April 29, 2009
Fall semester 2009-2010

ASC 001 and ASC 002 are interactive classes designed specifically for the Community Auditing Program and participation is encouraged.

ASC 001 Intelligence, National Security and our Constitutional Democracy
Instructor: Diane Snyder

Description: In recent years we have seen our national security landscape shift before our eyes; especially following the tragic events of September 11, 2001 and the country's response. But to truly understand "modern history/current events" such as our prosecution of the War on Terror, the creation and role of a Department of Homeland Security, issues such as warrantless wiretapping and extraterritorial detention, we must reach back in history and review how our Constitutional Democracy has reacted during times of either real or perceived threat to its security. A Primary question – does the protection of civil liberties adversely impact National Security? There is an ageless tension between National Security and Liberties, including many arguments discussing their trade-offs. The course is designed to examine this question through the lens of US historical encounters with perceived or real threats and how the democracy responded to enhance security. Was security enhanced? Did liberty suffer? Did the pendulum swing too far? Our focus will largely be on the First and Fourth Amendments as yardsticks of the Democracy's health. Key historic events; from the Alien and Sedition Acts to the Espionage Act and internment of 120,000 Japanese Americans will give us some of our answers. We will then see that practices initiated post 9/11 were not "new", but natural government reactions as it reaches out to protect national security based on claims of earlier successes.

The other key thread woven through our study will be the role of intelligence in a constitutional democracy. Why was the USA the last modern democracy to establish a peacetime intelligence service? Issues of secrecy are paramount and add to both sides of the debate in which we will engage- is secrecy compatible with our democracy; or simply a necessary evil as one seeks to protect the nation? Are sufficient safeguards in place to provide oversight to the intelligence activities in which we must engage? Are issues such as Privacy and Freedom of Information respected and defended? Has their fate shifted with the times.... or administrations? Their survival, however, is assured.

The plot thickens as we include the behavior of the 3 branches of government in our drama and their roles with respect to intelligence as well as their responsibilities to the democracy. Do we have examples of an over-reaching executive and should we be concerned? What benefits or risks attend such behavior? Ethical issues, such as questions regarding covert action and elements of the prosecution of the War on Terror must be raised.

Finally, we will examine the largest reorganization of the US government since WWII in the context of our Constitutional Democracy, national security and intelligence as a response to 9/11. Did we get it right? Is the PATRIOT ACT as evil as some contend? Read it in class and decide for yourself. How has the Obama Administration responded to the Intelligence and National Security framework that it inherited? Could changes made by the current administration undo National Security safeguards put in place by the prior Administration? How has President Obama engaged controversial issues left by his predecessor: increased secrecy, alleged torture, Guantanamo and others. Join this course and join the debate to ageless, but relevant, questions.

First Lecture will focus on the establishment of the US Intelligence Community within our Constitutional Democracy, the motivation for its creation, Pearl Harbor, including the foundational statutes and reforms that would remain in place through the Cold War and only be altered by another surprise attack on the US: September 11, 2001. We will examine the Intelligence Community's early years culminating with the turbulent times of the civil rights movement, Viet Nam and the attendant scandals and fallout domestically. We will review key statutes, practices, successes and failures. During this timeframe we see the Executive enamored of covert action, Congress abdicating its role as overseer and an uninformed public.

Second Lecture will examine the US Law Enforcement and Intelligence Communities exceeding their charters in the name of National Security. Abuses will be brought to light and we will discuss how the Constitutional Democracy attempted a "course correction": The Church and Pike Commissions. The role of the executive and Legislative branches will come into play significantly. What could be considered as one of the "failures" leading to 9/11 was put in place during this period. We will see the price paid for "liberty over security" as the pendulum swung in response to revelations of domestic spying. For those reading the news, this will sound familiar and we will return to the topic in our Fourth Lecture.

Third Lecture will review the Intelligence Community's role and evolution during the remainder of the Cold War, shifts in threats including proliferation, terrorism and global organized crime and the US response. Key elements of oversight gain traction through legislation. This is a convenient time to review our concerns regarding classified information and freedom of the press and impact of leaks. This period witnesses a recognition of the "People's Right to Know" and right to privacy on several fronts. We will examine the Freedom of Information and Privacy Acts as well as the Foreign Intelligence Surveillance Act (FISA), the latter governing wiretapping and eavesdropping. As you anticipate, we have not heard the last of FISA.

Fourth Lecture will analyze the Government's response to the end of the Cold War and to 9/11 in terms of its need for a national security/intelligence apparatus, reforms put in place and a review of their respective successes or failures. Issues such as tools and techniques to fight the War on Terror will be discussed while keeping our eyes on the Constitutional Democracy. Has the controversial PATRIOT ACT enhanced security in a manner that justifies its perceived impact on civil liberties? Was the President "right" to authorize NSA to conduct wiretapping without legal (FISA) warrants? Do we blame the press for leaking the program or laud it for enhancing public debate. Finally, we will move to issues and challenges inherited by the Obama Administration.

Schedule:
Friday, September 25, 2009, 11 am – 12:30 pm
Friday, October 2, 2009, 11 am – 12:30 pm
Friday, October 9, 2009, 11 am – 12:30 pm
Friday, October 16, 2009, 11 am -12:30 pm

Other Information: Diane Snyder has 25 years experience as an intelligence officer and has worked in every major field available to an intelligence professional: as a scientist, analyst, technical operations officer, and advisor on statutory interpretations of various intelligence authorities. In 1995 she became the first CIA officer-in-Residence at Princeton University and is currently in the Department of Politics, Ms. Snyder pursued a Ph.D. in Computational Linguistics. Her curriculum at Princeton focuses on the functioning of intelligence in a constitutional democracy and the relationship of

intelligence to policymaking, law enforcement and national security. She was Senior Technical Representative to the Arms Control Intelligence Staff in Vienna during 1990-92 and held a diplomatic post as the United States' Scientific Advisor to the International Science and Technology Center, Moscow, during 1998-2000. Early in her career at the CIA, she directed cutting-edge research and development and delivered the first artificial intelligence system to the CIA's Counter Terrorism Center. In 1989, Ms. Snyder was recognized by former Secretary of State James Baker for her contribution to a highly sensitive project involving diplomatic security. Professor Snyder's experience also includes service as Director of Research, David Sarnoff Research Center and Senior Intelligence Analyst at The RAND Corporation

ASC 002 Word-Diagram-Picture: The Shape of Meaning in Medieval Books
Instructor: James H. Marrow

Description: The subject of this course is the design of medieval manuscripts, which comprises such topics as their format, layout, script, decoration, illustration, and bindings. Throughout the Middle Ages, the makers of medieval manuscripts experimented, sometimes flamboyantly, with all the components of their design, reconfiguring the book in startlingly original ways. The thesis of these lectures is that radical innovations in medieval book design are invariably about meaning: that books and prominent elements of book design define and articulate some of the profoundest concerns and beliefs of their patrons, makers and users, hence the title, "The Shape of Meaning in Medieval Books." The three lectures treat developments concentrated particularly in the early, the high and the late Middle Ages, which I have characterized with the headings "Word, Diagram and Picture." At issue are fundamental questions concerning such matters as the nature of the Word of God, the institutional Church's understanding of the essential order of the universe, and changing relationships between word and image, art and experience, artifice and different orders of reality in the late Middle Ages. Problems of this magnitude provoked monks and other theologians, scribes, painters and others involved in the production of illuminated manuscripts to re-think the nature of the book and its component parts -- in effect, to come up with new conceptions of the book and the word, and new ways to embellish both through decoration and illustration, which is to say, to transform and re-invent the elements and the syntax of the hand-produced book. Focusing on many of the greatest and best-known medieval manuscripts, the classes are intended to introduce a diverse audience to major themes in the history of thought during the Middle Ages, to the changing relationships between word and image during this period of a millennium, and to the role of the arts in giving form to these ideas.

