-123 or 113-144; MTH 163 or MTH 165.  
**Exams:** Three 1-hour exams and Final.  
**Description:** Please see CHM 251 for the course description.

**Department:** Chemistry  
**Course:** CHM 451  
**Title:** Quantum Chemistry I  
**Instructor:** Rothberg, L. **Class Size:** 20

**Prerequisites:** CHM 251/CHM 252 or equivalent  
**Exams:** One Exam and a Final.  
**Description:** Basic quantum chemistry, Schroedinger equation, basic postulates of quantum mechanics, angular momentum, perturbation theory, and molecular structure.

**Department:** Chemistry  
**Course:** CHM 455  
**Title:** Thermodynamics and Statistical Mechanics  
**Cross-listed:** CHE 455  
**Instructor:** W. Udo Schroder **Class Size:** 15  
**Prerequisites:** CHM 251 or equivalent  
**Exams:** Midterm/Final  
**Coursework:** Lectures: 2 weekly lectures of 75 minutes Assignments: Reading assignments and homework  
**Description:** Synopsis: The course draws connections between the orderly and chaotic behavior of simple and complex systems, laying the foundations of statistical equilibrium and equilibrium thermodynamics. The different phases of matter (gases, liquids, solid) assumed by bulk classical interacting particles and their transitions are discussed in this approximation. Properties of non-interacting quantal systems are expressed in terms of partition functions, for gases of simple and complex particles. Non-equilibrium statistical behavior of multi-particle systems leads to diffusion and other transport phenomena.

**Department:** Chemistry  
**Course:** CHM 470  
**Title:** Computational Chemistry  
**Instructor:** Stern, H.  
**Prerequisites:** Quantum and statistical mechanics at the level of advanced undergraduate P-chem.  
**Exams:** Take-home midterm and final exam  
**Coursework:** Weekly 2-3 computer labs and problem sets.  
**Description:** In this course students will learn about a range of computational methods used to attack research problems in chemistry. Emphasis will be placed both on the theory underlying computational techniques and on their practical application. Topics will include molecular mechanics, ab initio electronic structure theory, density functional theory, molecular dynamics and Monte Carlo simulations, methods for free-energy calculations, path-integral techniques, and methods for protein structure prediction.

## Clinical & Social Sciences in Psychology

**Department:** Clinical & Social Sciences in Psychology

**Course:** CSP 171  
**Title:** Social and Emotional Development  
**Cross-listed:** PSY 171, CSP/PSY 171W  
**Instructor:** Sturge-Apple, M. **Class Size:** Open  
**Description:** The course will examine the interpersonal, emotional, cognitive, and environmental factors which influence children's social and emotional development from early infancy through late adolescence.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 181  
**Title:** Theories of Personality & Psychotherapy **Class Size:** Open  
**Cross-listed:** PSY 181, CSP/PSY 181W  
**Description:** A survey of personality, emphasizing modern theoretical approaches, basic methods of investigation, and the relations of these theories to psychotherapy and behavioral change.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 211 **Class Size:** 60  
**Title:** Introduction to Statistical Methods in Psychology  
**Cross-listed:** PSY 211  
**Description:** Introduction to the use of statistics in psychological research. Topics include descriptive statistics, correlation and regression, and inferential statistics. Examples are drawn from social and personality psychology. Logic of statistical 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 263  
**Title:** Relationship Process and Emotions

**Cross-listed:** PSY 263  
**Instructor:** Reis, H.  
**Description:** Relationships are among the most important endeavors of human activity. In the past two decades, extensive theory and research has been devoted to understanding the processes of regulating people's thoughts, feelings, and behavior in meaningful relationships with friends, family, and romantic partners. The purpose of this seminar will be to explore this literature. We will examine psychological research on such important topics as attachment, emotion, intimacy, conflict resolution, relationship differences and similarities, and impact of relationships on physical health and emotional well-being.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 264  
**Title:** Industrial & Organizational Psychology **Class Size:** 150  
**Cross-listed:** PSY 264  
**Exams:** Three  
**Description:** Applications of psychological theory and research to work settings. Topics include personnel selection, training and appraisal; organizational structure and transformation; performance in work groups; motivation and satisfaction; leadership; work conditions; and cross-cultural issues.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 266  
**Title:** Research Laboratory in Social Psychology  
**Cross-listed:** PSY 266  
**Instructor:** Zuckerman, M. **Class Size:** 20  
**Description:** In the first part of the course, we will read and discuss a Research Methods textbook. In the second part, students will conduct actual research. This would require the participants to read relevant literature, collect data, analyze the findings, and write a paper. Grades are based on quality of overall performance and quality of the paper.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 267  
**Title:** Psychology of Gender  
**Cross-listed:** PSY 267/CSP 267W & PSY 267W  
**Description:** Exploration of the ways males and females differ in interaction, theories of development of sex differences, consequences for social change.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 289  
**Title:** Developmental Child Psychopathology

**Cross-listed:** PSY 289  
**Instructor:** Davies P.  
**Description:** This course covers high-risk conditions and psychopathological disorders of infancy through adolescence. The course emphasizes the contributions that the normal developmental perspective can make to understanding psychopathology and risk. Likewise, the course addresses the significant contributions that the study of psychopathology can make to advancing the understanding of normal development.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 301W  
**Title:** Teaching Psychology  
**Cross-listed:** PSY 301W  
**Instructor:** Niemiec, C.  
**Prerequisites:** Junior/Senior Majors in Psychology  
**Restrictions:** Permission of instructor required  
**Description:** In-depth consideration of topics in psychology and their communication. PSY 101 is a lab for this course.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 310W  
**Title:** Honors Research I  
**Cross-listed:** PSY 310W  
**Restrictions:** Permission of instructor required  
**Coursework:** Written research proposal  
**Description:** First part of Honors research requirement. The student develops and conducts research to be completed in Honors Research II, under the guidance of a chosen faculty advisor. The proposal is evaluated by the faculty advisor. Upper Level Writing credit.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 351  
**Title:** Research in Developmental Neuropsychology  
**Cross-listed:** PSY 351  
**Instructor:** Benetto, 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 364  
**Title:** Achievement & Motivation  
**Cross-listed:** PSY 364/CSP 464  
**Instructor:** Elliot, A.  
**Prerequisites:** CSP/PSY 161  
**Coursework:** four papers totaling 25 pages  
**Description:** Seminar on achievement motivation, including achievement motives (e.g., fear of failure), achievement goals, and the strategies individuals use in achievement settings.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 368W  
**Title:** Seminar in Humanistic Psychology  
**Cross-listed:** PSY 368W  
**Instructor:** Deci, E.  
**Restrictions:** Permission of instructor required  
**Description:** This course will be an introduction to the theory and methods of humanistic psychology, with particular emphasis on humanistic approaches to psychotherapy and growth. The approach is learning through experience. In class, we will employ the methods of humanistic psychology, including demonstrations and experimentation. Assignments will include regular reading and writing. Writing will require the applications of theory to one's own life experiences. This is an upper-level writing course for all participants.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 373  
**Title:** Exploring Research in Social Psychology I  
**Cross-listed:** PSY 373  
**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 377  
**Title:** Exploring Research in Family Psychology I  
**Cross-listed:** PSY 377  
**Instructor:** Davies, P.  
**Restrictions:** Permission of instructor required



**Description:** Provides guided, direct, research experiences in investigating the interplay between family relationships and children's social and emotional development. Emphasis is placed on gaining knowledge in translating theories (e.g., family systems theory) into empirically testable hypotheses and designing research methods and techniques to test predictions.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 383  
**Title:** Moral Development  
**Cross-listed:** PSY 383  
**Instructor:** Smetana, J. **Class Size:** Open  
**Prerequisites:** CSP/PSY 271 Social & Emotional Development  
**Description:** This seminar focuses on the psychological study of moral development. Different theoretical approaches to morality and related empirical research will be discussed. The primary focus is from a developmental psychology perspective, but philosophical and educational issues also will be considered.

**Department:** Clinical & Social Sciences in Psychology  
**Course:** CSP 384  
**Title:** Practicum in Developmental Disabilities  
**Cross-listed:** PSY 384  
**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 131  
**Title:** Recreational Graphics I  
**Instructor:** Pawlicki, T. **Class Size:** 20  
**Prerequisites:** None  
**Description:** A hands on introduction to 3D computer graphics and animation techniques taught from a user point of view using the BLENDER modeling system. Topics include 3D modeling, animation, and simulation. Assessment based on projects. No written exams. No previous programming or graphics experience required.

**Department:** Computer Science  
**Course:** CSC 161  
**Title:** The Art of Programming **Class Size:** 25-30  
**Prerequisites:** None  
**Description:** Organized thinking, creative problem solving, and the precise description of solutions are valuable skills in academia and life. The formulation and solution of problems using computers is increasingly important in all artistic and scholarly fields. We introduce core concepts and techniques of programming as a way to develop these skills, as basis for further CS study, and for application to other fields. Lab required.

**Department:** Computer Science  
**Course:** CSC 171  
**Title:** The Science of Programming  
**Instructor:** Pawlicki, T. **Class Size:** 75  
**Prerequisites:** None  
**Description:** Discovering, formulating, and exploiting the structure of problems to aid in their solution by computer. An introduction to algorithmic problem solving and computer programming in JAVA. This is the first course in the BS sequence. Lab required.

**Department:** Computer Science  
**Course:** CSC 173  
**Title:** Computation & Formal Systems  
**Instructor:** Brown, C. **Class Size:** 50  
**Prerequisites:** CSC 172  
**Description:** We investigate several formal systems influential in computer science, and also some of their applications (e.g. inspiring and providing the foundation for a computer programming style, or providing the basis for solving important practical problems like communications protocols, compiling, systems analysis, graphics ...) In more detail, we study: propositional and predicate Logic and applications like the Prolog language and circuit design; formal languages and automata theory (FLAT) and applications

like scanners and parsers, using the C Language; lambda calculus and the Scheme language with an AI application; matrices and the Matlab language, with applications in robotics or graphics.

**Department:** Computer Science  
**Course:** CSC 190C  
**Title:** Explorations in Robotics  
**Instructor:** Koomen **Class Size:** 20  
**Prerequisites:** none  
**Description:** This course focuses on computer control of small robots through a series of hands-on technical challenges. The emphasis is on creative problem solving and software rather than hardware. The course provides an introduction to computer programming. No prerequisites or prior programming experience is required. A separate course will be offered for more advanced students in the spring.

**Department:** Computer Science  
**Course:** CSC 190A  
**Title:** Creative Computing  
**Instructor:** Nelson, R. **Class Size:** 20  
**Description:** Quick! How much would a tunnel under Lake Ontario cost? How many people probably touched that orange you just bought at Wegmans? Can the military's satellites really read your license plate from orbit? Explores the creative use computational mechanisms and information sources to obtain rough estimates and feasibility analyses for interesting questions and practical problems; looks at the technological basis of the art of measurement.

**Department:** Computer Science  
**Course:** CSC 244  
**Title:** Logical Foundations of Artificial Intelligence  
**Cross-listed:** CSC 444  
**Instructor:** Schubert, L. **Class Size:** 30  
**Prerequisites:** CSC 173 & CSC 242  
**Description:** An introduction to the logical foundations of AI, including first-order logic, search, knowledge representation and planning. Meets jointly with CSC 444, a graduate-level course that requires additional readings and assignments, including a significant project or essay.

**Department:** Computer Science  
**Course:** CSC 254  
**Title:** Programming Language Design & Implementation  
**Instructor:** Scott, M. **Class Size:** 30  
**Prerequisites:** CSC 173; CSC 252 recommended

**Coursework:** Course projects include assignments in several languages and the modification and enhancement of a working compiler.  
**Description:** Design and implementation of programming languages, with an emphasis on imperative languages and on implementation tradeoffs. In-depth examination of "how programming languages work." Topics include fundamental language concepts (names, values, types, abstraction, control flow); compilation and interpretation (syntactic and semantic analysis, code generation and optimization); major language paradigms (imperative, object-oriented, functional, logic-based, concurrent). Course projects include assignments in several different languages, with an emphasis on compilation issues.

**Department:** Computer Science  
**Course:** CSC 256  
**Title:** Operating Systems  
**Cross-listed:** CSC 456  
**Instructor:** Dwarkadas, S.  
**Prerequisites:** CSC 252  
**Coursework:** Course projects include the modification and enhancement of a small operating system.  
**Description:** Principles of operating system design, explored within the practical context of traditional, embedded, distributed, and real-time operating systems. Topics include device management, process management, scheduling, synchronization principles, memory management and virtual memory, file management and remote files, protection and security, fault tolerance, networks, and distributed computing. Students taking this course at the 400 level will be required to complete additional readings and/or assignments.

**Department:** Computer Science  
**Course:** CSC 257  
**Title:** Computer Networks **Class Size:** 30  
**Prerequisites:** CSC 252  
**Description:** Architecture and Protocols: Introduction to computer networks and computer communication. Design of protocols for error recovery, reliable delivery, routing and congestion control. Store-and-forward networks, satellite networks, local area networks and locally distributed systems. Case studies of networks, protocols and protocol families. Emphasis on software design issues in computer communication.

**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 282  
**Title:** Design & Analysis of Efficient Algorithms  
**Instructor:** Stefankovic, D. **Class Size:** 30  
**Prerequisites:** CSC 172 & MTH 150.  
**Description:** How does one design programs and ascertain their efficiency? Divide-and-conquer techniques, string processing, graph algorithms, mathematical algorithms. Advanced data structures such as balanced tree schemes. Introduction to NP-completeness and intractable combinatorial search, optimization, and decision problems.

**Department:** Computer Science  
**Course:** CSC 286  
**Title:** Computational Complexity  
**Cross-listed:** CSC 486  
**Instructor:** Hemaspaandra, L. **Class Size:** 10  
**Prerequisites:** CSC 280;  
**Description:** This course continues the development of the theory of computing begun in CSC 280. Topics include the formal characterization of computational hardness; one-way functions and cryptography; the complexity hierarchy; and information theory.

**Department:** Computer Science  
**Course:** CSC 287  
**Title:** Advanced Modes in Computation  
**Cross-listed:** CSC 487  
**Instructor:** Seiferas, J. **Class Size:** 10  
**Prerequisites:** CSC 286  
**Description:** Advanced modes of computation such as probabilistic computation, counting-based computation, semi-feasible computation, nondeterminism, computation trees, and parallel access. Meets jointly with CSC 487, a graduate-level course that requires additional readings and assignments. May not be offered every year.

**Department:** Computer Science  
**Course:** CSC 290B  
**Title:** Human Computer Interaction  
**Instructor:** Neustaedter, Carman **Class Size:** 20  
**Prerequisites:** CSC 171 or permission of instructor. Students should be able to program in Java or C++.  
**Description:** The design, implementation, and evaluation of human-computer interfaces. Topics include methods for interface design and evaluation, requirements gathering, usability heuristics, user interface inspections, usability studies, information visualization, and prototyping. These will be augmented with case studies of interface successes and failures. Students will apply the theoretical knowledge to assignments that involve portions of the design, implementation, and evaluation cycle.

## Dance

**Department:** Dance  
**Course:** DAN 101  
**Title:** World Dance: Movement as Culture  
**Instructor:** Bright Holland, A. **Class Size:** 20  
**Description:** This lecture-based course is an exploration of world cultures through dance. Students will expand their dance literacy through movement and embodied dance history. The course will therefore investigate the historical and anthropological significance of dance as well as provide an experience of the movement qualities of different world cultures. In this connection, students will examine dance as a kaleidoscopic reflection of humanity's basic instinct to communicate and, by extension, as an expression of world perspectives through movement. Specific attention to the cultures and dances of Japan, Nepal, India, Africa, North and South America and Europe will be investigated. The course will include movement classes, lectures, films, readings, discussions, guest artists, journal writing and a final project.

**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.

<b>Department:</b>	Dance	
<b>Course:</b>	DAN 103	
<b>Title:</b>	Fundamentals of Movement B	
<b>Instructor:</b>	Pigno, N.	<b>Class Size:</b> 5
<b>Description:</b>	A continuation of Dance 102.	
<b>Department:</b>	Dance	
<b>Course:</b>	DAN 104	
<b>Title:</b>	Contact Improvisation I	
<b>Instructor:</b>	Pigno, N.	<b>Class Size:</b> 12
<b>Description:</b>	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.	
<b>Department:</b>	Dance	
<b>Course:</b>	Dan 105	
<b>Title:</b>	Creative Improvisation Through World Percussion	
<b>Instructor:</b>	Holland, J.	<b>Class Size:</b> 20
<b>Description:</b>	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.	
<b>Department:</b>	Dance	
<b>Course:</b>	DAN 114	
<b>Title:</b>	Introduction to Anusara Yoga	
<b>Instructor:</b>	McCausland, J.	<b>Class Size:</b> 20
<b>Restrictions:</b>	Not open to seniors	
<b>Description:</b>	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.

<b>Department:</b>	Dance	
<b>Course:</b>	DAN 116	
<b>Title:</b>	Introduction to Contemporary Ballet	
<b>Instructor:</b>	World, C.	<b>Class Size:</b> 20
<b>Description:</b>	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.	

<b>Department:</b>	Dance	
<b>Course:</b>	DAN 120	
<b>Title:</b>	Introduction to Aikido	
<b>Instructor:</b>	Martini, R.	<b>Class Size:</b> 20
<b>Restrictions:</b>	Not open to seniors	
<b>Description:</b>	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.	

<b>Department:</b>	Dance	
<b>Course:</b>	DAN 171	
<b>Title:</b>	Capoeira:Brazilian Art Movement	
<b>Instructor:</b>	Russell, T.	<b>Class Size:</b> 20
<b>Description:</b>	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 174  
**Title:** Voice and Movement for the Actor  
**Instructor:** Ware, S. ,Browne, P. **Class Size:** 16  
**Description:** Please see ENG 176 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 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 220  
**Title:** Sacred Dance  
**Cross-listed:** WST 213  
**Instructor:** McCausland, J. **Class Size:** 18  
**Description:** This class will explore what sacred dance is and how the sacred can be revealed from within through the study and practice of the following topics: a dance history overview, goddess worship and the feminine spirit, the women iconoclasts of American modern dance, spirituality and the body temple and various yoga practice techniques. Students will also learn traditional dance sequences from Namibia, India, Israel, Greece and the Middle East, creative community circle dancing and dances of Universal Peace. Class requirements include journaling, reading assignments from the text book and handouts, viewing videos and attendance at dance events

## Earth and Environmental Sciences

**Department:** Earth and Environmental Sciences  
**Course:** EES 101  
**Title:** Introduction to Geological Sciences  
**Instructor:** Garzione, C.  
**Exams:** two 1 hour exams, one final exam  
**Coursework:** Required 4 hour field trip to localities near Rochester  
**Description:** This introductory geology class provides a broad overview of the Earth Sciences, from planetary evolution to the interplay of geology and climate. This course is a prerequisite for all undergraduate majors who are considering careers in the Earth and Environmental Sciences, while also satisfying science requirements for other undergraduate majors. We will introduce the class with the unifying framework for Earth Science: plate tectonics. Throughout the semester we will look at the physical interactions between different realms on Earth, including the interior (core and mantle), the outer shell (termed lithosphere), oceans, and the atmosphere. We will explore the dynamic processes operating on Earth and how these processes have been recorded and have varied over the geologic history. During the last third of the semester, we will discuss geologic problems that have a particular relevance to humans, such as energy and mineral resources, water resources, climate and global change.

Students are required to enroll in a lab section and are required to attend one field trip.

**Department:** Earth and Environmental Sciences  
**Course:** EES 106  
**Title:** Meteorites and Impact Craters  
**Instructor:** Basu, A. **Class Size:** 30  
**Prerequisites:** None  
**Description:** An introduction to the geology of the solar system from the perspectives of the earth sciences and the fascinating world of meteorites, asteroids, comets and impact craters. Special emphasis will be on the meteorite evidence for our understanding of planetary formation, role of impacts and mass extinctions, and the origin of the moon.

**Department:** Earth & Environmental Sciences  
**Course:** EES 204  
**Title:** Mineralogy  
**Instructor:** Basu, A. **Class Size:** 25  
**Prerequisites:** GEO 101 or permission of the instructor  
**Restrictions:** Permission of instructor required for freshmen  
**Exams:** Two 1-hour and one 2-hour exams in class. One mid-term and final in the lab.  
**Description:** Two lectures and one laboratory per week. Lectures discuss the physical and chemical principles governing the properties and formation of minerals. There are three major divisions of the subject matter: (a) geometric and optical crystallography (b) crystal chemistry and physical properties of minerals; and (c) occurrence, origin and pressure-temperature stabilities of the major rock-forming minerals. Labs are devoted to exercises in crystallography (2), x-ray diffraction (1), optical mineralogy (4), and hand-specimen mineral identification (5).

**Department:** Earth & Environmental Sciences  
**Course:** EES 204W  
**Title:** Mineralogy-Upper Level Writing Requirement  
**Instructor:** A. Basu  
**Prerequisites:** See EES 204  
**Description:** See EES 204 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.

**Department:** Earth & Environmental Sciences  
**Course:** EES 208  
**Title:** Structural Geology  
**Instructor:** Mitra, G. **Class Size:** 25  
**Prerequisites:** EES 101, EES 201 or permission.

**Exams:** Three class exams, lab final exam, optional final exam in lecture parts

**Coursework:** Weekly laboratory lectures and assignments. Also a one-day (weekend) field trip during the semester.

**Description:** Recognition and interpretation of geologic structures. Topics include geometric analysis of faults, folds, joints, and rock fabrics; an introduction to stress analysis, theories of brittle failure, finite strain analysis, ductile deformation, application to geotectonics. Laboratory work concerned with structural analysis.

**Department:** Earth & Environmental Sciences

**Course:** EES 215

**Title:** Environmental and Applied Geophysics

**Instructor:** Ebinger, C. **Class Size:** 20

**Prerequisites:** EES 101, MTH 142/162

**Description:** This course aims to image the internal structure of the oceans and continents using geophysical methods. Topics include physical processes occurring within Earth's plates, including solar and internal energy sources, movement of fluids in the oceans and plates. Geophysical methods used to detect these processes and to constrain physical properties, including seismic, electro-magnetic, gravity as measured from surface, subsurface and satellites. Laboratory examples include environmental site remediation, hydrocarbon and mineral exploration, archeological remote sensing, tsunami detection, and groundwater exploration.

**Department:** Earth & Environmental Sciences

**Course:** EES 218

**Title:** The Chemistry of Global Change

**Cross-listed:** EES 418

**Instructor:** Poreda, R.

**Prerequisites:** Required: CHM 131 and 132 or 151 and 152 or equivalent; MTH 162 or equivalent. Recommended: EES 101 and 103; MTH 163.

**Coursework:** Weekly reading and writing assignments and semi-weekly problem sets; midterm; final exam or term paper.

**Description:** A quantitative survey of the processes controlling environmental conditions at the Earth's surface today, how they have changed with time, and how they are expected to change in the future. The course emphasizes the chemical composition of the atmosphere and oceans, and the chemical, biological and geological processes which affect this composition. Specific topics include: Greenhouse gases and global warming; photochemistry and stratospheric ozone; geochemical cycles and feedbacks; the effects of human activities; and the methods used to study the chemical evolution of the atmosphere and oceans through time.

**Department:** Earth & Environmental Sciences

**Course:** EES 218W

**Title:** The Chemistry of Global Change-Upper Level Writing Requirement

**Instructor:** Poreda, R.

**Prerequisites:** See EES 218

**Description:** See EES 218 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.

**Department:** Earth and Environmental Sciences

**Course:** EES 253

**Title:** Geodynamics

**Cross-listed:** EES 453

**Instructor:** Ebinger, C. **Class Size:** 20

**Prerequisites:** EES 201 or permission of instructor

**Description:** Processes that create and modify Earth and the terrestrial planets will be examined using an 'earth engineering' approach. Emphasis will be placed on plate tectonics, with discussion of current research in mantle convection. The final third of the course will focus on active plate tectonic boundaries, and evidence for plate tectonics on Mars and Venus.

**Department:** Earth and Environmental Sciences

**Course:** EES 255

**Title:** Planetary Science: Geologic Evolution and Planetary Habitability

**Instructor:** Tarduno, J.

**Prerequisites:** no formal prerequisites-EES 101 or EES 201 strongly recommended

**Description:** EES 255 will focus on geologic and geophysical studies of planets (interiors and surfaces), and the conditions that led to the origin of life. We will start with initial conditions, defined here as the formation of Earth and the Moon-forming event, and trace development of the planet from cooling of the magma ocean onwards. We next consider how our planetary neighbors (Venus and Mars) evolved, as well as key satellites in the solar system that may harbor life, or provide insight into early conditions on Earth.

**Department:** Earth & Environmental Sciences

**Course:** EES 256

**Title:** Paleomagnetism and Global Plate Tectonics

**Cross-listed:** EES 456

**Instructor:** Tarduno, J. **Class Size:** 20

**Prerequisites:** EES 101

**Restrictions:** Permission of instructor required

<b>Description:</b>	The basic paleomagnetic methods used to determine absolute plate motions will be reviewed. Applications will include the potential cause and effect relationship between changes in absolute plate motions, mantle plume volcanism, orogeny and climate change.
<b>Department:</b>	Earth & Environmental Sciences
<b>Course:</b>	EES 299
<b>Title:</b>	Field Geology
<b>Instructor:</b>	Tarduno, J.
<b>Prerequisites:</b>	permission of instructor
<b>Description:</b>	This course covers the essential geologic and geophysical approaches to field stratigraphy, mapping and structural interpretation. The coursework is based on observations made during a substantial field excursion (usually 6 weeks long). Additional credit may be earned by laboratory analyses of samples collected during the field excursion.
<b>Department:</b>	Earth & Environmental Sciences
<b>Course:</b>	EES 299W
<b>Title:</b>	Field Geology-Upper Level Writing Requirement
<b>Instructor:</b>	Tarduno, J.
<b>Prerequisites:</b>	See EES 299
<b>Description:</b>	See EES 299 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.
<b>Department:</b>	Earth and Environmental Sciences
<b>Course:</b>	EES 352
<b>Title:</b>	Issues in Environmental Science Group Leadership
<b>Cross-listed:</b>	CAS 352
<b>Instructor:</b>	Roth, V. ,Garziona, C.
<b>Description:</b>	Designed for Workshop leaders. This course offers training in group dynamics, learning theory and science pedagogy. The larger goals for this course are to develop leadership skills, to foster ongoing communication among faculty members and Workshop leaders, and to provide an environment for focused review of Workshop modules. This section of CAS/EES 352 will train undergraduate Workshop leaders for Introduction to Geological Sciences (EES 101)
<b>Department:</b>	Earth & Environmental Sciences
<b>Course:</b>	EES 390
<b>Title:</b>	Supervised College Teaching
<b>Cross-listed:</b>	EES 490
<b>Instructor:</b>	Any Full-time Faculty Member within Department
<b>Restrictions:</b>	Permission of instructor required

<b>Description:</b>	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.
<b>Department:</b>	Earth & Environmental Sciences
<b>Course:</b>	EES 391
<b>Title:</b>	Independent Study in Earth and Environmental Sciences
<b>Instructor:</b>	
<b>Restrictions:</b>	Permission of instructor required
<b>Description:</b>	Students must have permission. Interested students should meet with their advisor, and/or Udo Fehn regarding course content.
<b>Department:</b>	Earth & Environmental Sciences
<b>Course:</b>	EES 391W
<b>Title:</b>	Independent Study in Earth and Environmental Sciences-Upper Level Writing Requirement
<b>Prerequisites:</b>	See EES 391
<b>Restrictions:</b>	Permission of instructor required
<b>Description:</b>	See EES 391 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.
<b>Department:</b>	Earth & Environmental Sciences
<b>Course:</b>	EES 393
<b>Title:</b>	Senior Thesis
<b>Restrictions:</b>	Permission of instructor required
<b>Description:</b>	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.
<b>Department:</b>	Earth & Environmental Sciences
<b>Course:</b>	EES 393W
<b>Title:</b>	Senior Thesis-Upper Level Writing Requirement
<b>Prerequisites:</b>	See EES 393
<b>Restrictions:</b>	Permission of instructor required
<b>Description:</b>	See EES 393 and EES Departmental Writing Plan. This section fulfills the upper level writing requirement.
<b>Department:</b>	Earth & Environmental Sciences
<b>Course:</b>	EES 394
<b>Title:</b>	Internship in Earth and Environmental Sciences
<b>Restrictions:</b>	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 and Environmental Sciences  
**Course:** EES 418  
**Title:** The Chemistry of Global Change  
**Cross-listed:** EES 218  
**Instructor:** Poreda, R.  
**Prerequisites:** Required: CHM 131 and 132 or 151 and 152 or equivalent; MTH 162 or equivalent. Recommended: EES 101 and 103; MTH 163.  
**Restrictions:** Permission of instructor required for undergraduates  
**Description:** Please see EES 218 for the course description.

**Department:** Earth and Environmental Sciences  
**Course:** EES 453  
**Title:** Geodynamics  
**Cross-listed:** EES 253  
**Instructor:** Ebinger, C.  
**Prerequisites:** EES 201 or permission of Instructor  
**Description:** Please see EES 253 for the course description.

**Department:** Earth and Environmental Sciences  
**Course:** EES 455  
**Title:** Planetary Science: Geologic Evolution and Planetary Habitability  
**Cross-listed:** EES 255  
**Instructor:** Tarduno, J. **Class Size:** 20  
**Prerequisites:** EES 101 or EES 201 strongly recommended  
**Coursework:** EES 455 will include an in-depth research project, designed by the student and professor involving the formation and early history of one of the planets or satellites in our solar system.  
**Description:** Please see EES 255 for the course description.

**Department:** Earth & Environmental Sciences  
**Course:** EES 456  
**Title:** Paleomagnetism and Global Plate Tectonics  
**Cross-listed:** EES 256  
**Instructor:** Tarduno, J.  
**Restrictions:** Permission of instructor required  
**Description:** See Description for EES 256

## Economics

**Department:** Economics  
**Course:** ECO 108  
**Title:** Principles of Economics  
**Instructor:** Rizzo, M. **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 macroeconomics. 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 207  
**Title:** Intermediate Microeconomics  
**Instructor:** Landsburg, S.,Bils, M.,TBA **Class Size:** 100  
**Prerequisites:** ECO 108 highly recommended  
**Description:** This course develops the basic tools of microeconomics: supply and demand, indifference curves and budget lines of the consumer, and firm cost curves.

**Department:** Economics  
**Course:** ECO 209  
**Title:** Intermediate Macroeconomics  
**Instructor:** Hawkins, W. **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 209H  
**Title:** Honors Intermediate Macroeconomics  
**Instructor:** Chang, Y. **Class Size:** 25  
**Prerequisites:** Calculus, ECO 207  
**Exams:** 1 midterm, 1 final  
**Description:** Economic growth and business cycles are studied using formal models. Significant attention is also paid to economic data and the macroeconomic policy debate. In comparison to ECO 209, ECO 209H has more emphasis on analytical rigor.

**Department:** Economics  
**Course:** ECO 224  
**Title:** Economics of Sports and Entertainment  
**Cross-listed:** ECO 224W  
**Instructor:** Engerman, S. **Class Size:** 100  
**Prerequisites:** ECO 108  
**Description:** The markets for professional and amateur sports and entertainment are analyzed. Impacts of market organization and public policy on attendance, salaries, and profits are examined.

**Department:** Economics  
**Course:** ECO 230  
**Title:** Economic Statistics **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:** TBA **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 238  
**Title:** Environmental Economics  
**Cross-listed:** ECO 238W  
**Instructor:** Rizzo, M.  
**Prerequisites:** ECO 207  
**Exams:** 2 Mid-terms, Final  
**Description:** Beginning on New Years Day in 1970, the enactment of the National Environmental Policy Act ignited the passage of a wave of major environmental laws and policies, each with the intention of protecting and improving the quality of the environment, changing the way federal lands are managed, and imposing limits on private landowners. Since then, with few exceptions, the quality of the environment has improved dramatically. The air in almost every city is far cleaner today than in 1970 despite massive increases in the number of vehicles on the road; water quality is much improved; sewage is better treated and much hazardous waste has been removed; rivers are healthier; hundreds of plant and animal species are explicitly protected by federal statute; more land is forested today than at any time over the past century; and so on. In this course, we will explore the sources of improvements to, and degradation in, environmental conditions. In addition, we will explore the institutional framework that environmental policy has operated in during the past, as well as how institutions shape the type and effectiveness of environmental policy of the future. While we will examine ethical and popular considerations of the environment, the course will focus on the contributions of economic science to the environment. Scientific evidence often clashes with political, religious and other interests on environmental issues. For many, any goal short of perfection is unsatisfactory. For others perfection is not the desire, but neither is protection of the environment per se. Evidence of this abounds current regulatory procedures for protecting the environment pay little attention to the environment, and lots of attention to production inputs; the process of protecting the environment seems to be more important than protecting the environment itself. But this course will emphasize that in environmental economics, just as in other areas of economics, it is necessary to balance competing interests there are more competing claims for en

**Department:** Economics  
**Course:** ECO 252  
**Title:** Economies & Societies of Latin America  
**Cross-listed:** AAS 252/HIS 203  
**Instructor:** Inikori, J. **Class Size:** 30

**Description:** Please see HIS 203 for the course description. .

**Department:** Economics  
**Course:** ECO 253W  
**Title:** Economic and Social Conditions of African-Americans in the 20th Century  
**Cross-listed:** HIS 255, AAS 253  
**Instructor:** Engerman, S.,Wolkoff, M. **Class Size:** 40  
**Prerequisites:** ECO 108  
**Description:** Study of selected topics concerning the conditions of African-Americans in the United States during the 20th century. Topics include education, incomes, housing, family patterns, etc.

**Department:** Economics  
**Course:** ECO 268  
**Title:** Economics of Globalization  
**Cross-listed:** 268W  
**Instructor:** Aguiar, M. **Class Size:** 50  
**Prerequisites:** ECO 207  
**Description:** This course studies the economics of world integration. We will explore the arguments for and against opening an economy to international trade in goods and financial capital. We will specifically focus on the implications of openness for welfare, growth, volatility, and inequality. The course will include economic theory as well as several applications. Possible applications include the growth miracles of East Asia, India's recent transformation, emerging market crises of the 1990s, aid and development in Africa, and the impact of trade on wages in the United States. Students should be familiar with microeconomics at the level of Econ 207.

**Department:** Economics  
**Course:** ECO 269  
**Title:** International Economics  
**Cross-listed:** ECO 269W  
**Instructor:** Jones, R. **Class Size:** 50  
**Prerequisites:** ECO 207  
**Description:** Topics: (1) Determinants of trade patterns, and consequences of trade on income distribution, (2) Tariffs and commercial policy in competitive and non-competitive markets, (3) Growth and direct investment, (4) International mobility of labor and capital.

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

**Prerequisites:** ECO 207  
**Description:** The course is an introduction to the application of econometric methods. It covers the basic tools of estimation, inference and forecast of cross-section, time-series and panel data models. The course emphasizes the intuitive understanding and practical application of these basic tools of econometric analysis.

**Department:** Economics  
**Course:** ECO 388  
**Title:** Federal Reserve Bank Workshop  
**Instructor:** Stockman, A. **Class Size:** 20  
**Prerequisites:** ECO 209  
**Description:** The Economics Department sponsors a team of undergraduate students that participate in the Federal Reserve Bank Challenge, an intercollegiate competition hosted by the New York Western Region Federal Reserve Bank. To prepare for the competition students register for Eco 388, a small seminar in which students conduct faculty guided, macroeconomic research to prepare the team for the Reserve Bank Challenge. \*\*Students may take this 2 credit workshop 3 different times as an undergraduate, and are able to count it as one of their elective courses for the major\*\*. Winners of the regional Reserve Board Challenge are given the opportunity to compete with other schools from across the US.

## English

**Department:** English  
**Course:** ENG 101  
**Title:** Maximum English  
**Instructor:** Eaves, M **Class Size:** 40  
**Description:** Fall 2009. "English" is a little word for lots of things. Is it literature you want today, or creative writing? film? theater? journalism? debate? Maximum English introduces you to all these areas and to our unique resources for studying and enjoying them--the full range of "English" here at UR. So you'll learn the fundamentals of reading and viewing from the department's own creative writers, its literary and film critics and historians, and its theater directors. You'll enlarge the experience of reading literature and criticism by listening to writers read their own original work and then discussing it with them. You'll experience plays not only as written scripts but as living theatrical events by attending performances and talking to actors, directors, and designers about what they do to bring a play to the stage. You'll encounter works in different media, from the live human voice to printed books, from the stage to film and electronic hypermedia. Maximum English will launch you into real English--the new expanded version. Applicable English Clusters: Modern and

Contemporary Literature; Novels; Plays, Playwrights, and Theater; Poems, Poetry, and Poetics.

**Department:** English  
**Course:** ENG 111  
**Title:** Introduction to Shakespeare  
**Instructor:** Guenther, G  
**Description:** Fall 2009. This course will introduce you to the full range of Shakespeare's plays, including his comedies, tragedies, histories, and romances. We will pay attention to both dramatic language and historical context in order to read and analyze the plays with as much comprehension and pleasure as possible. Course requirements: attendance, two exams, two five-page papers.

**Department:** English  
**Course:** ENG 113  
**Title:** British Literature I  
**Instructor:** Kegl, R  
**Description:** Fall 2009. This course immerses students in the most challenging, influential, and engaging writings from the earlier periods of English literature. Our aim will be to enjoy and understand these writings in themselves, and then to see their relation to each other and to their larger historical context. Students should leave the course with some real affection for particular writings, and some assured sense of the contours and highlights of cultural history. Our emphasis will be on the careful appreciation of language and texture in representative texts and authors (including Chaucer, Spenser, Shakespeare, Donne, Jonson, Milton, Dryden, Swift, Pope and their contemporaries). Class will proceed by lecture and discussion. Applicable English Cluster: Great Books, Great Authors.

**Department:** English  
**Course:** ENG 115  
**Title:** Intro to American Literature  
**Instructor:** Glover, J  
**Description:** Fall 2009. This course is a survey of American literature from the colonial period to the present. It begins with early narratives of discovery and settlement, and stretches to include contemporary poetry and novels. Our aim will be to consider how literature and print have shaped America's struggles over democracy, race, gender, and religion. We will consider a wide range of authors, including Mary Rowlandson, Herman Melville, Mark Twain, Harriet Beecher Stowe, Robert Frost, and Toni Morrison. Alongside our discussion of literature, will also discuss the many forms of media that have shaped the American

literary tradition, including sermons, songs, performances, and popular ballads.