Class 1, which has the title **"**In principio erat verbum" ("In the beginning was the word," from the opening words of St. John's Gospel), treats the early Middle Ages, when books were radically reconfigured in order to give material form to the notions, central to a Christian view of the universe, that Scripture is divine in substance and reference, and that God acts and reveals the history and meaning of the universe through the Word (in his account of the Incarnation, St. John speaks of "the word made flesh"). In this class I consider the principal design innovations which enabled the makers of biblical and liturgical books from the early Middle Ages to convey the majesty, power, mystery, and sanctity of Scriptural language in arrestingly direct visual form.

Class 2 which has the title "Diagrams: The Architecture of Thought and Meaning," I turn from the Word to the Diagram, from the early to the high Middle Ages, that is, from the period of the Christianization of Western Europe to a later period, when the established institutional Church was concerned to define and articulate its notions of the scheme of things. I explore many of the profound ways in which the makers of medieval manuscripts employed diagrams and principles of diagrammatic order to make new claims about the physical, historical, philosophical and moral order of the universe, all notions that were central to the beliefs, the belief systems, and the concerns of the institutional church.

Class 3, entitled "Picturing Meaning," considers the impact of pictures and pictorial ideas on the design of medieval manuscripts during the late Middle Ages and the ways these developments concern meaning. By the late Middle Ages Christian belief and practice were reformulated to address a diverse and growing audience in an increasingly urban society. Christian truths were to be embraced now by experience as well as by belief, and in a striking embodiment of the adage "seeing is believing," pictures and pictorial ideas came to have novel prominence as a means of guiding the users of medieval manuscripts to the leaps of thought and imagination deemed necessary to achieve a new and deepened appreciation of the character of the sacred and the mysteries of the faith. All of the elements of the book were radically, indeed flamboyantly, reconfigured during this period as the shapes of some manuscripts became a kind of image; script sometimes became decoration or one of several illusionistically treated elements or fields on the page; and decoration and illustration were intermixed in diverse and frequently witty fashions. The same painters who creatively broke down the barriers between the different components of the book eventually addressed the ultimate pictorial barrier, namely, that between the work of art and its beholder. In their works, illusionistic painting became a vital means of dissolving the boundaries between art and life, which is to say, that it made novel demands on viewers' *consciousness* of the nature of works of art and of their relation to them.

Class 4 we move from lectures and projected images to examine actual medieval manuscripts. The last class is conceived as a workshop to introduce participants to the materials and methods of manuscript production, the physical and aesthetic characteristics of hand-produced, medieval books.

Schedule:
Friday, October 23, 2009, 11 am – 12:30 pm
Friday, October 30, 2009, 11 am – 12:30 pm
Friday, November 6, 2009, 11 am – 12:30 pm
Friday, November 13, 2009, 11 am -12:30 pm

Other information: James H. Marrow is Professor Emeritus of Art History, Princeton University and Honorary Keeper of Illuminated Manuscripts at the Fitzwilliam Museum (Cambridge, England). He is a specialist in late medieval art chiefly from northern Europe, with particular interest in illuminated manuscripts and questions of meaning in works of religious art. Widely published in these fields, he has also organized or contributed to major exhibitions of medieval manuscripts in the USA, Europe, and Australia. A member of the Visiting Committees of the Department of Medieval Art and The Cloisters, The Metropolitan Museum of Art, and the Department of Medieval and Renaissance Manuscripts, The Morgan Library and Museum, he is also a Fellow of the Medieval Academy of America and the President of the Medieval Manuscript Society.

He has lived in Princeton since 1990.

PROGRAM IN AFRICAN AMERICAN STUDIES

AAS 201 Introduction to the Study of African American Cultural Practices
Professor(s): Eddie S. Glaude

Description/Objectives: This course examines the past and present, the doings and the sufferings of Americans of African descent from a multidisciplinary perspective. It highlights the ways in which serious intellectual scrutiny of the agency of black people in the United States help redefine what it means to be American, new world, modern and post modern
Sample reading list:
DuBois, *The Souls of Black Folk*
Meier, *Negro Thought in America, 1880-1915*
Raboteau, *Slave Religion*
Morrison, *Unspeakable Things Unspoken: The Afro-American Presence ...*
Ellison, *Shadow and Act*
Jones, *Blues People*

Schedule: 11:00 am - 11:50 am M W

AAS 329 / ENG 415 Chinatown USA
Professor(s): Anne A. Cheng

Description/Objectives: This course registers the tension between the domestic and the foreign that has long since haunted the ideal of American integration. We will look at the construction of "Chinatown" -- as historic reality, geographic formation, cultural fantasy, even architectural innovation -- in the making of the American nationalism. We will study novels, plays, films, and photography that focus on or use Chinatown as a central backdrop in ways that highlight the complex relationship between material history and social imagination when it comes to how America incorporates (or fails to digest) its racial or immigrant "other".

Sample reading list:
Maxine Hong Kingston, *The Woman Warrior*
Fae Ng, *Bone*
Kan Gotanda, *Yankee Dawg You Die*
David Henry Hwang, *F.O.B and Yellow Face*
Arnold Genthe, *Genthe's Photograpy of San Francisco's Old Chinatown*
Roman Polanski, *Chinatown- film*

Schedule: 10:00 am - 10:50 am M W

PROGRAM IN AMERICAN STUDIES

AMS 201 American Places: An Introduction to American Studies
Professor(s): William A. Gleason , Ricardo Montez

Description/Objectives: An introduction to the materials and methods of American Studies, focusing on the significance of place in U.S. history, society, and culture. We will look at place through several interpretive lenses, including social history, urban history, environmental studies and cultural studies. For fall 2009, we will focus on four iconic cities: Los Angeles, New York, Detroit, and San Antonio. Specific topics may include: colonial contact; race and the built environment; migration and labor; music and citizenship. Texts and contexts will be equally wide-ranging, drawing on film, photography, architecture, history, music, fiction.

Sample reading list:
Sharon Zukin, *Landscapes of Power: From Detroit to Disney World*
Samuel Delany, *Times Square Red/Times Square Blue*
Reyner Banham, *Los Angeles: The Architecture of Four Ecologies*
Richard Flores, *Remembering the Alamo*
Mohsin Hamid, *The Reluctant Fundamentalist*
Clint Eastwood, *Gran Torino*

Schedule: 1:30 pm - 2:50 pm T

ANTHROPOLOGY

ANT 201 Introduction to Anthropology
Professor(s): John W. Borneman

Description/Objectives: An introduction to the comparative study of human societies, focusing on the ways in which different peoples around the world behave and organize their beliefs and relationships. Based on ethnographic accounts and documentary films, the course examines a wide range of topics, including the relation of religion to economics and to politics, changing patterns of kinship and sex, and the interplay of global events and local worlds. The course familiarizes students with ethnographic methods and also places anthropological concepts and insights in historical perspective.

Sample reading list:
Geertz, Clifford, *From the Native's Point of View*
Finnegan, William, *Cold New World: Growing Up in a Harder Country*
Kulick, Don, *Travesti: sex, gender and culture.....*
Godelier, Maurice, *The Making of Great Men*
Riverbend, *Baghdad Burning*
Mauss, Marcel, *The Gift*

Schedule: 3:30 pm - 4:20 pm M W

ANT 215 / EEB 315 Human Adaptation
Professor(s): Alan E. Mann , Janet M. Monge

Description/Objectives: Human adaptation focuses on human anatomy and behavior from an evolutionary perspective. Lectures focus on the evolution of the human brain, dentition and skeleton to provide students with a practical understanding of the anatomy and function of the human body and its evolution, as well as some of its biological limitations. No science background is required on the part of the student.

Sample reading list:
reading packet

Schedule: 11:00 am - 12:20 pm M W

SCHOOL OF ARCHITECTURE

ARC 203 Introduction to Architectural Thinking
Professor(s): Staff

Description/Objectives: The objective of this course is to provide a broad overview of the discipline of architecture: its history, theories, methodologies; its manners of thinking and working. Rather than a chronological survey, the course will be organized thematically, with examples drawn from a range of historical periods as well as contemporary practice. Through lectures and readings, every student will acquire a working knowledge of key texts, buildings and architectural concepts.
Architectural thinking will be explored thematically by focusing upon a series of significant debates (historical and contemporary) about tectonics, program, representation, and urbanism. Debates will

include history versus utopia, handcrafted versus machine made, generic versus iconic, form versus program, drawing versus scripting, and image versus surface, among others.

Sample reading list:
Alan Colquhoun, *Modern Architecture*
Ulrich Conrads, *Programs + Manifestoes on 20th c. Architecture*
Adrian Forty, *Words and Buildings: A Vocabulary of Modern Architecture*
Robert Venturi, *Complexity and Contradiction*
Rem Koolhaas, *Delirious New York*
Rafael Moneo, *Theoretical Anxieties & Design Strategies*

Schedule: 10:00 am - 10:50 am M W

ARC 311 Building Science and Technology: Building Systems
Professor(s): Staff

Description/Objectives: This course introduces students to the art and science of building. Emphasis will be placed gaining an understanding of construction materials, methods and the process of translating design ideas into built form. Specific topics are introduced each week.

Sample reading list:
Ching, *Building Construction Illustrated*
Schmidt, Olin, Lewis, *Constructions, Materials and Methods*
Allen, *Fundamentals of Building Construction*

Schedule: 12:30 pm - 2:20 pm T

ART AND ARCHAEOLOGY

ART 100 Introduction to the History of Art: Ancient to Medieval
Professor(s): Nino Zchomelidse

Description/Objectives: An introduction to art and architecture from Antiquity to the late Middle Ages, including non-Western traditions. The course gives an overview about key monuments and works of art from diverse historical periods, regions, and cultures and introduces to the basic interpretative tools of art historical research as well as to the history of the discipline.

Sample reading list:
Hugh Honour and John Fleming, *The Visual Arts: A History, 7th ed.*

Schedule: 10:00 am - 10:50 am M W

ART 206 / HLS 206 Byzantine Art and Architecture
Professor(s): Slobodan Curcic

Description/Objectives: Art and Architecture of the Eastern Mediterranean and Eastern Europe, from ca. 600 to ca. 1500. The course will focus on the art of the Byzantine Empire and its capital, Constantinople, but will also consider its broader sphere of cultural influence (Russia, Armenia, Georgia, Sicily, Venice, Serbia, Bulgaria, Rumania). The course will examine the major factors which shaped the artistic legacy of Eastern Christendom during the Middle Ages.

Sample reading list:
R. Cormack, *Byzantine Art*
L. Rodley, *Byzantine Art and Architecture*
C. Mango, *The Art of the Byzantine Empire, 312-1453*
K. Weitzmann, *The Icon*
O. Demus, *Byzantine Mosaic Decoration*
G.H. Hamilton, *The Art and Architecture of Russia*

Schedule: 9:00 am - 9:50 am M W

ART 210 Italian Renaissance Painting and Sculpture
Professor(s): Patricia F. Brown

Description/Objectives: Lectures will examine the birth, rise and flowering of Italian Renaissance art in Tuscany, Rome and Venice from about 1250 to 1600 A.D., with emphasis on the 15th and 16th centuries. Artists and works of art will be presented, whenever possible and relevant, within their cultural, political, social, technological and/or economic circumstances. Among the major artists to be studied: Giotto, Ghiberti, Donatello, Masaccio, Botticelli, Leonardo da Vinci, Michelangelo, Raphael, Titian.
Sample Reading List: TBA

Schedule: 11:00 am - 11:50 am M W

ART 212 Neoclassicism through Impressionism
Professor(s): Bridget A. Alsdorf

Description/Objectives: A broad study of European painting and sculpture from the French revolution to 1900 with special attention to art's relationship to social, economic and cultural changes. Lectures will explore a range of themes including art and revolution, the rise of landscape, shifting conceptions of realism, and the birth of "modernism" and the avant-garde. Emphasis on major figures including David, Canova, Goya, Ingres, Turner, Courbet, Manet, Monet, Degas, Rodin, Van Gogh and Cézanne.

Sample reading list:
Petra Chu, *Nineteenth-Century European Art*

Schedule: 10:00 am - 10:50 am T Th

ART 215 Early Chinese Art and Archaeology
Professor(s): Robert W. Bagley

Description/Objectives: ART 215 surveys the history of Chinese art from Neolithic to Han, concentrating on recent archaeological discoveries and on the problems of interpreting archaeological finds. It also examines several themes in detail: metal technology and its beginnings; the interaction between design and technique in bronze casting and jade working; and the origin of Chinese civilization and of a distinctively Chinese tradition. All these topics invite comparisons between China and the ancient Near East.

Schedule: 11:00 am - 11:50 am M W F

ART 217 / EAS 217 The Arts of Japan
Professor(s): Andrew M. Watsky

Description/Objectives: Art 217 surveys the arts of Japan from the pre-historic period through the present day. Painting, sculpture, and architecture form the core of study, though we will also examine the critical role of other forms, including calligraphy, lacquer, and ceramics. Throughout the course we will take close account of the broader cultural and historical contexts in which art was made. Our topics include the ongoing tension in Japanese art between the foreign and the indigenous, the role of ritual in Japan's visual arts, the re-uses of the past, the changing loci of patronage, and the formats and materials of Japanese art.

Sample reading list:
Penelope Mason, *History of Japanese Art*
Richard Pearson, *Ancient Japan*
Mimi Yiengpruksawan, *The Phoenix Hall at Uji and the Symmetries of Replication*
Yoshiaki Shimizu, *Zen Art?*
João Rodrigues, *The Tea Ceremony*
Ihara Saikaku, *The Life of an Amorous Man*

Schedule: 1:30 pm - 2:20 pm M W

ART 232 / NES 232 The Arts of the Islamic World
Professor(s): Thomas F. Leisten

Description/Objectives: A survey of the architecture and the arts of various Islamic cultures between northern Africa and the Indian subcontinent from its beginnings in the 7th to the 20th century. Emphasis will be on major monuments of religious and secular architecture, architectural decoration, calligraphy and painting.

Sample reading list:
R. Ettinghausen and O. Grabar, *The Art and Architecture of Islam 650-1250*
S. Blair and J. Bloom, *The Art and Architecture of Islam 1250-1800*
M. Hodgson, *The Venture of Islam I-III*
J. Jomier, *How to Understand Islam*

Schedule: 11:00 am - 11:50 am T Th

ART 248 History of Photography
Professor(s): Anne McCauley

Description/Objectives: A survey of photography from its multiple inventions in the early nineteenth century to its omnipresence (and possible obsolescence) in the twenty-first. Themes will include photography's power to define the "real;" its emulation and eventual transformation of the traditional fine arts; and its role in the construction of personal and collective memories.

Sample reading list:
Trachtenberg, *Classic Essays on Photography*
Marien, *Photography: A Cultural History*
Sekula, *The Body and the Archives*
Reading packet available for purchase at Pequod.

Schedule: 10:00 am - 10:50 am T Th

ART 290 The Art and Archaeology of Ancient Egypt
Professor(s): Deborah A. Vischak

Description/Objectives: Behind the awe-inspiring monuments, the complex religious cults, and the intimations of wealth and a taste for the good life found in the surviving remnants of ancient Egypt lie real people concerned with spirituality, economics, politics, the arts, and the pleasures and pains of daily life. In this course, we will examine the art and architecture created in the ancient Egyptian landscape over 4 millennia, as well as the work of archaeologists in the field, including up-to-the-minute finds from on-going excavations.