**Department:** English  
**Course:** ENG 116  
**Title:** Introduction to African American Literature  
**Instructor:** Tucker, J  
**Description:** Fall 2009. This course surveys African-American literature of a variety of genres--poetry, drama, autobiography, fiction, and non-fiction essays--from the 18th Century to the 21st. The course interprets this tradition not only as the production of American writers of African descent, but also as a set works that display formal characteristics associated with black cultural traditions. Discussion topics include the meanings of race, the construction of black identity, and intra-racial differences of class, gender, and sexuality. Special attention will be paid to approaching literary texts from a variety of critical perspectives.

**Department:** English  
**Course:** ENG 117  
**Title:** Introduction to the Art of Film  
**Cross-listed:** AH 136, FMS 132  
**Instructor:** Middleton, J  
**Description:** Fall 2009. As an introduction to the art of film, this course will present the concepts of film form, film aesthetics, and film style, while remaining attentive to the various ways in which cinema also involves an interaction with audiences and larger social structures. Throughout the course, we will closely examine the construction of a variety of film forms and styles including the classical Hollywood style, documentary, experimental films, and contemporary independent and global cinemas. We will pay particular attention to the construction of film images, systems of film editing, film sound, and the various ways in which film systems can be organized (narrative, non-narrative, genres, etc. Applicable English Cluster: Media, Culture, and Communication.

**Department:** English  
**Course:** ENG 120  
**Title:** Introduction to Creative Writing  
**Instructor:** Li, Stephanie  
**Restrictions:** Permission of instructor required  
**Description:** Fall 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

**Class Size:** 15

workshop in which every student will present material to be reviewed by the entire class.

**Department:** English  
**Course:** ENG 121  
**Title:** Creative Writing: Fiction  
**Instructor:** Schottenfeld, S **Class Size:** 15  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. This course will concentrate on the craft of fiction through readings of published stories and exercises involving tone and voice, culminating in the writing of at least one short story.

**Department:** English  
**Course:** ENG 122  
**Title:** Creative Writing: Poetry **Class Size:** 15  
**Restrictions:** Permission of instructor required  
**Description:** Fall 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: Fall 09 **Class Size:** 15  
**Restrictions:** Permission of instructor required  
**Description:** Fall 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 131  
**Title:** Reporting and Writing the News  
**Instructor:** Memmott, J **Class Size:** 20  
**Restrictions:** Permission of instructor required  
**Coursework:** Weekly quizzes

**Description:** Fall 2009. Reporting and Writing the News introduces the student to journalistic writing and reporting techniques. Through a variety of classroom exercises, seven major writing assignments and a term paper, students learn to prepare accurate, balanced, complete coverage of a news topic. Students progress from single-source interviewing to news profiles, speech coverage, meetings, more complex formats, and finally, news analysis. Additional writing experience is gained through rewriting assignments, as directed by detailed editing comment. From lecture, textbooks, reading daily and periodical newspapers, the students learn to identify newsworthy topics and to develop appropriate interview techniques to produce clear, objective reports under specific deadlines. 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:** Fall 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:** Fall 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 161  
**Title:** Introductory Video and Sound  
**Cross-listed:** FMS 161; SA 161

<b>Instructor:</b>	Ashenfelter, S	<b>Class Size:</b> 12
<b>Restrictions:</b>	Permission of instructor required	
<b>Description:</b>	Fall 2009. See FMS 161 for description.	
<b>Department:</b>	English	
<b>Course:</b>	ENG 170	
<b>Title:</b>	Technical Theater: Fall 09	
<b>Instructor:</b>	Rice, G	<b>Class Size:</b> 15
<b>Description:</b>	Fall 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.	

<b>Department:</b>	English	
<b>Course:</b>	ENG 172	
<b>Title:</b>	Intro to Stage Lighting & Sound	
<b>Instructor:</b>	Rice, G	<b>Class Size:</b> 15
<b>Description:</b>	Fall 2009. An introductory/intermediate course on the materials, techniques and equipment involved in Sound and Lighting as used in theatrical applications. Focuses on the principals and practices of implementation and design. Safety practices will be taught. Course will include lecture, one-on-one tutorials, and hands-on practical laboratory work in association with a production of the International Theatre Program.	

<b>Department:</b>	English
<b>Course:</b>	ENG 174
<b>Title:</b>	Acting Techniques: Fall 09
<b>Instructor:</b>	Greer, S
<b>Description:</b>	<b>Class Size: 16</b> Fall 2009. Acting Technique: Fall 09 focuses on developing the students ability to analyze texts from a performers viewpoint; on heightening the actors sensitivity to language; on developing the actors physical and vocal technique; on building awareness of character and characterization; and on engaging and actively developing creativity and imagination. This is done by constant investigation, rehearsal, and presentation of assorted texts ranging from poetry to contemporary and classical scenes and monologues. Attendance at all classes is mandatory. No prior acting experience or classwork is required. Please note: students taking Acting Techniques: Fall 09 are also required to register for Fall Acting Lab.

**Department:** English

<b>Course:</b>	ENG 176
<b>Title:</b>	Voice and Movement for the Actor: Fall 09
<b>Instructor:</b>	Ware, S; Browne, P
<b>Description:</b>	Fall 2009. An introductory course on voice and movement for the actor, concentrating on the ability of the actor to maximize the use of the body and voice to express emotion and character.

<b>Department:</b>	English	
<b>Course:</b>	ENG 180	
<b>Title:</b>	Directing	
<b>Instructor:</b>	Maister, N	<b>Class Size:</b> 15
<b>Description:</b>	Fall 2009. This is an introductory course focusing on directing for the theatre. The class will guide students through the directing process: from textual interpretation and production conceptualization, through staging and visualization, to working with actors. Please note: students taking Directing are also required to register for Directing Lab.	

**Department:** English  
**Course:** ENG 201  
**Title:** Intro to Old English Language and Literature  
**Cross-listed:** ENG 401  
**Instructor:** Higley, S  
**Description:** Fall 2009. "To men I shall speak wisdom where none speak a word on earth; though sons of land-dwellers now eagerly seek after my tracks, I sometimes hide my path from everyone." Riddle 94 of the Exeter Book. In following the dark tracks of the Old English writers who left their almost unrecognizable English words on tenth-century vellum, we will have to acquire skills and tools. This course will ask you to learn the Old English language, but translations will also be provided for most of the texts as a guide only. With these in hand, we will explore the dark world of Anglo-Saxon writing for its illuminations, but our emphasis will be on loss, love, hardship, riddle, wisdom, and the spiritual and magical powers of writing in a culture that stood on the cusp of orality and literacy. Texts: King Alfred, The Chronicles, Aelfric's "Preface to Genesis," "The Wanderer," The Seafarer, "The Wife's Lament," "Wulf and Eadwacer," "Gnomes," "Enigmas," "The Battle of Maldon." Applicable English Cluster: Medieval Studies. Fulfills the pre-1800 requirement for the major.

**Department:** English  
**Course:** ENG 203  
**Title:** Early English Drama  
**Cross-listed:** ENG 403  
**Instructor:** Peck, R.

**Description:** Fall 2009. Early English Drama is essentially a course in religious comedy - bawdy, pious, threatening, salvific comedy. The course begins with a brief look at Christian liturgical drama, then traces the origins of vernacular folk drama through the mystery cycles to the humanistic writers and Tudor drama of the 16th century. We will read two Corpus Christi cycles (the York and N- Town plays), along with excerpts from others (Chester and Towneley, particularly the Wakefield master), three saints and conversion plays, a couple of morality plays, some examples of humanistic drama, and conclude with Marlowe's Dr. Faustus and/or Shakespeare's Titus Andronicus. We will examine the plays in terms of their stagecraft, their message and performative values, their comic genius, and their cultural significance. Texts: David Bevington, Medieval Drama; Clifford Davidson, York Corpus Christi Plays; Douglas Sugarno, The N-Town Plays; Richard Emmerson, Approaches to Teaching Medieval English Drama; Russell Peck, Heroic Women from the Old Testament in Middle English Verse; Saint Bonaventura, The Mind's Journey to God; and the Middle English Pearl. Applicable English Clusters: Medieval Studies; Plays, Playwrights, and Theater. May be used to fulfill the pre-1800 requirement for the English major.

**Department:** English  
**Course:** ENG 206  
**Title:** Dante's Divine Comedy I  
**Cross-listed:** CLT 116Q, CLT 253C; IT 195Q, IT 220  
**Instructor:** Stocchi-Perucchio  
**Description:** Fall 2009. See course description for IT 220. This course WILL NOT fulfill the pre-1800 requirement for the English major.

**Department:** English  
**Course:** ENG 210  
**Title:** Shakespeare  
**Instructor:** Gross, K  
**Description:** Fall 2009. The course will explore the full range of Shakespeare's theater, including history plays, comedy, tragedy, and romance. We will be approaching the plays from many angles, looking at their extravagant language, the movement and structure of their plots, their invention of complex, conflicted human psyches, their self-conscious theatricality, as well as their ways of joining together play and earnest, tragic and comic tonalities. We'll be probing the plays' fascination with madness and delusion, their use of ghosts, witchcraft, and magic, and their penetrating explorations of human history and politics. Lectures will consider Shakespeare both in his own time and in ours, in order to understand why his work still speaks to us so powerfully, why modern writers and directors often cannot get Shakespeare out of

their heads. The reading list will include Romeo and Juliet, Richard II, Twelfth Night, The Merchant of Venice, Hamlet, Othello, King Lear, Coriolanus, Antony and Cleopatra, and The Winter's Tale. Course Work: two shorter and one longer essay and a final examination. Also fulfills pre-1800 requirement for the English major. Applicable English Clusters: Great Books, Great Authors; Plays, Playwrights, and Theater.

**Department:** English  
**Course:** ENG 218  
**Title:** Early American Literature  
**Cross-listed:** ENG 418  
**Instructor:** Glover, J  
**Description:** Fall 2009. This course surveys the emergence of American literary culture, with a special emphasis on the relationship between print and other forms of media. We will consider a broad range of American writing from this period, from the jeremiads of English Puritan reformers to the literature of the American revolution. Our literary readings will range from sermons and captivity narratives to canonical classics like Franklins Autobiography, yet along the way, we will also consider a wide range of media, from epitaphs, broadsides, and songs to more ephemeral forms of communication like rumors and gossip, natural soundscapes, and animal noises. Topics of discussion will include oral culture, magic and sorcery, cross-cultural interaction, and political revolution.

**Department:** English  
**Course:** ENG 222  
**Title:** Nineteenth-Century British Novel  
**Cross-listed:** ENG 422; WST 222  
**Instructor:** Rajan, S  
**Description:** Fall 2009. This course introduces students to some of the major novelists in nineteenth-century British literature. While the course provides broad coverage of the nineteenth-century British novel, our discussion of these select nineteenth-century novels will be guided by the theme of possession. What is the connection, this course asks, between marriage and romance and other forms of possession such as land, money, or things, in the nineteenth-century British novel? In addressing this question, we will discuss how narrative devices like the marriage-plot offer vehicles for novelists such as Jane Austen, Charlotte Bronte, Charles Dickens, and George Eliot to explore the linkages between romance, sexuality, property, and capitalism. While possession may be a major theme underlying the course's structure, we will also discuss other topics such as nationalism, the woman question and the problem of separate spheres, changes in class structure, and

British imperialism. In addition to addressing thematic and political issues, students will also have an opportunity to analyze the aesthetic dimensions of literary texts, paying attention to the techniques writers employ as they shape and experiment with forms of the novel.

**Department:** English  
**Course:** ENG 223  
**Title:** Studies in 19th Century Literature  
**Cross-listed:** ENG 423  
**Instructor:** Rajan, S  
**Description:** Fall 2009. The writings of Victorian novelists, essayists, and poets were animated by a shared set of political concerns--from the economic and environmental effects of industrialization and capitalism to the importance of nationalized education, womens rights, and imperialist expansion. Yet while the concerns that underpinned such writings were held in common, the form such writings took varied. This course examines the ways in which Victorian literature engages with the problem of "form" in its many guises. Specifically we will discuss how Victorians utilized a diverse range of literary forms from the political essay to novels and verse--to address contemporary debates on the formation of individual character and social reform. How does the novels exploration of character or the gendering of roles within the family, arrive at different conclusions than the political essay? Do poems necessarily become more based in narrative as they address similar political issues? What links, if any, do we find between literary form and social reform? To address the intersection of literary form with problems of social reform, we will read a wide variety of novelists, essayists, and poets from the Victorian period. Authors will include Charles Dickens, Elizabeth Gaskell, Elizabeth Barrett Browning, John Stuart Mill, Matthew Arnold, Thomas Carlyle, Oscar Wilde, George Eliot, Dante Gabriel Rossetti, and Alfred Lord Tennyson.

**Department:** English  
**Course:** ENG 227  
**Title:** American Moderns  
**Cross-listed:** ENG 427  
**Instructor:** Grella, G  
**Restrictions:** Not open to freshmen  
**Description:** Fall 2009. The course covers the period roughly between World War I and World War II, dealing with the rich creativity we associate with Modernism. We will read and discuss such writers as Eliot, Faulkner, Hemingway, Dos Passos, Steinbeck, etc., studying not only the works but some of the major trends in art, culture, and knowledge that make the modern period so important

and exciting. The method will be a combination of close reading, lecture, and discussion with (probably) one short paper and one longish paper. Not open to freshmen. Applicable English Clusters: American and African American Studies; Modern and Contemporary Literature.

**Department:** English  
**Course:** ENG 230  
**Title:** Poe, Dickinson, and Whitman  
**Cross-listed:** Eng 430  
**Instructor:** Michael, J  
**Description:** Fall 2009. In this class we will read widely in the writings by these three crucial figures in American nineteenth-century literature. We will relate their work to their cultural and historical moment, and also consider how they become founding figures both in an American literary and poetic tradition and also in the transatlantic development of modernism.

**Department:** English  
**Course:** ENG 235  
**Title:** 20th Century Drama  
**Cross-listed:** ENG 435  
**Instructor:** Schottenfeld, S  
**Description:** Fall 2009. A study and exploration of the major movements of twentieth-century drama naturalism, expressionism, surrealism, epic theater, absurdism. Possible author list: Anton Chekhov, Eugene O'Neill, Tennessee Williams, Bertolt Brecht, Samuel Beckett, Harold Pinter, Edward Albee, David Mamet, Caryl Churchill, August Wilson, Sam Shepard, Paula Vogel, Suzan-Lori Parks, Yasmina Reza.

**Department:** English  
**Course:** ENG 240  
**Title:** Literary and Cultural Theory  
**Cross-listed:** ENG 440  
**Instructor:** Guenther, G  
**Description:** Fall 2009. This course will study the major discourses of contemporary literary and cultural theory, including Marxism, psychoanalysis, deconstruction, gender and race studies, queer theory, new historicism, post-colonial criticism, and cultural studies. The goal will be not only to become conversant in these discourses, but also to explore a number of them in great depth. Course requirements: attendance and three five-page papers.

**Department:** English  
**Course:** ENG 242  
**Title:** Authors, Editors, and the Literary Marketplace



**Cross-listed:** Eng 442  
**Instructor:** London, B  
**Description:** Fall 2009. What is an author? This course begins with the premise that the answer to this question is anything but self-evident. How does the literary ideal of the author as solitary genius -- as sole creator of a unique, original work of art -- correspond to the actual practices of ordinary writers? And, for that matter, how does it correspond to the actual practice of even the great authors (Shakespeare, for example) it purportedly describes? Was such an ideal ever anything but a myth? What role do editors play in the practice of authorship? When does an editor count as a co-author? How do market factors and modes of publication affect what and how an author writes? How has our understanding of authorship changed in a world of virtual authors and virtual texts? How do we make sense of the journalistic scandals (involving authors, editors, and sources) that seem to have become so prevalent today? What happens when readers become authors, as in zines? For some time now, debates have raged, in both the academy and the popular media, about the nature and practice of authorship. Looking at examples drawn from both literature and journalism, this class will examine a number of sites of these debates: collaborative authorship; ghost writing; editorial theory and practice; forgeries and hoaxes; plagiarism; cult or celebrity authorship; pulp fiction, best-sellerdom, and popular authorship; authorial practices in media other than print (film, electronic and digital media, etc.); vanity presses and on-demand publishing; copyright law; readership and reception. Students will have the opportunity to do original research and pursue case studies of their own choosing.

**Department:** English  
**Course:** ENG 245  
**Title:** The Outsider in Literature  
**Instructor:** Tucker, J  
**Description:** Fall 2009. This course uses literature to analyze social behavior and discursive practice, specifically processes of inclusion and exclusion. How communities are constructed, around what signs and sets of practices, and the role that exclusion plays in defining a community are topics we will explore. What does it mean to belong? To be excluded? And just how stable are these categories? Literature from a variety of traditions, historical periods, and genres will provide examples, case histories, and a vocabulary with which such social and discursive phenomena can be discussed. Texts include Beowulf, John Gardner's Grendel, Nathaniel Hawthorne's The Scarlet Letter, Seamus Heaney's The Cure at Troy, Amin Maalouf's In the Name of Identity, Toni Morrison's The Bluest Eye, Peter Shaffer's Equus, Virginia

Woolf's A Room of One's Own, Richard Wright's Black Boy, and more.

**Department:** English  
**Course:** ENG 250  
**Title:** Race in American Fiction - The Fiction of Race  
**Cross-listed:** ENG 450, WST 233, AAS 250  
**Instructor:** Li, S  
**Description:** Fall 2009. Beginning with a discussion of what race can signify, this course will examine representations of racialized subjects in nineteenth- and twentieth-century American literature. We will focus on the relationship between racial constructions and the development of a national identity through a broad collection of works including novels, memoirs, essays, films and documents issued by the U.S. government. Students will explore the nature of racialized identity, the possibilities of passing and hybridity, definitions of citizenship, the relationship between class and race, opposing constructions of whiteness and blackness and the browning of America. We will conclude the course by expanding our discussion of race to include other forms of social difference, including those of language, culture, religious practice, education and generational values to understand how race operates beyond simplistic designations of color.

**Department:** English  
**Course:** ENG 252  
**Title:** Theater in England  
**Cross-listed:** ENG 452  
**Instructor:** Peck, R  
**Restrictions:**  
**Description:** **Class Size:** 20  
Permission of instructor required  
Fall 2009. English 252: Theater in England will be conducted in London from Tuesday, December 29, 200, through Saturday, January 9, 2010. Students should arrive in London no later than the evening of December 28. They may return on Sunday, January 10. We will see approximately 15 plays. We will not know what the full slate for the coming year will be until next November, but you can be certain that we will be seeing the best of what's available in the world's theater Mecca. Last year we saw Patrick Stewart and David Tennant in Hamlet, Derek Jacobi in Twelfth Night, Michael Gambon and David Bradley in No Man's Land, Ralph Fiennes and Clare Higgins in Oedipus, and such award winning productions as August: Osage County, Nick Stafford's War Horse, and La Cage aux Folies. We saw several world premieres such as David Hare's Gethsemane, Marina Carr's The Cordelia Dream, Zorro, the Musical, and Emma Rice's Don John, along with brilliant productions of Sondheim's A Little Night Music, T.S. Eliot's rarely performed Family Reunion, Neil

LaBute's *In a Dark Dark House*, and Stephen Daldry's *Billy Elliot*. Many in the group sat with the choir at Westminster Abbey to hear the Collegiate Singers perform Tomas Luis de Victoria's *Missa 0 magnum mysterium*. I have no reason to believe that this coming year will be any less rich than this past season. You can go online to see what we have done in the previous seventeen years. One thing for sure: We will see a terrific lot of theater and get to know London like an old friend. There will be ample time to visit such museums as the National Gallery, the old and new Tate Galleries, the Victoria and Albert Museum, the British Museum, the Royal Academy of Art, the Courtauld Institute, the London Museum, the Museum of Natural History, and historical sites like the Tower, Dickens' House, Parliament, and the Inns of Court. You can witness the changing of the guard at Buckingham Palace, explore Covent Garden, Camden Town, the antique shops of Islington or Portobello Market, and go to Harrods. An

**Department:** English  
**Course:** ENG 257  
**Title:** Film History: 1959 - Present  
**Cross-listed:** ENG 457, AH 253, CLT 218, FMS 249  
**Instructor:** Niu, G  
**Description:** Fall 2009. This course will explore the developments in world cinema - industrial, technological, social and political - in the second half of the sound period (1959 to the present). What brought about the collapse of the Hollywood studio system? What's new about the French New Wave? What do we mean by "Third Cinema"? How do different national cinemas influence each other? Requirements: mandatory weekly screenings, participation in class discussions, weekly film journals, and three take-home exams. Applicable English clusters: Modern and Contemporary Literature; Media, Culture, and Communication. Screening Time M 19:40.

**Department:** English  
**Course:** ENG 260  
**Title:** The Films of Martin Scorsese  
**Cross-listed:** ENG 460, FMS 268  
**Instructor:** Grella, G  
**Restrictions:** Not open to freshmen  
**Description:** Fall 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," "Goldiggers of 1933," "Dinner at Eight," etc. Applicable English Clusters: Media, Culture, and Communication; Modern and Contemporary Literature.

**Department:** English  
**Course:** ENG 262  
**Title:** Studies in a National Cinema: Chinese Cinemas  
**Cross-listed:** ENG 462; FMS 294  
**Instructor:** Niu, G  
**Description:** Fall 2009. The course examines diasporic Chinese cinemas from the People's Republic of China (PRC), the Republic of China on Taiwan (ROC), Hong Kong (HK), and perhaps even the U.S. and Canada, from the 1960s to the present. We will pay special attention to the migrations of individuals (actors, actresses, directors, cinematographers, and others) and to texts (the films and in some cases television programs). We will cover a wide variety of genres, including epic, martial arts, action, thriller, comedy, and drama. The majority of our films are in Mandarin Chinese and all are subtitled in English. Some experience with film studies, especially world cinema, and Chinese history will be helpful but not required. Outside screenings of films are required. Applicable English cluster: Media, Culture, and Communication. Not open to students who took Eng 267, Topics in Media Studies: Chinese Cinemas, in fall 2004.

**Department:** English  
**Course:** ENG 267  
**Title:** Changing Genres of Erotica  
**Cross-listed:** ENG 467, WST 267  
**Instructor:** Bleich, D  
**Description:** Fall 2009. Recently the large-scale dissemination of erotic and pornographic literature and film has begun to affect the majority of the population in the West. There are two main issues in the course: 1) the history of the changing genres of erotica and the social changes taking place because of its wide dissemination; and 2) the proposition that if societies were different little harm and much good would come from the inclusion of erotica in peoples reading and viewing habits: erotic materials, by removing sex from the realm of the forbidden and viewing it as a species of everyday life, can contribute to the education of both sexes and people of all sexual tastes and preferences. Readings in the course will concentrate on classical, early modern, enlightenment, and contemporary erotica, with attention to the contemporary debates about pornography begun by the activism of MacKinnon and

Dworkin. Of particular interest in this critique is the claim that erotic materials encourage the practice of violence against women and children, and help to promote a culture dependent on the use of force and violence. The course reviews the current debate on pornography and sexually explicit language as a context for viewing the history of the more familiar erotic materials from classical times, to the Renaissance and 18th century, to D.H.Lawrence, and Erica Jong. Film showings Thursday evenings 7-10.

**Department:** English  
**Course:** ENG 270  
**Title:** Advanced Technical Theatre: Fall 09  
**Instructor:** Rice, G **Class Size:** 15  
**Description:** Fall 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 two Fall 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  
**Cross-listed:** ENG 474  
**Instructor:** Scott, J **Class Size:** 15  
**Restrictions:** Permission of instructor required  
**Description:** Fall 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, we'll be looking for qualities that are shared by both genres, and we'll examine the ways their defining differences are reshaped in inventive prose. In particular, we'll 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 276  
**Title:** Advanced Poetry Writing

**Cross-listed:** ENG 476  
**Instructor:** Longenbach, J **Class Size:** 15  
**Prerequisites:** ENG 122, or equivalent work  
**Restrictions:** Permission of instructor required  
**Description:** Fall 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. Permission of instructor is required (submit 3-5 typed poems, preferably before the first class). Applicable English Cluster: Creative Writing.

**Department:** English  
**Course:** ENG 285  
**Title:** Advanced Writing and Peer Tutoring  
**Cross-listed:** WRT 245  
**Instructor:** Rossen-Knill, D **Class Size:** 15  
**Restrictions:** Special application required  
**Description:** Fall 2009. See WRT 245 for description.

**Department:** English  
**Course:** ENG 286  
**Title:** Presidential Rhetoric  
**Instructor:** Smith, C **Class Size:** 30  
**Description:** Fall 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 290  
**Title:** Plays in Production: Fall 09  
**Instructor:** Maister, Rice, Fish  
**Description:** Fall 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 292  
**Title:** Plays in Performance: The Illusion  
**Instructor:** Maister, N  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. Plays in Performance is a class made up of actors, assistant directors 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. Permission of instructor required. Applicable English Cluster: Plays, Playwrights, and Theater.

**Department:** English  
**Course:** ENG 294  
**Title:** Plays in Performance: TBA  
**Instructor:** Fish  
**Restrictions:** Permission of instructor required  
**Description:** Fall 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. Permission of instructor required. Applicable English Cluster: Plays, Playwrights, and Theater.

**Department:** English  
**Course:** ENG 296  
**Title:** Stage Management: Fall 09

**Instructor:** Rice, G; Maister, N  
**Description:** Fall 2009. Students in Stage Management I and/or II (Fall/Spring) 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.

**Department:** English  
**Course:** ENG 298  
**Title:** Performance Lab: TBA  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. 1.0 credit/Pass-Fail. This class is a lab tutorial for actors cast in productions in Todd Theatre. Working one-on-one with an acting and voice coach, students tackle specific technical challenges raised by their involvement in the specific theatrical work in production.

**Department:** English  
**Course:** ENG 360  
**Title:** Special Projects: Theatre  
**Instructor:** Maister, N  
**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. **Class Size: 15**

**Department:** English  
**Course:** ENG 380  
**Title:** Popular Film Genre: The Horror Film  
**Cross-listed:** ENG 480, FMS 232  
**Instructor:** Middleton, J  
**Restrictions:** Permission of instructor required  
**Description:** Fall 2009. RESEARCH SEMINAR. This course examines major critical issues surrounding the horror genre, through close study of Classical Hollywood, post-Classical, and international horror films, and readings in critical theory. Issues to be explored include boundary transgression and bodily abjection in the construction of the horror monster; gender, pregnancy, and the monstrous feminine; social Otherness (race, class, sexuality) as monstrosity; the figure of the serial killer and the shift from classic to modern horror; the grotesque and the blending of comedy and horror in the zombie film; international horror **Class Size: 15**

(especially Japan) and cross-cultural influences with Hollywood. As a research seminar, the course will involve the development of a substantial research project.

**Department:** English  
**Course:** ENG 380K  
**Title:** Robin Hood: Media Creature  
**Cross-listed:** ENG 480, FMS 365  
**Instructor:** Hahn, T  
**Description:** **Class Size: 18**  
Fall 2009. RESEARCH SEMINAR. This course, part of the Kauffman Entrepreneurial Program, will address the popularity of the outlaw hero Robin Hood across six centuries and through a variety of media, including oral stories; popular and art songs; manuscripts, broadsheets and ballads; chapbooks and tabloid "lives"; comics, serials, and children's literature; woodcuts, engravings, chromolithographs, and high-end illustrations; silent and sound film, animation, TV series, and video. The course will require shared readings (including writings on media theory and history), but much of the work will entail individual research that will be available to other class members through live discussion and through the computer and website that will constitute the "research lab." Students will be asked to investigate the ways in which Robin Hood reached various in different time periods audiences by examining and/or preparing facsimiles (hard copy, microfilm, digital) of early printed material, tracing out the print and reading history of texts and authors popular in their own time, or by uncovering the production and reception history of commercial films and TV movies and series. These projects will grow partly from students individual interests, and aim to lead to genuine expertise. Each member of the class will be expected to produce several finished projects over the course of the semester. The research, editing, and technological work of the course will proceed in a hands-on and cooperative way; besides the continuing opportunities to share ones specialized knowledge in class, students will ultimately have the chance to make their discoveries available to a wider audience through Robin Hood: A Digital Archive. The development of this website will potentially engage students in website design, market research (ie, who will come if we build this website? with what constituencies in mind should we design it?), and issues of property rights in the private and public domains. This process of research and investigation, of as

**Department:** English  
**Course:** ENG 380  
**Title:** Problems in Western Civilization  
**Cross-listed:** ENG 480

**Instructor:** Bleich, D  
**Restrictions:** Open only to Junior and Senior majors of the offering department  
**Description:** Fall 2009. RESEARCH SEMINAR. This seminar stipulates the following issues as underlying problems of Western civilization: pederasty, slavery, censorship, heresy, witch-hunting, androcentrism and misogyny, violence against children, and war. It studies literary treatments of these issues as well as some nonliterary texts. Emphasis is on how literature (and our responses to it) dealing with these problems reaches forms of understanding that are distinct from what is given by critical and historical accounts. The seminar addresses how the different problems overlap and continue in contemporary societies. We will ask how they are rationalized and treated as normal or as strange aberrations, though rarely as practices that constitute civilization. The seminar proceeds in two phases. The first part, of seven or eight weeks, articulates the themes. Modern readings come from Virginia Woolf's Three Guineas, Kafka, Morrison, Ibsen, Dostoevsky, and Freud's commentaries on the problems of civilization. Classical readings will likely include: Plato's Symposium and Republic, Aristotle's iology, Aristophanes' Lysistrata, Sophocles' Oedipus Rex. The second part of the course asks members to present research proposals related to one or more of the stipulated problems. Readings and discussions in this part of the course are determined by the students' research projects.

**Department:** English  
**Course:** ENG 381  
**Title:** Humanities Research Lab  
**Instructor:** Hahn, T  
**Description:** Fall 2009. This course provides opportunities for directed research in connection with English 380, "Robin Hood: Media Creature." Students will receive training in Humanities research methods and objectives, and then, in cooperation with the instructor, will design an independent research project that should produce genuine expertise concerning an author, artist, or set of texts, the history of print culture (including broadsheets, garlands, chapbooks, and popular books), or the history of other media (woodcuts, engravings, printed images, film, TV, and so on). Students will ultimately have the chance to make their discoveries available to a wider audience through Robin Hood: A Digital Archive. Students do not have to enroll in English 380 in order to enroll in 381. This is a two-credit course.

**Department:** English  
**Course:** ENG 396  
**Title:** Honors Seminar: Poetry and Memory

**Instructor:** Gross, K **Class Size:** 15  
**Restrictions:** Special application required  
**Description:** Fall 2009. The rehearsal of remembered tales, the recollection of past loves, battles, voyages, dreams, and even other poems these things have always been part of Western literary tradition. The muses are after all, mythically speaking, the daughters of Memory. Elegy, the poetic memorializing of the dead, has long been a central genre, and both epic poetry and romance often focus on the evocation of long past events. But the centrality of personal memory to poetry and fiction, and the probing of its vexed workings, is a peculiar aspect of modern literature literature after Romanticism, that is. Here entire poems, short and long, are built around the struggles between what Elizabeth Bishop calls "life, and the memory of it" The workings of memory and imagination are seen as more complexly implicated in each other; they tell us about our life in time, personal and collective. For some writers, the self exploring the field of memory becomes simply the definition of literature itself. One important facet of this change involves poets probing of memories of childhood; it is a probing of personal and cultural origins, a way of measuring old powers that are lost, or that may survive in different forms. Here Romantic and post-Romantic writers have helped to transform our ideas of childhood itself, along with our ideas of time and innocence. They have also transformed our ideas of landscape, our ways of describing the physical places so often bound up with memory. In modern literature, the issue of memory is also inevitably bound up with the problem of forgetting, with the fact of past events or memories being made opaque, or getting buried. Hence we have many literary texts that offer themselves as strange mixtures of what is remembered and what forgotten. In such cases, as important as the agency of recollection may be a sense of some active agency of forgetting -- including what Sigmund Freud called "repression." The seminar will focus on a group of poets for whom the matter of memory is central, inc

**Department:** English  
**Course:** ENG 398  
**Title:** Theatre Internship: PR & Marketing  
**Instructor:** Maister, N **Class Size:** 8  
**Restrictions:** Permission of instructor required  
**Description:** Fall 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.

## Film and Media Studies

**Department:** Film and Media Studies  
**Course:** FMS 132  
**Title:** Introduction to the Art of Film  
**Cross-listed:** ENG 117/AH 136  
**Instructor:** Middleton, J.  
**Description:** Please see ENG 117 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 161  
**Title:** Introductory Video & Sound  
**Cross-listed:** SA 161/ ENG 161  
**Instructor:** Ashenfelder, S. **Class Size:** 10  
**Restrictions:** Permission of instructor required  
**Description:** Please see ENG 161 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 192  
**Title:** Concepts in Introductory Visual Production--Techniques in Animation  
**Cross-listed:** SA 192  
**Instructor:** Ashenfelder, S. **Class Size:** 15  
**Restrictions:** Permission of instructor required  
**Description:** Please see SA 192 for the course description.

**Department:** Film And Media Studies  
**Course:** FMS 205  
**Title:** Introductory Digital Art  
**Cross-listed:** SA 151  
**Instructor:** Ashenfelder, S. **Class Size:** 10  
**Prerequisites:** Some familiarity with Macintosh computer required  
**Description:** Please see SA 151 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 221  
**Title:** Napoleon  
**Cross-listed:** FR 249/AH 249/HIS 224/CLT  
**Instructor:** Doran, R.  
**Description:** Please see FR 249 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 223  
**Title:** The Social Issues of Media: Anthro Persp on Media in Global & Local Contexts  
**Cross-listed:** ANT 225/AH 230  
**Instructor:** Kim, E. **Class Size:** 20  
**Description:** Please see ANT 225 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 232  
**Title:** Popular Film Genres: The Horror Film  
**Cross-listed:** ENG 259/ENG 459  
**Instructor:** Middleton, J.  
**Prerequisites:** FMS131/ENG118 Introduction to Media Studies OR a similar film/media studies course  
**Description:** Please see ENG 259 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 249  
**Title:** Film History: 1959-Present  
**Cross-listed:** ENG 256/ENG 456/AH 253  
**Instructor:** Niu, G.  
**Coursework:** Mandatory weekly screenings, participation in class discussions, weekly film journals, and three take-home exams.  
**Description:** Please see ENG 256 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 268  
**Title:** Studies in a Director - The Films of Martin Scorsese  
**Cross-listed:** ENG 260/ENG 460  
**Instructor:** Grella, G.  
**Restrictions:** Not open to freshmen  
**Coursework:** The course work will include screenings of a dozen or so films, study of some relevant primary and secondary texts, class lecture and discussions, and papers of an appropriate number and length.  
**Description:** The course will deal with a selection of films directed (and some also written) by the highly regarded contemporary director, Martin Scorsese. We will proceed in roughly chronological order, examining the growth and development of his career, his characteristic manner and matter, his successes and failures. We will also discuss the concept of the auteur as it applies to his work.

**Department:** Film and Media Studies  
**Course:** FMS 285  
**Title:** Our Voyage to Italy  
**Cross-listed:** IT 248/CLT 213B

**Instructor:** Stocchi-Perucchio, D.  
**Exams:** midterm exam  
**Coursework:** Class presentations and short written assignments Term paper (seven to ten pages)  
**Description:** Please see IT 248 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 288  
**Title:** Studies in a National Cinema: Germany - Cinema and Revolution: The West German  
**Cross-listed:** GER 283/GER 483/CLT 212I/CLT 412I  
**Instructor:** Creech, J.  
**Description:** Please see GER 283 for the course description.

**Department:** Film Studies  
**Course:** FMS 291  
**Title:** Studies in a National Cinema: France - Contemporary French Film  
**Cross-listed:** FR 283/FR 483/CLT 211D/CLT 411D  
**Instructor:** Willis, S.  
**Description:** Please see AH 283 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 294  
**Title:** Studies in a National Cinema: China - Chinese Cinemas  
**Cross-listed:** ENG 262/ENG 462  
**Instructor:** Niu, G.  
**Coursework:** Weekly outside screenings of films are 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 short and longer writings.  
**Description:** Please see ENG 262 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 297  
**Title:** Studies in a National Cinema: Japan - History of Japanese Cinema  
**Cross-listed:** JPN 283/CLT 214A/CLT 414A  
**Instructor:** Bernardi, J.  
**Description:** Please see JPN 283 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 308  
**Title:** Dance, Art, and Film  
**Cross-listed:** FMS 508/AH 311/AH 511  
**Instructor:** Crimp, D.  
**Description:** Please see AH 311 for the course description.

**Department:** Film and Media Studies  
**Course:** FMS 365  
**Title:** Robin Hood: Media Creature  
**Cross-listed:** ENG 480  
**Instructor:** Hahn, T.  
**Restrictions:** Open only to graduate students in offering department  
**Description:** This course, part of the Kauffman Entrepreneurial Program, will address the popularity of the outlaw hero Robin Hood across six centuries and through a variety of media, including oral stories; popular and art songs; manuscripts, broadsheets and ballads; chapbooks and tabloid "lives"; comics, serials, and children's literature; woodcuts, engravings, chromolithographs, and high-end illustrations; silent and sound film, animation, TV series, and video. The course will require shared readings (including writings on media theory and history), but much of the work will entail individual research that will be available to other class members through live discussion and through the computer and website that will constitute the "research lab." Students will be asked to investigate the ways in which Robin Hood reached various in different time periods audiences by examining and/or preparing facsimiles (hard copy, microfilm, digital) of early printed material, tracing out the print and reading history of texts and authors popular in their own time, or by uncovering the production and reception history of commercial films and TV movies and series. These projects will grow partly from students individual interests, and aim to lead to genuine expertise. Each member of the class will be expected to produce several finished projects over the course of the semester. The research, editing, and technological work of the course will proceed in a hands-on and cooperative way; besides the continuing opportunities to share ones specialized knowledge in class, students will ultimately have the chance to make their discoveries available to a wider audience through Robin Hood: A Digital Archive. The development of this website will potentially engage students in website design, market research (ie, who will come if we build this website? with what constituencies in mind should we design it?), and issues of property rights in the private and public domains. This process of research and investigation,

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

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

**Restrictions:** Open only to senior majors or by permission of instructor

**Department:** Film and Media Studies  
**Course:** FMS 392  
**Title:** Practicum  
**Restrictions:** Open only to senior majors or by permission of instructor

**Department:** Film and Media Studies  
**Course:** FMS 393  
**Title:** Senior Project  
**Restrictions:** Open only to senior majors or by permission of instructor

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

**Department:** Film and Media Studies  
**Course:** FMS 508  
**Title:** Dance, Art, and Film  
**Cross-listed:** FMS 308/AH 311/AH 511  
**Instructor:** Crimp, D.  
**Description:** This course explores relations among dance, art, and film at significant moments in the 20th and 21st centuries. We will study instances in which the forms are particularly closely aligned, including the famous productions by artists such as Gontcharova, Picasso, and Matisse, for Diaghilevs Ballets Russes; Martha Grahams partnership with Isamu Noguchi; and Merce Cunninghams work with Robert Rauschenberg. We will also look simply at how dance is filmed or how dance uses film. The course will concentrate on two figures of the postwar American avant-garde: Merce Cunningham and Yvonne Rainer. Cunninghams dances choreographed for film in collaboration with film- and video-makers and Rainers move from choreography to filmmaking and eventually to hybrids of the two will constitute the core of the course.