Sample reading list:
Ian Shaw, ed., *The Oxford History of Ancient Egypt*
Gay Robins, *The Art of Ancient Egypt*
Mark Lehner, *The Complete Pyramids*
Peter Janosi, *The Tombs of Officials: Houses of Eternity*
Labib Habichi, *The Sanctuary of Heqaib at Elephantine*
Melinda Hartwig, *Tomb Painting and Identify in Ancient Thebes*

Schedule: 1:30 pm - 2:20 pm T Th

ART 333 / ARC 333 Renaissance and Baroque Architecture
Professor(s): John A. Pinto

Description/Objectives: European architecture from 1420 to the mid-18th century with particular emphasis on its historical and social background. Various architectural styles - Renaissance, baroque, and rococo - are studied in terms of important architects and buildings especially of Italy, France, and England.

Sample reading list:
Wittkower, *Architectural Principles of the Age of Humanism*
Murray, *Italian Renaissance Architecture*
Ackerman, *Palladio*

Schedule: 12:30 pm - 1:20 pm M W

ART 370 History of American Art to 1900
Professor(s): Rachael Z. DeLue

Description/Objectives: An introduction to the history of art in the United States from the colonial period to 1900. Works of art will be examined in terms of their cultural, social, intellectual, and historical contexts. Students will consider artistic practices as they intersect with other fields, including science and literature. Topics include the visual culture of natural history, fashioning the self, race and representation, landscape and nation, art and the Civil War, gender politics, art and medicine, and realism and deception.

Sample reading list:
John Trumbull, *Letter to Thomas Jefferson (1789)*
Herman Melville, *Moby Dick (1851)*
W.E.B. DuBois, *Of Our Spiritual Strivings (1903)*
Joy Kasson, *Narratives of the Female Body: The Greek Slave*
Stephen Jay Gould, *The Tension and Harmony of Art and Science*
Rosalind Krauss, *Photography's Discursive Spaces*

Schedule: 12:30 pm - 1:20 pm T Th

ART 395 The Ancient Egyptian Body
Professor(s): Deborah A. Vischak

Description/Objectives: In this course we will examine ancient Egyptian art and architecture (primarily from the pharaonic period, c. 3000 BCE to c. 1000 BCE) using the body as a visual and conceptual theme. Utilizing art historical and archaeological methods, we will analyze sculpture, relief, painting, drawing, and architecture, as well as objects used to adorn and encase bodies both living and dead, emphasizing the context and interrelationships of these materials as they relate to the body and the corporeality of Egyptian society and culture.

Sample reading list:
John Baines, *On the Status and Purposes of Ancient Egyptian Art*
Jan Assmann, *Preservation and Presentation of Self in ancient Egyptian*
Lynn Meskell, *The Irresistible Body and the Seduction of Archaeology*
David O'Connor, *Sexuality, Statuary, and the Afterlife*
Zainab Bahrani, *The Metaphorics of the Body*
Janet Richards, *People, Death, and the "Tomb Problem" in Egypt*

Schedule: 2:30 pm - 3:20 pm M W

ASTROPHYSICAL SCIENCES

AST 301 / PHY 321 General Relativity
Professor(s): Jeremy J. Goodman

Description/Objectives: Einstein's theory of general relativity and its astrophysical implications, including black holes, cosmological expansion, and gravitational waves.

Sample reading list:
Hartle, James B., *Gravity: An Introduction to Einstein's General Relativity*
Schutz, B.F., *A First Course in General Relativity*

Auditors – Familiarity with vector calculus is required.

Schedule: 3:00 pm - 4:20 pm T Th

CIVIL AND ENVIRONMENTAL ENGINEERING

CEE 102A / EGR 102A / MAE 102A Engineering in the Modern World
Professor(s): David P. Billington , Michael G. Littman

Description/Objectives: Lectures and readings focus on bridges, railroads, power plants, highways, airports, harbors, automobiles, aircraft, computers, and the microchip. Historical analysis provides a basic for studying urban problems by focusing on scientific, political, ethical, and aesthetic aspects in the evolution of engineering over the past two centuries.

Sample reading list:
D. P. Billington, *The Innovators*
D. P. Billington and D. P. Billington Jr, *Power, Speed and Form*

Schedule: 11:00 am - 11:50 am M W

CEE 205 Mechanics of Solids
Professor(s): Sigrid M. Adriaenssens

Description/Objectives: Fundamental principles of solid mechanics. Equilibrium equations, reactims, internal forces, stress, strain, Mohr's circle, and Hooke's law. Analysis of the stress and deformation in simple structural members for safe and stable engineering design. Axial force in bars, torsion in shafts, bending and shearing in beams. Deflection of beams, statically indeterminant problems, stability of elastic columns, energy methods, and joint deflection of trusses.

Sample reading list:
Russell C. Hibbeler, *Mechanics of Materials, 6/E (required text)*
Roy R. Craig, Jr (1996), *Mechanics and Materials*
Bedford, Fowler & Liecht (2003), *Statics and Mechanics and Materials*
Beer & Johnson, *Mechanics and Materials*
James H. Gere, *Mechanics and Materials, 6th edition*

Schedule: 11:00 am - 12:20 pm T Th

CEE 305 / GEO 375 Environmental Fluid Mechanics
Professor(s): Elie R. Bou-Zeid

Description/Objectives: Introduction of the conservation equations frequently used to describe fluid. Students are then exposed to various dynamics that emerge from application of these equations through examples: flow of the atmospheric boundary layer, fluid-structures interactions and flow in urban areas, open channel and river flows, lake dynamics, flow in estuaries, and coastal dynamics. The course concludes with an overview of the effects of stratification and earth rotation on environmental flows and an introduction to large scale atmospheric and oceanic circulations.

Sample reading list:
Benoit Cushman- Roisin, *Environmental Fluid Mechanics*
Lex Smits, *A Physical Introduction to Fluid Mechanics*

Schedule: 1:30 pm - 2:50 pm T Th

CEE 361 / MAE 325 Structural Analysis and Introduction to Finite Element Methods
Professor(s): Jean-Hervé Prévost

Description/Objectives: Basic concepts of matrix structural analysis. Direct stiffness method. Axial force member. Beam bending member. Formation of element stiffness matrix. Assembling of global stiffness matrix. Introduction of boundary conditions. Solution of linear algebraic equations. Special analysis procedures. The finite element method. Introduction and basic formulation. Plane stress and plane strain problems. Plate bending problems. The use and implementation of structural analysis and finite element computer codes using Mathlab is emphasized throughout the course.

Sample reading list:
McGuire & Gallagher, John Wiley, *Matrix Structural Analysis*
Kwon and Bang, CRC, *The Finite Element Method Using MatLab*
Zienkiewicz, Taylor and Zhu; Elsevier, *The Finite Element Method: Its Basis and Fundamentals*

Schedule: 11:00 am - 12:20 pm T Th

CEE 366 Design of Reinforced Concrete Structures
Professor(s): Maria E. Garlock

Description/Objectives: Materials in reinforced concrete. Flexural analysis and design of beams. Shear and diagonal tension in beams. Short columns. Frames. Serviceability. Bond, anchorage and development length. Slabs. Special topics. Introduction to design of steel structures.

Schedule: 11:00 am - 12:20 pm M W

CEE 471 / GEO 471 / URB 471 Introduction to Water Pollution Technology
Professor(s): Peter R. Jaffé

Description/Objectives: An introduction to the science of water quality management and pollution control in natural systems; fundamentals of biological and chemical transformations in natural waters; identification of sources of pollution; water and wastewater treatment methods; fundamentals of water quality modeling.