## Health & Society

**Department:** Health & Society  
**Course:** HLS 301  
**Title:** Senior Seminar  
**Instructor:** Harper, D.  
**Prerequisites:** Required course of seniors majoring in health and society.  
**Restrictions:** Open only to senior majors or by permission of instructor  
**Exams:** No exams.  
**Coursework:** Methods of Instruction: Taught as a seminar. Discussion of topics in health and disease; three term papers, no exams



**Description:** This course will build on prior courses in health and society - focusing in part on those topics that students wish to pursue further. Topics will include the changing health care system of the United States, corruption in the health care industries, medical problems and controversies in health care research and health care delivery (Ug! - sounds like selling cars, but this term is used by many in the health and medical industries). Three or four books will be assigned. Examples: Marcia Angell, the Truth about Drug Companies; David Mechanic, Policy Challenges in Modern Health Care.

## History

**Department:** History  
**Course:** HIS 106  
**Title:** Colonial and Contemporary Africa  
**Cross-listed:** AAS 106; ANT 248  
**Instructor:** Mandala, E.  
**Description:** This course uses film, literature, and historical studies to understand the transformation of African societies during the colonial era and its neocolonial aftermath. It maps out the forging of new national identities, creation of wage laborers, restructuring of rural communities, and changing power relations between women and men, the young and old. Students will also explore how African men and women, from their homes and workplaces, and as part of nationalist and national liberation movements during and after the Cold War, have sought to redefine their place in the global economy amidst new opportunities and challenges presented by environmental degradation, the HIV/AIDS pandemic, hunger, international debt, and China's growing thirst for the continents seemingly inexhaustible natural resources.

**Department:** History  
**Course:** HIS 120  
**Title:** Introduction to Historical Studies  
**Coursework:** Classes will be a combination of lectures, discussions, demonstrations, and student projects.  
**Description:** This course is intended for students new to the study of history at the college level. It will explore what historians do, how they do it, and how students can hone their own skills. Among the topics to be explored are understanding the materials of history, a survey of approaches to the past, and the development of proper techniques.

**Department:** History  
**Course:** HIS 121

**Title:** Introduction to History - Piracy  
**Instructor:** Jarvis, M.  
**Coursework:** Classes will be a combination of lectures, discussions, and student projects.  
**Description:** This course is intended for students new to the study of history at the college level. Focusing on the topic of piracy, we will explore what historians do, how they do it, and how students can hone their own skills. As we consider piracy in its legal, social, global, maritime, and media dimensions, we will gain an understanding of the historical evidence, survey different theoretical approaches, work with primary sources, and develop effective narrative and discursive strategies.

**Department:** History  
**Course:** HIS 145  
**Title:** Early America, 1600-1800  
**Instructor:** Jarvis, M.  
**Description:** This course examines European expansion into the New World from Columbus's first voyage through the aftermath of the American Revolution. Throughout the semester, we will situate colonial British America and the fledgling United States within a broader, contested, multi-national and multi-ethnic Atlantic World setting. We will first regionally survey Europe's American colonies, emphasizing how timing, geography, economic development, national background, and patterns of migration produced considerable variation within colonial societies. We will next topically focus on Euro-Indian encounters, slavery, cultural creolization, religion and warfare in order to compare the experiences of colonial Americans. We conclude by examining the political crises and multi-fronted clashes of American Revolution and the struggle to forge a new, viable nation in its wake.

**Department:** History  
**Course:** HIS 147  
**Title:** Industrial America, 1865-1929  
**Instructor:** Borus, D.  
**Exams:** Mid-term and final.  
**Description:** This course investigates the sixty-five year period that provided the foundation for modern America. It traces the shift in American life from a primarily rural society of small producers to one that featured industrial production, wage labor, financial concentration, urban growth and sprawl, and large-scale immigration from regions that previously had not provided very large percentages of the nation's population. It gauges the consequences for racial relations of Emancipation and the new prominence of women in American life. In its examination of

labor conflict, political turmoil and corruption, and World War, the course explores how Americans struggled to fashion a sense of the role government would play in affecting industrial life and how the United States would use its new power in the world.

**Department:** History  
**Course:** HIS 155  
**Title:** History of Russia to 1692  
**Cross-listed:** RST 155  
**Instructor:** Lenoe, M.  
**Description:** This course focuses on the history of Kievan Rus beginning with the official conversion to Byzantine Christianity (988), the period of Mongol rule over Russia, the rise of the city of Moscow to a dominant position among the Russian principalities, and Muscovite society, politics, and economics in the 1500s and 1600s. We will examine the origins of Russian serfdom and Russian autocracy, Muscovite relations with other societies, including England, the role of witches in Muscovite society, and many other topics. We will also be studying the history of the Rus as it intertwines with the history of two neighboring Slavic peoples, the Poles and Ukrainians.

**Department:** History  
**Course:** HIS 165  
**Title:** African-American History I  
**Cross-listed:** AAS 141  
**Instructor:** Hudson, L.  
**Coursework:** Two class papers of 2-3 pages (30%); Mid-Term (10%); Term paper 6-8 pages (40%); and Take Home Final Exam (20%).  
**Description:** We will begin our survey of African-American life and culture in fifteenth-century Saharan Africa. After examining the primary features of pre-European African society we will assess the disruptions triggered by European arrival. A discussion of the "Middle Passage" -- the transportation of enslaved Africans to North America -- and the Africans' adjustment to their new environment will compose the first section of the course. We will then focus on the process of "Americanization" as the Africans became African-Americans. The struggle for freedom and citizenship will conclude our survey. The course readings will be selected from autobiographies by Africans and African-Americans, and some brief selections from secondary texts. Using the autobiographies as historical source material, we will examine the values and cultural practices of Africans in America, and the ways in which African-Americans adapted to and shaped American life and culture.

**Department:** History

**Course:** HIS 173  
**Title:** American Military History  
**Instructor:** Pierce, M. **Class Size:** 40  
**Description:** American history has been largely shaped by wars. This course will survey the history of American wars; the military, naval, and civil institutions that have been created to serve the changing needs of national defense; and the citizen-soldiers who have preserved the liberty of the Republic.

**Department:** History  
**Course:** HIS 194Q  
**Title:** Crime and Punishment in European History  
**Instructor:** Bakhmetyeva, T.  
**Restrictions:** Permission of instructor required  
**Description:** What can crime - and the punishments associated with crime - teach us about society and people? How do people in various historical periods perceive crime and criminals? And how are these perceptions affected by the social, economic and political climate? What do criminal prosecutions reveal about social dynamics and tensions? These and other questions are at the core of this thematically organized course that investigates crime and criminal prosecutions as historical and social constructions. Students will explore and attempt to answer these questions - and learn to pose their own - by reading and analyzing primary sources about some of the most famous crimes (both real and imaginary) and trials since the Middle Ages and throughout the 20th century (such as trials for witchcraft and Jewish ritual murders, the trial of Marie-Anatoinette and the Dreyfus Affair, and political trials in the Soviet Union). With the help of the instructor, students will investigate topics of their own interest in a research paper.

**Department:** History  
**Course:** HIS 196  
**Title:** Germany between East and West  
**Instructor:** Applegate, C  
**Description:** This seminar will examine the history of post-WWII Germany from the perspective of its unique geo-political position, stranded in the middle of the Cold War confrontation between capitalist west and communist east. Starting with the final years of the war and the joint effort of both eastern and western powers to destroy Hitler's Germany, we will continue through the period of Germany's division and re-unification after 1989, concluding with current controversies over the role Germany should take in international conflicts. We will consider, first, the political

dimensions of Germany's unique situation, and second, the cultural responses and social consequences.  
Course material will include novels, films, memoirs, and historical accounts.

**Department:** History  
**Course:** HIS 203  
**Title:** Economies & Societies in Latin America & the Caribbean since 1492  
**Cross-listed:** AAS 252; ECO 252/252W  
**Instructor:** Inikori, J. **Class Size:** 30  
**Exams:** Midterm, Final.  
**Description:** The main thrust of the course is an attempt to provide a historical explanation for the general problem of material poverty and the attendant socio-political crises that characterize contemporary Latin America and the Caribbean. The course begins with an examination of the organization of the economies and societies in the region on the eve of the European conquest, and the factors determining the level of development attained by this time. This is followed by a discussion of the socio-economic processes during the colonial period. The post-colonial period (which differs from one country to another) is examined in the context of the inherited socio-economic structures of the colonial period and the changing conditions in the evolving modern global system.

**Department:** History  
**Course:** HIS 204  
**Title:** Introduction to Law - History of Federal Indian Law  
**Instructor:** Boylan, L.  
**Prerequisites:** Background in 100-level courses in American or American Indian history is recommended but not required.  
**Coursework:** Students will be expected to read from primary and secondary sources, including treaties, statutes and case law, and to participate with oral presentations and writings.  
**Description:** This seminar course is intended as an introduction to legal studying, reasoning and writing with the field of American Indian law being the focus. We will look at the impact of American law upon Indian tribes and individuals, and touch upon how Native American legal concepts intersect white man's law.

**Department:** History  
**Course:** HIS 211  
**Title:** History from Myth - King Arthur and Robin Hood  
**Instructor:** Kaeuper, R. **Class Size:** 20  
**Exams:** Comprehensive Essay Final Exam.  
**Coursework:** Two essays during the term; at least 200 pages of reading per week.

**Description:** King Arthur and Robin Hood, though so popular a feature of our culture that we almost take them as 'givens,' in fact we pay serious study about them. Medieval stories can inform us about kingship, ideas of chivalry, socio-economic functioning of early legal systems. This course looks at such early stories within the contact of their historical periods.

**Department:** History  
**Course:** HIS 215  
**Title:** The Enlightenment  
**Instructor:** Outram, D.  
**Restrictions:** Not open to freshmen  
**Description:** The Enlightenment - the structure of ideas typical of eighteenth century Europe and the Americas, shaped and was shaped by increasing globalization and the clash of cultures between whites and indigenous peoples. Explosive questioning of religion, political justice and gender were also the consequence of these global encounters. The course is taught through establishing close relationships to primary text.

**Department:** History  
**Course:** HIS 232  
**Title:** The French Revolutions  
**Instructor:** Outram, D.  
**Description:** The revolutions which took place in France and the rest of Europe in the 1780s and 1790s were brutal and explosive. They caused a discontinuity in time and the rhythms of ordinary life, but also produced ideas of government and the self which have cast a long shadow over today. Every social, economic and gender group was differently affected by what happened during this time of upheaval and chaos sparked by the collapse of the old monarchy. (Hence it makes some sense to talk about revolutions in the plural). Chairman Mao was once asked when he thought the French Revolution had ended 'It's too soon to tell' he replied. The course proceeds through jokes, close documentary analysis, lectures and projects, and a corresponding look at whether it is indeed too soon to tell if the revolutions are over.

**Department:** History  
**Course:** HIS 233  
**Title:** 19th Century European Thought  
**Instructor:** Applegate, C.  
**Coursework:** Course requirements: class discussions, short assignments for class, three 5-7 page papers (two on the course readings; one biographical on one of the assigned writers).  
**Description:** This course considers the development of European philosophical, political, religious, and aesthetic thought from the

late 18th century to the late 19th century. We will end on the eve of the period known as "fin-de-siecle," which denotes in intellectual history a turn away from the mainstream of rationalist thought. Readings consist entirely of primary texts and include works or excerpts of works by Kant, Wollstonecraft, Schiller, Goethe, Chateaubriand, de Stael, de Maistre, Schleiermacher, Hegel, Comte, Saint-Simon, Fourier, Bentham, Mill, Marx, Schopenhauer, Darwin, the early Nietzsche.

**Department:** History  
**Course:** HIS 247  
**Title:** Lincoln, Douglass, and Black Freedom  
**Cross-listed:** AAS 257; HIS 247W  
**Instructor:** Hudson, L.  
**Description:** In what was probably the world's greatest century, marked by several national and international struggles for human freedom, two men stand head and shoulders above the many great men and women who participated in a civil war for American freedom: Abraham Lincoln and Frederick Douglass. At first glance, these two men had little in common; one born free on the American frontier, the other unfree in the heartland of slavery. Yet they had much in common; both largely self-educated, they both attained a mastery for words and the ability to communicate simply and directly with their fellow man. As if born to fight in one major battle for human freedom, these two men traveled diverse roads to meet on a momentous battlefield: black freedom and the future of America. Utilizing a wide range of sometimes opposing tactics, each in his own way shaped 19th century Americans understanding of what it meant to be free and a citizen.

**Department:** History  
**Course:** HIS 247W  
**Title:** Lincoln, Douglass, and Black Freedom  
**Cross-listed:** AAS 257; HIS 247  
**Instructor:** Hudson, L.  
**Description:** Please see HIS 247 for the course description.

**Department:** History  
**Course:** HIS 279  
**Title:** Japan at War and After  
**Instructor:** Hauser, W.  
**Coursework:** Each student will write two short papers based on the assigned readings in the course and one final paper based on a topic selected in consultation with the instructor. The first two papers will be 5-8 pages in length, and the third 10 -15  
**Description:** The class will cover the period from 1937 to the 1960s. The focus will be Japans participation in the Pacific War, the social

and cultural impacts of the war, and the social and cultural transformation of Japan in the postwar era. Readings will include: Ienaga Saburo, THE PACIFIC WAR; John Dower, WAR WITHOUT MERCY and EMBRACING DEFEAT; Samuel Yamashita, LEAVES FROM AN AUTUMN OF EMERGENCIES; Ishikawa Tatsuz, SOLDIERS ALIVE; Dazai Osamu, THE SETTING SUN; Richard Minear, VICTORS JUSTICE; and other selections. Feature films on the war and the postwar period will also be extensively used in the course and will include: Mishima Yukio, dir. RITE OF LOVE AND DEATH; Kobayashi Masaki, dir. THE HUMAN CONDITION, Part II; Ichikawa Kon, FIRES ON THE PLAINS and HARP OF BURMA; Kurosawa Akira, STRAY DOG, IKIRU and DRUNKEN ANGEL; Shohei Imamura, BLACK RAIN, and Ozu Yasujiro, TOKYO STORY, and others, depending on availability.

**Department:** History  
**Course:** HIS 305W  
**Title:** American Health Policy and Politics  
**Cross-listed:** HIS 405; 7PM 420  
**Instructor:** Brown, T.  
**Restrictions:** Permission of instructor required  
**Coursework:** Weekly seminar discussion. One 5-page analytical paper and one 20-page research paper required.

**Description:** This course examines the formation and evolution of American health policy from a political and historical perspective. Concentrating primarily on developments from 1932 to the mid-1990s, readings and seminar discussions focus on political forces and institutions and on historical and cultural contexts. Among the topics covered are periodic campaigns for national health insurance, efforts to rationalize and regionalize health care institutions, the creation of Medicare and Medicaid and the further evolution of these programs, the rise of dominance of economists and economic analysis in the shaping of health policy, incremental and state-based vs. universal and federal initiatives, and the formation and failure of the Clinton administration's health reform agenda.

**Department:** History  
**Course:** HIS 331W  
**Title:** The Soviet Union and the Cold War  
**Cross-listed:** HIS 431  
**Instructor:** Lenoe, M.  
**Description:** This seminar, based around discussion of readings and a major research paper, will be focused on the Soviet side of the Cold

War, including the conflict's impact on Soviet culture, society, daily life, and the economy.

**Department:** History  
**Course:** HIS 333W  
**Title:** U.S. Colloquium I  
**Cross-listed:** HIS 433  
**Instructor:** Slaughter, T.  
**Restrictions:** Permission of Department required  
**Description:** This colloquium introduces classic and contemporary literature on Europe and the Americas, and the trans-Atlantic connections of empire, ideas, culture, trade, economics, religion, and society. It considers war in its ideological, political, and social dimensions, the growth of a global market economy, the environment and disease, race, slavery and the abolition movement, and constitutionalism, among other themes. The temporal focus is principally 1650-1850.

**Department:** History  
**Course:** HIS 346W  
**Title:** South Africa since 1910  
**Cross-listed:** HIS 446; AAS 346  
**Instructor:** Mandala, E.  
**Description:** A three-part exploration of South Africa's history from the time of the country's unification in 1910 to the end of legal apartheid in 1994. The dispossession, industrial color bar, and urban segregation. The second section highlights African resistance in such forms as African independent church movements, political organizations, trade unionism, and the activism of black women and the youth. The third part reviews some of the major challenges facing the new South Africa, particularly poverty and the HIV/AIDS pandemic.

**Department:** History  
**Course:** HIS 350W  
**Title:** Topics in Medieval History - Chivalry  
**Cross-listed:** HIS 450  
**Instructor:** Kaeuper, R.  
**Prerequisites:** Ideally, some background in medieval history.  
**Restrictions:** Permission of instructor required for undergraduates  
**Coursework:** One or more seminar reports on reading, plus a research paper.  
**Description:** Modern popular ideas of chivalry distort the medieval reality considerably. We will try to understand the original ideals and practices through reading and discussing a combination of medieval chivalric literature and modern scholarly writing.

**Department:** History

**Course:** HIS 356  
**Title:** The Atlantic Slave Trade and Africa, 1650-1850  
**Cross-listed:** HIS 356/456; AAS 375W; ECO 385W  
**Instructor:** Inikori, J.  
**Description:** Please see HIS 356W for the course description.

**Department:** History  
**Course:** HIS 356W  
**Title:** The Atlantic Slave Trade and Africa, 1650-1850  
**Cross-listed:** AAS 375W; ECO 385W; HIS 356/456  
**Instructor:** Inikori, J.  
**Exams:** No mid-term, no final exam  
**Coursework:** Weekly literature summaries, three three-page conference papers, and one book review  
**Description:** By the middle decades of the nineteenth century a highly integrated economic system, appropriately called the Atlantic Economic Order, had emerged, linking together through a web of multilateral trade the economies of the Atlantic basin that had remained unconnected in the late fifteenth century. The economies of Africa occupied the lowest position within this mid-nineteenth century economic order. The course examines the extent to which the Transatlantic Slave Trade could help explain this weak position of the African economies. The course begins with a general view of the level of socioeconomic development in Africa by the late fifteenth century, relative to that of other regions in the Atlantic basin. It proceeds to examine the impact of the Atlantic slave trade on the competitive development of commodity production in Africa for the evolving Atlantic market of the period, as well as the socioeconomic and political consequences of the export slave trade within Africa. One major theme of the course is the extent to which the Trans-Atlantic Slave Trade limited the development of capitalism in Africa during the period in question.

**Department:** History  
**Course:** HIS 371W  
**Title:** Environmental History  
**Cross-listed:** HIS 471  
**Instructor:** Weaver, S.  
**Description:** This course is an upper-level introduction to the recently burgeoning field of environmental history. Drawing on both old and new scholarship in the field, and on a variety of primary historical materials, we will study the many ways in which humans have influenced the environments around them and, in turn, how various natural environments have shaped and influenced human societies. Some background in modern history is strongly recommended. The course requirements include

weekly reading and discussion and a substantial primary research paper.

**Department:** History  
**Course:** HIS 373W  
**Title:** Sex and Gender in the American City  
**Cross-listed:** HIS 477  
**Instructor:** Wolcott, V.  
**Restrictions:** Permission of instructor required for undergraduates  
**Exams:** Midterm and Final Examination  
**Coursework:** Book Review, 3-5 pp. and Research paper, 10-15 pp.  
**Description:** This course will explore the role of gender and sexuality in American cities from the nineteenth century to the present. Through intensive reading and a research paper we will explore how gender and sexuality shaped the urban environment in the arenas of labor, politics, everyday life, and the built environment. We will also examine how the and cultures of American cities prescribed normative gender and sex roles on urban residents.

**Department:** History  
**Course:** HIS 377W  
**Title:** Topics in Early American History  
**Cross-listed:** HIS 477  
**Instructor:** Jarvis, M.  
**Restrictions:** Permission of instructor required  
**Description:** This seminar introduces students to recent scholarship in the study of early America. Topics and approaches may include slavery and the formation of African-American culture, Revolutionary resistance, Euro-Indian encounters, religion and witchcraft, micro-history, gender roles, warfare, and environmental history. Using selected monographs, we will not only examine various interpretations of past events, but also dissect texts to discern how historians use evidence from the past to construct historical narratives - how historians "make" history.

**Department:** History  
**Course:** HIS 382W  
**Title:** Topics in 20th Century American Cultural History  
**Cross-listed:** HIS 482  
**Instructor:** Borus, D.  
**Prerequisites:** HIS 148 recommended.  
**Restrictions:** Permission of instructor required for undergraduates  
**Description:** This course concentrates on the cultural and intellectual ferment of the first twenty years of the twentieth century spurred by the growing acceptance of the idea that no single principle could account fully for diverse phenomena. In many fields of inquiry, the notion that there were many truths, many values, and many

beauties challenged the way of the world. As a result, American cultural and intellectual life featured a sense that the world was not already made, that standards were not firm and fixed, that accepted hierarchies were not always valid, and that contingency and context mattered. Among the fields of inquiry we will address are popular culture, philosophy, political science, psychology, and anthropology.

**Department:** History  
**Course:** HIS 405  
**Title:** American Health Policy and Politics  
**Cross-listed:** HIS 305W; 7PM 420  
**Instructor:** Brown, T.  
**Description:** Please see HIS 305W for the course description.

**Department:** History  
**Course:** HIS 431  
**Title:** The Soviet Union and the Cold War  
**Cross-listed:** HIS 331W  
**Instructor:** Lenoe, M.  
**Description:** Please see HIS 331W for the course description.

**Department:** History  
**Course:** HIS 433  
**Title:** U.S. Colloquium I  
**Cross-listed:** HIS 333W  
**Instructor:** Slaughter, T.  
**Description:** Please see HIS 333W for the course description.

**Department:** History  
**Course:** HIS 446  
**Title:** South Africa since 1910  
**Cross-listed:** HIS 346W; AAS 446  
**Instructor:** Mandala, E.  
**Description:** Please see HIS 346W for the course description.

**Department:** History  
**Course:** HIS 450  
**Title:** Topics in Medieval History - Chivalry  
**Cross-listed:** HIS 350W  
**Instructor:** Kaeuper, R.  
**Description:** Please see HIS 350W for the course description.

**Department:** History  
**Course:** HIS 456  
**Title:** The Atlantic Slave Trade and Africa, 1650-1850  
**Cross-listed:** AAS 375W; ECO 385W; HIS 356/356W

**Instructor:** Inikori, J.  
**Description:** Please see HIS 356W for the course description.

**Department:** History  
**Course:** HIS 471  
**Title:** Environmental History  
**Instructor:** Weaver, S.  
**Description:** Please see HIS 371W for the course description.

**Department:** History  
**Course:** HIS 473  
**Title:** Sex and Gender in the American City  
**Cross-listed:** HIS 373W; WST 373/473  
**Instructor:** Wolcott, V.  
**Description:** Please see HIS 373W for the course description.

**Department:** History  
**Course:** HIS 477  
**Title:** Topics in Early American History  
**Cross-listed:** HIS 377W  
**Instructor:** Jarvis, M.  
**Description:** Please see HIS 377W for the course description.

**Department:** History  
**Course:** HIS 482  
**Title:** Topics in 20th Century American Cultural History  
**Cross-listed:** HIS 382W  
**Instructor:** Borus, D.  
**Description:** Please see HIS 382W for the course description.

**Department:** History  
**Course:** HIS 500  
**Title:** Problems in Historical Analysis  
**Instructor:** Rubin, J.  
**Coursework:** Students will write reports in rotation on the assigned topics and deliver them orally, and will write a final paper on a theme arising from those discussed in the course.

**Description:** This course offers an introduction to the professional study of history by surveying selected problems and exploring a number of approaches to the fields within the discipline. The underlying goals of the course are to sharpen students' skills as critical readers, articulate participants in class discussion, effective writers, and imaginative investigators of historical sources.

## Judaic Studies

**Department:** Judaic Studies

**Course:** JST 101  
**Title:** Elementary Hebrew I  
**Cross-listed:** HEB 101  
**Description:** Introduction to the structure of Hebrew. Practice in vocabulary, use, reading and comprehension. Same as HEB 101

**Department:** Judaic Studies  
**Course:** JST 103  
**Title:** Intermediate Hebrew  
**Cross-listed:** HEB 103  
**Description:** Continuation of Hebrew 102 with emphasis on enhancing reading comprehension, writing and speaking skills. Several writing assignments. Same as HEB 103 (Fall)

**Department:** Judaic Studies  
**Course:** JST 106  
**Title:** Intro to Hebrew Bible  
**Cross-listed:** Rel 101  
**Instructor:** A. Meredith  
**Coursework:** Please see Rel 101  
**Description:** Please see Rel 101

**Department:** Judaic Studies  
**Course:** JST 113  
**Title:** History of Judaism  
**Cross-listed:** REL 103  
**Instructor:** Rubel, N.  
**Description:** Please see REL 103 for the course description.

**Department:** Judaic Studies  
**Course:** JST 220  
**Title:** Jewish Women's Writings  
**Cross-listed:** REL 220/WST 236  
**Instructor:** Rubel, N.  
**Description:** Please see REL 220 for the course description.

## Linguistics

**Department:** Linguistics  
**Course:** LIN 101  
**Title:** People and Their Language  
**Instructor:** Webb, B  
**Exams:** Midterm, Final  
**Coursework:** Weekly readings and assignments, term project.  
**Description:** This introductory level course is designed for students who have no background in linguistics, with some new topics for students who do. The course addresses the basic question "What is

Language?" from a broad variety of perspectives including linguistics, sociolinguistics, historical linguistics, sign language linguistics and gesture study. We will consider questions such as: What elements are found in all human languages? Are they systematically organized or random? Are some languages/dialects better than others? What is the relationship between written and spoken language? How does manual gesture relate to spoken language, and to sign language? How do languages develop? Die? How are they related? In exploring these questions we will confront a variety of common misperceptions about language. Each lecture has reading assignments drawn from the textbook and published articles. Class discussion will be encouraged as much as possible. Part of Clusters S1LIN006, S1LIN002

**Department:** Linguistics  
**Course:** LIN 103  
**Title:** Language and Sexuality  
**Cross-listed:** WST 103C  
**Instructor:** Runner, J.  
**Description:** This course will investigate various aspects of language as used by members of sexual minority groups, focusing on language of and about gay men, lesbians, bisexuals and transgendered people, including "reclaimed epithets" (e.g., 'dyke' and 'queer'), gender vs. sexuality vs. sex, and the role of language in creating /maintaining sexual categories and identities Part of Cluster S1LIN006

**Department:** Linguistics  
**Course:** LIN 110  
**Title:** Introduction to Linguistic Analysis  
**Cross-listed:** ANT 110C  
**Instructor:** Gunlogson, C **Class Size:** 30  
**Prerequisites:** None  
**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 205  
**Title:** Historical Linguistics  
**Cross-listed:** LIN 405

**Instructor:** Paauw, S. **Class Size:** 30  
**Description:** This course is designed to give an introduction to the principles of historical linguistics, and their practical application. Topics covered include genetic relations, sound change, borrowing, the comparative method and language classification, types of language contact, morphological, syntactic and semantic change, and a real linguistics.

**Department:** Linguistics  
**Course:** LIN 210  
**Title:** Introduction to Language Sound Systems  
**Cross-listed:** LIN 410  
**Instructor:** McDonough, J. **Class Size:** 30  
**Prerequisites:** LIN 110 or permission of instructor  
**Coursework:** Weekly homeworks, final project and problem set.  
**Description:** Introduces students to the principles underlying sound systems in human language. Attention will be given to articulatory phonetics, with some discussion of acoustic phonetics; practice in the production, recognition, and transcription of sounds in various languages of the world, and to the fundamentals of phonological analysis and argumentation through hands-on investigation of language sound systems. Part of Clusters S1LIN004, S1LIN002, S1LIN001

**Department:** Linguistics  
**Course:** LIN 225  
**Title:** Introduction to Semantic Analysis  
**Cross-listed:** LIN 425  
**Instructor:** Gunlogson, C **Class Size:** 30  
**Description:** This course introduces students to the basic logical notation and techniques used in formal analysis of natural language meaning, primarily in terms of truth-conditions. We will discuss the basics of first-order logic and set theory, and begin to investigate how meanings represented in these terms correlate with the syntactic and lexical structures of sentences of natural language. Topics include such notions as negation, conjunction and disjunction, plurality, quantification, indexicality, entailment, implicature, and presupposition. Students of graduate standing or those with strong formal backgrounds should consider starting with LIN 265/465 instead, for which this course is ordinarily prerequisite. This course counts towards satisfying the core course requirement for majors. Part of Clusters S1LIN002, S1LIN004, L1LIN005

**Department:** Linguistics  
**Course:** LIN 226  
**Title:** Morphology  
**Cross-listed:** LIN 426



**Instructor:** Paauw, S **Class Size:** 30  
**Restrictions:** See course description for specific prerequisites required  
**Description:** The course examines the structure and definition of the linguistic unit "word" its typology and the relationship of the morphological component to other levels in the grammar. The course includes an introduction to analytical techniques with emphasis placed on an examination of data from a range of languages. The building blocks of words will be analyzed and topics such as affixation, reduplication and inflectional and derivational morphology will be covered. We will examine the properties of words and how they fit into the larger structure of linguistic knowledge, including the relationship between words and syntactic structure (ex., phrases and sentences) and the relationship between words and phonological structure (ex., phonological rules and prosodic structure).

**Department:** Linguistics  
**Course:** LIN 410  
**Title:** Introduction to Language Sound Systems  
**Cross-listed:** LIN 210P  
**Instructor:** McDonough, J **Class Size:** 30  
**Description:** See LIN 210 for description

**Department:** Linguistics  
**Course:** LIN 425  
**Title:** Intro To Semantics Analysis  
**Cross-listed:** LIN 225  
**Instructor:** Gunlogson, C **Class Size:** 30  
**Description:** See LIN 225 Description

**Department:** Linguistics  
**Course:** LIN 426  
**Title:** Morphology  
**Cross-listed:** LIN 226  
**Instructor:** Paauw, S **Class Size:** 30  
**Description:** Please see LIN226 for the course description.

## Mathematics

**Department:** Mathematics  
**Course:** MTH 140A  
**Title:** Calculus With Foundations  
**Exams:** Two or three hourly exams and weekly quizzes.  
**Description:** A two-semester course integrating the learning of calculus with precalculus mathematics. It is intended for students who lack the algebra and trigonometry skills necessary to perform successfully in MTH 141. When followed by MTH 141A, MTH 140A and

MTH 141A together will cover all the material in MTH 141, together with a thorough presentation of the standard 'precalculus' material. When taken alone, MTH 140A covers, in addition to precalculus material, the theory and techniques of differential calculus, but no material on the integral calculus.

**Department:** Mathematics  
**Course:** MTH 141  
**Title:** Calculus I  
**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 142  
**Title:** Calculus II  
**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 transcendental functions, improper integrals and the use of l'Hopital's rule.

**Department:** Mathematics  
**Course:** MTH 143  
**Title:** Calculus III  
**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 150A  
**Title:** Discrete Math Module for 171Q  
**Restrictions:** Permission of instructor required  
**Exams:** Final exam  
**Coursework:** WeBWork and online notes. Students may attend any lectures, recitations, or office hours available to MTH 150 students, but it is entirely optional for them to do so. (See MTH 150 for course time.) Grading will be Pass/Fail only.

**Description:** Passing the course will grant a waiver to the MTH 150 requirement for the Computer Science program, but does not fulfill any other requirements that MTH 150 might fulfill.

**Department:** Mathematics  
**Course:** MTH 161  
**Title:** Calculus IA  
**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 161Q  
**Title:** Quest Calculus IA  
**Prerequisites:** None.  
**Coursework:** Homework includes more challenging and occasionally more theoretical problems.

**Description:** This is the first semester of the Quest version of MTH 161-162 which places emphasis on understanding concepts as well as on learning techniques. Students contemplating majoring in mathematics as well as others desiring a strong foundation in calculus are encouraged to take this course or the honors sequence. 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 that 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, providing guarantees that the techniques always work. Topics covered: 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.

**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 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  
**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 Algebra with Differential Equations  
**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 171Q  
**Title:** Honors Calculus I  
**Exams:** Hourly exams and a final.  
**Description:** Students with strong mathematical ability should consider taking this sequence, which is an honors calculus sequence for talented students interested in mathematics. These courses teach calculus as an interesting subject in its own right and places an emphasis on theoretical understanding, as well as on mastering technical

skills. Students completing this sequence successfully will earn 20 credits (5 credits per semester) and will have covered the material in MTH235. In addition it is possible to receive 4 credits for AP courses. Students completing the sequence will have completed all of the foundation requirements for a major or minor in mathematics. It is possible to switch from MTH171 sequence to the MTH161 sequence anytime in the first year without much trouble. It would be unusual to transfer from the MTH161 sequence to the MTH171 sequence.

**Department:** Mathematics  
**Course:** MTH 173Q  
**Title:** Honors Calculus III  
**Prerequisites:** MTH 162  
**Description:** Elementary methods; linear equations of first order; linear equations and systems of higher order with constant coefficients. Oscillation theorems. Solutions in series, special functions; the Laplace transforms, existence and uniqueness theorems.

**Department:** Mathematics  
**Course:** MTH 190  
**Title:** Topics in Problem Solving  
**Prerequisites:** None  
**Description:** This course is intended for students interested in developing problem solving skills in Mathematics. This course will also prepare the students for college-level mathematical competitions (e.g. Putnam).

**Department:** Mathematics  
**Course:** MTH 201  
**Title:** Introduction to Probability  
**Prerequisites:** MTH 162 or equivalent, MTH 164 recommended. Same as STT 201.  
**Description:** This course is an introduction to probability theory. The following topics are discussed: probability spaces; combinatorial problems; random variables and expectations; discrete and continuous distributions; generating functions; independence and dependence; binomial, normal, and Poisson laws; laws of large numbers. Required by Electrical and Computer Engineering majors.

**Department:** Mathematics  
**Course:** MTH 208  
**Title:** Operation Research  
**Description:** This course is an introduction to operations research. The following topics are discussed: linear programming, simplex method, duality theory, sensitivity analysis, transportation

problem, assignment problem, Karmakar's algorithm, genetic algorithms, game theory, networks.

**Department:** Mathematics  
**Course:** MTH 210  
**Title:** Introduction to Financial Mathematics  
**Prerequisites:** MTH 201 or ECO 230  
**Description:** An introduction to some of the mathematical concepts and techniques underlying finance theory. The main financial applications will be to arbitrage pricing theory and option pricing.

**Department:** Mathematics  
**Course:** MTH 218  
**Title:** Introduction to Mathematical Models in Social & Life Sciences  
**Instructor:**  
**Description:** MTH 218 and MTH 219 are aimed building problem solving ability in students through the development of mathematical models for certain real-life situations in the social and biological sciences. MTH 218 concentrates on axiomatic models and those involving autonomous systems of differential equations. Topics are selected from biology and political science, including voting theory and Arrow's Theorem. A student who takes both semesters will have the exposure to three basic sorts of models: deterministic (differential equations); probability; axiomatic.

**Department:** Mathematics  
**Course:** MTH 230  
**Title:** Number Theory w/Applications  
**Description:** The theory of numbers is a broad subject with many connections to other parts of mathematics as well as to computer science, physics, and cryptography. It is the study of the properties of the natural numbers. Partial list of topics to be covered: Divisibility theory and Euclid's algorithm, the theory of congruences, The distribution of prime numbers, primitive roots, the law of quadratic reciprocity, sums of squares, factoring and primality testing, public key cryptosystems.

**Department:** Mathematics  
**Course:** MTH 235  
**Title:** Linear Algebra  
**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  $\mathbb{R}$  (real numbers) and  $\mathbb{C}$  (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 237  
**Title:** Intro to Algebra II  
**Prerequisites:** MTH 236  
**Description:** MTH 237 is a continuation of MTH 236, group theory. Topics include commutative rings, principal ideal domains, and algebraic extension fields. Any one considering graduate work in mathematics should know this material. If time permits, the course will give proofs using field theory of the unsolvability of the classical problems of "trisecting angles", "doubling the cube", "squaring the circle", and "solving 5th degree polynomials".

**Department:** Mathematics  
**Course:** MTH 246  
**Title:** Set Theory and Logic  
**Description:** This course provides an introduction to the essential concepts of set theory and logic. Among the topics covered are sets, relations, equivalence, order, cardinal and ordinal arithmetic, the axiom of choice, continuum hypothesis, propositional calculus and the consistency and completeness of axiomatic systems.

**Department:** Mathematics  
**Course:** MTH 255  
**Title:** Differential Geometry I  
**Prerequisites:** MTH 164 and MTH 235, or MTH 174  
**Description:** This course builds on MTH 164 to describe calculus on curves, surfaces, and higher-dimensional manifolds. It provides useful tools for theoretical physics (in particular relativity theory) and the theory of hydrodynamics. It is also a useful basis for computer graphics. Topics covered include inverse and implicit function theorems; submanifolds of Euclidean spaces in nonparametric, parametric and implicit forms; differential forms and calculus on manifolds.

**Department:** Mathematics  
**Course:** MTH 263  
**Title:** Ordinary Differential Equations II  
**Prerequisites:** MTH 163 or MTH 173 and MTH 235, or consent of the instructor.  
**Description:** Differential equations arise in many situations where one wishes to make a mathematical model. Mostly, the equation cannot be solved a la MTH163. This course develops some of the methods used to extract "qualitative" information about the behavior of

solutions. It draws on linear algebra to a great degree and may help motivate some of the features of that subject.

**Department:** Mathematics  
**Course:** MTH 265  
**Title:** Functions of a Real Variable I  
**Prerequisites:** MTH 163 and MTH 164 or 174, or equivalent.  
**Description:** This course will provide a rigorous introduction to the study of functions of a real variable. Topics include uniform continuity, mean value theorems, convergence theorems, and integration. Students will be expected to prove theorems and give mathematically rigorous arguments.

**Department:** Mathematics  
**Course:** MTH 265H  
**Title:** Functions of a Real Variable I (Honors)  
**Prerequisites:** MTH 163 or MTH 164 or MTH 174.  
**Description:** Honors version of MTH 265.

**Department:** Mathematics  
**Course:** MTH 280  
**Title:** Introduction to Numerical Analysis  
**Cross-listed:** STT 280  
**Prerequisites:** MTH 162 or equivalent  
**Description:** The numerical solution to mathematical problems by computer. Linear systems, approximation, integration, and differential equations. Floating point arithmetic and consequent pitfalls of computation.

**Department:** Mathematics  
**Course:** MTH 281  
**Title:** Introduction to Fourier Analysis  
**Cross-listed:** ME 201  
**Prerequisites:** (MTH 163 or MTH 173) and (MTH 164 or MTH 174). Equivalent to ME 201.  
**Description:** Fourier Series and convergent theorems. Orthogonal polynomials. Applications to partial differential equations. Fourier transforms.

**Department:** Mathematics  
**Course:** MTH 436  
**Title:** Algebra I  
**Prerequisites:** MTH 237  
**Restrictions:** Permission of instructor required for undergraduates  
**Description:** Rings and modules, group theory, Galois theory.

**Department:** Mathematics  
**Course:** MTH 440

**Title:** General Topology I  
**Prerequisites:** MTH 265  
**Restrictions:** Permission of instructor required for undergraduates  
**Description:** Continuity. Compactness, connectedness, metrizability. Product spaces.

**Department:** Mathematics  
**Course:** MTH 453  
**Title:** Differentiable Manifolds  
**Prerequisites:** MTH 266 or equivalent  
**Restrictions:** Permission of instructor required for undergraduates  
**Description:** An introduction to the theory of differentiable manifolds. Manifolds and submanifolds, tangent spaces and bundles, vector and sphere bundles, vector fields, differential forms, tensors, and homogeneous spaces.

**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  $L_p$  and  $C$ .

**Department:** Mathematics  
**Course:** MTH 472  
**Title:** Functional Analysis I  
**Prerequisites:** MTH 471  
**Restrictions:** Permission of instructor required for undergraduates  
**Description:** Banach spaces. Dual spaces. Riesz theorem. Hilbert space. Fourier series. Projective and unitary operators. Spectral analysis of completely continuous self-adjoint operators. Applications.

## Modern Languages & Cultures -- Chinese

**Department:** Modern Languages & Cultures -- Chinese  
**Course:** CHI 101  
**Title:** Elementary Chinese I  
**Instructor:** Yu, S., Pian, P.  
**Description:** This 6-credit course is designed for beginners of Chinese. It introduces to students the sounds, basic sentence structures and the writing system of Mandarin Chinese. Pinyin, the phonetic translation system is taught and required throughout the course. Emphasis will be on developing listening and speaking skills as

well as building a vocabulary based on 400 ideographic characters. Course work includes 3 weekly recitation sessions.

**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 151  
**Title:** Intermediate Chinese I  
**Instructor:** Yu, S. **Class Size:** 20  
**Prerequisites:** CHI 102 or permission of instructor, 800 characters.  
**Description:** This 6 credit course is the continuation of CHI 102. Knowledge of the Pinyin system is required for the purpose of pronunciation. The course continues to focus on developing communicating skills with an increasing emphasis on reading and writing in ideographic characters and expanding vocabulary. Course work includes 3 weekly recitation sessions. It aims to build a vocabulary based on 1200 characters.

**Department:** Modern Languages & Cultures -- Chinese  
**Course:** CHI 202  
**Title:** Advanced Intermediate Chinese  
**Instructor:** Yu, S.  
**Prerequisites:** CHI 152 or equivalent, 1600 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.

**Department:** Modern Languages & Cultures -- Chinese  
**Course:** CHI 232  
**Title:** Asian Calligraphy: Structure  
**Cross-listed:** JPN 232  
**Instructor:** Spence, Y. **Class Size:** 20  
**Description:** Please see JPN 232 for the course description.

## Modern Languages & Cultures - Comparative Literature

**Department:** Modern Languages & Cultures - Comparative Literature

**Course:** CLT 101D  
**Title:** Mexico, DF: Global Metropolis  
**Cross-listed:** SP 277  
**Instructor:** Rodriguez, R.  
**Description:** Called by some "the capital of the 21st century," Greater Mexico City is inhabited by close to 20 million people. The Distrito Federal (DF) and capital of Mexico is today the largest metropolitan area in the western hemisphere and third largest city in the world by population. Established by the Spanish in 1524 on the ruins of the Aztec city Tenochtitlan they destroyed, Mexico City is a global center of finance, culture, and industry. This course examines the development of this vibrant megalopolis over the 20th and 21st centuries using literature, film, politics, tourism, music and the arts, cultural geography, architectural space, and essays by urban wanderers to try and get a handle on a space that seems to contradict itself at every turn.

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 101I  
**Title:** Cowboys and Indians  
**Cross-listed:** GER 209  
**Instructor:** Hwang, J.  
**Description:** For Course description see GER 209

**Department:** Modern Languages & Cultures -- Comparative Literature  
**Course:** CLT 116Q  
**Title:** Dante's Divine Comedy I, Inferno and Purgatorio  
**Cross-listed:** IT 195Q, 220/REL 197Q, 285/CLT 253C/ENG  
**Instructor:** Stocchi-Perucchio, D.  
**Description:** See IT 220 for the course description.

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 207B  
**Title:** In Arezzo - Italy: A Cultural Mosaic in an Intercultural Context  
**Cross-listed:** IT 276, IT 228  
**Instructor:** Aviam, M., Cseri-Briones, P., Gross, K., Siniscalco, F., Stocchi-Perucchio, D.  
**Description:** Please see IT 276 for the course description.

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 207C  
**Title:** Modern Italy 1815 - 1948  
**Cross-listed:** IT 228/HIS 228  
**Instructor:** Conti, G.  
**Description:** Please see IT 228 for the course description.

**Department:** Modern Languages & Cultures - Comparative Literature

<b>Course:</b>	CLT 208a				class discussions, weekly WebCt film journal, and three take-home exams.
<b>Title:</b>	Traditional Japanese Culture				
<b>Cross-listed:</b>	JPN 210/210W, CLT 408A, AH 231, HIS 297				
<b>Instructor:</b>	Pollack, D.				
<b>Description:</b>	For course description see JPN 210				
<b>Department:</b>	Modern Languages & Cultures - Comparative Literature			<b>Department:</b>	Modern Languages & Cultures - Comparative Literature
<b>Course:</b>	CLT 211D			<b>Course:</b>	CLT 243
<b>Title:</b>	Contemporary French Film			<b>Title:</b>	Wizards, Magic, and Fantasy
<b>Cross-listed:</b>	FR 283/483/CLT 411D/FMS 276			<b>Cross-listed:</b>	GER 232, WST 232
<b>Instructor:</b>	Willis, S.			<b>Instructor:</b>	Gustafson, S.
<b>Description:</b>	Please see Art History 283 for the course description.			<b>Description:</b>	For course description see GER 232
<b>Department:</b>	Modern Languages & Cultures - Comparative Literature			<b>Department:</b>	Modern Languages & Cultures -- Comparative Literature
<b>Course:</b>	CLT 212I			<b>Course:</b>	CLT 251
<b>Title:</b>	Cinema and Revolution: The West German Avant-garde			<b>Title:</b>	The Novel in Europe: 1814-1848
<b>Cross-listed:</b>	GER 283/483, CLT 412I, FMS 288			<b>Cross-listed:</b>	FR 235/435, CLT 451, IT 249
<b>Instructor:</b>	Creech, J.			<b>Instructor:</b>	Doran, Robert
<b>Description:</b>	Please see GER 283 for Course Description			<b>Description:</b>	For Course Description see FR 235
<b>Department:</b>	Modern Languages & Cultures - Comparative Literature			<b>Department:</b>	Modern Languages & Cultures -- Comparative Literature
<b>Course:</b>	CLT 213B			<b>Course:</b>	CLT 253C
<b>Title:</b>	Our Voyage to Italy			<b>Title:</b>	Dante's Divine Comedy I
<b>Cross-listed:</b>	IT 248, FMS 256A, CLT 213B, HIS 221			<b>Cross-listed:</b>	CLT 253c,ENG 206,IT 220,REL 197q/285
<b>Instructor:</b>	Stocchi-Perucchio, D.			<b>Instructor:</b>	Stocchi-Perucchio, D.
<b>Description:</b>	For course description see IT 248			<b>Description:</b>	Please see IT 220 for the course description.
<b>Department:</b>	Modern Languages & Cultures -- Comparative Literature			<b>Department:</b>	Modern Languages & Cultures - Comparative Literature
<b>Course:</b>	CLT 214A			<b>Course:</b>	CLT 255D
<b>Title:</b>	History of Japanese Cinema			<b>Title:</b>	Dostoevsky
<b>Cross-listed:</b>	CLT 414A, JPN 283/283W, FMS 297			<b>Cross-listed:</b>	RST 191Q, RUS 191Q, RUS 237/237W, RST 23
<b>Instructor:</b>	Bernardi, J.			<b>Instructor:</b>	Givens, J.
<b>Description:</b>	See JPN 283 for the course description.			<b>Description:</b>	See RUS 191Q for course description
<b>Department:</b>	Modern Languages & Cultures - Comparative Literature			<b>Department:</b>	Modern Languages & Cultures -- Comparative Literature
<b>Course:</b>	CLT 218			<b>Course:</b>	CLT 257A
<b>Title:</b>	Film History - 1929 - 1959			<b>Title:</b>	The Arabian Nights
<b>Cross-listed:</b>	ENG 256/456, AH 253, CLT 218, FMS 234			<b>Cross-listed:</b>	REL 148/ARA 148
<b>Instructor:</b>	Willis, S.			<b>Instructor:</b>	Beaumont, D.
<b>Description:</b>	This course will explore the developments in world cinema - industrial, technological, social and political - in the second half of the sound period (1959 to the present). What brought about the collapse of the Hollywood studio system? What's new about the French New Wave? What do we mean by "Third Cinema"? How do different national cinemas influence each other? Requirements: mandatory weekly screenings, participation in			<b>Description:</b>	See ARA 148 for the course description.
				<b>Department:</b>	Modern Languages & Cultures -- Comparative Literature
				<b>Course:</b>	CLT 265C
				<b>Title:</b>	Dangerous Texts: Literature and Politics in Russia
				<b>Cross-listed:</b>	RUS 289/289W, RST 289/289W, HIS 243/243W
				<b>Instructor:</b>	Parthe, K.
				<b>Description:</b>	For course description see RUS 289
				<b>Department:</b>	Modern Languages & Cultures - Comparative Literature
				<b>Course:</b>	CLT 266

**Title:** Napoleon: Image, Myth, History  
**Cross-listed:** FR 249, CLT 466, HIS 224, FMS 221, AH 24  
**Instructor:** Doran, Robert  
**Description:** For course description see FR 249

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 267  
**Title:** Traditions in Japanese Art  
**Cross-listed:** JPN 208, AH 208  
**Instructor:** Pollack, D.  
**Description:** For Course description see JPN 208

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 281B  
**Title:** Psychoanalysis and Literature  
**Cross-listed:** FR 275/475, CLT 481B  
**Instructor:** DiPiero, T.  
**Description:** For course description see FR 275

**Department:** Modern Languages & Cultures -- Comparative Literature  
**Course:** CLT 282A  
**Title:** Marx and Marxism  
**Cross-listed:** CLT 482A, GER 204/404  
**Instructor:** Creech, J.  
**Description:** Please see GER 204 for the course description.

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 287  
**Title:** Studies in Translation  
**Cross-listed:** ENG 287/487, LTS 200, CLT 487  
**Instructor:** schaeffer,c  
**Description:** See "ENG 287" for description

**Department:** Modern Languages & Cultures -- Comparative Literature  
**Course:** CLT 393  
**Title:** Senior Project  
**Instructor:** Gustafson, S.

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 408A  
**Title:** Traditional Japanese Culture  
**Cross-listed:** JPN 210/210W, CLT 208A, AH 231, HIS 297  
**Instructor:** Pollack, D.  
**Description:** For course description see JPN 210

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 411D

**Title:** Contemporary French Film  
**Cross-listed:** FR 283/483, CLT 211D/411D, FMS 276  
**Instructor:** Willis, S.  
**Description:** For course description see AH 283

**Department:** Modern Languages & Cultures - Compative Literature  
**Course:** CLT 412I  
**Title:** Cinema and Revolution: The West German Avant-garde  
**Cross-listed:** GER 283/483, CLT 212I, FMS 288  
**Instructor:** Creech, J.  
**Description:** Please see GER 283 for Course Description.

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 414A  
**Title:** History of Japanese Cinema  
**Cross-listed:** JPN 283, CLT 214A/414A, FMS 297  
**Instructor:** Bernardi, J.  
**Description:** Please see JPN 283 for Course Description.

**Department:** Modern Languages & Cultures -- Comparative Literature  
**Course:** CLT 451  
**Title:** The Novel in Europe: 1814-1848  
**Cross-listed:** FR 235/435, CLT 251  
**Instructor:** Doran, Robert  
**Description:** For Course description see FR 235

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 462  
**Title:** Walking on Your Head Writing Vertigo in German Literature and Philosophy  
**Cross-listed:** GER 246/446, CLT 262C  
**Instructor:** Peck, J.  
**Description:** See description for GER 246

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 466  
**Title:** Napoleon: Image, Myth, History  
**Cross-listed:** FR 249, CLT 266/466, HIS 224, AH 249  
**Instructor:** Doran, Robert  
**Description:** For course description see FR 249

**Department:** Modern Languages & Cultures - Comparative Literature  
**Course:** CLT 481B  
**Title:** Psychoanalysis and Literature  
**Cross-listed:** FR 275/475, CLT 281B  
**Instructor:** DiPiero, T.



<b>Description:</b>	For course description see FR 275
<b>Department:</b>	Modern Languages & Cultures -- Comparative Literature
<b>Course:</b>	CLT 482A
<b>Title:</b>	Marx and Marxism
<b>Cross-listed:</b>	CLT 282A, GER 204/404
<b>Instructor:</b>	Creech, J.
<b>Description:</b>	See description for GER 205.
<b>Department:</b>	Modern Languages & Cultures - Comparative Literature
<b>Course:</b>	CLT 487
<b>Title:</b>	Studies in Literary Translation
<b>Cross-listed:</b>	LTS 200, ENG 287/487, CLT 287
<b>Instructor:</b>	Schaefer, C
<b>Description:</b>	For Course Description See LTS 200
<b>Department:</b>	Modern Languages & Cultures - Comparative Literature
<b>Course:</b>	CLT 592
<b>Title:</b>	Languages Learning and Teaching
<b>Description:</b>	This course treats of the theory and practice of second language learning and teaching. Students are responsible for in-class discussions of theoretical questions and classroom applications. Grade is based on class participation, a brief oral presentation and written reports on visits to foreign language classes.

## Modern Languages & Cultures -- French

<b>Department:</b>	Modern Languages & Cultures -- French
<b>Course:</b>	FR 101
<b>Title:</b>	Elementary French I
<b>Exams:</b>	Occasional quizzes, final exam
<b>Description:</b>	French 101 is an introductory language course. Students learn fundamentals of the grammar, culture, and pronunciation of the French language. Emphasis is on developing communicating skills, principally speaking but including listening, reading and writing. There is an obligatory recitation section twice a week in addition to the main class and the work in the multimedia center.
<b>Department:</b>	Modern Languages & Cultures -- French
<b>Course:</b>	FR 151
<b>Title:</b>	Intermediate French I
<b>Instructor:</b>	Douchin, A.
<b>Prerequisites:</b>	ETS score of 500 or permission of instructor
<b>Exams:</b>	Quizzes, compositions, hour exams
<b>Description:</b>	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.

<b>Department:</b>	Modern Languages & Cultures -- French
<b>Course:</b>	FR 152
<b>Title:</b>	Intermediate French II
<b>Instructor:</b>	Douchin, A.
<b>Prerequisites:</b>	FR 151, or ETS score of 550
<b>Exams:</b>	Quizzes, compositions, final exam
<b>Description:</b>	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.
<b>Department:</b>	Modern Languages & Cultures -- French
<b>Course:</b>	FR 155
<b>Title:</b>	French Conversation and Composition
<b>Description:</b>	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.
<b>Department:</b>	Modern Languages & Cultures -- French
<b>Course:</b>	FR 200
<b>Title:</b>	Advanced French I
<b>Prerequisites:</b>	FR 152 or equivalent
<b>Description:</b>	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.
<b>Department:</b>	Modern Languages & Cultures -- French
<b>Course:</b>	FR 204
<b>Title:</b>	Contemporary French Culture
<b>Cross-listed:</b>	FR 404
<b>Instructor:</b>	Kemedjio, C.
<b>Prerequisites:</b>	FR 114, 200 or permission of instructor.
<b>Description:</b>	This course is designed to provide students with a comprehensive view of French Contemporary culture through major trends of French cultural, political, and intellectual life in the recent years. While we cannot study factual representations of French culture, we will attempt to establish a conceptual framework that would help us in the understanding of complex questions such as; What does it mean to be French?, What is France? What is French culture?, etc.
<b>Department:</b>	Modern Languages & Cultures -- French

**Course:** FR 235  
**Title:** The Novel in Europe: 1814-1848  
**Cross-listed:** FR 435, IT 249, CLT 251/451  
**Instructor:** Doran, Robert  
**Description:** This course studies the emergence of historical fiction and realism in the first half of the nineteenth century as a European-wide phenomenon. Through the study of four seminal novels-- Scott's Waverly (1814), Manzoni's The Betrothed (1822/1840), Stendhal's The Red and the Black (1830), and Balzac's Lost Illusions (1837-1843)--we will examine how literary representation as epitomized in the novel coincided with the rise of the bourgeois class as political, social, and economic force. Concepts discussed: Bildungsroman (roman d' apprentissage), mimesis, figuralism, historical consciousness, style, narration. Critical readings include texts by Erich Auerbach, Georg Lukacs, Ren  Girard, Franco Moretti, Fredric Jameson, and Hayden White.

**Department:** Modern Languages & Cultures -- French  
**Course:** FR 249  
**Title:** Napoleon: Image, Myth, History  
**Cross-listed:** CLT 266/466, HIS 224, FMS 221, AH 249  
**Instructor:** Doran, Robert  
**Description:** With the exception of Jesus Christ, no historical personage has been more written about, or been the subject of more iconic portrayals, than Napoleon Bonaparte. This course examines the image of Napoleon at the intersection of myth and history, for Napoleon attempts to write his own history as myth. Literary accounts of Bourienne, Chateaubriand, Stendhal, Hugo, Dumas, Tolstoy, and Scott. Pictorial representations by David, Gros, G ricault. Abel Gance's classic silent epic Napoleon (1927), Guitry's Napoleon (1955), as well as other cinematic treatments. Modern historical treatments by Cole, Englund, Bell. Conducted in English.

**Department:** Modern Languages & Cultures -- French  
**Course:** FR 275  
**Title:** Psychoanalysis and Literature  
**Cross-listed:** FR 275, CLT 281B/481B  
**Instructor:** DiPiero, T.  
**Description:** How does literature "think," and what sorts of things does it think about? How do we decide what it means, and why are so many literary texts about love, death, and/or people finding out about who they are? Reading literature with the aid of psychoanalytic theory, we will discuss the formation of subjectivity, perspective, the gaze, and love and death, and we will investigate how art and literature can communicate things that no other form of language

can. We will read works by Henry James, Edgar Allan Poe, Jean-Paul Sartre, Julia Kristeva, Sigmund Freud, Jacques Lacan, and Slavoj Zizek, among others.

**Department:** Modern Languages & Cultures -- French  
**Course:** FR 283  
**Title:** Contemporary French Film  
**Cross-listed:** FR 283, AH 283/483, FMS 276, CLT 211D/41  
**Instructor:** Willis, S.  
**Description:** For course description see AH 283

**Department:** Modern Languages & Cultures -- French  
**Course:** FR 286  
**Title:** Growing Up In French  
**Instructor:** Kemedjio, C.  
**Description:** What does it mean to grow up in French without being French? What is the price to pay for children confronting a language and culture that are alien but necessary for any social mobility? How is French (language and culture) transformed by bilingual cultural contexts and subjects? This course explores autobiographical novels and stories by Francophone authors growing up in a context dominated by the French language and culture. Taught in French.

**Department:** Modern Languages & Cultures -- French  
**Course:** FR 404  
**Title:** Contemporary French Culture  
**Cross-listed:** FR 204  
**Instructor:** Kemedjio, C.  
**Description:** Please see FR 204 for course description

**Department:** Modern Languages & Cultures -- French  
**Course:** FR 435  
**Title:** The Novel in Europe: 1814-1848  
**Cross-listed:** FR 235, CLT 251/451, IT 249  
**Instructor:** Doran, Robert  
**Description:** For Course description see FR 235

**Department:** Modern Languages & Cultures -- French  
**Course:** FR 475  
**Title:** Psychoanalysis and Literature  
**Cross-listed:** FR 275, CLT 281B/481B  
**Instructor:** DiPiero, T.  
**Description:** For course description see FR 275

**Department:** Modern Languages & Cultures -- French  
**Course:** FR 483

**Title:** Contemporary French Film  
**Cross-listed:** FR 283/483, CLT 211D/411D, FMS 276  
**Instructor:** Willis, S.  
**Description:** For course description see AH 283

## Modern Languages & Cultures -- German

**Department:** Modern Languages & Cultures -- German  
**Course:** GER 101  
**Title:** Elementary German I  
**Instructor:** Kuzmich, A.,  
**Exams:** At least 4 quizzes; midterm; final exam  
**Description:** This is the first semester 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 151  
**Title:** Intermediate German I **Class Size:** 15  
**Instructor:** Peck, J  
**Prerequisites:** GER 102 or permission of instructor  
**Exams:** 4-5 quizzes, final exam  
**Description:** Process writing, reading, and listening exercises provide the context in this course for a thorough review of German grammatical structures. Students are expected to write short, weekly essays, complete weekly assignments in listening, and hone their speaking skills through active class participation.

**Department:** Modern Languages & Cultures -- German  
**Course:** GER 200  
**Title:** Advanced Conversation and Composition  
**Cross-listed:** GER 200W  
**Instructor:** Hwang, J. **Class Size:** 25  
**Prerequisites:** GER 152 or equivalent  
**Exams:** Midterm and final  
**Description:** This class assumes enough knowledge of the German language for reading somewhat longer fictional and nonfictional texts and viewing films in the original. The class is organized around general topics and themes. Students will write short, weekly essays in German on select topics. Class taught in German.

**Department:** Modern Languages & Cultures -- German

**Course:** GER 200W  
**Title:** Advanced Conversation and Composition  
**Cross-listed:** GER 200  
**Instructor:** Creech, J.  
**Description:** For course description see GER 200

**Department:** Modern Languages & Cultures -- German  
**Course:** GER 203  
**Title:** Introduction to German Literature  
**Cross-listed:** GER 203W  
**Instructor:** Gustafson, S.  
**Prerequisites:** GER 152 or equivalent  
**Description:** Everything you ever wanted to know about German literature but were afraid to ask. This course looks at German poems, plays and novellas from various historical periods and within the context of several techniques of interpretation. It is designed to prepare students for sophisticated analysis of literary texts. This course is taught in German.

**Department:** Modern Languages & Cultures -- German  
**Course:** GER 203W  
**Title:** Introduction to German Literature  
**Cross-listed:** Ger 203W  
**Instructor:** Gustafson, S  
**Description:** See GER 203 for Course Description

**Department:** Modern Languages & Cultures -- German  
**Course:** GER 204  
**Title:** Marx & Marxism  
**Cross-listed:** GER 404/CLT 282A, 482A  
**Instructor:** Creech, J.  
**Description:** It is not overstated to say that the works of Karl Marx have provided the transformational impulse to many of the changes of the 20th century. Who was this person, Karl Marx? Why is it that in this post-Cold War world his writings continue both to inspire and threaten contemporary readers? How have those inspired by Marx further developed his ideas to constitute the discourse of Marxism? In this course we will begin with discussions of key works by Marx. We will then move on to examine some significant contributions to Marxism.

**Department:** Modern Languages & Cultures -- German  
**Course:** GER 209  
**Title:** Cowboys and Indians  
**Cross-listed:** CLT 101I  
**Instructor:** Hwang, J.

**Description:** What makes a Western a Western? Is it cowboys and Indians and vistas of the American West? Is it a Western if tough guy Clint Eastwood stars in a film by an Italian director shot in Spain? Or if a German who had never been to the United States writes about the heroic Indian Winnetou and the film versions of the novels are shot in Eastern Europe? This will explore the myth of the American West in film and literature, including Westerns from Germany, Asia, and of course, the US. Texts and discussions will be in English.

**Department:** Modern Languages & Cultures - German  
**Course:** GER 232  
**Title:** Wizards, Magic, and Fantasy  
**Cross-listed:** CLT 243, WST 232  
**Instructor:** Gustafson, S.  
**Description:** This course traces the development of the fantasy literature genre from ETA Hoffmann's The Golden Pot to JK Rowling's Harry Potter series. Particular attention is devoted to the tropes and structures of fantasy narratives as they offer the reader an escape from a mundane or threatening world and provide intricate social critiques. Topics addressed include: wizards, witches, talking cats, flights of fantasy, new worlds, and social construction of work, class, others, families, mothers, fathers, masculinity, femininity etc. Authors include: Hoffmann, Rowling, Shelley, Orwell, Tolkien, Kafka, Atwood, etc.

**Department:** Modern Languages & Cultures - German  
**Course:** GER 283  
**Title:** Cinema and Revolution: The West German Avant-garde  
**Cross-listed:** GER 483, CLT 212I/412I, FMS 288  
**Instructor:** Creech, J.  
**Description:** Dissent, violence, terror. This course will explore the relationship between film and revolution in West German cinema from 1965 to the present. In the course, we will consider cinema's potential as a revolutionary medium, while also focusing on how revolution is thematized and constructed in both fiction and documentary films. The course will engage with issues such as coming to terms with the fascist past, recreating the cinema as a revolutionary artistic form, feminism as a revolutionary perspective, the domestic sphere as a revolutionary space, and the co-optation of the cinema's revolutionary potential through mass consumption. Each film will be explored in relation to its socio-historical context, providing students with an overview of German film and culture of the period.

**Department:** Modern Languages & Cultures -- German  
**Course:** GER 404

**Title:** Marx & Marxism  
**Cross-listed:** GER 204, CLT 282A/482A  
**Instructor:** Creech, J.  
**Description:** For course description see GER 204

**Department:** Modern Languages & Cultures -- German  
**Course:** Ger 406  
**Title:** Freud and Psychoanalysis  
**Cross-listed:** CLT 282/482, GER 206/WST 274  
**Instructor:** Gustafson, S.  
**Description:** Please see GER 206 for course description.

**Department:** Modern Languages & Cultures - German  
**Course:** GER 483  
**Title:** Cinema and Revolution: The West German Avant-garde  
**Cross-listed:** GER 283, CLT 212I/412I, FMS 288  
**Instructor:** Creech, J.  
**Description:** Please see GER 283 for Course Description.

## Modern Languages & Cultures -- Italian

**Department:** Modern Languages & Cultures -- Italian  
**Course:** IT 101  
**Title:** Elementary Italian I  
**Instructor:** O'Keefe, L.  
**Exams:** Four quizzes, four exams, final  
**Description:** 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 111  
**Title:** In Arezzo - Elementary Italian  
**Instructor:** Convertito, G  
**Exams:** Five quizzes  
**Coursework:** One final 1-2 page written report in Italian  
**Description:** The course offers both an intensive training in communication skills and an introduction to basic Italian grammar. The first component serves the purpose of facilitating students' experience of full immersion in Italian language and culture. Emphasis is

mainly on speaking and comprehension. Language training is geared toward the practical needs of everyday life. The second component teaches how the language works in terms of grammatical structures and linguistic principles. Its objective is the achievement of correctness in both speaking and writing.

<b>Department:</b>	Modern Languages & Cultures -- Italian	
<b>Course:</b>	IT 114	
<b>Title:</b>	Conversational Italian (2 credits)	
<b>Instructor:</b>	Mariuz, S.	<b>Class Size:</b> 15
<b>Prerequisites:</b>	At least one semester of College Italian or equivalent, with permission of the instructor.	
<b>Description:</b>	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.	
<b>Department:</b>	Modern Languages & Cultures -- Italian	
<b>Course:</b>	IT 150	
<b>Title:</b>	Culture in Context	
<b>Instructor:</b>	Donatella Stocchi-Perucchio	
<b>Description:</b>	This component of the program offers a unique hands-on cultural experience within the city of Arezzo, its surrounding territory, and its community. It brings U of R students in direct contact with Arezzo city life and traditions, and takes advantage of developments on the local scene as they arise. It promotes student' involvement in a wide range of events and activities such as learning about medieval jousting, reading in Eng to young children at Santa Caterina Boarding School, conversation practice with local university students, participating in international workshops in Peace Studies. Other activities include visits and excursions to industrial and agricultural sites to foster understanding of the Aretine industrial and agricultural economy- such as the manufacturing of gold, design clothing, and furniture as well as the production of wine and olive oil.	
<b>Department:</b>	Modern Languages & Cultures -- Italian	
<b>Course:</b>	IT 151	
<b>Title:</b>	Intermediate Italian I	
<b>Instructor:</b>	O'Keefe, L.	<b>Class Size:</b> 15
<b>Prerequisites:</b>	Two semesters of college-level Italian.	
<b>Exams:</b>	Seven exams, one final paper	

<b>Coursework:</b>	Daily oral and written preparation for class.
<b>Description:</b>	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, through compositions, and discussion include literature, history, and popular culture.
<b>Department:</b>	Modern Languages & Cultures - Italian
<b>Course:</b>	IT 153
<b>Title:</b>	In Arezzo - Accelerated Italian
<b>Instructor:</b>	Convertito, G.
<b>Restrictions:</b>	Not open to freshmen and sophomores
<b>Coursework:</b>	Three 200 word reports to be presented in class. Three quizzes.
<b>Description:</b>	The course will enhance comprehension and communication skills as well as knowledge of Italian grammar. Emphasis is on reading, vocabulary building, and perfecting oral and written skills. In addition to the above courses, all students participate in frequent afternoon cultural/language activities, which involves visits to important sites such as the University, the Comune (city hall), and the Duomo (cathedral). Students also enjoy studying the economic backbone of Arezzo which includes, among other things, the production of gold, wine, olive oil, and clothing. All of these outings will be framed in both historical and contemporary contexts.
<b>Department:</b>	Modern Languages & Cultures -- Italian
<b>Course:</b>	IT 195Q
<b>Title:</b>	Dante's Divine Comedy I, Inferno and Purgatorio
<b>Cross-listed:</b>	CLT 116Q, 253C/ENG 206/IT 220/REL 197Q/2
<b>Instructor:</b>	Stocchi-Perucchio, D.
<b>Description:</b>	Please see IT 220 for the course description.
<b>Department:</b>	Modern Languages & Cultures -- Italian
<b>Course:</b>	IT 220
<b>Title:</b>	Dante's Divine Comedy I, Inferno & Purgatorio
<b>Cross-listed:</b>	CLT 116Q, 253C/ENG 206/IT 195Q/REL 197Q,
<b>Instructor:</b>	Stocchi-Perucchio, D.
<b>Description:</b>	This course is the first 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. We will begin the course by building a historical and intellectual frame of reference in which to locate The Divine Comedy. We will then proceed to a close reading of Inferno and a few cantos of Purgatory. Lectures and class discussion will be complemented by a weekly recitation session. Students with background or interest in the following areas are particularly encouraged to apply: Italian, history, classics, religion, philosophy, poetry, medieval studies, interdisciplinary studies. Students enrolled for the upper level cross listings will be assigned a separate complementary reading list with additional primary and secondary sources. Prerequisites: none. Continuation with Dantes Divine Comedy II is recommended but not required.

**Department:** Modern Languages & Cultures - Italian  
**Course:** IT 228  
**Title:** Modern Italy 1815 - 1948  
**Cross-listed:** CLT 207C/HIS 228  
**Instructor:** Conti, G.  
**Exams:** Mid-term and final exam  
**Coursework:** Term paper and oral presentation.  
**Description:** To set the stage for the unfolding of the Risorgimento and Italy's continuing search for a national political identity in the nineteenth and twentieth centuries, the course begins with a two-week introduction to contemporary Italian society, national and local political institutions, geography, and a panoramic view of the historical development of the Italian peninsula from the fall of the Roman empire to the French Revolution. After this introduction the course follows a multidisciplinary approach to the study of united Italy's political, social, and cultural history, through the adoption of the anti-fascist constitution of 1948.

**Department:** Modern Languages & Cultures - Italian  
**Course:** IT 244  
**Title:** From Piero to Vasari Fifteenth Century Italian Art  
**Cross-listed:** AH 244  
**Exams:** A mid-term; and a final exam.  
**Coursework:** Two short presentations.  
**Description:** When we look at works of art in museums, galleries, and churches we are, in most cases, looking at them out of context. Furthermore, when we look at early Renaissance paintings we do not see them through the eyes of the people who produced them or for whom they were produced. We have to learn to see them as they might have been seen. We can begin to do this by learning how to read and to interpret the complex elements at play beneath

the immediate surface by setting the artist, his work, and his public in their social and religious historical contexts, and by exploring the universal unspoken language of signs and symbols used by artists. The course content is based on painted forms, i.e., panels, canvases, and frescos from the Trecento and Quattrocento with an emphasis on Tuscan painting. The selection, as far as possible, takes advantage of the availability of works in churches, museums, and galleries within easy visiting distance of Arezzo.

**Department:** Modern Languages & Cultures -- Italian  
**Course:** IT 248  
**Title:** Our Voyage to Italy  
**Cross-listed:** CLT 213B, HIS 227 and FMS 256A  
**Instructor:** Donatello Stocchi-Peruccio  
**Description:** The course focuses on a few momentous episodes and phenomena of Italian political, social and cultural history as portrayed and interpreted in film

**Department:** Modern Languages & Cultures -- Italian  
**Course:** IT 249  
**Title:** The Novel in Europe: 1814-1848  
**Cross-listed:** FR 435, CLT 251/451  
**Instructor:** Robert Doran  
**Description:** For course description see FR 235

**Department:** Modern Languages & Cultures - Italian  
**Course:** IT 276  
**Title:** Italy A Cultural Mosaic in an Intercultural Context  
**Cross-listed:** CLT 207B  
**Instructor:** Fraser J, Kaeuper R, Douglas D, D'Amanda E, Siniscalco F, Stocchi-Peruc, D  
**Description:** The course consists of six units taught sequentially by visiting faculty. Other course-related study visits such as a three-day archaeological trip to Rome enhance classroom instruction. Shaped by the experience of the Renaissance, Italian culture has preserved a quintessentially interdisciplinary character. The objective of this course is to capitalize on the numerous challenges presented by the culture in itself and by the intercultural exchanges the program promotes, in order to provide students with multiple avenues of inquiry and multiple methodological tools.

## Modern Languages & Cultures -- Japanese

**Department:** Modern Languages & Cultures -- Japanese  
**Course:** JPN 101  
**Title:** Elementary Japanese I

**Instructor:** Fumino, S. **Class Size:** 40  
**Prerequisites:** Quizzes, lesson tests, final exam  
**Description:** STUDENTS MUST REGISTER FOR BOTH LECTURE AND RECITATION. Designed to help beginners acquire a basic command of Japanese. Speaking and listening are emphasized. The classes will be conducted in English and Japanese, shifting from the former to the latter. In the beginning, students will master the Japanese "hiragana" writing system, which they will use in the rest of the course. Students will learn various sentence and phrase particles, basic word order, basic conjugation, and number systems. As the course progresses, katakana syllabaries and kanji (Chinese characters) will be also introduced. Requirements include regular assignments, quizzes, a final exam and language lab. Video and audio tapes are frequently used. Six credits.

**Department:** Modern Languages & Cultures -- Japanese  
**Course:** JPN 114  
**Title:** Intermediate 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 151  
**Title:** Intermediate Japanese I  
**Instructor:** Tamate, M. **Class Size:** 30  
**Prerequisites:** JPN 102 or instructor's permission  
**Description:** STUDENTS MUST REGISTER FOR BOTH LECTURE AND RECITATION. Sequel to Japanese 102. Lecture and recitation designed to help the students at the intermediate level acquire a practical command of modern Japanese in all areas. Although speaking and listening will remain the main skills to be worked on, the amount of reading and writing will be significantly increased compared to Japanese 102. The classes will be conducted in Japanese except in the grammar lecture. Requirements include daily kanji quizzes and performing skits. Text: An Integrated Approach to Intermediate Japanese by Akira Miura & Naomo Hanaoka McGloin (The Japan Times). This course covers L.1 through 6 of the textbook. 6 credits.

**Department:** Modern Languages & Cultures -- Japanese  
**Course:** JPN 202  
**Title:** Advanced Intermediate Japanese I

**Instructor:** Tamate, M. **Class Size:** 20  
**Prerequisites:** JPN 152 or instructor's permission  
**Exams:** Kanji quizzes, Unite quizzes, a comprehensive final.  
**Coursework:** Essay assignments will be given to students regularly in order to brush up their writing skills.  
**Description:** This course aims at the improvement of students' overall proficiency in the Japanese language. More weight will be placed on reading and writing with the aid of dictionaries. Listening and speaking skills will be improved through watching a Japanese drama. Class taught in Japanese.

**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 205  
**Title:** Advanced Japanese I  
**Cross-listed:** JPN 205W  
**Instructor:** Tamate, M. **Class Size:** 30  
**Prerequisites:** JPN 203 or equivalent  
**Exams:** Kanji quizzes, Unite quizzes, a comprehensive final.  
**Coursework:** Presentations  
**Description:** This course covers various aspects of contemporary Japanese language culture as found in magazines, journals, television. Taught in Japanese.

**Department:** Modern Languages & Cultures -- Japanese  
**Course:** JPN 205W  
**Title:** Advanced Japanese I  
**Cross-listed:** JPN 205  
**Instructor:** Tamate, M.  
**Description:** See JPN 205 for course description

**Department:** Modern Languages & Cultures -- Japanese  
**Course:** JPN 208  
**Title:** Traditions in Japanese Art  
**Cross-listed:** CLT 267, AH 208  
**Instructor:** Pollack, D.

**Description:** A survey of Japan's traditional visual arts spanning the range from prehistoric decorated pottery up to the advent of photography. Attention to the social contexts of aesthetic experience and to ideas of a "national culture." Taught in English, additional work available in Japanese where appropriate.