Sample reading list:
Tchobanoglous & Schroeder, *Water Quality*
Eckenfelder, *Principles of Water Quality Management*

Schedule: 8:30 am - 9:50 am T Th

CHEMICAL ENGINEERING

CHE 260 / EGR 260 Ethics and Technology: Engineering in the Real World
Professor(s): Jay B. Benziger

Description/Objectives: The course examines engineering as a

profession and professional responsibilities of engineers. Case studies are used to distinguish engineering from science and business, and the ethical responsibilities associated with being a professional. Ethical principles are reviewed to explore how engineers should address technology implementation. Simple quantitative decision making concepts, including risk-benefit analysis and optimization methods are introduced to compare technology options on a quantitative basis. We will consider the ethical conflicts between utilitarian (quantitative) theories engineers favor and duty theories (Kantian ethics).

Sample reading list:
David Noble, *America by Design*
Loren Graham, *The Ghost of the Executed Engineer*
Carroll Pursell, *White Heat*
Douglas Birsch and John H. Fielder, *The Ford Pinto case : a study in applied ethics, business...*

Schedule: 11:00 am - 11:50 am T Th

CHE 341 Mass, Momentum, and Energy Transport
Professor(s): Sankaran Sundaresan

Description/Objectives: Course will survey modeling and solution methods for the transport of fluids, heat and chemical species in response to differences in pressure, temperature and concentration. Both steady state and transient behavior will be examined. Topics include fluid statics; conservation equations for mass, momentum and energy; dimensional analysis; viscous flow at high and low Reynolds number; thermal conduction; convective heat and mass transfer, correlations; diffusion and interphase mass transfer.

Sample reading list:
Welty, Wicks, Wilson, *Fundamentals of Momentum, Heat, and Mass Transfer*
Bird, Stewart, Lightfoot, *Transport Phenomena*
Middleman, *An Introduction to Fluid Dynamics*
Middleman, *An Introduction to Mass and Heat Transfer*
Denn, *Process Fluid Mechanics*

Auditors – Must have knowledge of calculus, linear algebra and ordinary differential equations.

Schedule: 10:00 am - 10:50 am M W F

CHE 415 / CHM 415 Polymers
Professor(s): Richard A. Register

Description/Objectives: Broad introduction to polymer science and technology, including polymer chemistry (major synthetic routes to polymers), polymer physics (solution and melt behavior, solid-state morphology and properties), and polymer engineering (overview of reaction engineering and melt processing methods).

Sample reading list:
Sperling, *Introduction to Physical Polymer Science, 3rd Ed.*
Billmeyer, *Textbook of Polymer Science, 3rd Ed.*
Young and Lovell, *Introduction to Polymers, 2nd Ed.*
Cowie, *Polymers: Chemistry and Physics of Modern Materials*
Rosen, *Fundamental Principles of Polymeric Materials*
Rudin, *The Elements of Polymer Science and Engineering*

Schedule: 9:00 am - 9:50 am M W F

CHE 440 The Physical Basis of Human Disease
Professor(s): Celeste M. Nelson

Description/Objectives: This course covers major diseases (cancer, diabetes, heart disease, infectious diseases), the physical changes that inflict morbidity and mortality, the design constraints for treatment, and emerging technologies that take into account these physical hurdles. Taking the perspective of the design constraints on the system (that is, the mass transport and biophysical limitations of the human body), we will survey recent results from the fields of drug delivery, gene therapy, tissue engineering, and nanotechnology.

Sample Reading List: TBA

Schedule: 1:30 pm - 2:50 pm T Th

CHE 448 / MAT 448 Introduction to Nonlinear Dynamics
Professor(s): Yannis G. Kevrekidis

Description/Objectives: The purpose of this course is to present an introduction to the phenomenology of nonlinear dynamic behavior that may be observed as well as transitions between them as system parameters vary. We will discuss experimental measurements for the characterization of the system behavior. We will also include a small amount of theory that can be useful in computational explorations. Emphasis will be placed on the geometric/visual computer aided description and understanding of complex dynamics and chaos.

Sample reading list:
Steven H. Strogatz, *NonLinear Dynamics and Chaos*

Schedule: 1:30 pm - 2:50 pm T Th

CHEMISTRY

CHM 201 General Chemistry I
Professor(s): Michael H. Hecht , Robert P. L'Esperance

Description/Objectives: CHM 201 (Fall) and CHM 202 (Spring) comprise an overview of Chemistry. The goal of General Chemistry is to enhance our understanding of our surroundings through a study of matter at the molecular scale. Topics in CHM 201 include chemical reactions, equilibrium, energy and entropy, quantum theory, atomic structure, and chemical bonding. These concepts will be illustrated with real-world examples from the chemistry of biological systems.

Sample reading list:
Zumdahl, *Chemical Principles, 6th Edition*

Schedule: 11:00 am - 12:20 pm T Th

CHM 207 Advanced General Chemistry: Materials Chemistry
Professor(s): Steven L. Bernasek , Robert P. L'Esperance

Description/Objectives: CHM 207 is an introductory course in chemistry with examples drawn from materials science. The basic concepts of chemistry are introduced: stoichiometry, reaction types, equilibria, thermodynamics, quantum mechanics, and chemical bonding. These concepts are applied in discussions of the structure, reactions, and properties of technologically important materials: metals, semiconductors, ceramics, and polymers.

Sample reading list:
Steven S. Zumdahl, *Chemical Principles, 6th Edition*

Schedule: 10:00 am - 10:50 am M W F

CHM 303 Organic Chemistry I – Biological Emphasis
Professor(s): Henry L. Gingrich, Martin F. Semmelhack

Description/Objectives: This course is designed as the first part of a three-semester sequence, CHM 303/304 and MOL 345 (biochemistry). CHM 303 will introduce the principles of organic chemistry, including the structures, properties, and reactivity of simpler organic compounds. The emphasis will be on the mechanisms of organic reactions, with examples taken from biology when appropriate to illustrate the principles. For a complete presentation of the subject, the course should be followed by CHM 304 in the spring.

Sample reading list:
Sorrell, *Organic Chemistry, 2nd Edition*
Sorrell, *Solutions to Exercises for Organic Chemistry, 2nd Edition*
Zubrick, *The Organic Chem Lab Survival Mannual, 7th (or 8th) Edition*

Schedule: 8:30 am – 9:50 am T Th

CHM 305 The Quantum World
Professor(s): Zoltán G. Soos

Description/Objectives: Introduction to quantum mechanics, surveying applications in chemistry, physics, and spectroscopy.

Sample reading list:
T. Engel, *Quantum Chemistry and Spectroscopy (Primary Text)*
Warren S. Warren, *The Physical Basis of Chemistry*

Schedule: 11:00 am - 12:20 pm T Th

CHM 405 Advanced Physical Chemistry: Quantum Mechanics
Professor(s): Annabella Selloni

Description/Objectives: First principles development of quantum theory, with applications to atoms, molecules, and their spectroscopy. This course will emphasize developing basic principles and focus on illustrative examples and theoretical and mathematical foundations of the chemical bond and spectroscopy.

Sample reading list:
McQuarrie and Simon, *Physical Chemistry: A Molecular Approach*

Schedule: 11:00 am - 11:50 am M W F

CHM 407 Inorganic Chemistry: Structure and Bonding
Professor(s): Susan K. VanderKam

Description/Objectives: Structural principles and bonding theories are discussed for various classes of main group inorganic and transition metal coordination compounds. Includes an introduction to the electronic structure of d-orbitals and ligand field theory.

Sample Reading List: TBA

Schedule: 10:00 am - 10:50 am M W F

CHM 440 Drug Discovery in the Genomics Era
Professor(s): Paul J. Reider

Description/Objectives: A detailed review of recent successes and failures in the discovery of new drugs. Therapeutic areas to be discussed include: HIV, oncology, asthma, Alzheimer's Disease, antibiotics, diabetes, and neglected diseases (malaria, TB, human African Trypaonosomiasis). Case studies presented by leading pharmaceutical scientists will complement discussions of the functional steps required to select a target, indentify a new chemical entity, and get it to patients. The course will emphasize the integration of the molecular sciences and the role of chemistry in inventing and producing important new medicines.