**Department:** Modern Languages & Cultures -- Japanese  
**Course:** JPN 210  
**Title:** Traditional Japanese Culture  
**Cross-listed:** JPN 210W, CLT 208A/408A, AH 231, HIS 297  
**Instructor:** Pollack, D.  
**Description:** An overview of Japan's traditional culture through the most prominent examples of it visual, literary, and performing arts, with attention to the social contexts of aesthetic experience and to ideas of a "national culture." Taught in English, additional work available in Japanese where appropriate.

**Department:** Modern Languages & Cultures -- Japanese  
**Course:** JPN 210W  
**Title:** Traditional Japanese Culture  
**Cross-listed:** JPN 210, CLT 208A/408A, AH 231, HIS 297  
**Instructor:** Pollack, D.  
**Description:** For course description see JPN 210

**Department:** Modern Languages & Cultures -- Japanese  
**Course:** JPN 216  
**Title:** Traditional Japan  
**Cross-listed:** HIS 105  
**Instructor:** Hauser, W.  
**Description:** Please see HIS 105 for the course description.

**Department:** Modern Languages & Cultures -- Japanese  
**Course:** JPN 232  
**Title:** Asian Calligraphy: Structure  
**Cross-listed:** CHI 232  
**Instructor:** Spence, Y. **Class Size:** 20  
**Description:** East Asian calligraphy is the oldest continuous writing system in the world, and ranks as an art with poetry and painting. This innovative course joins the two components by offering one class period of writing with a licensed teacher of calligraphy, and one dealing with the history and art of calligraphy each week. Students must attend and are graded on both parts. The course is restricted to those who have completed at least one year of formal Chinese or Japanese language instruction. Enrollment is limited and preference will be given to those currently enrolled in Asian language study.

**Department:** Modern Languages & Cultures -- Japanese  
**Course:** JPN 283  
**Title:** History of Japanese Cinema  
**Cross-listed:** JPN 283, CLT 214A/414A, FMS 297  
**Instructor:** Bernardi, J.  
**Description:** A survey of Japanese cinema since its origins, this course examines the major issues, trends and moments that make up its history. Content varies according to the particular time span offered (origins to 1960s or origins to present), but significant topics addressed include: silent film and popular culture; the import market and its influence; prewar, wartime and postwar censorship; popular genres; animation; the early international festival circuit; the art film and New Wave; and patterns of global distribution and exchange. Course taught in English (additional instruction in Japanese available for majors).

## Modern Languages & Cultures -- Polish

**Department:** Modern Languages & Cultures -- Polish  
**Course:** POL 101  
**Title:** Elementary Polish I  
**Description:** The main objective of the Elementary Polish course for beginners is to provide the basic uses of Polish syntax, the cases and prepositions as well as word-formative process. Polish grammar is presented as an integral part of the basic textbook. Two consecutive semesters of Elementary Polish will include; sounds and spellings, relationships between sounds and inflection as well as basic knowledge of Polish nouns, pronouns, adjectives, numbers and verbs.

**Department:** Modern Languages & Cultures -- Polish  
**Course:** POL 151  
**Title:** Intermediate Polish  
**Instructor:** Polakowski, K.  
**Description:** While the main focus of the Elementary Polish Course was put on word-formative process, the basic use of the cases and prepositions as well as the essential aspects of Polish syntax, the intermediate course will focus on active use of contemporary Polish, written and colloquial. The main objective, based on basic knowledge of grammatical rules is to achieve independence in communication. Summer courses of the Polish language in Krakow, facilitated by the Skalny Center for Polish and Central European Studies at U.R. is highly recommended after completion of the intermediate course.



# Modern Languages & Cultures -- Russian

<b>Department:</b>	Modern Languages & Cultures -- Russian	
<b>Course:</b>	RUS 101	
<b>Title:</b>	Elementary Russian I	
<b>Instructor:</b>	Givens, J.	<b>Class Size:</b> 45
<b>Exams:</b>	6-8 chapter tests	
<b>Description:</b>	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 in Russian. Students must sign up for lecture and recitation section.	
<b>Department:</b>	Modern Languages & Cultures -- Russian	
<b>Course:</b>	RUS 126	
<b>Title:</b>	Russia Now (4 credits)	
<b>Cross-listed:</b>	RST 126/HIS 154, RUS 126	
<b>Instructor:</b>	Parthe, K.	<b>Class Size:</b> 15
<b>Description:</b>	In "Russia Now" we follow current events in Russia through internet, print, and other sources and keep a journal of significant developments which forms the basis for class participation. At the end of the term, students write a 20-page analysis of what has gone on in Russia during the semester and what is likely to happen next, emphasizing areas of their own special interest. At the end of this course students will be familiar with the most important issues facing Russia and its neighbors today, and with the variety of available resources and the strategies required for judging between contradictory reports on the situation in Russia. Please contact the dept. or instructor during the first week of classes.	
<b>Department:</b>	Modern Languages & Cultures -- Russian	
<b>Course:</b>	RUS 127	
<b>Title:</b>	Russia Now (2 credits)	
<b>Cross-listed:</b>	RST 127/HIS 153	
<b>Instructor:</b>	Parthe, K.	<b>Class Size:</b> 20
<b>Coursework:</b>	The 2-credit version of RUS 126. (Qualifies for RUS major/minor, RST major/minor and RUS and RST cluster credit when taken twice or in conjunction with another 2-credit course in this area, such as RUS 114 or RUS 124).	
<b>Description:</b>	Please see RUS 126 for course description. The two-credit RUS 127 requires a ten-page paper at the end of the term. Please contact the department or instructor during the first week of classes.	
<b>Department:</b>	Modern Languages & Cultures -- Russian	
<b>Course:</b>	RUS 151	

<b>Title:</b>	Intermediate Russian I	
<b>Instructor:</b>	Givens, L.	<b>Class Size:</b> 25
<b>Prerequisites:</b>	RUS 102 or equivalent	
<b>Exams:</b>	5 Chapter tests	
<b>Description:</b>	Emphasis on reading, writing, conversation and further development of grammatical concepts introduced in first-year Russian. The building of vocabulary and comprehension skills will also be stressed.	
<b>Department:</b>	Modern Languages & Cultures -- Russian	
<b>Course:</b>	RUS 191Q	
<b>Title:</b>	Dostoevsky	
<b>Cross-listed:</b>	RST 191Q, RUS 191Q, RUS 237/237W, RST 23	
<b>Instructor:</b>	Givens, J.	
<b>Description:</b>	Dostoevsky has been called "a sick, cruel talent," "a prophet of God," "the Shakespeare of the lunatic asylum," and "Russia's evil genius." The Russian writer Ivan Turgenev called him "the nastiest Christian" he'd ever met. Henry James described Dostoevsky's works as "baggy monsters" while Joseph Conrad called The Brothers Karamazov "an impossible lump of valuable matter. It's terrifically bad and impressive and exasperating." We will test these statements and form our own hypotheses as we unpack the writer's life and works, beginning with Poor Folk and Notes from the House of the Dead. We will then read and analyze Notes from Underground and Crime and Punishment and conclude with Brothers Karamazov. Students will write two 5-page essays and one 10-page essay. In English.	
<b>Department:</b>	Modern Languages & Cultures -- Russian	
<b>Course:</b>	RUS 202	
<b>Title:</b>	Advanced Readings in Russian	
<b>Instructor:</b>	Maslennikova, A.	<b>Class Size:</b> 15
<b>Description:</b>	This course concentrates on increasing speed and comprehension in reading Russian. Students will read a variety of texts, both fiction and non-fiction from the early nineteenth century up to the present. We will discuss the texts, translate excerpts, focus on difficult grammatical constructions, build reading vocabulary through attention to identifying roots and endings, and write short essays in Russian about the readings. Class is conducted primarily in Russian.	
<b>Department:</b>	Modern Languages & Cultures -- Russian	
<b>Course:</b>	RUS 212	
<b>Title:</b>	Advanced Literature and Culture in Original	
<b>Instructor:</b>	Maslennikova, A.	<b>Class Size:</b> 30
<b>Description:</b>	This course is designed for students who can read Russian at an advanced level and wish to pursue particular areas of interest.	

Each student will draw up a reading list for the term with the help of the instructor. We will meet individually each week and periodically as a group at a time convenient to members of the class. Students will write essays in Russian on their area of interest.

**Department:** Modern Languages & Cultures -- Russian  
**Course:** RUS 215  
**Title:** Advanced Literature and Culture in the Original II  
**Instructor:** Maslennikova, A.  
**Description:** "This course is a continuation of RUS 212. Prior enrollment in RUS 212 is not required."

**Department:** Modern Languages & Cultures -- Russian  
**Course:** RUS 224  
**Title:** Russian Art  
**Cross-listed:** RST 224, AH 224  
**Instructor:** Maslennikova, A.  
**Description:** This course focuses on the history of Russian art and architecture from the Christianization of Russia through the twentieth century. Students will learn how to read icons, discern the major features of Russian churches, and follow the development of Russian painting from the age of realism to modern times. The course is taught with reference to the major events in Russian history. No knowledge of Russian required.

**Department:** Modern Languages & Cultures -- Russian  
**Course:** RUS 237  
**Title:** Dostoevsky  
**Cross-listed:** RUS 191Q, 237W/RST 191Q, 237W/CLT 255D  
**Instructor:** Givens, J.  
**Description:** See RUS 191Q for the course description.

**Department:** Modern Languages & Cultures -- Russian  
**Course:** RUS 237W  
**Title:** Dostoevsky  
**Cross-listed:** RUS 237, RUS 191Q, CLT 255D, RST 237/2  
**Instructor:** Givens, J.  
**Description:** For Course description see RUS 191Q

**Department:** Modern Languages & Cultures -- Russian  
**Course:** RUS 289  
**Title:** Dangerous Texts: Literature and Politics in Russia  
**Cross-listed:** RST 289/289W, HIS 243/243W, CLT 265E, RU  
**Instructor:** Parthe, K. **Class Size:** 30  
**Exams:** Four short papers (4-5 pp. each)

**Description:** When modern Russian literature began to evolve in the mid-1600s, the printed or written text was immediately seen as a potential danger to the power of Church and State. In this course we will examine dangerous texts' from the 17th century to the present to see what aspects of texts and their authors were seen as threats and how these threats were dealt with. We will also see the ways in which writers did indeed perceive themselves as a second government' and how this changed the way they wrote. The reading list will include works by: Avvakum, Radishchev, Pushkin, Lermontov, Gogol, Turgenev, Dostoevsky, Tolstoy, Babel, Mayakovsky, Mandelstam, Pasternak, Yevtushenko, Solzhenitsyn, Voinovich, Grossman, and Sinyavsky/Tertz. The goal of this course is to arrive at an understanding of the unique role played by literature in Russian history. In English.

**Department:** Modern Languages & Cultures -- Russian  
**Course:** RUS 289W  
**Title:** Dangerous Texts: Literature and Politics in Russia  
**Cross-listed:** RUS 289, RST 289/289W, HIS 243/243W, CLT  
**Instructor:** Parthe, K.  
**Description:** For course description see RUS 289

## Modern Languages & Cultures -- Russian Studies

**Department:** Modern Languages & Cultures -- Russian Studies  
**Course:** RST 126  
**Title:** Russia Now (4-credits)  
**Cross-listed:** RUS 126/HIS 154  
**Instructor:** Parthe, K. **Class Size:** 20  
**Description:** Please see RUS 126 for the course description. Please contact the department or instructor during the first week of classes.

**Department:** Modern Languages & Cultures -- Russian Studies  
**Course:** RST 127  
**Title:** Russia Now (2 credits)  
**Cross-listed:** RUS 127/HIS 153  
**Instructor:** Parthe, K. **Class Size:** 20  
**Description:** Please see RUS 127 for the course description. Please contact the department or instructor during the first week of classes.

**Department:** Modern Languages & Cultures -- Russian Studies  
**Course:** RST 155  
**Title:** History of Russia to 1692  
**Cross-listed:** HIS 155  
**Instructor:** Lenoe, M.

**Description:** See HIS 155 for course description

**Department:** Modern Languages & Cultures -- Russian Studies  
**Course:** RST 191Q  
**Title:** Dostoevsky  
**Cross-listed:** RUS 235, 235w, RST 235, 235w, CLT 113Q,  
**Instructor:** Givens, J.  
**Description:** For Course Description see RST 190Q

**Department:** Modern Languages & Cultures - Russian Studies  
**Course:** RST 224  
**Title:** Russian Art  
**Cross-listed:** RUS 224, AAH 224  
**Instructor:** Maslennikova, A.  
**Description:** Please see RUS 224 for course description.

**Department:** Modern Languages & Cultures -- Russian Studies  
**Course:** RST 237  
**Title:** Dostoevsky  
**Cross-listed:** RUS 191Q/RUS 237, 237W/RST 237W/RST 191Q  
**Instructor:** Givens, J.  
**Description:** See RUS 237 for the course description.

**Department:** Modern Languages & Cultures -- Russian Studies  
**Course:** RST 237W  
**Title:** Dostoevsky  
**Cross-listed:** RUS 237, RUS 191Q, CLT 255D, RST 237/  
**Instructor:** Givens, J.  
**Description:** See RUS 237 for course description

**Department:** Modern Languages & Cultures -- Russian Studies  
**Course:** RST 289  
**Title:** Dangerous Texts: Literature and Politics in Russia  
**Cross-listed:** CLT 265E/HIS 243, 243W/RUS 289, RUS289W,  
**Instructor:** Parthe, K.  
**Description:** Please see description of RUS 289

**Department:** Modern Languages & Cultures -- Russian Studies  
**Course:** RST 289W  
**Title:** Dangerous Texts: Literature and Politics in Russia  
**Cross-listed:** RUS 289, RST 289/289W, HIS 243/243W, CLT  
**Instructor:** Parthe, K.  
**Description:** For course description see RUS 289

**Department:** Modern Languages & Cultures -- Russian Studies  
**Course:** RST 394  
**Title:** Russian Studies Internship

**Instructor:** Parthe, K.  
**Coursework:** Contact Prof. Kathleen Parthe during the first week of classes at 275-4176 or parthe@mail.rochester.edu

**Description:** This 2 or 4 credit-bearing internship involves (a) weekly visits with a Russian emigre family of one or more hours, (b) doing readings provided by Professor Parthe on the experience of emigration from Russia to the US, and (c) keeping a journal of your experiences which will be handed in at the end of the term along with a short essay connecting what you observed on your visits to the readings. This internship has two purposes. The first is to help Russian Jewish immigrants with their English language skills and their overall adjustment to life in this country. The second is to give students the incomparable experience of hearing about Russian/Russian Jewish culture and family life from people who hope to preserve the best of that life in America. This work could also help launch a research project in a number of different areas (for example, Anthropology, History, or Judaic Studies). SEE ALSO JST (JUDAIC STUDIES) 394.

## 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:** Kouroublakis, B. **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

<b>Instructor:</b>	Cordoba, M.,	<b>Class Size:</b> 20
<b>Prerequisites:</b>	SP 102, ETS score of 500 or Placement by dept.	
<b>Exams:</b>	Midterm, Final.	
<b>Coursework:</b>	Four Compositions and rewrites. Daily assignments.	
<b>Description:</b>	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.	
<b>Department:</b>	Modern Languages & Cultures -- Spanish	
<b>Course:</b>	SP 152	
<b>Title:</b>	Intermediate Spanish II	
<b>Instructor:</b>	Cordoba, M.,	<b>Class Size:</b> 20
<b>Exams:</b>	Midterm and Final.	
<b>Coursework:</b>	Four compositions and rewrites. Daily assignments.	
<b>Description:</b>	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.	
<b>Department:</b>	Modern Languages & Cultures -- Spanish	
<b>Course:</b>	SP 200	
<b>Title:</b>	Advanced Spanish Composition	
<b>Instructor:</b>	Jorgensen, B.,Kersch, P., Rodriguez, R.	<b>Class Size:</b> 15
<b>Prerequisites:</b>	SP 151, SP 152 or equivalent, permission SP section.	
<b>Exams:</b>	Midterm and Final.	
<b>Coursework:</b>	Four compositions and rewrites. Film review. Daily assignments.	
<b>Description:</b>	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.	
<b>Department:</b>	Modern Languages & Cultures -- Spanish	
<b>Course:</b>	SP 203	
<b>Title:</b>	Early Hispanic Texts	
<b>Instructor:</b>	Prendergast, R.	<b>Class Size:</b> 30
<b>Prerequisites:</b>	SP 200 or SP 201 or permission of instructor.	
<b>Coursework:</b>	Several short papers in Spanish required.	
<b>Description:</b>	This course features early-modern Hispanic texts of both Spain and Spanish America. It concentrates on the literature of the 16th and 17th centuries with works such as the Lazarillo de Tormes, the Novelas ejemplares of Cervantes, the poetry of Sor Juana Ines de la Cruz, and colonial texts included. Class taught in Spanish.	

<b>Department:</b>	Modern Languages & Cultures--Spanish
<b>Course:</b>	SP 249G
<b>Title:</b>	Princesas, prisioneras Y apasionadas: Women and Identity in Spain
<b>Instructor:</b>	Kersch, P.
<b>Description:</b>	This course studies the transformations of female identity in various works of 20th and 21st century literature. We use feminist theory, psychoanalysis, and sociopolitical thought to study writers such as Carmen Laforet, Carmen Martin Gaité, Lucia Etxebarria, Ana Diosdado, and Yolanda Dorado. Works include prose and theater. All texts and discussions in Spanish.

<b>Department:</b>	Modern Languages & Cultures--Spanish
<b>Course:</b>	SP 262F
<b>Title:</b>	Identity Signs: Spanish American Coming of Age Stories
<b>Instructor:</b>	Jorgensen, B.
<b>Description:</b>	The story of a person's coming of age may take many forms, including the classic German model of the Bildungsroman, traditional autobiography, fiction short stories and novels, and testimonial literature. Narrative literature pre- dominates, but poetry can also be used to trace the process of a girl or boy child's

<b>Department:</b>	Modern Languages & Cultures--Spanish
<b>Course:</b>	SP 277
<b>Title:</b>	Mexico, DF: Global Metropolis
<b>Cross-listed:</b>	CLT 101D
<b>Instructor:</b>	Rodriguez, R.
<b>Description:</b>	For course description see CLT 101D

## Literary Translation Studies

<b>Department:</b>	Literary Translation Studies
<b>Course:</b>	LTS 200
<b>Title:</b>	Studies in Translation
<b>Instructor:</b>	Schaefer, C.
<b>Description:</b>	This course will introduce students to the theoretical backgrounds, practical challenges, and creative activity of literary translation. We will survey appropriate theories of language and communication including semiotics, post- structuralism, pragmatics, discourse analysis, and cognitive linguistics. We will consider varied and conflicting descriptions by translators of what it is they believe they are doing and what they hope to accomplish by doing it; and we will study specific translation into English from a variety of sources in order to investigate the strategies and choices translator make and the implications of choices for our developing sense of what kinds of texts translations actually

# 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 **Class Size:** 10  
**Prerequisites:** Prior experience in reading music notation in treble or bass clef.  
**Description:** This course introduces students to basic musicianship skills. The course begins with exercises in pitch matching and basic interval recognition and progresses toward other skills, such as singing simple melodies at sight, sight-reading various rhythmic patterns, and dictating simple melodies and chord progressions. We recommend that prospective music majors, especially those with prior singing experience, skip this course and begin with MUR 113. (1 credit)

**Department:** Music  
**Course:** MUR 110  
**Title:** Introduction to Music Theory  
**Instructor:** Frank, B **Class Size:** 30  
**Prerequisites:** Ability to read music, preferably both treble & bass clefs  
**Exams:** Mid-term, final, quizzes  
**Description:** Basic concepts of music theory, addressing students with some musical experience in an instrument or voice, but little or no music theory. Scales, keys, intervals, chords, basic part-writing, and other fundamental aspects of musical structure. Some ear training and aural skills. Students who have completed MUR 101 should NOT register for MUR 110.

**Department:** Music  
**Course:** MUR 111  
**Title:** Theory I  
**Instructor:** Titus, J, BaileyShea, M, Frank, B **Class Size:** 25  
**Prerequisites:** MUR 101 or MUR 110, or permission of instructor (placement test)  
**Exams:** Mid-term, final

**Description:** The first in a four-course sequence. Deals with basic elements of harmony, voice-leading, and analysis. Part-writing in chorale style teaches elementary aspects of tonal theory. Prospective music majors should begin their theory requirement with this course. (Fall only)

**Department:** Music  
**Course:** MUR 113  
**Title:** Musicianship II **Class Size:** 10  
**Prerequisites:** MUR 109 or permission of theory coordinator  
**Description:** This course develops basic musicianship skills with an emphasis of diatonic sight-singing, rhythmic sight-reading, and dictation of diatonic melodies and chord progressions. The exercises and in-class activities are similar to MUR 109 but at a more advanced level. (1 credit)

**Department:** Music  
**Course:** MUR 114  
**Title:** Musicianship III **Class Size:** 10  
**Prerequisites:** MUR 113 or permission of theory coordinator  
**Description:** Continuation of MUR 113 with an emphasis on increased chromaticism, especially simple modulation and mode mixture. The course puts emphasis on ensemble singing and aural analysis. (1 credit)

**Department:** Music  
**Course:** MUR 115  
**Title:** Musicianship IV **Class Size:** 10  
**Prerequisites:** MUR 114 or permission of theory coordinator  
**Description:** Continuation of MUR 114 with greater emphasis on chromaticism and aural analysis. (1 credit)

**Department:** Music  
**Course:** MUR 116  
**Title:** Keyboard Skills I **Class Size:** 6  
**Instructor:** Frank, B.  
**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 118  
**Title:** Beginning Piano for Non-Music Majors I      **Class Size:** 6  
**Prerequisites:** FOR RIVER CAMPUS STUDENTS ONLY  
**Description:** An elective course for non-music majors from River Campus who have little or no previous keyboard instruction. The course will include technique, fundamental skills, and repertoire. (Fall only) (2 credits)

**Department:** Music  
**Course:** MUR 122  
**Title:** History of Jazz  
**Cross-listed:** AAS 122  
**Instructor:** Burgett P      **Class Size:** 60  
**Prerequisites:** None  
**Exams:** two exams  
**Coursework:** reading and listening assignments; several brief written assignments  
**Description:** This study of jazz, as an American musical art form, will be structured around the lives and music of jazz musicians, across a range of instrumental, vocal, and ensemble genres. Less a strictly chronological approach, this course focuses first on jazz titans, those individuals and musical groups distinguished by their seminal and permanent influences, either with long tenures such as Louis Armstrong, Miles Davis, or Coleman Hawkins or shorter but intense careers, such as Charlie Parker. Integrated with the jazz titans will be consideration of the music of other important jazz musicians whose contributions are essential to helping shape and inform the vast jazz landscape of the 20th century. Blues, ragtime, swing, bebop, cool, progressive, and free jazz are landmark terms that will help define that landscape. The influence of jazz on composers in European "classical" traditions will also be considered. And finally, study of the musical history will be enhanced by considerations from sociological, linguistic, and philosophical perspectives. The instructional format includes class lectures and discussion and an intense emphasis on listening. This course is designed for students with little or no musical training; simple technical, musical vocabulary and concepts will be provided. In addition to reading and listening assignments, there will be several brief written assignments and two exams. No prerequisites. (Fall only)

**Department:** Music

**Course:** MUR 130  
**Title:** The Beatles, The British Invasion, and Psychedelia  
**Cross-listed:** 6MHS 282  
**Instructor:** Covach J      **Class Size:** 100  
**Description:** The history of the Beatles career and music is explored in the context of the band's stylistic development, as well as against the backdrop of social, cultural, technical, and music-business events and issues in the 1950s, 60s, and 70s. No background in music theory or ability to play a musical instrument are required.

**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:**  
**Coursework:** At least once concert appearance each semester  
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 201  
**Title:** Basic Jazz Theory & Improv I  
**Instructor:** staff **Class Size:** 10  
**Prerequisites:** MUR 111 or permission of instructor  
**Description:** Rudiments of jazz, including chord and scale spellings, chord/scale relationships, jazz/pop chord symbol nomenclature, basic forms, chord substitutions, piano voicing; strong emphasis on ear training and vocalization and transcription from records of jazz solos. (Fall only) (2 credits)

**Department:** Music  
**Course:** MUR 221  
**Title:** History of Western Music to 1600  
**Instructor:** Meconi, H. **Class Size:** 40  
**Prerequisites:** MUR 112  
**Coursework:** 4 exams, research paper, miscellaneous assignments  
**Description:** Survey of Western classical music to 1600, including investigation of style, genre, transmission, contemporary theory, patronage, cultural context and meaning, etc. Workshops deal with topics such as transcription and performance practice. (Fall only)

**Department:** Music  
**Course:** MUR 223  
**Title:** History of Western Music 1730-1850  
**Instructor:** Kowalke, K. **Class Size:** 25  
**Prerequisites:** MUR 112  
**Exams:** mid-term, final  
**Coursework:** several essays  
**Description:** The history of western art music from approximately 1730 through 1850, with an emphasis on analysis of the masterpieces of tonal music and their relationship to society and the other arts. Lecture, with extensive listening, reading, and analysis. (Fall only) (5 credits)

## Naval Science

**Department:** Naval Science  
**Course:** NAV 093  
**Title:** Introduction to Naval Science  
**Instructor:** White, John LT, USN **Class Size:** 35  
**Exams:** 3 Exams, Various quizzes  
**Description:** An introduction to the U.S. Navy, including organization, administration, customs, careers, warfare platforms and basic leadership fundamentals. Students are also introduced to joint warfare and national military strategy. Current world events are discussed as applicable.

**Department:** Naval Science  
**Course:** NAV 094  
**Title:** Ship Systems I (Engineering)  
**Instructor:** Lyle, Michael, LT, USN **Class Size:** 30  
**Exams:** 2 exams; quizzes  
**Description:** This course is a detailed study of ship characteristics and types including ship design, hydrodynamic forces, stability, compartmentation, propulsion, electrical and auxiliary systems, interior communications, ship control, and damage control. Included are basic concepts and theory and design of steam, gas turbine, diesel and nuclear propulsion.

**Department:** Naval Science  
**Course:** NAV 222  
**Title:** Navigation II  
**Instructor:** Fischer, Edward, CDR, USN **Class Size:** 30  
**Prerequisites:** None  
**Coursework:** This course further develops knowledge and practical skills learned in Navigation I (NAV 098). It is a general



**Description:** This course further develops knowledge and practical skills learned in Navigation I (NAV 098). It is a general introduction to Naval Operations at sea and will cover topics in four broad sections including: 1)Advanced Navigation; charts, maneuvering board, formation sailing, nautical rules of the road and international laws of the seas; 2) Communications security, radio procedures, tactical communications and maneuvering; 3) Evolutions Operations shipboard watch-standing, ship-handling evolutions; 4)Naval Doctrine and Joint/Combined Operations. This class will prepare midshipmen for a first tour in the active surface ship fleet.

**Department:** Naval Science  
**Course:** NAV 265  
**Title:** Leadership and Management  
**Instructor:** Parmiter, Thomas,CAPT, USMC **Class Size:** 35  
**Exams:** 2 exams  
**Coursework:** 1 research project 1 short essay  
**Description:** This course is designed to arm the student with an understanding of the fundamental theoretical concepts of leadership management, and to give students a set of practical leadership tools that can be derived from the theoretical concepts.

## Neuroscience

**Department:** Neuroscience  
**Course:** NSC 201  
**Title:** Basic Neurobiology  
**Cross-listed:** BCS 240  
**Instructor:** Nordeen, E. ,O'Neill, W.,Kellogg, C. **Class Size:** 60  
**Prerequisites:** BIO 110 or BIO 112 AND BIO 111 with 111L or BIO 113 with 113L  
**Exams:** 4-5 mid-term exams and a cumulative final  
**Coursework:** Lectures and two (4-5 page) papers. There is an associated laboratory for students intending to concentrate in Neuroscience and/or take the spring Lab in Neurobiology, NSC/BCS 203.  
**Description:** Explores fundamental concepts of neural organization and function. Covers gross and cellular neuroanatomy, neuronal cell biology, the electrophysiology of neurons and synapses, neurochemistry, spinal circuitry, sensory and motor systems, and higher functions including learning and memory. Includes labs on gross anatomy of the brain and computer simulation of neuronal electrophysiology.

**Department:** Neuroscience  
**Course:** NSC 243  
**Title:** Neurochemical Foundations of Behavior

**Cross-listed:** BCS 243  
**Instructor:** Kellogg, C. **Class Size:** 20  
**Prerequisites:** NSC 201 or equivalent background; biochemistry recommended.  
**Exams:** 3 exams, a take home final.  
**Coursework:** Lectures, problem sets/data analysis; 1 paper.  
**Description:** Introduces the field of neurochemistry with an emphasis on cellular and molecular neurochemistry. Topics range from study of neurochemical mechanisms that underlie normal neural function to discussion of behavioral disturbances that result from neurochemical abnormalities. Considers neurochemical mechanisms of adaptive behavior, learning and memory, behavioral disorders, gender differences, and drug seeking behavior.

**Department:** Neuroscience  
**Course:** NSC 246  
**Title:** The Biology of Mental Disorders  
**Cross-listed:** BCS/PSY 246  
**Instructor:** Kellogg, C.,Como, P. **Class Size:** 40  
**Prerequisites:** BCS 110 and BIO 110 (or equivalent), or NSC 201.  
**Exams:** 5 exams, a combination of take-home and in-class  
**Description:** Please see BCS 246 for the course description.

**Department:** Neuroscience  
**Course:** NSC 301  
**Title:** Senior Seminar in Neuroscience **Class Size:** 6-12  
**Prerequisites:** Senior Neuroscience concentrators.  
**Restrictions:** Open only to senior majors or by permission of instructor  
**Exams:** Oral and written reports, but no formal examinations  
**Coursework:** Oral and written reports  
**Description:** To be taken for one semester in the senior year (2 credits). Format can vary from an emphasis on exploring neuroscience as a scientific career to more thematically-based seminars dealing with recent research in neuroscience. Oral and written presentation skills are sharpened through a series of student-led presentations on current issues or topics in neuroscience, as well as a series of short reports.

## Philosophy

**Department:** Philosophy  
**Course:** PHL 102  
**Title:** Ethics **Class Size:** 100  
**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 functions of ethical language.

**Department:** Philosophy  
**Course:** PHL 103A  
**Title:** Moral Problems **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 105  
**Title:** Reason and Argument  
**Description:** Arguments are used both to try to persuade people and to try to establish the truth about a topic. In this course we will examine these different uses of arguments and then examine in detail the criteria for assessing arguments. We will then develop a method for identifying, interpreting, and evaluating arguments of the sort you found in speeches, newspaper editorials, letters to the editor, magazine articles, and scientific reports.

**Department:** Philosophy  
**Course:** PHL 110  
**Title:** Introductory Logic **Class Size:** 30  
**Description:** Philosophy 110 is a first course in symbolic logic through first order quantification theory. It treats deductive inference through the mechanism of an artificial language; the language is rigorously defined, and students learn to translate English arguments into this artificial 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 111  
**Title:** Philosophy of Religion  
**Cross-listed:** REL 111  
**Instructor:** Wierenga, E. **Class Size:** 30  
**Description:** See Religion and Classics, REL 111.

**Department:** Philosophy  
**Course:** PHL 115  
**Title:** Philosophy in Literature  
**Instructor:** Meerbote, R. **Class Size:** 30  
**Exams:** There may be a final exam.  
**Coursework:** Three short papers.  
**Description:** In this course we will be studying philosophical issues concerning morality, human action, and happiness, as seen by three 18th-century and several later writers. We will read works

by Defoe, Voltaire, Lessing, Shelley, Gide, and Camus. The course readings are literary, but our discussions and methods will be analytical-philosophical. There will be both lectures and in-class discussions.

**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 201  
**Title:** History of Ancient Philosophy  
**Instructor:** Modrak, D. **Class Size:** 30  
**Exams:** Three examinations, including a final exam.  
**Description:** Survey of the origins of Western philosophy. The course begins with the Presocratics and ends six centuries later with the Hellenistic philosophers. The great philosophers of the Classical period, Socrates, Plato, Aristotle, are studied in detail.

**Department:** Philosophy  
**Course:** PHL 214  
**Title:** Logical Methods in Philosophy  
**Cross-listed:** PHL 414  
**Prerequisites:** PHL 110 or 210  
**Description:** This course is an introduction to the aims and techniques of modal logic and the logic of counterfactuals, with emphasis on the model theory ("possible world semantics") and application in philosophy. Topics to be covered include modal propositional logic and applications, e.g. logics of necessity and possibility, tense logic, the logic of counterfactuals, and modal predicate logic.

**Department:** Philosophy  
**Course:** PHL 223  
**Title:** Social and Political Philosophy

**Cross-listed:** PHL 223W, PHL 423  
**Prerequisites:** One previous course in philosophy.  
**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 three 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 three discussion sections (one will be held R afternoon, two on Friday).

**Department:** Philosophy  
**Course:** PHL 228  
**Title:** Public Health Ethics  
**Instructor:** Dees, R. **Class Size:** 30  
**Prerequisites:** One previous course in philosophy  
**Coursework:** Three papers, weekly responses, class participation.  
**Description:** Most health care ethics focuses on the individual decisions about health care, but many ethical questions have implications for society at large. The demands that individual health decisions

make on the system may create collective problems, and conversely, the needs of society may limit the freedoms that individuals think they should have. Public health ethics then, lie at the intersection of medicine, political philosophy, and public policy. This course will examine the values of health, social needs, and freedom through a systematic examination of situations in which these conflicts arise.

**Department:** Philosophy  
**Course:** PHL 243  
**Title:** Theory of Knowledge  
**Cross-listed:** PHL 243/PHL 443  
**Instructor:** Conee, E. **Class Size:** 30  
**Prerequisites:** One previous course in philosophy.  
**Coursework:** Two short-essay exams and one short-to-medium length paper.  
**Description:** People often claim to know various things to be true. Science is said to advance our knowledge and there is, it seems, a vast body of common sense knowledge about a wide variety of topics. There are several philosophical questions that will be the subject matter of this course. These questions include: 1) What is knowledge? 2) Do people really know anything? 3) What makes a belief justified or rational? Readings will be from contemporary philosophical sources.

**Department:** Philosophy  
**Course:** PHL 244  
**Title:** Philosophy of Mind  
**Cross-listed:** PHL 244/PHL 244W/PHL 444  
**Instructor:** Weslake, B.  
**Prerequisites:** One previous course in philosophy.  
**Exams:** None  
**Coursework:** Two papers and one presentation.  
**Description:** This course is an overview of the recent history of philosophy of mind, focusing on the relationship between the mind and the physical world. The aim is to trace through some of the central debates in this history, and to assess where we stand today. Topics covered include the question of how to formulate physicalism about the mind; an examination of behaviorism, the identity theory, and functionalist theories of the mind; the prospects for integrating consciousness and mental content within a physicalist worldview; and the problem of mental causation. This course may be taken for upper level writing credit.

**Department:** Philosophy  
**Course:** PHL 251  
**Title:** Philosophy of Biology  
**Cross-listed:** PHL 251W, PHL 451

**Instructor:** Weslake, B. **Class Size:** 30  
**Prerequisites:** PHL 110 or permission of instructor.  
**Description:** This course is an introduction to philosophy of biology focusing on issues connected with the nature and scope of biological explanations. Possible topics include the nature of fitness, natural selection and drift; whether there are biological laws and if so what form they take; the degree to which evolutionary outcomes are contingent; the varieties of biological explanation; whether there is more than one level of selection; the nature of biological function; and the scope of adaptationist explanations. No prior philosophy of science or biology will be assumed. This course may be taken for upper level writing credit.

**Department:** Philosophy  
**Course:** PHL 265  
**Title:** Selected Topics in Ancient Philosophy  
**Cross-listed:** PHL 265W, PHL 465  
**Instructor:** Modrak, D. **Class Size:** 25  
**Prerequisites:** PHL 201 or permission of instructor  
**Exams:** One mid-term exam.  
**Coursework:** Final research paper, two short papers on assigned topics, and class participation.  
**Description:** Foundations of Ancient Greek philosophy from Presocratic to Hellenistic philosophers. Covers ancient Greek ethics, metaphysics and epistemology, and philosophy of mind. Special attention to Plato and Aristotle. This course may be taken for upper-level writing credit.

**Department:** Philosophy  
**Course:** PHL 266  
**Title:** Rationalism  
**Cross-listed:** PHL 266/466  
**Instructor:** Meerbote, R.  
**Prerequisites:** PHL 202.  
**Exams:** There may be a final exam.  
**Coursework:** Several papers.  
**Description:** We will study Descartes, Spinoza, and Leibniz, three leading rationalist philosophers. Readings consist of some of their major works, concentrating on issues in metaphysics, epistemology, logic, and the philosophy of mind. The course consists of lectures and discussions.

**Department:** Philosophy  
**Course:** PHL 348  
**Title:** Free Will  
**Instructor:** Conee, E. **Class Size:** 15  
**Prerequisites:** Philosophy Minor or Major.

**Description:** This course will be an investigation of proposed answers to the classical philosophical issues concerning free will. These questions include: What is free will? Is free will compatible with determinism? Is determinism compatible with moral responsibility? Readings will be from primarily contemporary philosophical sources.

## Physics and Astronomy

**Department:** Physics and Astronomy  
**Course:** PHY 102  
**Title:** Visions of the Multiverse  
**Instructor:** Manly, S.  
**Description:** This is an introductory course designed especially for students in the humanities and other non-scientific fields who are interested in learning about science, physics, and concepts (esp. scientific concepts) of a multiple universe reality. Topics include the nature of science, Newton's laws, relativity, light, quantum mechanics, the nature of particles and forces, and cosmology. In the course of surveying the modern scientific view of the universe, a number of serious concepts of a multiverse reality will be examined, including the many-worlds view of quantum mechanics, and fractal and cyclical cosmologies. There are no prerequisites, no background knowledge is required and the material will be presented with very little mathematics. Substantial use will be made of demonstrations. This course is intended to be equivalent to Physics 100 in terms of satisfying cluster requirements. Students will register for recitation or workshops at the time of course registration.

**Department:** Physics and Astronomy  
**Course:** PHY 113  
**Title:** General Physics I  
**Instructor:** Bodek, A. **Class Size:** 200  
**Prerequisites:** MTH 141 or MTH 161 (may be taken concurrently)  
**Coursework:** Five three-hour laboratories are required, as are weekly workshop or recitations. Workshop or recitation times are determined by the instructor.