Sample Reading List: TBA

Schedule: 11:00 am - 12:20 pm M W

UNIVERSITY CENTER FOR HUMAN VALUES

CHV 310 / PHI 385 Practical Ethics
Professor(s): Peter A. Singer

Description/Objectives: Should we be sharing our wealth with people who will otherwise die from poverty-related causes? Is abortion wrong? Does a human embryo have a greater claim to protection than a chimpanzee? Are we justified in eating animals? Can the traditional doctrine of the sanctity of human life be defended? And why should we act ethically, anyway? You will be encouraged to question your own ethical beliefs on these and other issues, and in the process to explore the extent to which reason and argument can play a role in everyday ethical decision-making.

Sample reading list:
Hugh LaFollette, *Ethics in Practice, Third Ed.*
Peter Singer, *Practical Ethics, Second Edition*
James Rachels and Stuart Rachesl, *The Elements of Ethics*

Schedule: 11:00 am - 11:50 am M W

CLASSICS

CLA 212 / HUM 212 Classical Mythology
Professor(s): Brooke A. Holmes

Description/Objectives: This course introduces students to the major myths of Greco-Roman antiquity as they are expressed in different genres and media in the ancient world. Students will become acquainted with a full range of ancient gods and heroes while also exploring the various ways they were represented. Consideration will also be given to different modern frameworks for interpreting myth, its relationship to cultural imagination, and its role in religion and cult.

Sample reading list:
Homer, *Iliad*
Ovid, *Metamorphoses*
Euripides, *Plays*
Sophocles, *Plays*
Hesiod, *Theogony*Homer, *Odyssey*

Schedule: 11:00 am - 11:50 am T Th

CLA 219 / HIS 219 The Roman Empire, 31 B.C. to A.D. 337
Professor(s): Edward J. Champlin

Description/Objectives: To study the Roman Empire at its height; to trace the transformation of government from a republican oligarchy to despotism; to study the changes wrought by multiculturalism on the old unitary society; to trace the rise of Christianity from persecution to dominance; and to assess Rome's contributions to western civilization.

Sample reading list:
Boatwright, Garagola & Talbert, *The Romans*
Lewis & Reinhold, *Roman Civilization Sourcebook II: The Empire*

Schedule: 2:30 pm - 3:20 pm M W

COMPARATIVE LITERATURE

COM 205 / HUM 205 The Classical Roots of Western Literature
Professor(s): Daniel Heller-Roazen

Description/Objectives: An introduction to comparative literature, this course will investigate the many forms of cultural transmission: literary, historical, intellectual, political, religious. Readings of major works of the Greek, Roman, Arabic, and European traditions. From Greeks and barbarians to the Library of Alexandria, the foundation of Rome, the sacred texts of Christianity and Islam, and the traditions of learning in medieval Europe, we shall examine the different ways in which pagan, Jewish, Christian and Muslim cultures of Europe and the Near East have understood themselves as products of transmission.

Sample reading list:
Herodotus, *History*
Virgil, *The Aeneid*
Augustine, *Confessions*
The Qur'an
The Arabian Nights
Dante, *The Inferno*

Schedule: 12:30 pm - 1:20 pm M W

COM 235 Fantastic Fiction
Professor(s): Eileen A. Reeves

Description/Objectives: This course is devoted to different varieties of modern fantastic fiction. Our readings will include a tale told by a dead dreamer (or his double), a counterfactual history, an animal fable, a hybrid science fiction-detective novel, and several surreal political satires. We will discuss the literary conventions that govern fiction, ranging from the banally implausible to the studiedly outrageous, and address the particular cultural contexts that produce and sustain these works.

Sample reading list:
Adolfo Bioy Casares, *Asleep in the Sun*
Gunter Grass, *The Call of the Toad*
Stanislaw Lem, *The Chain of Chance*
Ibrahim Nasrallah, *Prairies of Fever*
Jose Saramago, *Seeing*
Philip Roth, *The Plot Against America*

Schedule: 1:30 pm - 2:50 pm M W

COM 336 Indian Texts and Contexts: Ancient to Medieval
Professor(s): Benjamin Conisbee Baer

Description/Objectives: Survey of ancient Indian texts, from the Vedas through the Upanishads, the Epics (Mahabharata and Ramayana) Puranas, Buddhist writings, and Sanskrit drama, poetry and literary criticism. The class will focus on the questions of ritual and sacrifice: how have they become key figurative and ethical resources in this complex tradition? What are karma and dharma? The selected readings will be intensively studied in class. No prior experience or language ability is necessary, just an attitude open to writings from a tradition which may be very unfamiliar. Some secondary readings in Ancient Indian history and society will be required.

Sample reading list:
The Rig Veda
Valmiki, *Ramayana*
Mahabharata
Kalidasa, *Sakuntala*
The Dhamma Pada
Romila Thapar, *Early India*

Auditors - All texts taught in English translations. No prior knowledge required

Schedule: 1:30 pm - 4:20 pm Th

COMPUTER SCIENCE

COS 109 / EGR 109 Computers in Our World
Professor(s): Brian W. Kernighan

Description/Objectives: Computers are all around us. How does this affect the world we live in? This course is a broad introduction to computing technology for humanities and social sciences students. Topics will be drawn from current issues and events, and will include discussion of how computers work; what programming is and why it is hard; how the Internet and the Web work; security and privacy.

Schedule: 11:00 am - 12:20 pm M W

COS 126 / EGR 126 General Computer Science
Professor(s): Robert Sedgewick

Description/Objectives: An introduction to computer science in the context of scientific, engineering, and commercial applications. The goal of the course is to teach basic principles and practical issues, while at the same time preparing students to use computers effectively. Topics include: hardware and software systems; programming in computation; and scientific computing, including simulation, optimization, and data analysis.

Sample reading list:
R. Sedgewick and K. Wayne, *Introduction to Programming in Java*
D. Harel, *Computers Ltd.: What They Really Can't Do*

Auditors - No prior programming experience is required.

Schedule: 10:00 am - 10:50 am T Th

COS 226 Algorithms and Data Structures
Professor(s): Kevin Wayne
Description/Objectives: This course surveys the most important algorithms and data structures in use on computers today. Particular emphasis is given to algorithms for sorting, searching, and string processing. Fundamental algorithms in a number of other areas are covered as well, including geometric algorithms, graph algorithms, and some numerical algorithms. The course will concentrate on developing implementations, understanding their performance characteristics, and estimating their potential effectiveness in applications.

Sample reading list:
R. Sedgewick & K. Wayne, *Algorithms, 4th edition*

Schedule: 11:00 am - 12:20 pm T Th

COS 323 Computing for the Physical and Social Sciences
Professor(s): Kenneth Steiglitz

Description/Objectives: Principles of scientific computation, driven by current applications in biology, physics, economics, engineering, etc. Topics include: simulation, integration of ordinary and partial differential equations, iterative optimization algorithms, stability and accuracy issues.

Sample reading list:
W.H. Press et al., *Numerical Recipes in C*
E. Fermi, J. Pasta, and S. Ulam, *Studies of Nonlinear Problems*
H. Gould and J. Tobochnik, *An Introduction to Computer Simulation Methods*
L. Edelstein-Keshet, *Mathematical Models in Biology*

Schedule: 3:00 pm - 4:20 pm T Th

COS 340 Reasoning about Computation
Professor(s): Bernard Chazelle

Description/Objectives: An introduction to mathematical topics relevant to computer science. Combinatorics and probability will be covered in the context of computer science applications. The course will present a computer science approach to thinking and modeling through topics such as dealing with uncertainty in data and handling large data sets. Students will be introduced to fundamental concepts such as NP-completeness and cryptography that arise from the world view of efficient computation.