**Description:** First course of a two-semester sequence suitable for students in the life sciences. Newtonian particle mechanics, Newton's laws and their applications to straight-line and circular motions, energy, linear momentum, angular momentum, harmonic motions, Kepler's laws, planetary and satellite motions. Students must register for a PHY-113 laboratory during course registration. Calculus used and introduced as needed. In addition to a Two 75-minute lectures, one approximate two-hour and forty-minute laboratory every other week and one workshop or recitation per

week are required. This course is offered in both the fall and summer session I (A-6).

**Department:** Physics and Astronomy  
**Course:** PHY 122  
**Title:** Electricity and Magnetism  
**Instructor:** Gao, Y. **Class Size:** 125  
**Prerequisites:** PHY 121, MTH 143, or MTH 162 (may be taken concurrently).  
**Coursework:** Five three-hour laboratories are required, as are weekly workshop/recitations.  
**Description:** Second semester of a three-course sequence for students intending to major in physics, other physical sciences and engineering. Coulomb's Law through Maxwell's equations; electrostatics, electrical potential; capacitors; electric fields in matter; current and circuits; magnetostatics; magnetic fields in matter; induction; A.C. circuits; electromagnetic waves. Students must register for PHY 122/142-Laboratory and workshop or recitation during course registration. In addition to Two 75-minute lectures each week, one approximate two-hour and forty-minute laboratory every other week is required. (Offered Fall, Summer session II) Summer courses offered during session I (B-6).

**Department:** Physics and Astronomy  
**Course:** PHY 141  
**Title:** Mechanics (Honors)  
**Instructor:** Wolfs, F. **Class Size:** 75  
**Prerequisites:** MTH 141, or 161, (maybe taken concurrently); prior knowledge of introductory calculus (simple integration and differentiation)  
**Exams:** 3 Midterm Exams + 1 Final Exam  
**Coursework:** Five three-hour laboratories are required, as are weekly workshop or recitations.  
**Description:** First course for all students (PHY 141, 143, 142). Recommended for prospective departmental concentrators and other science or engineering students with a strong interest in physics and mathematics. Topics are the same as those in PHY 121, but in greater depth. Motion in one and two dimensions, Newton's laws, work and energy, conservation of energy, systems of particles, rotations, oscillations, gravity, and thermodynamics. Students must register for PHY 141 Laboratory and recitation 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 142

**Title:** Electricity and Magnetism (Honors)  
**Instructor:** Teitel, S. **Class Size:** 40  
**Prerequisites:** Phy 141 or performance at or above the B- level in PHY 121, MTH 162 or MTH 172 or the equivalent (may be taken concurrently)  
**Coursework:** Five three-hour laboratories are required, as are weekly workshops or recitations.  
**Description:** Third semester of a three-course honors sequence (PHY 141, 143, 142) honors sequence, recommended for prospective departmental concentrators and other science or engineering students with a strong interest in physics and mathematics. Topics are the same as those of P122 but in greater depth. These topics include Coulomb's Law through Maxwell's equations; electrostatics, electrical potential; capacitors; electric fields in matter; current and circuits; magnetostatics; magnetic fields in matter; induction; A.C. circuits; electromagnetic waves. Students are required to register for PHY 142/122 Laboratory and workshop or recitation at the time of course registration. In addition to Two 75-minute lectures each week, one workshop/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:** MCFarland, K.  
**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 182  
**Title:** Electricity & Magnetism Laboratory  
**Instructor:** MCFarland, K. **Class Size:** 16  
**Prerequisites:** For transfer students who have taken a course equivalent to PHY 122 but have not taken the laboratories.  
**Description:** Laboratory experiments in electricity and magnetism, Coulomb's Law, electric fields, measurement of the absolute voltage and capacitance, electricity and magnetism of the electron, superconductivity and electric circuits. Not open to students who have taken PHY 122. Students must contact Laboratory Administrator at physlabs@pas.rochester.edu to signup for a laboratory.

**Department:** Physics and Astronomy  
**Course:** PHY 217  
**Title:** Electricity and Magnetism I  
**Instructor:** Thorndike, E **Class Size:** 20  
**Prerequisites:** PHY 122 or 142; and MTH 281 (may be taken concurrently).  
**Description:** Review of vector calculus; electrostatic field and potential; boundary value problems solved with orthogonal functions; the multiple expansion and dielectrics; the magnetic field and vector potential.

**Department:** Physics and Astronomy  
**Course:** PHY 235W  
**Title:** Classical Mechanics I  
**Instructor:** Cline, D  
**Prerequisites:** MTH 281 or ME 201 (may be taken concurrently); Physics 121 or 141  
**Description:** Mathematical introduction; review of elementary mechanics; central force problems; conservation theorems and applications; Fourier and Green's functions; variational calculus and Lagrange multipliers; Lagrangian and Hamiltonian formulation of mechanics is introduced and applied; oscillations; normal mode theory; rigid body dynamics. The course is designed to satisfy part of the upper-level writing requirement.

**Department:** Physics and Astronomy  
**Course:** PHY 243W  
**Title:** Advanced Experimental Techniques I  
**Instructor:** Howell, J  
**Prerequisites:** PHY 217, PHY 237 (may be taken concurrently).  
**Description:** Students work in pairs and each team is expected to do three or four experiments from a variety of available setups such as Berry's phase with light, Universal chaos, lifetime of cosmic ray muons, optical pumping, electron diffraction's etc. This is a hands-on laboratory with most experiments under computer control. This course may also be taken as a two-credit, half semester course. Please see instructor for this option. This course can be used to satisfy part of the upper-level writing requirement.

**Department:** Physics and Astronomy  
**Course:** PHY 244W  
**Title:** Advanced Experimental Techniques II  
**Instructor:** Howell, J  
**Prerequisites:** PHY 243W, PHY 217, PHY 237 and MTH 164.  
**Description:** A continuation of PHY 243W with greater emphasis on independent research and construction of more complicated instrumentation. Students work in pairs and each team is expected

to do three or four experiments from a variety of available setups. This course can be used to satisfy part of the upper-level writing requirement

**Department:** Physics and Astronomy  
**Course:** PHY 245W  
**Title:** Advanced Experimental Techniques in Nuclear, Particle and Electron Spin Resonance  
**Instructor:** Howell, J **Class Size:** 10  
**Prerequisites:** PHY 217, 237, and MTH 164 (may be taken concurrently).  
**Description:** Similar to PHY 243W, except with experiments that have applications in the Medical Physics. The four experiments are: \*of Muon \*Spin Resonance/Magnetic Resonance Imaging \*Hertz Experiment or Hall Effect \*Spectroscopy (This course can be used to satisfy part of the upper-level writing requirement. (Cross-listed with PHY445)

**Department:** Physics and Astronomy  
**Course:** PHY 254  
**Title:** 20th Century Particle Physics  
**Instructor:** Garcia-Bellido, A.  
**Prerequisites:** PHY 237.  
**Description:** This course is designed for physics majors interested in nuclear and particle physics. The course describes the properties of the nuclei and various models used to describe nuclear matter, including the liquid drop model, shell model, collective model, radioactivity, fission, and fusion. Properties of particle interactions with matter are covered, and used to describe the principles of detections used in nuclear and particle experiments. In addition, the principle of operation of various existing accelerators are discussed. Finally, the fundamental interactions of elementary particles and their constituents are reviewed, with emphasis on conservation of quantum numbers and symmetries observed in high-energy collisions.

**Department:** Physics and Astronomy  
**Course:** PHY 311A  
**Title:** Mechanics & Chaotic Dynamics  
**Instructor:** Jordan, A.  
**Restrictions:** Permission of instructor required  
**Description:** This course is the first 6 weeks of the Graduate course Physics 411. Lagrangian and Hamiltonian dynamics, canonical transformations, Hamilton-Jacobi equations, chaotic dynamics and routes to chaos, Fourier spectrum and Poincar'e maps, Lyapunov exponents, strange attractors and fractal dimensions, information dimension and Kolmogorov entropy, numerical tests for chaotic behavior. Prerequisite: PHY235W. (Sept. 1 to Oct.

15) It is a 2 credit course. For more information on this course contact the instructor.

**Department:** Physics & Astronomy  
**Course:** PHY 327  
**Title:** Radiobiology I  
**Instructor:** Keng, P.  
**Description:** This 2-credit course evaluates the effects of radiation in mammalian cell systems ranging from cell cultures to whole animals. 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 PHY467). (Course offered every other Fall, alternates with PHY325/PHY465).

**Department:** Physics and Astronomy  
**Course:** PHY 331  
**Title:** Intro. to Quantum Optics  
**Instructor:** Stroud, C.  
**Prerequisites:** Contact instructor.  
**Restrictions:** Permission of instructor required  
**Description:** This course is a 2-credit version of the corresponding graduate-level course PHY 531/OPT 551. The course is offered the first half of the semester and is identical to the first half of the graduate course.

**Department:** Physics and Astronomy  
**Course:** PHY 354  
**Title:** Cosmology  
**Instructor:** Frank, A.  
**Restrictions:** Permission of instructor required for undergraduates  
**Description:** Introduction to cosmology, covering the following broad topics: Introduction to the universe, introduction to general relativity, cosmological models and the Friedmann-Walker universe, and thermodynamics of the early universe. This is a two credit course consisting of the first half of AST554/PHY554.

**Department:** Physics & Astronomy  
**Course:** PHY 386  
**Title:** Teaching Internship I, Pedagogy Training  
**Instructor:** Manly  
**Restrictions:** Permission of instructor required  
**Description:** This course is designed for an undergraduate planning to be a Workshop Leader, Laboratory or Recitation Teaching Intern (TI), and 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 in group dynamics, learning theory, and science pedagogy. The TI teaches one workshop, laboratory, or recitation in the fall semester introductory physics courses: PHY 113, PHY 122, PHY 141 or PHY 142. 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 386 instructor. (Course similar to CAS 352). Note: Students are required in April or August, to attend a two-day rigorous training program. Students prepare and present short model recitation and are video taped for self-evaluation.

**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  
**Course:** AST 102  
**Title:** Black Holes, Time Warps and the Large-Scale Structure of the Universe  
**Instructor:** Watson, D. **Class Size:** open  
**Prerequisites:** High school math through intermediate algebra. No physics prerequisites.  
**Exams:** Three in-class exams.  
**Coursework:** Six homework assignments, all of which involve the Computer Aided Personalized Assignment (CAPA) system.  
**Description:** We present a physical and astronomical (but non-mathematical) picture of the workings of Einstein's theory of relativity, and its application to cosmology and to black holes and wormholes, the most exotic and energetic objects known to scientists. Our aim is twofold: (1) to demystify black holes, big-bang cosmology, and the nature of space and time for non-science majors, to enable them to evaluate critically the frequent references to these exotic concepts in the press and in popular science and science-fiction literature; and (2) to provide non-science majors with a

glimpse of the processes by which scientific theories are conceived and advanced. In the course we make heavy use of computer-generated graphics and simulations during lectures.

**Department:** Physics and Astronomy  
**Course:** AST 111  
**Title:** The Solar System and Its Origin  
**Instructor:** Mamajek, E. **Class Size:** open  
**Prerequisites:** High school physics, MTH 141 or MTH 161, may be taken concurrently.  
**Coursework:** Laboratory required and included. Recitations available.  
**Description:** In astronomy 111 we will become familiar with the tools, methods and concepts of astronomy, and begin study of the observational basis for understanding the solar system. One way to describe the level of the course is to say that we will go as far as single-variable calculus, classical mechanics, Newton's law of gravity, and the ideal-gas law will take us. We will discuss the structure and composition of the individual planets and many smaller solar-system bodies, as well as the orbital dynamics and overall structure of the solar system. Astronomy 111 has no formal prerequisites, but the course is intended for science majors who have had beginning calculus or are taking it concurrently. We will thus use mathematical formulations of physics to describe planetary phenomena.

**Department:** Physics and Astronomy -- Astronomy  
**Course:** AST 232  
**Title:** The Milky Way Galaxy  
**Instructor:** Blackman, E. **Class Size:** open  
**Prerequisites:** Familiarity with PHY 235W and AST 142 is advised.  
**Restrictions:** Not open to freshmen and sophomores  
**Coursework:** Can be used as an upper level writing course see 232W.  
**Description:** Stellar motions; stellar distances; celestial mechanics; galactic structure; cluster evolution; fundamental equations of stellar statistics. (alternates with A203/A403)

**Department:** Physics and Astronomy  
**Course:** AST 232W  
**Title:** The Milky Way Galaxy  
**Instructor:** Blackman, E.  
**Prerequisites:** Familiarity with PHY 235W and AST 142 is advised  
**Restrictions:** Not open to freshmen and sophomores  
**Description:** Same as AST 232, except this is the upper level writing section. (alternates with A203/A403)

## Political Science

**Department:** Political Science  
**Course:** PSC 101  
**Title:** Introduction to Comparative Politics  
**Cross-listed:** IR 101  
**Instructor:** Powell, G.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, or international relations, 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 104  
**Title:** Introduction to Political Philosophy  
**Instructor:** Johnson, J.  
**Description:** This course is most aptly called Thinking About Politics. It aims to examine a range of contemporary issues and to explore the political and philosophical conflicts and controversies that those issues raise. So, for example, we might examine the concepts of patriotism and explore the tensions that arise between it and such other concepts as democracy or freedom or dissent or security. Readings will be drawn both from contemporary sources and classic political thought.

**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 final exam, and short writing assignments.

**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:** Gamm, G.  
**Restrictions:** Not open to freshmen  
**Description:** Students generally take PSC 202 in their sophomore year, but the course is also open to juniors and seniors. The course introduces students to the questions, concepts, and analytical approaches of political scientists. This version of the course focuses on the tension between majority rule and minority rights in the American political tradition. Issues include tyranny of the majority, slavery, individual rights, civic engagement, parties and interest groups, international diplomacy, legislative organization, and representation. Readings are drawn from classic texts in American thought--the Declaration of Independence, "The Federalist," Tocqueville's "Democracy in America," the Gettysburg Address--as well as from books and articles written by contemporary political scientists.

**Department:** Political Science  
**Course:** PSC 211  
**Title:** Public Opinion and Voting  
**Cross-listed:** PSC 211W  
**Instructor:** Niemi, R.  
**Exams:** midterm and final exam  
**Description:** Through lecture, readings, and discussion, we will consider major questions involving public opinion and voting. How much do citizens know about government and politics? Does participation make a difference? Do elected officials do what the public wants?

We will pay special attention to generational matters. Today's young people (that's you) are said to be uninterested and uninvolved in politics, yet voluntary community service has never been higher. How do we reconcile these facts, and what do we make of it? We will also cover sampling techniques and the interpretation of poll results: when you hear that 70% of the respondents to a national survey support gun control, can you believe it? What else do you need to know in order to interpret results?

**Department:** Political Science  
**Course:** PSC 216  
**Title:** Legislative Politics  
**Cross-listed:** 216W  
**Instructor:** Sinclair Chapman, V.  
**Description:** This course will examine Congress in its dual roles as both a national lawmaking institution and as the nexus of public representation in the policymaking process. We will survey some of the major theories and concepts used to understand and explain the operation of Congress and the behavior of its members. Students will gain a basic understanding of Congress through an examination of the role Congress plays in policymaking and representation, the formal rules that govern its operation, and the interaction that takes place between Congress and other political actors. This course is writing intensive and is most appropriate for juniors and seniors. Students will be graded on class participation, short writing assignments, and a research paper.

**Department:** Political Science  
**Course:** PSC 222  
**Title:** The U.S. Presidency  
**Cross-listed:** PSC 222W  
**Instructor:** Jordan, S.  
**Exams:** midterm and final exams  
**Description:** This course introduces the major topics and theoretical perspectives in the study of the U.S. presidency. Topics include: rationales for and effects of separation of powers; the presidency in comparative perspective; the nature and origin of the presidents influence on policy; the presidents role in lawmaking and the veto; presidential management of the executive branch; war powers and the presidents role in national security.

**Department:** Political Science  
**Course:** PSC 223  
**Title:** Constitutional Structure and Rights  
**Instructor:** Jackson, T.

**Description:** In this course, through the lens of the Constitution and Supreme Court cases, we examine the essential structure of the American legal system (both separation of powers at the federal level and the authority of, and relationship among, states and the federal government), as well as the essential nature of civil rights of citizens vis--vis the political order. Topics covered include the nature of the Supreme Courts authority; separation of powers; federal limits on state powers; and individual rights, including economic rights, certain of the rights embraced by the First, Fourth, and Fifth Amendments, and due process and equal protection rights under the Fourteenth Amendment. The ability to read and discuss (as well as place in perspective and disagree with) Supreme Court opinions is an essential part of the course.

**Department:** Political Science  
**Course:** PSC 237  
**Title:** Domestic Social Policy  
**Cross-listed:** PSC 237W  
**Instructor:** Jacobs, B.  
**Description:** An examination of major policy issues at the federal level. The normative justifications for governmental actions are discussed as well as the limitations imposed by bureaucracy and the decision-making process. Governmental programs that affect the poor are examined in detail, with special attention paid to an assessment of their impact and alternatives now under consideration.

**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, the mass media, interest group mobilization, and corporate social responsibility. Cases will be drawn from areas such as antitrust, transportation, health care, and the environment. Course meetings will generally begin with a short lecture followed by extensive class discussion.

**Department:** Political Science  
**Course:** PSC 243  
**Title:** Seminar on Environmental Politics  
**Cross-listed:** PSC 243W  
**Instructor:** Rothenberg, L. **Class Size:** total 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. Each student will also develop and briefly present a research paper which investigates a relevant issue of interest.

**Department:** Political Science  
**Course:** PSC 246  
**Title:** Women in Politics  
**Cross-listed:** WST 203F  
**Instructor:** Bredes, N. **Class Size:** cap 18  
**Exams:** final exam  
**Coursework:** 15-page research paper and a required three-hour field-work experience with a political campaign, followed by an oral presentation about the experience

**Description:** This course will explore women's evolving roles in American politics. Topics include: a brief historical review of women's rights; women's roles in social movements; and women in electoral politics and as elected officials. Students will examine the quality of women's political leadership, comparing and contrasting it to the traditional gender-based models. Course readings will be supplemented by video presentations and guest lectures.

**Department:** Political Science  
**Course:** PSC 261  
**Title:** Latin American Politics  
**Cross-listed:** PSC 261W, IR 261, IR 261W  
**Instructor:** Helmke, G  
**Description:** This course provides an introduction to political institutions and institutional reform in contemporary Latin America. The central theme of the course will be to focus on the emergence and functioning of key political institutions in Latin America, including the presidency, the legislature, the system of electoral rules, political parties, the judiciary, and the bureaucracy. The course will draw on a broad range of theoretical perspectives to analyze institutional choice and performance. In addition, the course will consider competing definitions of institutions, evaluate the trade-offs posed by institutional choice, and consider the prospects for institutional reform in the region.

**Department:** Political Science  
**Course:** PSC 270  
**Title:** Mechanisms of International Relations  
**Cross-listed:** PSC 270W, IR 270, IR 270W  
**Instructor:** Goemans, H.  
**Prerequisites:** PSC 106 or other IR course  
**Description:** The last ten years or so have seen a major revolution in the social sciences. Instead of trying to discover and test grand "covering laws" that have universal validity and tremendous scope (think Newton's gravity or Einstein's relativity), the social sciences are in the process of switching to more narrow and middle-range theories and explanations, often referred to as causal mechanisms. Mechanisms play a crucial role in this new conception of theory in the social sciences. In this course we will examine one particular mechanism each week and see how it has been applied in international political economy and/or security studies. Students will be introduced to formal reasoning in an informal manner. We will explore several substantive themes, such as the "democratic peace," ethnic conflict and international trade to illustrate the mechanisms and cumulative potential of this research approach.

**Department:** Political Science  
**Course:** PSC 274  
**Title:** International Political Economy  
**Cross-listed:** IR 274  
**Instructor:** Vashchilko, T.  
**Description:** This course explores the interaction between politics and economics at the international level as well as between the international and domestic levels, involving various actors such as governments, interest groups, and multinational corporations. As an interdisciplinary field related to both international politics and international economics, international political economy examines the management and openness of the international economy, the determinants of foreign economic policy-making on topics such as trade, foreign exchange, capital controls, the politics of economic development, the effects of domestic political competition on international trade and capital flows, the determinants of regional integration, as well as the spread or containment of international financial crises. Students are expected to complete oral and written assignments which are designed to help them develop their problem solving, writing and presentation skills.

**Department:** Political Science  
**Course:** PSC 276  
**Title:** Domestic Politics and International Conflict

**Cross-listed:** PSC 276W, IR 276, IR 276W  
**Instructor:** Debs, A.  
**Restrictions:** Not open to freshmen  
**Description:** Domestic institutions affect the way in which political conflict is arbitrated. We study basic models of domestic politics and ask whether domestic institutions determine foreign policies (for example, are democracies more peaceful than dictatorships?). The course introduces some elementary concepts of game theory, with an emphasis on applications in comparative politics and international relations.

**Department:** Political Science  
**Course:** PSC 279  
**Title:** War and Nation State  
**Cross-listed:** PSC 479  
**Instructor:** Goemans, H.  
**Exams:** final exam  
**Coursework:** Student presentations on class readings  
**Description:** This course examines the development of warfare and the growth of the state from the French Revolution to the end of the Second World War. We examine the phenomenon of war in its broader socio-economic context, focusing on nationalism, bureaucratization, industrialization and democratization. We will go into some detail on the two major conflicts of the twentieth century, the First and Second World Wars. Students are required to do all the reading. I have constructed a web page with additional information and links: <http://www.duke.edu/~hgoemans/WWI.htm>. Every student will make a presentation in class on the readings for one class (25% of the grade), and there will be one big final (75% **Department:** Political Science

**Course:** PSC 288  
**Title:** Game Theory  
**Cross-listed:** ECO 288  
**Instructor:** Barelli, P.  
**Description:** See description for ECO 288

**Department:** Political Science  
**Course:** PSC 350  
**Title:** Comparative Politics Field Seminar  
**Cross-listed:** PSC 550, IR 350  
**Instructor:** Powell, G.B., Helmke, G.  
**Prerequisites:** Any course in the comparative politics field  
**Restrictions:** Permission of instructor required  
**Description:** This course provides general conceptual background and an introduction to some major works in the comparative field and subfields. Comparative politics is a field that attempts to develop

and test theories that can be used to explain political events and patterns across political systems, especially nation-states. Topics include political culture, development and democratization, political regimes, violence and revolution, elections, social movements, parties, coalitions, institutions, and comparative public policy. The works are discussed and compared both in terms of the major substantive arguments and the methodological approaches taken to enhance the credibility of the arguments. The reading load is heavy and students are expected to write a number of short papers, which are presented in class, as well a midterm and one longer analytic essay. The class is intended primarily for graduate students but is open, upon instructor approval, to upper-level undergraduates who have shown both extraordinary promise and strong interest in comparative politics.

**Department:** Political Science  
**Course:** PSC 393  
**Title:** Senior Honors Project  
**Instructor:** Department Faculty  
**Restrictions:** Permission of instructor required  
**Description:** The Honors Project is a year-long research project supervised by a faculty member in the department and culminating in a written work. It begins, in most instances, with enrollment in the Junior Honors Seminar. Registration in PSC 393 requires approval of the faculty member who will supervise the honors 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 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: students need proficiency in the language for the latter four placements. For applications and information, students should contact the Study Abroad Office in Lattimore 206.

## International Relations

**Department:** International Relations  
**Course:** IR 101  
**Title:** Introduction to Comparative Politics  
**Cross-listed:** PSC 101  
**Instructor:** Powell, G.B.  
**Description:** Please see PSC 101 for the course description.

**Department:** International Relations  
**Course:** IR 220  
**Title:** Non-State Actors in World Politics  
**Instructor:** Vashchilko, T.  
**Description:** Global foreign direct investment inflows reached a record \$1,833 billion in 2007 (UNCTAD 2008). Roughly half of the worlds largest 200 governing entities are multinational corporations (MNCs). Crossing the boundaries between theories of international political economy, globalization, international business, and development, this course offers an introduction to the international political economy of MNCs and their interaction with governments. The main themes cover theories to explain why firms invest abroad, the effects of foreign direct investments on domestic and foreign policy, the bargaining between MNCs and host governments, the expropriation of assets by host countries, dependency, corporate political activities, and the regulation of foreign investment. Students are expected to complete weekly reading assignments, contribute to class discussion, and design a semester-long research project.

**Department:** International Relations  
**Course:** IR 222  
**Title:** Preventive Wars  
**Instructor:** Helmke, G.  
**Description:** Prevention is perhaps the most common justification for war. Both world wars, and more recently the invasion of Iraq and concerns over Chinas economic and military rise, illustrate its historical and present relevance. In this seminar, we analyze the theory, history, and practice of preventive wars wars fought to avoid negotiating in a position of weakness in the future. When

and why do states fight them, and what lessons can we draw from history to avoid them in the future?

**Department:** International Relations  
**Course:** IR 225  
**Title:** International Negotiations  
**Instructor:** Chadeaux, Thomas  
**Description:** This lecture analyzes the logic and practice of international negotiations. What strategies do states use? What works, what does not and why? And, how can we learn from theory and history to advise current negotiators? The course relies heavily on game-theoretic notions but doesn't require any prior exposure to mathematical background. Commitment, credibility and bargaining power are some of the concepts that will be central in this class. Applications to the real world (WTO, crisis negotiations) will be particularly emphasized to illustrate the theoretical notions introduced.

**Department:** International Relations  
**Course:** IR 261  
**Title:** Latin American Politics  
**Cross-listed:** IR 261W, PSC 261, PSC 261W  
**Instructor:** Helmke, G.  
**Description:** Please see PSC 261 for the course description.

**Department:** Political Science  
**Course:** IR 270  
**Title:** Mechanisms of International Relations  
**Cross-listed:** PSC 270W, PSC 270, IR 270W  
**Instructor:** Goemans, H.  
**Prerequisites:** PSC 106 or other IR course  
**Description:** Please see PSC 270 for the course description.

**Department:** Political Science  
**Course:** IR 274  
**Title:** International Political Economy  
**Cross-listed:** PSC 274  
**Instructor:** Vashchilko, T.  
**Description:** Please see PSC 274 for the course description.

**Department:** International Relations  
**Course:** IR 276  
**Title:** Domestic Politics And International Conflict  
**Cross-listed:** IR 276W, PSC 276, PSC 276W  
**Instructor:** Debs, A.  
**Description:** Please see PSC 276 for the course description.

**Department:** International Relations  
**Course:** IR 279  
**Title:** War and the Nation States  
**Cross-listed:** PSC 279  
**Instructor:** Goemans, H.  
**Description:** Please see PSC 279 for the course description.

**Department:** International Relations  
**Course:** IR 280  
**Title:** Communism and Democracy in Eastern Europe  
**Instructor:** Klich-Lkuczevska, B  
**Description:** The course will provide an introduction to the post-war political and social history of Eastern Europe from the establishment of the Communist regime until the present. The aim of the course is to explore and explain the nature of communist dictatorship, its impact on Eastern European societies, and the process of transformation toward democracy taking place since 1989. The course will analyze the complexity of the present situation in the region and the prospects for future development of the European Union. It will be illustrated by fragments of documentaries and feature films.

## Psychology

**Department:** Psychology  
**Course:** PSY 101  
**Title:** Introduction to Psychology  
**Instructor:** Niemiec, C. **Class Size:** Open  
**Restrictions:** Open to freshmen only  
**Description:** The course will survey the various subdisciplines of psychology and their interrelationships. The application of the laws, theories and observation of psychology to the understanding of human behavior and mental life will be emphasized. There will be three weekly lectures and optional weekly recitations. A comprehensive text of about 600 pages will be required. The course grade will be based primarily on exam performance as measured against an absolute scale (i.e., grades will not be curved). There will also be opportunities to earn credit with short reports. Note: The Department of Psychology requires students in Psychology 101 participate for a few hours as subjects in ongoing research.

**Department:** Psychology  
**Course:** PSY 110  
**Title:** Neural Foundations of Behavior  
**Cross-listed:** BCS 110

**Instructor:** Pouget, A.,Holtzman, D. **Class Size:** 200  
**Prerequisites:** None  
**Description:** Same as BCS 110. 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 151  
**Title:** Perception and Action  
**Cross-listed:** BCS/CVS 151  
**Instructor:** Tadin, D. **Class Size:** 60  
**Prerequisites:** PSY/BCS 110 or BCS 111 or PSY/BCS 112  
**Description:** Same as BCS 151. See description in Brain & Cognitive Sciences listing.

**Department:** Psychology  
**Course:** PSY 152  
**Title:** Language and Psycholinguistics  
**Instructor:** Jaeger, F. **Class Size:** 30  
**Prerequisites:** PSY/BCS 110 OR 112  
**Description:** Same as BCS 152. See Brain & Cognitive Sciences listing for description.

**Department:** Psychology  
**Course:** PSY 171  
**Title:** Social and Emotional Development  
**Instructor:** Sturge-Apple, M. **Class Size:** open  
**Description:** See CSP 171. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 181  
**Title:** Theories of Personality & Psychotherapy **Class Size:** open  
**Cross-listed:** CSP 181  
**Description:** See CSP 181. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 205  
**Title:** Lab in Development and Learning  
**Cross-listed:** BCS 205  
**Instructor:** Aslin, R. **Class Size:** 15  
**Prerequisites:** BCS 200 (or approved course in statistics) and one of PSY 151, 152, 153, 172, or equivalent background with approval of instructor  
**Description:** Same as BCS 205. See description in Brain & Cognitive Sciences listing.

**Department:** Psychology  
**Course:** PSY 211  
**Title:** Introduction to Statistical Methods in Psychology  
**Cross-listed:** CSP 211  
**Description:** See CSP 211. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 219W  
**Title:** Research Methods in Psychology  
**Instructor:** Thrash, T.  
**Cross-listed:** CSP 219W  
**Prerequisites:** PSY 101  
**Description:** See CSP 219W. Same as Clinical and Social Sciences in Psychology course description 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 263  
**Title:** Relationship Process and Emotions  
**Cross-listed:** CSP 263  
**Instructor:** Reis, H. **Class Size:** open  
**Description:** See CSP 263. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 264  
**Title:** Industrial and Organizational Psychology  
**Cross-listed:** CSP 264  
**Exams:** 3 exams  
**Description:** See CSP 264. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 267  
**Title:** Psychology of Gender  
**Cross-listed:** CSP 267  
**Description:** See as CSP 267. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 289  
**Title:** Developmental Child Psychopathology  
**Instructor:** Davies, P.  
**Cross-listed:** CSP 289  
**Prerequisites:** PSY 171  
**Description:** See CSP 289. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 301W  
**Title:** Teaching Psychology  
**Cross-listed:** CSP 301W  
**Instructor:** Niemiec, C.  
**Restrictions:** Permission of instructor required  
**Description:** See CSP 301W. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 310W  
**Title:** Honors Research  
**Cross-listed:** CSP 310W  
**Restrictions:** Permission of instructor required  
**Description:** See CSP 310W. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 351  
**Title:** Research in Developmental Neuropsychology  
**Instructor:** Bennetto, L.  
**Prerequisites:** Same as CSP 351  
**Restrictions:** Permission of instructor required  
**Description:** Same as CSP 351

**Department:** Psychology  
**Course:** PSY 364  
**Title:** Achievement and Motivation  
**Instructor:** Elliot, A.  
**Description:** See CSP 364. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY368W  
**Title:** Seminar in Humanistic Psychology  
**Cross-listed:** CSP 368W  
**Instructor:** Deci, E.

**Restrictions:** Permission of instructor required  
**Description:** See as CSP 368W. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 373  
**Title:** Exploring Research in Social Psychology  
**Instructor:** Elliot, A.  
**Restrictions:** Permission of instructor required  
**Description:** See CSP 373. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 377  
**Title:** Exploring Research in Family Psychology I  
**Cross-listed:** CSP 377  
**Instructor:** Davies, P.  
**Description:** See CSP 377. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 383  
**Title:** Moral Development  
**Instructor:** Smetana, J. **Class Size:** open  
**Description:** See CSP 383. Same as Clinical and Social Sciences in Psychology course description listing.

**Department:** Psychology  
**Course:** PSY 384  
**Title:** Practicum in Developmental Disabilities  
**Cross-listed:** CSP 384  
**Instructor:** Bennetto, L.  
**Restrictions:** Permission of instructor required  
**Description:** See CSP 384. Same as Clinical and Social Sciences in Psychology course description listing.

## Religion & Classics

**Department:** Religion & Classics  
**Course:** REL 101  
**Title:** Introduction to the Old Testament  
**Cross-listed:** JST 106  
**Instructor:** Merideth, A.  
**Description:** In this course, we will examine the texts of the Hebrew Bible in their social, historical, and religious contexts. We will read major biblical books and examine their major themes against the background of Ancient Near Eastern culture. We will approach

the texts of the Hebrew Bible as we would any other historical documents. Students will be exposed to the methods of modern biblical scholarship as well. No previous knowledge of the Hebrew Bible or of Judaism is presupposed. Requirements for the course include one paper analyzing a biblical text, a midterm quiz, and a final exam. Upper-level writing credit available (REL 101W).

**Department:** Religion & Classics  
**Course:** REL 103  
**Title:** History of Judaism  
**Cross-listed:** JST 203  
**Instructor:** Rubel, N.  
**Description:** This course will provide an overview of Jewish history, texts, traditions, practices, and beliefs, and will emphasize Judaism as a living tradition, one which is subject to both continuity and change among its practitioners.

**Department:** Religion & Classics  
**Course:** REL 105  
**Title:** The Asian Search for Self  
**Instructor:** Brooks, D.  
**Exams:** Mid-term, final  
**Coursework:** Term paper  
**Description:** An introduction to the intellectual and religious history of India. We shall investigate particularly the ways in which early Vedism, classical Hinduism, Buddhism, and Jainism conceive of the cosmos, meaningful human existence and life's ultimate goals. Readings include original sources in translation, such as the Upanisads, the Bhagavadgita and Buddhist scriptures in both Mahayana and Nikaya-based traditions.

**Department:** Religion & Classics  
**Course:** REL 111  
**Title:** Philosophy of Religion  
**Cross-listed:** PHL 111  
**Instructor:** Wierenga, E.  
**Exams:** Three 50-minute tests  
**Coursework:** short paper (6-10 pages)  
**Description:** Topics include the existence of God, the nature of God, and the relation of God to the world. We will examine traditional arguments for and against God's existence, we will consider divine attributes such as omnipotence and omniscience, and we will discuss such topics as miracles and the relation of religion and morality. Three lectures per week with opportunity for discussion. Text: Philosophy of Religion, ed., Louis Pojman.

**Department:** Religion & Classics  
**Course:** REL 142  
**Title:** The Ideas of the Greeks  
**Cross-listed:** CLA 142  
**Instructor:** Geier, A.  
**Exams:** two essay exams, two papers  
**Description:** A study of the major themes and ideas (literary, philosophical, religious, and historical) from Homer to Aristotle (e.g. excellence, fate, the gods, the soul, being, tragedy, comedy, Kosmos, logos, intellect, history, family, beauty, matter, nature, etc.) Lecture and discussion.

**Department:** Religion & Classics  
**Course:** REL 148  
**Title:** The Arabian Nights  
**Cross-listed:** ARA 148/CLT 257A  
**Instructor:** Beaumont, D.  
**Description:** Please see ARA 148 for the course description.

**Department:** Religion & Classics  
**Course:** REL 157  
**Title:** African American Religious History  
**Cross-listed:** AAS 185  
**Instructor:** Butler, A.  
**Description:** Religion is an integral part of the lives and history of the peoples of the African Diaspora. Peoples of African descent in the Americas from the beginnings of slavery to the present have both embraced and contested religion, and it is this historic tension between African Americans use and experience of religion as both oppressor and liberator that will form the foundation of the class. In addition to the traditional religious history of the Black Church, special consideration of religions outside of what is traditionally considered to be "The Black Church", namely Islam, the Nation of Islam, Garveyism, Rastafarianism, Spiritualist churches, and Santeria will comprise a major portion of the course.

**Department:** Religion & Classics  
**Course:** REL 164  
**Title:** Death, Dying and Beyond  
**Instructor:** P. Muller-Ortega  
**Prerequisites:** none  
**Exams:** Take-home midterm; several in-class, reaction papers and a final exam  
**Description:** This class will center on a study of the nature of death, dying and after-death states as portrayed particularly in the Asian religious and philosophical traditions. Readings from the Tibetan Book of



the Dead, the Upnishads, the Pali Canon, and a variety of other sources will serve to explore the meanings of death in the Asian context. Additional readings in modern scholarship on the meanings of death, as well as comparative readings in selected sources on Western approaches to death will amplify our discussions. With regard to the Asian traditions, a particular focus will be the exploration of the idea of the bardo or the "between" state of the Tibetan traditions. As well, we will examine the widespread Asian notion of samsara or transmigration as a device for explaining and categorizing after-death destinations. An additional focus will be the interesting connections between Asian ideas about mystical states and corresponding ideas about death. In a wider context, the course will approach how varying notions of death influenced the evolution of cosmologies in Asia, created differing constructions of personal identity, and impelled the articulation of notions of ultimate meaning and transcendence.

**Department:** Religion & Classics  
**Course:** REL 197Q  
**Title:** Dante's Divine Comedy I  
**Cross-listed:** REL 285/CLT 116Q/CLT 253C/IT 195Q/IT 220  
**Instructor:** Stocchi, D.  
**Restrictions:** Open to freshmen only  
**Description:** Please see IT 220 for the course description.

**Department:** Religion & Classics  
**Course:** REL 208  
**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 220  
**Title:** Jewish Women's Writings  
**Cross-listed:** JST 220/WST 236  
**Instructor:** Rubel, N.

**Description:** This seminar will trace the American Jewish experience, from the Eastern European immigrant experience to the recent religious revival, through the lens of Jewish women's literature. By reading these narratives by Jewish women, we will explore how they understand both Judaism, America, and themselves at the time of their writing. We will examine how their pasts are reconstructed and how their presents are understood. Spanning the last century, we will cover topics such as immigration, ethnicity, religion, politics, and feminism. We will ask questions: What is Jewish literature? How is the Holocaust represented? What does it mean to be an American? What place does Judaism have in an American identity? We will also examine the ways women have both rejected and embraced traditional Judaism. We will engage a wide scope of female authors and texts will include both fiction and memoirs.

**Department:** Religion & Classics  
**Course:** REL 231  
**Title:** Christian History Part I  
**Instructor:** Cadorette, C.  
**Description:** This course will examine the origin and evolution of Christianity, juxtaposing Christian belief and behavior with the historical environments Christianity existed in until 1500. Multiple short papers are required.