Sample reading list:
Eric Lehman and Tom Leighton, *Mathematics for Computer Science*
Kenneth H. Rosen, *Discrete Mathematics and its Applications*

Schedule: 3:00 pm – 4:20 pm M W

COS 429 Computer Vision
Professor(s): Szymon M. Rusinkiewicz

Description/Objectives: This course is an introduction to the concepts of 2D and 3D computer vision. It surveys a wide range of topics from level-level vision to high-level recognition. We will discuss concepts such as filtering and edge detection; cameras and shape reconstruction; segmentation and clustering; optical flow and tracking; object recognition; motion recognition; statistical modeling of visual data, etc. Throughout the course, there will also be examination of aspects of human vision and perception that guide and inspire computer vision techniques.

Sample reading list:
E. Trucco and A. Verri, *Introductory Techniques for 3-D Computer Vision*
J. Ponce and D. A. Forsyth, *Computer Vision; A Modern Approach*

Schedule: 3:00 pm - 4:20 pm T Th

COS 441 Programming Languages
Professor(s): Andrew W. Appel

Description/Objectives: How to design and analyze programming languages and how to use them effectively. Functional programming languages, object-oriented languages; type systems, abstraction mechanisms, operational semantics, safety and security guarantees. Implementation techniques such as object representations and garbage collection will also be covered.

Sample reading list:
Benjamin C. Pierce, *Types and programming languages, 2002*
Jeffrey Ullman, *Elements of ML Programming, 2nd edition, 1998*

Schedule: 10:00 am - 10:50 am M W F

EAST ASIAN STUDIES

EAS 361 / HIS 335 Modern Korean History
Professor(s): Joy S. Kim

Description/Objectives: A survey of modern Korean history. The main emphasis will be placed on the transformation witnessed in the twentieth century, and will cover the following major themes: modernism, colonialism (1910-1945), war (1950-1953), industrialization, and the politics of gender and class. Course materials include literary works, historical writings, and other cultural forms, such as art and film.
Sample reading list:
Bruce Cumings, *Korea's Place in the Sun*
Andre Schmid, *Korea between Empires*
Charles Armstrong, *The North Korean Revolution*
Hagen Koo, ed., *State and Society in Contemporary Korea*
Gi-wook Shin and Michael Robinson, eds., *Colonial Modernity in Korea*
Peter Duus, Abacus and the Sword:, *TheJapanesePenetrationofKorea*

Schedule: 10:00 am - 10:50 am M W

ECONOMICS

ECO 101 Introduction to Macroeconomics
Professor(s): Elizabeth C. Bogan

Description/Objectives: The theory of the determination of the level of national income and economic activity, including an examination of the financial system. Emphasis on economic growth and such economic problems as inflation, unemployment and recession, and on appropriate policy responses. Some attention is also paid to international issues.

Sample reading list:
Baumol and Blinder, *Macroeconomics: Principles and Policy*

Schedule: 11:00 am - 11:50 am T Th

ECO 300 Microeconomic Theory
Professor(s): Smita B. Brunnermeier

Description/Objectives: This is an intermediate microeconomics course. The general themes are: (1) choices made by individual consumers and firms, (2) equilibrium of the interaction of these choices in markets or similar institutions, and (3) the role of government policy in improving economic outcomes. Uses mostly verbal and geometric arguments.

Sample reading list:
Robert Pindyck and Daniel Rubinfeld, *Microeconomics. 6th edition 2004, Pearson-Prentice-Hall*

Schedule: 11:00 am - 12:20 pm T Th

ECO 302 Econometrics
Professor(s): Andriy Norets

Description/Objectives: Develop facility with basic econometric methods and the ability to apply them to actual problems and understand their application in other substantive course work in economics.

Sample reading list:
Stock and Watson, *Introduction to Econometrics*

Schedule: 1:30 pm - 2:50 pm M W

ECO 310 Microeconomic Theory: A Mathematical Approach
Professor(s): Satoru Takahashi

Description/Objectives: This course presents the economic theory of individual and firm behavior using mathematical tools including calculus. The course will emphasize applications of microeconomic theory to consumer choices, output and production of firms, market interaction and equilibrium.

Sample reading list:
Walter Nicholson and Christopher Snyder, *Microeconomic Theory 10th edition* (earlier editions by the first author are OK.)

Schedule: 11:00 am - 12:20 pm T Th

ECO 317 The Economics of Uncertainty
Professor(s): Avinash K. Dixit

Description/Objectives: This is an advanced microeconomic theory course. Using the concepts and mathematical techniques developed in ECO 310, the following topics are studied: [1] Theories of choice under uncertainty. [2] Risk aversion and applications to insurance and portfolio choice. [3] Equilibrium under uncertainty with applications to financial markets. [4] Asymmetric information: moral hazard and adverse selection. [5] Applications to the design of incentives, contracts, contests, and auctions. Concepts in game theory are developed as needed.

Sample reading list:
L. Eeckhoudt, C. Gollier and H. Schlesinger, *Economic and Financial Decisions Under Risk*

Auditors – ECO 317 is very mathematical. Must have a strong background in intermediate microeconomics and multivariable calculus.

Schedule: 3:00 pm - 4:20 pm T Th

ECO 324 Law and Economics
Professor(s): Thomas C. Leonard

Description/Objectives: An introduction to the economics of law. Application of price theory and welfare analysis to problems and actual cases in the common law - property, contracts, torts - and to criminal and constitutional law. Topics include the Coase Theorem, intellectual property, inalienable goods, product liability, crime and punishment, and social choice theory.

Sample reading list:
Cooter & Ulen, *Law and Economics*
Selected readings,

Schedule: 11:00 am - 12:20 pm T Th

ECO 342 Money and Banking
Professor(s): Nobuhiro Kiyotaki

Description/Objectives: This course explores the role that money, financial markets and institutions, and monetary policy play in shaping the economic environment. We investigate why these markets and institutions arise and may lubricate the resource allocation analytically (rather than descriptively), using tools of economic theory.

Sample Reading List: TBA

Schedule: 10:00 am - 10:50 am T Th

ECO 353 International Monetary Economics
Professor(s): Alicia Adsera

Description/Objectives: This course studies the macroeconomics of open economies under various exchange-rate regimes. It examines the functioning of currency markets, how international linkages affect macroeconomic behavior and workings of monetary and fiscal policies, and the roles of investors and speculators in spot and forward currency markets. It reviews the evolution of the monetary system and studies current policy problems, including the global roles of the dollar, euro, and yen, the benefits and costs of European monetary union, currency and debt crises in emerging-market countries, the activities of the IMF, and proposals for reform of the monetary system.

Sample reading list:
Paul Krugman and Maurice Obstfeld, *International Economics. 7th edition. 2005*

Schedule: 1:30 pm - 2:20 pm T Th

ECO 371 / LAS 346 Topics in Country and Regional Economics - Latin American Economies
Professor(s): José A. Scheinkman

Description/Objectives: At the start of the new millennium, many countries in Latin America contemplate frustrating growth experiences and persistent inequity. This course will examine the empirical evidence concerning growth episodes, and the magnitudes and causes of inequality. We will also use economic theory to discuss the various attempts at solving these problems.