**Department:** Religion & Classics  
**Course:** REL 234  
**Title:** Cry Freedom  
**Cross-listed:** AAS 246  
**Instructor:** Cadorette, C.  
**Coursework:** Students will write short reflection essays throughout the semester.  
**Description:** The course will examine the relationship between religion and social change. It will first focus on religious and social problems from a national and international perspective. Focal points will be the issues of race, class, and gender, as well as economic and socio-political issues that face our world today. The second part of the course will focus on contributions that religion can make to solving social issues in a freeing or liberation way.

**Department:** Religion & Classics  
**Course:** REL 248  
**Title:** Islam and Global Politics  
**Cross-listed:** ANT 264  
**Instructor:** Gibson, T.  
**Description:** Please see ANT 264 for a course description.

**Department:** Religion & Classics  
**Course:** REL 272  
**Title:** Classical Yoga Traditions of India  
**Instructor:** Muller-Ortega, P.  
**Description:** The classical Yoga traditions of India stand at the core of the spiritual disciplines that emerge in the evolution of Asian religious and spiritual thought. Differentiated from the later tantric Yoga, the classical Yoga receives its most influential statement in the Yoga Sutras of Patanjali (ca. 4th century C.E.). Here, Hindu mysticism, philosophy and practice coincide to create a text that elaborates on what might be called a philosophical technology for the exploration of mystical consciousness. This class will approach the study and implications of this text and of its supporting traditions of thought and practice in a sustained way. Also, we will read one of the classic books in the History of Religions, Mircea Eliade's Yoga, Immortality and Freedom. Through the lens of these two texts, students will approach an understanding of the deepest core of Indian mystical practice and its connections to the broader traditions of Indian spirituality.

**Department:** Religion & Classics  
**Course:** REL 285  
**Title:** Dante's Divine Comedy I  
**Cross-listed:** REL 197Q/CLT 116Q/CLT 253C/IT 195Q/IT 22  
**Instructor:** Stocchi, D.  
**Description:** Please see IT 220 for the course description.

**Department:** Religion & Classics  
**Course:** REL 293W  
**Title:** Theories of Religion  
**Instructor:** Brooks, D.  
**Description:** An investigation of important methodological contributions to the critical study of religion. The class will be conducted as a seminar. In class, papers and discussion will constitute the work of the course. One hundred and fifty pages of reading per week. Restricted to Religion majors and minors only.

**Department:** Religion & Classics  
**Course:** REL 294  
**Title:** Religion, Gender and the Body  
**Instructor:** Butler, A.  
**Description:** How do the major world religions shape religious practices, perceptions, and beliefs through their understandings of the body and gender? This course will interrogate the role of religious belief in forming, shaping, and transforming understandings of the body and gender in the world's major religious traditions.

Special attention will be given to theoretical understandings, ascetic practices, sexuality, and formation of 20th century religious cultures of the body within a global context.

## Religion & Classics -- Arabic

**Department:** Religion & Classics -- Arabic  
**Course:** ARA 101  
**Title:** Elementary Arabic I  
**Instructor:** Beaumont, C.  
**Exams:** Weekly quizzes; final exam.  
**Description:** An introduction to the written language of the Arab Middle East. Students learn the Arabic alphabet and begin the study of grammar and syntax. Class time is divided between lectures, drills, and reading texts. In addition to written exercises, it is expected that students will work on their reading skills outside of class.

**Department:** Religion & Classics -- Arabic  
**Course:** ARA 103  
**Title:** Intermediate Arabic  
**Instructor:** Beaumont, C.  
**Prerequisites:** 101 & 102 (ARA) or passing placement exam.  
**Exams:** Quizzes every two weeks; midterm and final.  
**Description:** Continue ARA 101 and ARA 102. The "weak" verb is introduced, which completes the basic grammar. Class-time is devoted to grammar, conversation, reading and drills.

**Department:** Religion & Classics -- Arabic  
**Course:** ARA 148  
**Title:** The Arabian Nights  
**Cross-listed:** REL 148/CLT 257A  
**Instructor:** Beaumont, D.  
**Description:** The medieval Arabic fiction known as either The Arabian Nights or The 1001 Nights is a classic of world literature. Though names such as Shahrazad and Shahriyar, Aladdin, and Sindbad are well known, the real nature of The Nights is less well known. It is a fiction clearly intended for adults; its themes of sex, love, betrayal, revenge, money, power and violence are treated with great sophistication and humor. We discuss the major themes of The Nights--love and sex, comedy and adventure--that have given the stories their universal appeal and their timeless relevance. The readable English translation of Powys Mathers is used, and classes are mostly devoted to discussion. The written work consists of one short paper and a longer paper.

**Department:** Religion & Classics -- Arabic

**Course:** ARA 201  
**Title:** Arabic Prose Seminar I  
**Instructor:** Beaumont, D.  
**Prerequisites:** ARA 103  
**Exams:** 2 Midterm and 1 Final  
**Description:** The course emphasizes readings in literary Arabic to strengthen the vocabulary of students who have completed study of the basic grammar. Further instruction in the grammar is based on the readings. The selection of texts will take into account students' interests.

## Religion & Classics -- Classical Greek

**Department:** Religion & Classics -- Classical Greek  
**Course:** CGR 101  
**Title:** New Testament & Classical Greek I  
**Description:** This course provides an introduction to ancient Greek, the language used by classical Attic authors as well as the writers of the New Testament and other early Christian texts. We will work toward a mastery of forms and vocabulary, an understanding of syntax, and a habit of precise reading. Supplemental readings will be drawn from a broad range of ancient Greek literature. Attendance in recitation is required.

**Department:** Religion & Classics -- Classical Greek  
**Course:** CGR 103  
**Title:** Intermediate Greek  
**Instructor:** Geier, A.  
**Description:** This course offers an intensive review of Greek grammar combined with readings in Greek prose in order to strengthen the students knowledge of Classical Greek and improve translation skills. We will translate and discuss Xenophon's Memorabilia, a dialogue about Socrates.

**Department:** Religion & Classics -- Classical Greek  
**Course:** CGR 202  
**Title:** Homer's Odyssey  
**Instructor:** Geier, A.  
**Prerequisites:** CGR 101-103  
**Description:** A study, translation and discussion of selections from Homer's Odyssey. Special attention given to meter and the poetic aspects of Homeric Greek.

## Religion & Classics -- Classical Studies

**Department:** Religion & Classics -- Classical Studies

**Course:** CLA 115  
**Title:** Roman World  
**Cross-listed:** REL 210/HIS 213  
**Instructor:** Colantoni, E.  
**Description:** The course offers a comprehensive account of the history of Rome. It first deals with her humble beginnings as a small city-state in central Italy, continuing with the process of Roman hegemony in the Italian peninsula and the Mediterranean world, and ending with the times that led to the fall of the Roman Empire in the west in AD 476. Students will be introduced to the analysis of written and archaeological sources in order to answer the basic question, How do we know about the Romans? Thus, the analysis of the evidence will be the foundation to discuss major topics of Roman civilization. For example, an examination of the city of Pompeii will allow us to reconstruct the daily life of a wealthy Roman city, and the first Roman emperor Augustus' written statement of his own political and military achievements provides us with evidence for the transition from a republican to an imperial form of government.

**Department:** Religion & Classics -- Classical Studies  
**Course:** CLA 142  
**Title:** The Ideas of the Greeks  
**Cross-listed:** REL 142  
**Instructor:** Geier, A.  
**Exams:** two essay exams, two papers  
**Description:** A study of the major themes and ideas (literary, philosophical, religious, and historical) from Homer to Aristotle (e.g. excellence, fate, the gods, the soul, being, tragedy, comedy, Kosmos, logos, intellect, history, family, beauty, matter, nature, etc.) Lecture and discussion.

**Department:** Religion & Classics -- Classical Studies  
**Course:** CLA 204  
**Title:** Engineering & Society in Antiquity  
**Instructor:** Colantoni, E.  
**Description:** This course explores the relationship between, on the one hand, engineering and technological advances and, on the other hand, social practices in ancient Greece and Rome. Topics covered include the social role of engineers and architects, the ancient economy and work force, and the social use of buildings and other constructions in the Greek and Roman worlds.

## Religion & Classics -- Hebrew

**Department:** Religion & Classics -- Hebrew  
**Course:** HEB 101

**Title:** Elementary Hebrew I  
**Cross-listed:** JST 101  
**Exams:** no final  
**Description:** Introduction to the structure of modern Hebrew. Practice in speaking, reading and writing. Several exams and quizzes throughout the semester. No final. Textbook: The New Ivrit min Hhatchala (Hebrew from scratch) level 1/Shlomit Chayat, Sara Israeli and Hella Kobliner. Hebrew 101 may not be taken by anyone who has successfully completed Hebrew 102 or higher.

**Department:** Religion & Classics -- Hebrew  
**Course:** HEB 103  
**Title:** Intermediate Hebrew  
**Cross-listed:** JST 103  
**Prerequisites:** HEB 102 or equivalent  
**Description:** Continuation of Hebrew 102 with emphasis on enhancing reading comprehension, writing and speaking skills. Students are expected to have good understanding in structure of Hebrew and familiarity with Hebrew verb forms. Several exams and quizzes throughout the semester. No final. Textbook: Lessons in Modern Hebrew, level 1/Edna Amir Coffin, and material from other sources (e.g. newspaper). Hebrew 103 may not be taken by anyone who has successfully completed Hebrew 204.

## Religion & Classics -- Latin

**Department:** Religion & Classics -- Latin  
**Course:** LAT 103  
**Title:** Intermediate Latin  
**Prerequisites:** Lat 102 or a minimum of 420 on the College Proficiency Exam, or permission of the instructor.  
**Description:** This course, the third in the introductory sequence, consists of readings from a selection of Latin prose and poetry, with accompanying grammar review.

**Department:** Religion & Classics -- Latin  
**Course:** LAT 204  
**Title:** Catullus  
**Description:** In this course we will encounter one of the most daring and controversial writers in the western canon: the poet Catullus. Through close readings of his poems in the original Latin, we will approach such issues as the use of poetry for social commentary, the history of obscenity, the manuscript tradition, the Alexandrian Movement, and the influence of Catullus' vivid and irreverent poetry on later authors. We will spend time on questions of meter, style, and syntax, as well as on the many cultural and

historical aspects of Catullus' work. Requirement: second-year Latin or permission of instructor.

**Department:** Religion & Classics -- Latin  
**Course:** LAT 250  
**Title:** Latin Skills  
**Cross-listed:** LAT 450  
**Instructor:** Crooker, J.  
**Description:** This course focuses on the development of listening, speaking, and writing skills for Latin students and prospective teachers. Topics to be covered include Oral Latin, Latin Prose Composition, Active Learning in the Latin Classroom, and Latin Curricula and Lesson Design.

**Department:** Religion & Classics -- Latin  
**Course:** LAT 251  
**Title:** Latin Prose Composition  
**Instructor:** Crooker, J.  
**Description:** Students will translate progressively more complex sentences and passages from English into Latin and will try their hand at free composition. Includes a thorough review of Latin syntax and idiom.

**Department:** Religion & Classics -- Latin  
**Course:** LAT 450  
**Title:** Latin Skills  
**Cross-listed:** LAT 250  
**Instructor:** Crooker, J.  
**Description:** Please see Lat 250 for the course description.

## Russian Studies—Please see Modern Languages & Cultures

## Sociology

**Department:** Sociology  
**Course:** SOC 101  
**Title:** Introduction to Sociology  
**Instructor:** Harper, D.  
**Exams:** Three midterms, Final Examination  
**Description:** Content: For the student, the objectives of the course are: (1) to acquire a sociological perspective, (2) to develop a critical and questioning stance towards public pronouncements about social life. Sociology is the study of rule governed behavior (and, hence

**Class Size:** 50

is the study of systems of morality), of conformity and deviance, of social inequality and of social conflict. METHOD OF INSTRUCTION: Lectures; some class discussion of reading. READINGS: No single textbook is assigned. Rather, six to eight research monographs and book length essays are assigned. Examples are Jared Diamond, Collapse (an examination of why societies fail), Seymour Lipset, American Exceptionalism (the uniqueness of American society), Barbara Ehrenreich. Bait and Switch, Jason DeParle, American Dream (on poverty and welfare), William James, Washington Square.

**Department:** Sociology  
**Course:** SOC 205  
**Title:** Microsociology  
**Instructor:** Smith, T.  
**Exams:** No exams, three term papers  
**Description:** Microsociology gives students hands-on experience using theories to interpret ongoing small group processes. Weekly student meetings are videotaped, and the videotapes are subsequently studied with the professor. Students read widely from literature on small group processes, group psychotherapy, and social psychology. Weekly student discussions.

**Department:** Sociology  
**Course:** SOC 206  
**Title:** Advanced Microsociology  
**Instructor:** Smith, T.  
**Prerequisites:** SOC 205  
**Description:** This course is limited to those students who have taken SOC 205 Microsociology. This course again focuses on group development; students will work at understanding themselves in social settings. New methods of observing and analyzing interaction will be introduced. Students will read further in the literature of small groups. Each self analytic group will analyze tapes from meetings of groups other than own.

**Department:** Sociology  
**Course:** SOC 221  
**Title:** Love, Friendship and Community  
**Cross-listed:** ANT 214  
**Instructor:** Smith, T.  
**Exams:** None; Two written presentations; class presentation.  
**Coursework:** Lectures at beginning of semester; class presentations and discussion in later part of semester.  
**Description:** This course introduces students to a neurosociological perspective on strong interaction and strong personal ties--high frequency social dynamics marked by strong mutual coupling.

Traditional subjects such as love, friendship, and community are examined in this new perspective, and the mainstream literature in sociology and social psychology is sampled in weekly readings. The course format in mixed: lectures at the beginning of the semester give way to increased class presentations and discussion. Grades are assigned on the basis of two written assignments and class presentations.

## Statistics

**Department:** Statistics  
**Course:** STT 201  
**Title:** Introduction to Probability  
**Cross-listed:** MTH 201  
**Instructor:**  
**Class Size:**  
**Prerequisites:** MTH 162 or equivalent, MTH 164 recommended  
**Exams:** 2-3 exams  
**Description:** Please see MTH 201 for this course description.

**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  
**Instructor:**  
**Class Size:** 75-100  
**Exams:** Two mid-terms and a final  
**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 213  
**Title:** Elements of Probability and Statistics  
**Prerequisites:** MTH 141 or equivalent.  
**Exams:** 2 mid-terms and a final exam

<b>Coursework:</b>	Lectures plus weekly recitation section meeting. Weekly homework.	
<b>Description:</b>	Descriptive statistics; probability; binomial, Poisson, normal distributions; estimation of means, proportions, and their differences; confidence limits; tests of hypotheses; chi-square tests of association; introduction to regression analysis. Computing with Minitab. (MTH 165 was renumbered STT 213, eff. Fall 2003.)	
<b>Department:</b>	Statistics	
<b>Course:</b>	STT 221W	
<b>Title:</b>	Sampling Techniques	
<b>Cross-listed:</b>	BST 421	<b>Class Size:</b> 15
<b>Prerequisites:</b>	STT 211, STT 212 or STT 213, and 203 or equivalent.	
<b>Exams:</b>	Weekly assignments, 2 exams, & a final	
<b>Description:</b>	Simple random, stratified, systematic, and cluster sampling; estimation of the means, proportions, variance, and ratios of a finite population. Ratio and regression methods of estimation and the use of auxiliary information. The nonresponse problem. Prerequisite: Familiarity with the concepts of expectation, variance, covariance and correlation.	
<b>Department:</b>	Statistics	
<b>Course:</b>	STT 226W	
<b>Title:</b>	Introduction to Linear Models	
<b>Prerequisites:</b>	STT 212 or 213, and STT 203.	
<b>Exams:</b>	Two mid-terms & a final	
<b>Description:</b>	(2 credits; first half of the semester) Simple linear, multiple, and polynomial regression methods and applications; ordinary and generalized least squares, estimation, tests of hypotheses, and confidence intervals, and simultaneous inference, and computer packages. Computer programs including JMP and SAS.	
<b>Department:</b>	Statistics	
<b>Course:</b>	STT 277	
<b>Title:</b>	Introduction to Statistical Software	
<b>Cross-listed:</b>	STT 477	
<b>Instructor:</b>	Heckler, C.	<b>Class Size:</b> 20
<b>Prerequisites:</b>	STT 212 and either 216 or STT 226. Basic skills with the Windows XP operation system, a text editor (such as Notepad) and Micr	
<b>Exams:</b>	Final	
<b>Description:</b>	STT-277 and the companion course STT-278 are an introduction to statistical computing using software specifically engineered for that purpose. It is strongly recommended that students register for both courses. STT-277 covers the elements of programming in R and SAS, and operation of the JMP graphical user interface.	

The student will learn how to get data into (and out of) these programs, execute fundamental statistical procedures, and write programs in R and SAS to document and automate analyses. (Course offered first half of the semester, 2 credits.)

<b>Department:</b>	Statistics	
<b>Course:</b>	STT 278	
<b>Title:</b>	Methods of Data Analysis	
<b>Cross-listed:</b>	STT 478	
<b>Instructor:</b>	Heckler, C.	<b>Class Size:</b> 20
<b>Prerequisites:</b>	STT 277.	
<b>Exams:</b>	Final	
<b>Description:</b>	STT-278 explores the use of the software introduced in STT 277 to understand data from observational studies. The student will learn the philosophy, capabilities, and pitfalls of exploratory data analysis. Graphical methods will be emphasized, but numerically-oriented procedures such as linear models will be included where appropriate. Each student will analyze a real-life data set in some depth and write a report (Course offered second half of the semester, 2 credits.)	

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

## W. Allen Wallis Institute of Political Economy

<b>Department:</b>	Political Economy	
<b>Course:</b>	PEC 575	
<b>Title:</b>	Theory of Voting and Elections	
<b>Cross-listed:</b>	ECO 575, PSC 575	
<b>Instructor:</b>	John Duggan	
<b>Description:</b>	The course takes up several foundational topics in theoretical political economy. It begins with the analysis of fundamental concepts used throughout the course: binary relations, preferences, and choice. We then study social choice theory, where we view collective decisions as arising from a social preference relation determined in some arbitrary way by the preferences of individuals, covering (among other things) Arrow's impossibility theorem, which informs us of inherent limitations on the rationality of collective decisions. We then change perspective, viewing collective decisions as outcomes of a game played by individual decision-makers. We will consider game-	

theoretic models of static elections, sequential voting, bargaining, and repeated elections, with a special focus on connections to social choice.

## Women's Studies

**Department:** Women's Studies  
**Course:** WST 100  
**Title:** Intro to Women's Studies: Politics of Cultural Morality  
**Instructor:** Holtzman, D. **Class Size:** 25  
**Description:** This course will discuss traditional conceptions of binary genders and related gender roles that have evolved into more fluid understandings of femininity and masculinity. Prescriptions dictating the gender role behaviors equated with normative masculinity and femininity have become increasingly malleable as a result of social, cultural, and ideological changes catalyzed by the feminist and gay rights movements. Despite these seemingly radical shifts in cultural perceptions of gender roles and polymorphous sexualities, men and women are still largely held to different moral and ethical standards. Mainstream film, television, magazines and advertising bombard us with images of ideal masculinity, femininity and gendered bodies. This course will explore a variety of texts ranging from tabloid magazines, and mainstream hard news journalistic sources to entertainment based television programs, cinema, literary and documentary biography, and reality television.

**Department:** Women's Studies  
**Course:** WST 115  
**Title:** Introduction to Medical Anthropology  
**Cross-listed:** ANT 102  
**Instructor:** Metcalf, L. **Class Size:** 30  
**Coursework:** Lectures, discussions, readings, films  
**Description:** Please see ANT 102 for the course description.

**Department:** Women's Studies  
**Course:** WST 203F  
**Title:** Women in Politics  
**Cross-listed:** PSC 246  
**Instructor:** Bredes, N.  
**Exams:** Midterm and final class exam  
**Coursework:** 5-page paper analyzing a specific campaign and a 10-page research paper  
**Description:** Please see PSC 246 for the course description.

**Department:** Women's Studies

**Course:** WST 206F  
**Title:** Feminism, Gender, and Health  
**Cross-listed:** HLS 206  
**Instructor:** J. Lightweis-Goff **Class Size:** 25  
**Description:** Feminism, Gender, and Health considers how theories of gender, social organization, and biological sex shape the questions asked and explanations and interventions offered in the areas of health, disease, and well-being. We examine the effects of gender, social class, and race in mediating health effects, with particular emphasis on women's health. Some issues examined will include the life cycle and transitions, collective and individual trauma, access to health services, HIV/AIDS, reproductive health and longevity. THIS IS A WOMEN'S STUDIES FOUNDATION COURSE. CAP 25.

**Department:** Women's Studies  
**Course:** WST 213  
**Title:** Sacred dance  
**Cross-listed:** DAN 220  
**Instructor:** McCausland, J.  
**Coursework:** Class requirements include journaling, reading assignments from the text book and handouts, viewing videos and attendance at dance events.  
**Description:** Please see DAN 220 for the course description.

**Department:** Women's Studies  
**Course:** WST 214  
**Title:** Woman as Image and Text  
**Cross-listed:** AH 210/410  
**Instructor:** Seiberling, G. **Class Size:** 25  
**Description:** Please see AH 210 for the course description.

**Department:** Women Studies  
**Course:** WST 217  
**Title:** Birth and Death: Anthropology of Vital Events  
**Cross-listed:** ANT 218  
**Instructor:** A. Carter  
**Restrictions:** Permission of instructor required for freshmen  
**Coursework:** Two hourly and one final exam; optional research paper  
**Description:** Please see ANT 218 for the course description.

**Department:** Women's Studies  
**Course:** WST 218  
**Title:** Marriage, Family & Community in a Global Perspective  
**Cross-listed:** ANT 244, AAS 248  
**Instructor:** A. Emmett **Class Size:** 30  
**Description:** Please see ANT 244 for the course description.

**Department:** Women's Studies  
**Course:** WST 232  
**Title:** Wizards, Magic, and Fantasy  
**Cross-listed:** GER 232  
**Instructor:** Gustafson, S.  
**Description:** Please see GER 232 for the course description.

**Department:** Women's Studies  
**Course:** WST 233  
**Title:** Race in American Fiction  
**Cross-listed:** ENG 250, ENG 450, AAS 250  
**Instructor:** Li, S. **Class Size:** 25  
**Description:** Please see ENG 250 for the course description.

**Department:** Women's Studies  
**Course:** WST236  
**Title:** Jewish Women's Writings  
**Cross-listed:** REL 220  
**Instructor:** Rubel, N.  
**Description:** Please see REL 220 for the course description.

**Department:** Women's Studies  
**Course:** WST 239  
**Title:** Women and Religion  
**Cross-listed:** ANR 240  
**Instructor:** McHugh, Ernestine **Class Size:** 4 from River campus  
**Restrictions:** Not open to freshmen  
**Description:** A study of conceptions of women embodied in the imagery of various religious traditions, the role of women in worship, and the impact of religious traditions on feminine experience and social definitions of gender roles. For each region, we consider both religious doctrine and the lives of women in the context of societies holding to these religious beliefs. Cross-listed as ANR 240. THIS IS A THREE CREDIT COURSE TAUGHT AT THE EASTMAN SCHOOL OF MUSIC.

**Department:** Women's Studies  
**Course:** WST 267  
**Title:** Topics in Media Studies: Changing Genres of Erotica  
**Cross-listed:** ENG 267, ENG 467  
**Instructor:** Bleich, D.  
**Description:** Please see ENG 267 for the course description.

**Department:** Women's Studies  
**Course:** WST 294  
**Title:** Religion, Gender and the Body

**Cross-listed:** REL 294  
**Instructor:** Butler, A.  
**Description:** Please see REL 294 for the course description.

**Department:** Women's Studies  
**Course:** WST 373  
**Title:** Sex & Gender In America City  
**Cross-listed:** HIS 373W, HIS 473, WST 473  
**Instructor:** Wolcott, V.  
**Description:** Please see HIS 373W

**Department:** Women's Studies  
**Course:** WST 391  
**Title:** INDEPENDENT STUDY  
**Restrictions:** Permission of instructor required  
**Coursework:** Students interested in Independent Study should contact the Women's Studies Curriculum Director.

**Department:** Women's Studies  
**Course:** WST 392  
**Title:** Practicum in Women's Studies

**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 395  
**Title:** Independent Research

**Department:** Women's Studies  
**Course:** WST 396  
**Title:** Women's Studies Seminar  
**Cross-listed:** HIS  
**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 a faculty 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 473  
**Title:** Sex & Gender In America City  
**Cross-listed:** HIS 373W, HIS 473, WST 373  
**Instructor:** Wolcott, V.  
**Description:** Please See HIS 373W

## 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 introduce some of the forms of writing students are 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 presents various texts, mostly written, for analysis and discussion in preparation for constructing extended argumentative essays and a final research paper. Students consider the roles of audience and purpose in shaping the organization, style and argumentative strategies of their own papers, and they 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 introduce some of the forms of writing students are 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 presents various texts, mostly written, for analysis and discussion in preparation for constructing extended argumentative essays and a final research paper. Students consider the roles of audience and purpose in shaping the organization, style and argumentative strategies of their own papers, and they 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 include an additional class session each week and are taught in computer labs and limited to 10 students. Places in these sections are reserved for students who decide that they need a more supported 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 245  
**Title:** Advanced Writing and Peer Tutoring  
**Cross-listed:** ENG 285  
**Instructor:** Rossen-Knill, Deborah **Class Size:** 15  
**Prerequisites:** Fulfillment of the Primary Writing Requirement. Minimum GPA of 3.0.  
**Restrictions:** Special application required  
**Description:** WRT 245/ENG 285 prepares selected sophomores, juniors and eligible freshmen for work as writing fellows. The course design reflects the kind of growth that is necessary for a strong, intuitive writer and speaker to become a successful reader, listener and responder in peer-tutoring situations. Through a great deal of writing and rewriting, critical reading of published essays and student work, and informal and formal speaking, students will develop a conscious understanding of themselves as communicators and become aware of the choices they make to reach their audience. Before tutoring on their own, students will observe College Writing Center consultants conducting sessions as part of a mentoring program. By the semester's end, students should be ready to take on their own hours as peer tutors.

## School of Engineering and Applied Sciences

### Biomedical Engineering

**Department:** Biomedical Engineering  
**Course:** BME 101  
**Title:** Intro to Biomedical Engineering  
**Instructor:** Dalecki, D **Class Size:** 50  
**Prerequisites:** permission of instructor if not freshman  
**Restrictions:** Open only to freshmen & sophomores  
**Exams:** 2 exams and a final project  
**Coursework:** Includes weekly problem assignments  
**Description:** An introductory overview of the multi-disciplinary field of biomedical engineering. Application of elementary engineering principles to the analysis of physiological systems. Includes basic introduction to the use of computers as tools for solving engineering problems. Course topics include biomechanics, cell and tissue engineering, biosignals and bioinstrumentation, medical imaging, medical optics and bioethics. Includes some guest lectures by biomedical engineering faculty. 4 Credits

**Department:** Biomedical Engineering  
**Course:** BME 201  
**Title:** Fundamentals of Biomechanics  
**Instructor:** McGrath, J **Class Size:** 60  
**Prerequisites:** MTH 161 and 162, BME 101, PHY 121  
**Exams:** 3 one hour in class exams, 1 comprehensive exam  
**Coursework:** Homework and examples will be taken from the fields of ergonomics, human movement and injury, and prosthetics and exercise equipment design. In an additional semester-long homework series students will perform a computational simulation  
**Description:** This course teaches the elementary analysis of mechanical equilibrium and motion with extended applications to biology. Lectures present a traditional analysis of idealized particles and rigid bodies. Syllabus topics include force and moment balances, the analysis of frames, trusses and pulleys, the analysis of systems with friction, mass centers, area moments, and the linear and rotational kinetics and kinematics of rigid bodies. Weekly exercises apply these principles in non-biological problems in two and three dimensions. Weekly problems extend the application to biological problems ranging from human motion to the mechanics of cells. In an end-of-term project students use and extend a computational simulation of human motion written in the MATLAB programming language. 4 credits

**Department:** Biomedical Engineering  
**Course:** BME 201L  
**Title:** MATLAB for Biomedical Engineering  
**Instructor:** Carney, L **Class Size:** 50  
**Prerequisites:** Co-requisite: BME 201  
**Exams:** 1 mid-term and a final exam  
**Coursework:** In-class assignments and occasional take-home assignments; final project  
**Description:** Fundamentals of computer programming in MATLAB. Emphasis on programming basics, such as syntax, loop structures, logic, input/output, and graphics.

**Department:** Biomedical Engineering  
**Course:** BME 221  
**Title:** Biomedical Computation  
**Instructor:** Wismueller, A **Class Size:** 45  
**Prerequisites:** BME 201 and 201 L or permission of instructor  
**Exams:** one midterm, a final exam, and a final project  
**Coursework:** weekly programming assignments

**Description:** The application of numerical and statistical methods to model biological systems and interpret biological data, using the MATLAB programming language.

**Department:** Biomedical Engineering  
**Course:** BME 260  
**Title:** Quantitative Physiology with lab  
**Instructor:** Seidman, S **Class Size:** 30  
**Prerequisites:** ECE 113 or BME 210, or permission of instructor  
**Description:** A quantitative, model-oriented approach to physiological systems is presented. Topics include: muscle and nerve tissue, the cardiovascular system, the respiratory system, the renal system, and a variety of neural systems. 4 credits

**Department:** Biomedical Engineering  
**Course:** BME 283  
**Title:** Biosolid Mechanics  
**Cross-listed:** ME483, BPH483  
**Instructor:** Lerner, A **Class Size:** 40  
**Prerequisites:** ME 226, BME 201 & 201L or ME 120  
**Exams:** Midterm, Final project  
**Coursework:** 6-7 homework assignments  
**Description:** Application of engineering mechanics to biological tissues including bone, soft tissue, cell membranes, and muscle. Realistic modeling of biological structures, including musculoskeletal joints and tissues. Investigations of the responses of biological tissues to mechanical factors. Experimental methods and material models.

**Department:** Biomedical Engineering  
**Course:** BME 295  
**Title:** BME Design Seminar  
**Instructor:** Lerner, A, Seidman, S **Class Size:** 50  
**Prerequisites:** math, science, and engineering courses appropriate for fourth-year students in BME  
**Restrictions:** Open only to senior majors or by permission of instructor  
**Coursework:** written memos, teamwork, design proposal, oral presentations  
**Description:** Introduction to design of medical devices and instruments. Students are introduced to methods and strategies for creative design while considering ethical, economic, regulatory and safety issues. In addition to benchmarking existing devices, students prepare for a design project to be completed in the following semester. 2 credits

**Department:** Biomedical Engineering  
**Course:** BME 453  
**Title:** Advanced Biomedical Ultrasound

**Instructor:** McAleavey, S **Class Size:** 30  
**Prerequisites:** BME 451 or permission of instructor  
**Description:** This course investigates the imaging techniques applied in state-of-the-art ultrasound imaging and their theoretical bases. Topics include linear acoustic systems, spatial impulse responses, the k-space formulation, methods of acoustic field calculation, dynamic focusing and apodization, scattering, the statistics of acoustic speckle, speckle correlation, compounding techniques, phase aberration correction, velocity estimation, and flow imaging. A strong emphasis is placed on readings of original sources and student assignments and projects based on realistic acoustic simulations.

**Department:** Biomedical Engineering  
**Course:** BME 483  
**Title:** Biosolid Mechanics  
**Cross-listed:** ME 483, BPH 483  
**Instructor:** Lerner, A **Class Size:** 30  
**Prerequisites:** ME 226, BME 201 or ME 120  
**Exams:** Midterm, Final Project  
**Coursework:** 6-7 homework assignments. Course assignments and projects are advanced in comparison to the undergraduate level course.  
**Description:** Please see BME 283 for the course description.

## Chemical Engineering

**Department:** Chemical Engineering  
**Course:** CHE 113  
**Title:** Chemical Process Analysis  
**Instructor:** Wu, JHD  
**Prerequisites:** Freshman Chemistry, MTH 161- MTH 162, or permission of instructor  
**Restrictions:** Open only to freshmen & sophomores  
**Exams:** Three quizzes.  
**Coursework:** Assignments: Problem sets, and textbook readings.  
**Description:** Course Content and Method of Instruction: Lectures and discussion. Methodology and problem solving techniques in chemical engineering; the concepts of mass and energy conservation in both reacting and non-reacting chemical systems; the concept of equilibrium in chemical and physical systems and the basic principles of thermodynamics are presented; both steady state and transient behavior are discussed for some special systems. Not open to seniors 4-credits

**Department:** Chemical Engineering  
**Course:** CHE 225  
**Title:** Chemical Engineering Thermodynamics

**Instructor:** Yates,M  
**Prerequisites:** Junior standing  
**Restrictions:** Permission of instructor required  
**Exams:** 3 exams  
**Coursework:** Classroom discussions strongly encouraged. Problem sets and analysis-based project assignments are important components of the course.

**Description:** Lectures on the origin and use of the first and second laws of thermodynamics, followed by a discussion of equilibrium criteria. Thermodynamic descriptions of (real) gases and liquids are developed and applications of thermodynamics to phase and chemical equilibria complete the course. 4-credits

**Department:** Chemical Engineering  
**Course:** CHE 244  
**Title:** Heat and Mass Transfer  
**Instructor:** Anthamatten, M **Class Size:**  
**Prerequisites:** CHE 243, fluid mechanics, differential equations  
**Exams:** Typically two or three hourly exams and a final  
**Coursework:** Assignments: Weekly homework sets, a few open-ended problems or a design project of limited scope.  
**Description:** A fundamental course in heat transfer processes and an introduction to mass transfer. Topics include equations of energy conservation, conduction, convection, radiation; equations for chemical species conservation, diffusion, macroscopic balances. Emphasis on problem solving, especially for purposes of design. 4-credits

**Department:** Chemical Engineering  
**Course:** CHE 255  
**Title:** Laboratory in Chemical Engineering Processes  
**Instructor:** Ebenhack, B,Olsen, T  
**Prerequisites:** CHE 243,CHE 244,CHE 231,CHE 250  
**Exams:** Three oral presentations per group per semester  
**Coursework:** Exploratory experiments and preliminary experimental design, as well as oral and written reports are required. Weekly progress review meetings are also required.  
**Description:** Operation and scale-up of chemical process equipment for chemical reaction and purification. Examination of the factors that affect performance in practice. Exploratory experiments and preliminary experimental design, as well as oral and written reports are required. 3-credits

**Department:** Chemical Engineering  
**Course:** CHE 258  
**Title:** Electrochemistry and Fuel Cells  
**Cross-listed:** CHE 458

**Instructor:** Jorne, J. **Class Size:** 60  
**Restrictions:** Permission of instructor required  
**Description:** The course will concentrate on presenting the principles of electrochemistry and electrochemical engineering, and the design considerations for the development of fuel cells capable of satisfying the projected performance of an electric car. The course is expected to prepare you for the challenges of energy conversion and storage and the environment in the 21st century. 2-Credits

**Department:** Chemical Engineering  
**Course:** CHE 273  
**Title:** Chemical Engineering Process Design  
**Instructor:** Chimowitz, E  
**Prerequisites:** Senior standing in CHE  
**Exams:** 2 exams + design project  
**Description:** The course will cover material related to the conception and design of chemical processes. Topics will include energy systems analysis, the attainability region approach for reactor network synthesis and the effects of statistical uncertainty on decision making when evaluating alternative designs. Modern techniques for stochastic simulation of random processes will also be studied. The use of computational software packages like MATHCAD and DESIGN II will be expected in doing many of the homework assignments. In addition to two examinations, a computer-oriented design project will be assigned involving the use of chemical engineering principles for the solution of a process flowsheet problem. A good back ground in computer programming is necessary since many of the course assignments make use of numerical techniques. 4-credits

**Department:** Chemical Engineering  
**Course:** CHE 277  
**Title:** Energy Resources & Utilization  
**Instructor:** Ebenhack, B  
**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 280  
**Title:** Chemistry of Advanced Materials  
**Cross-listed:** CHE 480, MSC 431  
**Instructor:** Yang, H  
**Description:** Preparation, structure, composition, and properties of advanced materials with emphasis on the underlying chemistry. Atomic structure and bonding of crystalline and amorphous solids and crystalline defect. Materials synthesis and processing by chemical and physical deposition methods. Focus on the relation of structure to properties of materials. Selected topics to illustrate the basic concepts and principles will include thin film materials, nanostructure/ nanoscale/ nanocomposite materials, and bulk materials. 4-credits

**Department:** Chemical Engineering  
**Course:** CHE 282  
**Title:** Processing of Microelectronic Devices  
**Cross-listed:** CHE 482  
**Instructor:** Jorne, J **Class Size:** 60  
**Description:** An overview of processes used in the fabrication of microelectronic devices, with emphasis on chemical engineering principles and methods of analysis. Modeling and processing of microelectronic devices. Includes introduction to physics and technology of solid state devices grade silicon, microlithography, thermal processing, chemical vapor deposition, etching and ion implantation and damascene processing. 2-Credits

**Department:** Chemical Engineering  
**Course:** CHE 286  
**Title:** Poly Science & Engineering  
**Cross-listed:** CHE 486, MSC 433  
**Instructor:** Chen, S, **Class Size:** 30  
**Description:** This course features the science and technology of synthetic macromolecules. Topics include polymerization reactions, structure and properties of semicrystalline and amorphous polymers, characterization of structure and properties, structure-property relationship in polymers, and applications of polymeric materials. 4-credits

**Department:** Chemical Engineering  
**Course:** CHE 441  
**Title:** Advanced Transport Phenomenon  
**Instructor:** Foster, D  
**Prerequisites:** Senior standing in ChE  
**Exams:** Midterm, Final - quizzes

**Coursework:** Weekly homework  
**Description:** This course will acquaint the student with important topics in advanced transport phenomena (momentum, heat and mass transport). Topics include laminar and turbulent flow, thermal conductivity and the energy equation, molecular mass transport and diffusion with heterogeneous and homogeneous chemical reactions. Focus will be to develop physical understanding of principles discussed and with emphasis on chemical engineering applications. In addition to the text, the student will be exposed to classic and current literature in the field. Two exams, homework assignments and a student project are required. 4-credits

**Department:** Chemical Engineering  
**Course:** CHE 458  
**Title:** Electrochemical Engineering and Fuel Cells  
**Cross-listed:** CHE 258  
**Instructor:** Jorne, J **Class Size:** 60  
**Description:** Please see CHE 258 for the course description.

**Department:** Chemical Engineering  
**Course:** CHE 480  
**Title:** Chemistry of Advanced Materials  
**Cross-listed:** CHE 280, MSC 431  
**Instructor:** Yang, H. **Class Size:**  
**Description:** Please see CHE 280 for the course description.

**Department:** Chemical Engineering  
**Course:** CHE 482  
**Title:** Processing of Microelectronic Devices  
**Cross-listed:** CHE 282  
**Instructor:** Jorne, J **Class Size:** 60  
**Description:** Please see CHE 282 for the course description.

**Department:** Chemical Engineering  
**Course:** CHE 486  
**Title:** Poly Science & Engineering  
**Cross-listed:** CHE 286, MSC 433  
**Instructor:** Chen, S **Class Size:** 30  
**Description:** Please see CHE 286 for the course description.

**Department:** Chemical Engineering  
**Course:** CHE 507  
**Title:** Advanced Genetics  
**Cross-listed:** GEN 507  
**Instructor:** W. Li  
**Prerequisites:** Prior background in Mendelian and molecular genetics  
**Description:** See GEN 507

# Electrical & Computer Engineering

**Department:** Electrical & Computer Engineering  
**Course:** ECE 101  
**Title:** Introduction to Electrical and Computer Engineering  
**Instructor:** Mottley, J. **Class Size:** 40  
**Description:** 2 Credit Hours, meets for 2.5 hours once a week. Project based course gives an overview of the principal areas of Electrical and Computer Engineering, and introduces some tools and practices of Engineering. Projects will include assembly of electronic devices and computer modeling and simulation.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 111  
**Title:** Introduction to Signals and Circuits  
**Instructor:** Jones, T.B. **Class Size:** 50  
**Prerequisites:** Concurrent registration in MTH 163 or 165 and PHY 122  
**Exams:** 2 exams and a final  
**Coursework:** Laboratory: Electrical measurement instruments and techniques.  
**Description:** Analysis techniques for DC and AC circuits.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 112  
**Title:** Logic Design  
**Instructor:** Derefinko, V. **Class Size:** 60  
**Prerequisites:** One semester of college mathematics. Ability to operate computers.  
**Exams:** final exam  
**Coursework:** Seven lab experiments and homework. One 4 week long project. Lab includes FPGA designs of various complexity.  
**Description:** Fundamentals of digital logic design methodology including analysis, synthesis, optimization, simulation, and implementation. Multi-level combinational circuits, synchronous sequential circuits, and Finite State Machines. Programmable logic devices (PLD's), Computer Aided Design tools (CAD) and Very High Speed IC Hardware Description Language (VHDL) and schematic capture.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 140  
**Title:** Introduction to Digital Music  
**Instructor:** Velickik, G. **Class Size:** 30  
**Exams:** mid-term and final exams  
**Description:** Vibrations and musical sound from strings and pipes. Digitization of sound, digital recording, digital storage. Spectral analysis, digital filtering. Musical sound synthesis: additive synthesis,

subtractive synthesis, FM, physical modeling. MIDI and computer based interactive music. Laboratory. Taught alternate years with ECE240

**Department:** Electrical & Computer Engineering  
**Course:** ECE 201  
**Title:** Advanced Computer Architecture  
**Cross-listed:** ECE401  
**Instructor:** Huang, M. **Class Size:** 42  
**Prerequisites:** ECE 200 or equivalent  
**Description:** Instruction set architectures. Advanced pipelining techniques. Instruction level parallelism. Memory hierarchy design. Multiprocessing. Storage systems. Interconnection network.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 221  
**Title:** Electronic Devices and Circuits  
**Instructor:** Ignjatovic, Z. **Class Size:** 60  
**Prerequisites:** ECE 113  
**Exams:** 3  
**Description:** Introduction to the physics and operation of semiconductor devices and to the design and analysis of basic electronic circuits. Semiconductor transport properties. P-n junction diodes and diode circuits. Bipolar junction transistors. Single- and multi-stage BJT amplifiers. Differential amplifiers. Small-signal analysis, bias design, time and frequency response of BJT circuits. Laboratory.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 223  
**Title:** Semiconductor Devices  
**Cross-listed:** ECE 423 and MSC426  
**Instructor:** Sobolewski, R. **Class Size:** 50  
**Prerequisites:** ECE 221, ECE 230, and PHY 123 or instructor's approval  
**Exams:** Midterm; library research/review project; presentation and written report  
**Coursework:** 6 homework assignments; research/review project  
**Description:** Review of modern solid state devices, their physics and principles of operation. Solid state physics fundamentals, free electrons, band theory, transport properties of semiconductors, tunneling, semiconductor junctions and transistors. Compound and semi-magnetic semiconductors. Optoelectronic and ultrafast devices.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 230  
**Title:** Electromagnetic Waves

**Instructor:** Sobolewski, R. **Class Size:** 30  
**Prerequisites:** MTH 163, MTH 164, PHY 122, ECE 113  
**Exams:** Two in class exams and final exam  
**Coursework:** weekly homework assignments, 3 lab, plus 3 pre-lab assignments  
**Description:** TEM waves in transmission line structures, transient and steady state solutions. Applications in digital circuits, RF equipment, and optical communication networks. Maxwell's equations and wave equation in homogeneous media. Plane waves in homogenous loss-less and low-loss media. Linear and circular polarization. Wave propagation in lossy/conducting media and skin effect. Dipole radiation, transceiver and receiver antennas, and antenna arrays. Satellite communications and fiber optical communications. Quantum communications.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 235  
**Title:** Introduction to Opto-Electronics  
**Cross-listed:** ECE 435, MSC 473  
**Instructor:** Hsiang, T. **Class Size:** 30  
**Prerequisites:** ECE 230 and ECE 221 or equivalent/permission of instructor  
**Description:** Introduction to fundamentals of wave propagation in materials, waveguides and fibers, generation, modulation and detection of light using semiconductor devices, and elements of optocommunication systems.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 241  
**Title:** Signals  
**Instructor:** Titlebaum, E. **Class Size:** 60  
**Prerequisites:** MTH 164, MTH 165/163 and ECE 113  
**Exams:** three midterms. five laboratory projects based on MATLAB 6.0  
**Coursework:** Weekly homeworks, Six laboratory projects throughout the semester  
**Description:** Introduction to continuous and discrete time signal theory and analysis of linear time-invariant systems. Signal representations, convolution, Fourier analysis, filtering of continuous and discrete time signals, Laplace and Z transforms. Laboratory.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 244  
**Title:** Digital Communications  
**Cross-listed:** ECE 444  
**Instructor:** Sharma, G. **Class Size:** 30  
**Prerequisites:** ECE242 or equivalent ECE 440 or equivalent (may be taken as a co-requisite) Familiarity w/ MATLAB (or instructor permission)  
**Exams:** Mid-term and final exams  
**Coursework:** MATLAB programming may be required

**Description:** Digital communication system elements, characterization and representation of communication signals and systems. Digital transmission, binary and M-ary modulation schemes, demodulation and detection, coherent and incoherent demodulators, error performance. Channel coding and error correction codes.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 246  
**Title:** Digital Signal Processing  
**Cross-listed:** ECE 446  
**Instructor:** Demirkol, I. **Class Size:** 20  
**Prerequisites:** ECE 241  
**Exams:** two mid-terms and a final exam  
**Coursework:** Weekly homeworks, monthly Matlab assignments.  
**Description:** This course will begin with a review of discrete-time signals and systems. Following this, the course will cover topics related to the analysis and design of discrete-time signals and systems, including: difference equations, discrete-time filtering, z-transforms, A/D and D/A conversions, multi-rate signal processing, FIR and IIR filter design, the Discrete Fourier Transform (DFT), circular convolution, Fast Fourier Transform (FFT) algorithms, windowing, and classical spectral analysis.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 261  
**Title:** Introduction to VLSI  
**Cross-listed:** ECE 461  
**Instructor:** Ampadu, P. **Class Size:** 20  
**Prerequisites:** ECE 112 and ECE 221  
**Exams:** final exam  
**Coursework:** Extensive work in the lab is required  
**Description:** Issues in digital integrated circuit design. The devices. CMOS Inverter. Combinational logic gates in CMOS. Designing sequential logic circuits. Designing arithmetic building blocks. Timing issues in digital circuits. Memories and array structures. Design verification and testing. Design projects using computer aided design tools: SPICE, MAGIC, IRSIUM, OCTTOOLS.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 266  
**Title:** RF and Microwave Integrated Circuits  
**Cross-listed:** ECE 466  
**Instructor:** Wu, H. **Class Size:** 30  
**Prerequisites:** ECE222, ECE230 or equivalent. Permission of instructor  
**Coursework:** Bi-weekly design lab; term project using EDA tools

**Description:** This course involves the analysis and design of radio-frequency (RF) and microwave integrated circuits at the transistor level. We begin with a review of electromagnetics and transmission line theory. Several concepts and techniques are then introduced, including Smith chart, s-parameters, and EM simulation. After discussion of RLC circuits, high-frequency narrow-band amplifiers are studied, followed by wideband amplifiers. Then we examine the important issue of noise with the design example of low-noise amplifiers (LNA). Nonlinear circuits are studied next with the examples of mixers and RF power amplifiers. A study of oscillators and phase noise follows. Afterwards we introduce phase-locked loops (PLL) and frequency synthesizers. The course concludes with an overview of transceivers architectures. The course emphasizes the development of both circuit design intuition and analytical skills. There are bi-weekly design labs and a term project using industry-standard EDA tools (ADS, Asitic).

**Department:** Electrical & Computer Engineering  
**Course:** ECE 398  
**Title:** Design Seminar  
**Instructor:** Mottley, J.  
**Prerequisites:** ECE111, 112, 113, 114  
**Restrictions:** Not open to freshmen and sophomores  
**Coursework:** Prepare a proposal for a Design project that will be carried out the next semester depending on the area of concentration. Elements of the proposal include: definition of project requirements and product specifications and clarification.

**Description:** Students majoring in Electrical and Computer Engineering will take this course at the same time as their concentration elective and prepare a proposal for the Design Project to be carried out in the Spring semester. Students and instructor will consult with design project supervisors in various areas to devise a plan. Proposal might include: definition of project requirements and product specifications, clarification and verification of end user requirements, subsystem definition and interfaces, generation of project and testing plans, reliability analysis, product safety, compliance issues, manufacturability, cost, and documentation.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 401  
**Title:** Advanced Computer Architecture  
**Cross-listed:** ECE 201  
**Instructor:** Huang, M. **Class Size:** 20  
**Prerequisites:** ECE200 or equivalent.  
**Description:** Please see ECE 201 for the course description.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 423  
**Title:** Semiconductor Devices  
**Cross-listed:** ECE 223 and MSC426  
**Instructor:** Sobolewski, R. **Class Size:** 50  
**Prerequisites:** ECE 221, ECE230, and PHY 123 or Instructor's approval.  
**Exams:** Midterm; Library research/review project-required; presentation & written report  
**Coursework:** 6 homework assignments, research /review project  
**Description:** Please see ECE 223 for the course description.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 433  
**Title:** Musical Acoustics  
**Instructor:** Mottley, J. **Class Size:** 30  
**Prerequisites:** Differential equations and multivariable calculus, physics  
**Description:** An early graduate or advanced undergraduate course on the engineering aspects of acoustics. Review of oscillators, vibratory motion, the acoustics wave equation, reflection and transmission, and radiation and reception of acoustic waves. Additional topics as time and interests allow, such as resonators, hearing and speech, architectural and environmental acoustics.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 435  
**Title:** Intro to Optoelectronics  
**Cross-listed:** ECE 235  
**Instructor:** Hsiang, T. **Class Size:** 20  
**Prerequisites:** ECE 230 and ECE 221 equivalent or permission of instructor  
**Description:** Please see ECE 235 for the course description. .

**Department:** Electrical & Computer Engineering  
**Course:** ECE 440  
**Title:** Introduction to Random Processes  
**Instructor:** Waag, R.  
**Prerequisites:** ECE242 or equivalent  
**Exams:** Midterm and final  
**Coursework:** About ten homework assignments  
**Description:** An introduction to random signals and noise in linear systems. This knowledge will prove useful in the design and analysis of communication systems and signal processing. Review of selected topics in probability theory, random variables, random vectors, random sequences (random walk, Martingales, ARMA model, Markov chains), random processes (Poisson process, Gaussian process, Wiener process, Markov process), stationary and cyclostatioany processes, random process inputs to linear



systems, ergodicity, filtering, linear estimation, bandlimited and bandpass processes.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 441  
**Title:** Detection & Estimation Theory  
**Instructor:** Vosoughi, A. **Class Size:** 20  
**Prerequisites:** ECE440 or permission of instructor  
**Exams:** midterm, term project, final  
**Coursework:** Homework assignments and term project  
**Description:** Classical detection and estimation theory (binary hypothesis tests, M hypothesis, Bayes estimation, maximum likelihood estimation), minimum variance unbiased estimators, Cramer-Rao lower bound, best linear unbiased estimators, least squares estimation, applications to detection of signals in noise and estimation of signal parameters. The role of signal design in Radar, Sonar and wireless communications will be discussed.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 444  
**Title:** Digital Communication  
**Cross-listed:** 244  
**Instructor:** Sharma, G. **Class Size:** 30  
**Prerequisites:** ECE242 or equivalent, ECE 440 or equivalent (may be taken as a co-requisite), Familiarity with MATLAB or instructor permission  
**Exams:** Mid-term and final exams  
**Coursework:** Assignments; MATLAB programming may be required.  
**Description:** Please see ECE 244 for the course description.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 446  
**Title:** Digital Signal Processing  
**Cross-listed:** ECE246  
**Instructor:** Demirkol, I. **Class Size:** 20  
**Prerequisites:** ECE241  
**Exams:** two mid-terms and a final exam  
**Coursework:** Weekly homeworks, monthly MATLAB assignments  
**Description:** Please see ECE 246 for the course description.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 447  
**Title:** Digital Image Processing  
**Instructor:** M. Doyley **Class Size:** 30  
**Prerequisites:** ECE246, MTH165 and a familiarity with MATLAB programming environment and C/C++.  
**Coursework:** homework and project assignments

**Description:** Digital image fundamentals. Elements of image processing systems. Image model and imaging geometry. Image sampling and quantization. 2D image transforms. Image enhancement and filter. Image degradation models and image restoration techniques. Image segmentation and classification. Image compression.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 461  
**Title:** Introduction to VLSI  
**Cross-listed:** ECE 261  
**Instructor:** Ampadu, P. **Class Size:** 20  
**Prerequisites:** ECE 112 and ECE 221  
**Exams:** final exam  
**Coursework:** Extensive work in the lab is required  
**Description:** Please see ECE 261 for the course description.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 466  
**Title:** RF and Microwave Integrated Circuits  
**Cross-listed:** ECE266  
**Instructor:** Wu, H. **Class Size:** 30  
**Prerequisites:** ECE 222, ECE 230 or equivalent. Permission of instructor  
**Coursework:** Bi-weekly design lab; term project using EDA to  
**Description:** Please see ECE 266 for the course description.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 479  
**Title:** Theory and Practice in Audio Recording and Processing  
**Instructor:** Headlam, D. **Class Size:** 20  
**Description:** This course is designed to teach aspects of audio recording techniques to non-music majors. The weekly sessions will include hands-on introductions to microphone techniques recording hardware and software, digital editing, room acoustics, and mixing and mastering. The course will assume some technical knowledge of signal processing (FFT, dB) but will emphasize the musical aspects of the recording process. Evaluation will be made on the basis of class participation and a final project, which could be a recording session of a RC group, or a research paper on some topic related to contemporary recording and sound.

**Department:** Electrical & Computer Engineering  
**Course:** ECE 590  
**Title:** Energy for the 21st Century: A Survey  
**Instructor:** Fauchet, P. **Class Size:** 20

**Prerequisites:** Well-qualified seniors may take the course with the instructor's permission.

**Coursework:** Several written reports and attendance and participation in class.

**Description:** This 2-credit course aims at providing a succinct, yet complete and critical introduction to the different means of producing energy. The increasing demand for power generation is starting to outstrip the known sources of fossil fuels. In addition, the increasing use of fossil fuels is widely believed to be a major contributor to global warming. Alternative sources of energy that do not produce as much greenhouse gases and/or are renewable are still mostly in the research phase. Students from engineering and science disciplines need to be educated in the field of energy production so that they can contribute to the international discussion and conduct research that may provide solutions to specific problems in the generation, transport, and use of energy. The lectures will be technical and at a level that is appropriate for graduate students from engineering and science disciplines.

## Mechanical Engineering

**Department:** Mechanical Engineering

**Course:** ME 104Q

**Title:** Life's Structures: Mechanical Design in Nature and in the Technological World

**Instructor:** Perucchio, R. **Class Size:** 50

**Description:** Mechanical aspects of design in the context of two areas in which most students have a very good intuitive understanding: structures built and used by humankind over the centuries and human and animal bodies. We examine how Newtonian mechanics, material behavior, energy requirements, size, and dimensional considerations define the boundaries of mechanical design in nature and in human technology. On the side of technology, the course studies the evolution of masonry buildings, of bridges, and of other structures. In the case of biological design, topics include bones and the skeletal system, the heart and the circulatory system, muscles and soft tissues. Students work in teams on several design projects, including written reports, model constructions, poster presentation.

**Department:** Mechanical Engineering

**Course:** ME 106

**Title:** Engineering in Antiquity

**Instructor:** Perucchio, R

**Description:** The application of engineering principles and technology to the design and performance of engineering structures from antiquity

to the pre-industrial world. The course combines three components: basic engineering principles (transfer of forces, momentum, and energy), study of primary texts (in translation), and examination of existing structures and designs. Primary texts include selections from Aristotle's Mechanical Problems, the Ten Books of Architecture by Vitruvius, Leonardo's Notebooks, Galileo's Dialogues on Two New Sciences, and technical manuals from the 18th and early 19th centuries. Emphasis is on engineering design and its application. Topics: force, power and energy sources and transmission, engines, irrigation and hydraulics, aqueducts, lifting devices, construction engineering, columns and beams, engineering structural materials and failure, instruments of warfare, and sea transport.

**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 121

**Title:** Engineering Mechanics II

**Instructor:** Perucchio **Class Size:** 70

**Prerequisites:** MTH 161 and MTH 162 or their equivalents, ME 120

**Description:** This is the second required Mechanical Engineering course at the University of Rochester. It covers the engineering approach to the solution of dynamics problems with an emphasis on understanding the concepts. Topics include kinematics and kinetics of particles and rigid bodies.

**Department:** Mechanical Engineering  
**Course:** ME 201  
**Title:** Boundary Value Problems  
**Cross-listed:** MTH 281  
**Instructor:** Clark, A. **Class Size:** 85  
**Prerequisites:** MTH 164 and MTH 163 or MTH 165  
**Exams:** 2 Midterms and a final  
**Coursework:** Weekly homework and a project  
**Description:** Formulation of partial differential equations for physical problems; Fourier series; separation of variables leading to Fourier series; Sturm-Liouville theory; eigenfunction expansions and separation of variables; Fourier transform; similarity methods; Fourier-Bessel expansions and separation of variables in cylindrical coordinates; Legendre polynomials and separation of variables in spherical coordinates. Equations dealt with in the course are the Laplace equation, the heat equation, the wave equation, and related equations. Applications are to such areas as heat conduction, fluid flow, diffusive mass transport, electrostatics, and acoustics.

**Department:** Mechanical Engineering  
**Course:** ME 204  
**Title:** Mechanical Design  
**Instructor:** Muir, C. **Class Size:** 45  
**Prerequisites:** ME 226 (ME 211 recommended)  
**Exams:** 2 exams  
**Coursework:** term project, weekly homework  
**Description:** The theory and application of structural mechanics to mechanical design. Topics include: matrix structural analysis and finite element techniques. Students will use the NASTRAN finite element program to solve a variety of design and analysis problems. The term project consists of a team competition to design, analyze build, and test a lightweight structure.

**Department:** Mechanical Engineering  
**Course:** ME 211  
**Title:** Computational Methods in Engineering  
**Instructor:** Gracewski, S. **Class Size:** 30  
**Prerequisites:** MTH 163, MTH 164  
**Exams:** Three exams.

**Coursework:** Six to eight homework assignments, each including programming assignments, workshop assignments, term projects  
**Description:** Introduction to Matlab, solution of polynomial and transcendental equations, solution of matrix equations, differentiation and integration, solution of ordinary differential equations, curve fitting (linear and polynomial regression). Applications.

**Department:** Mechanical Engineering  
**Course:** ME 225  
**Title:** Introduction to Fluid Dynamics  
**Instructor:** Thomas, J. **Class Size:** 60  
**Prerequisites:** MTH 163, MTH 164; PHY 121, ME 120, ME 123  
**Exams:** Two or three in-class exams, final exam.  
**Coursework:** Weekly problem sets.  
**Description:** Fluid properties; fluid statics; kinematics of moving fluids; the Bernoulli equation and applications; control volume analysis; differential analysis of fluid flow; inviscid flow, plane potential flow; viscous flow, the Navier-Stokes equation; dimensional analysis, similitude; empirical analysis of pipe flows; flow over immersed bodies, boundary layers, lift and drag.

**Department:** Mechanical Engineering  
**Course:** ME 242  
**Title:** Solids and Materials Laboratory  
**Cross-listed:** ME 462, MSC 407  
**Instructor:** Li, J. C. M. **Class Size:** 42 Maximum  
**Prerequisites:** ME 280, ME 226  
**Coursework:** Laboratory Projects  
**Description:** Lecture and laboratory. Lecture: engineering problem solving methodologies and review of basic statistics (homework and test). Laboratory: small (one week) laboratories dealing with solids/materials instrumentation (completion of several required), and an independent project (including proposal, experimentation, and final report). Most students will work in groups of three during much of the class.

**Department:** Mechanical Engineering  
**Course:** ME 251  
**Title:** Heat Power Applications  
**Instructor:** Betti, R. **Class Size:** 60  
**Prerequisites:** ME 123, ME 225 (may be taken concurrently)  
**Exams:** One midterm exam and a final exam  
**Coursework:** Design project  
**Description:** Vapor power systems, gas power systems, refrigeration and heat pumps, internal combustion engines, compressors and turbines.

**Department:** Mechanical Engineering

**Course:** ME 280  
**Title:** Introduction to Materials Science  
**Cross-listed:** MSC 202  
**Instructor:** Burns, S J **Class Size:** 40  
**Prerequisites:** ME 226, PHYS 122  
**Exams:** 2 midterms, 2 Labs, and one final  
**Description:** Physical properties of engineering materials including metals, alloys, ceramics, polymers and composites. The properties studied include mechanical strength, thermal, electrical, magnetic and optical characteristics. Relationship of properties to the materials microstructure including atomic bonding, atomic arrangement, crystal structure, impurities, point and line defects and co-existing phases, grain boundaries and interfaces. Processing techniques for altering microstructure and engineering properties. Selection of engineering materials.

**Department:** Mechanical Engineering  
**Course:** ME 402  
**Title:** Partial Differential Equations  
**Instructor:** Goncharov, V. **Class Size:** 15  
**Prerequisites:** ME 201, MTH 282  
**Exams:** Midterm and final  
**Description:** First order equations and the theory of characteristics; examples of kinematical waves. Wave equation and propagation; use of characteristics with wave equation. Laplace and Poisson equations: Greens functions; solutions in rectangular, cylindrical, and spherical coordinates. Diffusion equation: Greens functions; scale relations in diffusion; vector fields and spherical decay modes; diffusion in moving materials.

**Department:** Mechanical Engineering  
**Course:** ME 434  
**Title:** Introduction to Plasma Physics I  
**Cross-listed:** PHY 454  
**Instructor:** Ren, C. **Class Size:** 10  
**Prerequisites:** PHY 217 or OPT 262  
**Exams:** 1 midterm, 1 final  
**Description:** Basic plasma parameters; quasi-neutrality, Debye length, plasma frequency, plasma parameter, Charged particle motion: orbit theory. Basic plasma equations; derivation of fluid equations from the Vlasov equation. Waves in plasmas. MHD theory.

**Department:** Mechanical Engineering  
**Course:** ME 440  
**Title:** Mechanics of Structures  
**Instructor:** Lambropoulos, J. **Class Size:** 15  
**Prerequisites:** ME226 or equivalent

**Exams:** Two exams  
**Description:** Application of direct and indirect methods of the calculus of variations to the stress, deflection, and dynamic analysis of beam, ring and plate elements. Strain energy and complementary strain energy; variational principles; Lagrange multipliers, Rayleigh-Ritz method; Galerkin Method.

**Department:** Mechanical Engineering  
**Course:** ME 444  
**Title:** Continuum Mechanics  
**Instructor:** Gans, R. **Class Size:** 10 - 20  
**Prerequisites:** ME 225, ME 226, Math through ME 201/MTH 281, strong linear algebra, mathematical maturity  
**Exams:** midterm exam and a final  
**Coursework:** Weekly problem sets  
**Description:** The mechanics of continuous media. Introduction to tensors and differential geometry in the context of deformation. Eulerian and Lagrangian formulations. Invariants and constitutive relations. Material symmetry and anisotropy. Conservation of mass, momentum and energy.

**Department:** Mechanical Engineering  
**Course:** ME 462  
**Title:** Experimental Materials Science  
**Cross-listed:** ME 242, MSC 407  
**Instructor:** Li, J. C. M. **Class Size:** 42 Maximum  
**Prerequisites:** ME 280, ME 226  
**Coursework:** Laboratory Projects  
**Description:** Please see ME 242 for the course description.

**Department:** Mechanical Engineering  
**Course:** ME 483  
**Title:** Biosolid Mechanics  
**Cross-listed:** BME 483  
**Instructor:** Lerner, A. **Class Size:** 25  
**Prerequisites:** ME 226 or equivalent  
**Exams:** 1 exam, 1 term project, 6 homework assignments  
**Description:** Please see BME 283 for the course description.

**Department:** Mechanical Engineering  
**Course:** ME 492  
**Title:** Corrosion  
**Instructor:** Quesnel, David J.  
**Description:** This is a first course in electrochemical corrosion aimed at first year graduate students. No background is assumed and the first week will cover corrosion overview at the level of ME 280. (at level of vanVlack or other general Materials Science texts) The

goal of the course is to understand corrosion mechanisms in a way suitable to use this understanding in corrosion related experiments and modeling. We will cover the known infrastructure of corrosion science using two text books, Principles and Prevention of Corrosion 2nd Edition, by Denny A. Jones, Prentice Hall ISBN 0-13-359993-0 and Principles of Corrosion Engineering and Corrosion Control by Z. Ahmad, Butterworth-Heinemann, Elsevier, Amsterdam, first Edition 2006, ISBN # 0- 7506-5924-6, advancing to the use of articles from the open literature, particularly review articles. Topics include: galvanic behaviors, Pourbaix diagrams, thermodynamics of corrosion, basic reaction paths of corrosion, active paths, passivation, corrosion measurements, modern electrochemical instrumentation, and the meaning of their outcomes, sample preparations, anodic and cathodic protection. Examples will draw from pitting, fretting, uniform, filiform, and the many other types of corrosion. Some discussion of corrosion simulation methods. The successful student will be prepared for corrosion based research and will have an understanding of how to minimize the impact of corrosion on engineering systems.

## Optics

**Department:** Optics  
**Course:** OPT 101  
**Title:** Optics in the Information Age  
**Instructor:** Wayne Knox **Class Size:** no limit  
**Prerequisites:** None.  
**Description:** Forget glasses. This course begins with a discussion of the properties of Light: refraction, imaging, diffraction, interference, the historical development of optical instruments (the microscope, telescope, laser) then moves into topics not limited to the Internet, high-speed information access, information storage and display, as well as new medical instruments, therapies and applications. Several demonstrations and conceptual models are presented.

**Department:** Optics  
**Course:** OPT 211  
**Title:** Computational Methods in Optics  
**Instructor:** Thomas G. Brown **Class Size:** 35  
**Prerequisites:** Prerequisites: MTH 162 and concurrent enrollment in MTH 164  
**Description:** This course introduces techniques of transforming continuous problems to discrete mathematical models. Students learn computational methods for solving problems in optics using high level software. Includes labs.

**Department:** Optics  
**Course:** OPT 224  
**Title:** Fundamentals of Lasers  
**Instructor:** Chunlei Guo **Class Size:** 35  
**Prerequisites:** OPT 241 and OPT 261. MTH 163 or 165 recommended.  
**Description:** Fundamentals and applications of lasers and laser systems, including optical amplification, cavity design, beam propagation and modulation. Emphasis is placed on developing the basic principles needed to design new systems as well as an understanding of the operation of those currently in use. Prerequisites: some knowledge of simple quantum mechanics and scalar diffraction theory is assumed.

**Department:** Optics  
**Course:** OPT 226  
**Title:** Optoelectronics I  
**Instructor:** Robert Boyd **Class Size:** 35  
**Prerequisites:** OPT 261, OPT 262  
**Restrictions:** Open only to senior majors or by permission of instructor  
**Description:** Introduction to the physics of optoelectronics. Light propagation in restricted geometries including waveguides and optical fibers. Dispersion and loss in linear and nonlinear pulse propagation. Passive optoelectronic devices: detectors and couplers. Active opto- electronic devices: lasers and modulators. Coupling between passive and between active and passive elements.

**Department:** Optics  
**Course:** OPT 242  
**Title:** Aberrations, Interferometry and Testing  
**Instructor:** James Zavislan  
**Prerequisites:** OPT 241 OPT 261 OPT 241, OPT 261  
**Description:** Geometrical and diffraction theory of image formation. Optical transfer functions. Measurement of first-order properties. Seidel aberrations. Tests of aberrated systems. Seidel contribution formulae. Two beam interferometry. Interferometers in optical testing. Shearing, point diffraction, and heterodyne interferometers.

**Department:** Optics  
**Course:** OPT 253  
**Title:** Optics Laboratory  
**Instructor:** Svetlana Lukishova **Class Size:** 6  
**Prerequisites:** PHY 123 or PHY 143  
**Cross-listed:** OPT 453, PHY 434  
**Description:** This advanced optics teaching laboratory course will expose students to cutting-edge photon counting instrumentation and methods with applications ranging from quantum information to

biotechnology and medicine. Major topics will include entanglement, Bell's inequalities, single-photon interference, single-emitter confocal fluorescence microscopy, Hanbury Brown & Twiss correlations/photon antibunching. The full course consists of four laboratory experiments and final presentations by participants. Readings will include case studies of current research and industrial applications, their problems and future potential.

**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 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.

**Department:** Optics  
**Course:** OPT 411  
**Title:** Complex Analysis and Mathematical Methods  
**Cross-listed:** PHY 401  
**Instructor:** Alonso, M. **Class Size:** 35  
**Prerequisites:** ME 201, 202 or equivalent; or permission of the Instructor  
**Restrictions:** Open only to graduate students in offering department  
**Description:** Study of mathematical techniques such as contour integration, transform theory, Fourier transforms, asymptotic expansions, and Green's functions, as applied to differential, difference, and integral equations.

**Department:** Optics  
**Course:** OPT 425

**Title:** Radiation and Detectors  
**Instructor:** Wicks, G. **Class Size:** 30  
**Restrictions:** Permission of instructor required for undergraduates  
**Description:** The generation, detection, and measurement of optical radiation. The following topics are covered: definitions of radiance, intensity, irradiance, exitance, solid angle; the Planck radiation law; approximations to the radiation law and their use in engineering calculations; emissivity and properties of radiation sources; Kirchhoff's law; irradiance in optical imaging systems; detector responsivity; noise in the detection process; the Fowler-Einstein equation and Poisson statistics; the spectral density of bandlimited noise; Carson's theorem; shot noise; temperature noise in thermal and quantum detectors; Johnson noise in electric circuits; direct and heterodyne detection schemes; transient response of detectors; detective quantum efficiency; thermal detectors; photoemissive detectors; photoconductive and photovoltaic detectors; television camera tubes; and charge-coupled detector arrays; photometry; and colorimetry.

**Department:** Optics  
**Course:** OPT 441  
**Title:** Geometrical and Instrumental Optics I **Class Size:** 35  
**Description:** These courses are designed to give the student a basic working knowledge of image-forming optical systems. They are designed to be taken sequentially: 441 is a prerequisite for 442. The courses are oriented toward problem solving. Material covered in the first term includes: image formation, raytracing and first-order properties of systems; magnification, F/number, and numerical aperture; stops and pupils, telecentricity vignetting; telescopes, microscopes, magnifiers, and projection systems; the Delano diagram; the eye and visual systems, field lenses; optical glasses, the chromatic aberrations, and their correction; derivation of the monochromatic wavefront aberrations and study of their effects upon the image; third order properties of systems of thin lenses; effects of stop position and lens bending; aplanatic, image centered, and pupil centered surfaces; and field flatteners.

**Department:** Optics  
**Course:** OPT 461  
**Title:** Physical Optics I  
**Instructor:** Fienup, J. **Class Size:** 60  
**Prerequisites:** Undergraduate electromagnetic theory, advanced calculus, linear algebra  
**Restrictions:** Permission of instructor required for undergraduates  
**Description:** The principles of physical optics including diffraction and propagation based on Fourier transform theory; integral formulation of electromagnetic propagation; diffraction from

apertures and scattering objects; applications to optics of Fourier transform theory, sampling expansions, impulse response, propagation through optical systems, imaging and transforming, optical transfer function, optical filtering; and selected topics of current research interest.

**Department:** Optics  
**Course:** OPT 551  
**Title:** Introduction to Quantum Optics  
**Instructor:** Eberly, J. **Class Size:** 35  
**Prerequisites:** OPT 412 or PHY 407/408 or permission of the instructor.  
**Description:** This course gives an introduction to modern theoretical methods in quantum electronics and quantum optics. It is designed to provide a background for theoretical or experimental work in these areas. Topics discussed include: Absorption and emission of radiation by atoms both far from and near to resonance, using the Lorentz model and the two-level model of an atom, the optical Bloch equations and the atomic density matrix, relaxation phenomena and linewidths, optical pulse propagation, nonlinear coherence effects, saturation spectroscopy, Raman processes, photoionization and multiphoton effects.

**Department:** Optics  
**Course:** OPT 553  
**Title:** Quantum Optics II  
**Cross-listed:** PHY 533  
**Instructor:** Stroud, C. **Class Size:** 35  
**Restrictions:** Permission of instructor required for undergraduates  
**Description:** Topics covered include: quantum properties of the free E.M. Field; coherent states and quantum coherence theory; quantum correlation functions; thermal radiation; coherence properties of blackbody radiation, statistics of thermal light beams; photon statistics of quantum fields; interaction of radiation with atoms and charges; theory of photodetection; interaction of radiation with two-level atoms; theory of resonance fluorescence, photon statistics, and anti-bunching; the Scully-Lamb approach to the quantum theory

## William E. Simon Graduate School of Business Administration

**Department:** Simon School  
**Course:** ACC 201  
**Title:** Principles of Accounting **Class Size:** 40-60  
**Restrictions:** Not open to freshmen

**Description:** This course is 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 given transactions, and the effect these judgments and alternatives have on comparisons of financial reports for different organizations, and on the usefulness of financial reports in general. In conjunction with this, consideration will be given to the failure of financial reports to fully incorporate the economic condition of an organization, and the reason for this.

**Department:** Simon School  
**Course:** CIS 215 **Class Size:** 15  
**Title:** Foundations of Management Information Systems  
**Prerequisites:** one of EE171, OPT105, CSC108, CSC171, CSC181, or any 200 level CSC course  
**Description:** A survey of information system technology and its application to the various functional areas of business. Topics include a complete overview of computer hardware and software, introduction to systems analysis, database management systems, data communications, system development and acquisition, e-commerce, management of enterprise computing resources and an analysis of the strategic considerations of information systems for business.

**Department:** Entrepreneurship  
**Course:** ENT 223  
**Title:** Planning & Growing a Business Venture  
**Instructor:** Robert Tobin **Class Size:** 20  
**Description:** This course provides a dynamic, practical, hands-on approach that encourages students to immerse themselves in the vision, research, and planning aspects of a new venture. It is designed to teach students how to research, develop, and write detailed plans that can be used to create successful new ventures. Students will learn effective entrepreneurial practice that will make a difference in the ultimate success or failure of the entrepreneurial process.

**Department:** Simon School  
**Course:** FIN 205  
**Title:** Financial Management **Class Size:** 45-55  
**Prerequisites:** ACC 201; ECO 207 or equivalent  
**Description:** This course centers on how a firm is funded, and on how financial management can help maximize the financial rewards to those who own the firm, while meeting the obligations of the firm to other stakeholders. The effect of timing on the value of cash

flows is developed at length, and is applied to the valuation of bonds and stocks. Various facets of stocks and bonds are also introduced, and a brief overview of the stock market is presented. Cash flow concepts are then incorporated into a development of how investment opportunities are analyzed, which includes a discussion of the strengths and weaknesses associated with different analytical methods. The topics of capital market efficiency and portfolio theory are then discussed and tied in to the concept of what investors have sacrificed in order to invest in a firm. This, in turn, is tied in to which investments are worthwhile to a firm's owners.

**Department:** Simon School  
**Course:** GBA 157 **Class Size:** 30-34  
**Title:** Fundamentals of Business - Why Businesses Succeed and Fail  
**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 and other organizations, including constitutional law, contracts, and the legal structure of the major forms of domestic business enterprises. This is preceded by a review of certain environmental and historical aspects of the law, including the legal processes by which our laws are created, and the functions of the court. Throughout, the emphasis is on developing an understanding of the reasoning process used by the courts and society to resolve disputes and define new law.

**Department:** Simon School  
**Course:** MKT 203  
**Title:** Principles of Marketing **Class Size:** 45  
**Prerequisites:** ACC 201; ECO 207 or equivalent  
**Restrictions:** Not open to freshmen  
**Description:** Understanding customer's wants and needs and how the Marketing function goes about developing products and services to meet those needs on a continuous basis and optimize customer

satisfaction as an end result. A detailed analysis and knowledge with regard to the basic marketing functions and the various marketing functions performed by marketing intermediaries - manufacturers, retailers, wholesalers, agents and others in the channel of distribution. Evaluation and discussion on key marketing topics: pricing, branding, promotion, channels of distribution, new products and services development and the creation of advertising and sales promotion programs to create consumer awareness with regard to those products and services. Culminating in a basic fundamental understanding and working knowledge of the marketing function within the firm.

**Department:** Simon School  
**Course:** OMG 231  
**Title:** Operations Management **Class Size:** 15  
**Restrictions:** Not open to freshmen  
**Description:** This course discusses problems encountered in managing the production of goods and services, and models and techniques for dealing with these problems. Emphasis is on developing analytic insight into selected models which have proved useful. Topics include process flow analysis, queuing theory, inventory control and recent innovations in production management. Reading "The Goal" by Goldratt, case discussions, simulations and videos are used to gain practical insights into the operations function.