Sample reading list:
Birdsall, N.C. Graham and R. Sabot (editors), *Beyond Trade Offs: Market Reforms and Equitable Growth*
Inter-American Development Bank, *Development Beyond Economics*
Easterly, W., *The Illusive Quest for Growth*

Schedule: 11:00 am - 12:20 pm M W

ECO 372 / EPS 342 Topics in Country and Regional Economics - Economics of the European Union and Economies in Europe
Professor(s): Silvia Weyerbrock

Description/Objectives: This course studies the economies of current and prospective European Union (EU) members and economic integration in Europe after 1945. It explores the political motivation for, and the economic implications of, the European Union's moves towards ever deeper integration and enlargement. Topics include policy-making in the EU, adoption of common policies including European Monetary Union and the Euro and their implications for fiscal and labor market policies, problems raised by an EU enlargement to the East, and economic transition in EU applicant countries. The course uses economic analysis to study

policy issues.

Sample reading list:
Baldwin, Richard; Wyplosz, Charles (2006), *The Economics of European Integration*
De Grauwe, Paul (2005), *Economics of Monetary Union*
Molle, Willem (2006), *The Economics of European Integration*
Eichengreen, Barry (2006), *The European Economy since 1945*

Schedule: 11:00 am - 12:20 pm M W

ECO 379 / EAS 346 The Chinese Economy
Professor(s): Gregory C. Chow

Description/Objectives: Institutional, theoretical and quantitative study of the Chinese economy. Topics include historical background, period of planning and disruptions, economic reform, growth, fluctuations, macro economic policy, economic effects of political movements, consumption, regional disparity, population, human capital, banking and financial system, state enterprise restructuring, foreign trade and investment, the legal system, science and education, and the functioning and characteristics of the Chinese bureaucratic market economy in general.

Sample reading list:
Chow, *China's Economic Transformation (Blackwell, 2007)*
Chow, *Knowing China (World Scientific, 2004)*
N. Hope, et. al., *How Far Across the River? (stanford, 2003)*
Naughton, Barry, *The Chinese Economy: Transitions and growth*

Schedule: 11:00 am - 12:20 pm T Th

ECOLOGY AND EVOLUTIONARY BIOLOGY

EEB 211 / MOL 211 The Biology of Organisms
Professor(s): James L. Gould

Description/Objectives: An introduction to the biology of organisms and populations. Topics include evolution and diversity of life, physiology of plants and animals, neurobiology and animal behavior, ecology, evolution, and conservation.

Sample reading list: TBA,

Schedule: 11:00 am - 11:50 am MW F

EEB 311 Animal Behavior
Professor(s): James L. Gould

Description/Objectives: One of the fascinating challenges in biology is to understand the origins and organization of animal behavior. Ethology is the branch of biology concerned with the mechanisms and evolution of behavior, especially innate predispositions and programming, and their interaction with learning. The course begins by examining the discovery of early ethologists of behavioral units or "programs", and relates these to our understanding of the nervous system. We look at how complex behaviors such as navigation, learning, and planning are organized. We study the social behavior of several species and end with an ethological analysis of our own species.

Sample reading list:
Gould, *Ethology*

Schedule: 1:30 pm - 2:50 pm M W

EEB 321 Introduction to Population and Community Ecology
Professor(s): Henry S. Horn

Description/Objectives: We shall examine interactions of organisms, ecosystems, and biomes with their physical environment, e.g., temperature and dynamics of water and air. We shall explore the dynamics and regulation of single-species populations, followed by interactions between pairs of species, e.g., competition, mutualism, predation, parasitism, and herbivory. Finally, we shall consider the structure and dynamics of whole communities of plants and animals, including interactions with humans, e.g., dependence, exploitation, management, and conservation.

Sample reading list:
Molles, *Ecology, 4th edition*
Williams, *The Nature Handbook*
Kricher & Morrison, *A Field Guide to Eastern Forests*
Horn, *Plain Talk About Research in Field Biology*

Other information:
The details of the course may change, but the spirit and general content are as described. In particular, the order of topics will generally follow the text, but will be modified to take advantage of seasonal observations outdoors near campus.

Schedule: 11:00 am - 12:20 pm T Th

EEB 323 Integrative Dynamics of Animal Behavior
Professor(s): Iain D. Couzin

Description/Objectives: This course will explore the fundamental principles that underline the evolution and mechanism of animal behavior. Animal behavior naturally crosses scales and disciplinary boundaries. This course will integrate our understanding of behavior with information from neuroscience, evolution, physiology, genetics, and the biology of complex systems.

Sample reading list:
Simpson, S.J. and Raubenheimer, D., *Integrative Behavior*
Danchin, E., Giraldeau, L-A. & Cezilly, F. (Eds)., *Behavioural Ecology: An Evolutionary Perspective on Behaviou*
Carew, T.J., *Behavioral Neurobiology: the Cellular Organization of Natur*

Schedule: 3:00 pm - 4:20 pm M W

EEB 341 / ENV 341 Water, Savannas and Society: Resilience and Sustainability in African Drylands
Professor(s): Elizabeth G. King

Description/Objectives: Resilience theory provides a framework for understanding the dynamics of complex social-ecological systems in order to assess and promote sustainability. This course will apply key concepts from resilience theory (e.g., feedbacks, thresholds, regime shifts, adaptive cycles, panarchy) as we investigate the hydrological, ecological, and social dynamics that characterize the social-ecological systems of African pastoralists in water-limited landscapes. Topics will include: ecohydrology of land degradation, ecological interactions in dry savannas, human ecology of pastoralism, and challenges in common pool resource management.

Sample reading list:
Walker and Salt, *Resilience Thinking*
Reynolds and Stafford-Smith, *Global Desertification: Do Humans Cause Deserts?*
Schedule: 1:30 pm - 2:50 pm T Th

ELECTRICAL ENGINEERING

ELE 201 Introduction to Electrical Signals and Systems
Professor(s): Sanjeev R. Kulkarni

Description/Objectives: An introductory overview of techniques used to process information-carrying signals, with a view towards understanding some of the key ideas and methods responsible for the revolution in information technology. The course deals with various aspects of how information (text, audio, image, video, etc.) is acquired, stored, distributed, and analyzed. Examples are drawn from a wide range of real systems and applications such as CD's, television, computers, telephony, and the internet.

Sample reading list:
S. Kulkarni, *Course notes*
R. Kuc, *The Digital Information Age*
D. Cyganski and J. Orr, *Information Technology - Inside and Out*

Auditors – Must have knowledge of elementary calculus.

Schedule: 10:00 am - 10:50 am M W F

ELE 203 Electronic Circuits
Professor(s): Paul R. Prucnal

Description/Objectives: Introduction to circuit analysis and electronics. Passive components and circuits, operational amplifiers, feedback. Resistive networks, Kirchhoff's laws, Thevenin and Norton equivalent circuits. Capacitors and inductors. Switched RL, RC and RLC circuits. Oscillation. Sinusoidal steady-state analysis, frequency response, bipolar and MOSFT transistor circuits.

Sample reading list:
Dorf, *Electric Circuits*
Tsividis, *A First Lab in Circuits and Electronics*

Schedule: 9:00 am - 9:50 am M W F

ELE 301 Circuits and Signal Processing
Professor(s): Bede Liu

Description/Objectives: Development of analysis tools to study analog and digital signals, including sampling, reconstruction, and modulation. Use of time and frequency domain techniques to investigate signals through systems, including feedback systems and their stability. Examples will be drawn from CD drive, motor speed control, AM and FM radio broadcast.

Sample reading list:
E.W. Kamen, B.S. Heck, *Fundamentals of Signals and Systems, 3rd ed.*

Schedule: 11:00 am - 12:20 pm T Th

ELE 341 Solid-State Devices
Professor(s): Antoine Kahn

Description/Objectives: The physics and technology of solid state devices. Review of electronic structure of semiconductors, energy bands, doping. Detailed analysis of p-n junctions, bipolar transistors and field effect transistors. Survey of a wide range of devices, including photodetectors, solar cells, light-emitting diodes and semiconductor lasers, tunnelling devices and single-electron transistors, power transistors, photoconductors, electro-optic devices, piezoelectric and micro-electromechancial devices, sensors for chemicals, and devices for magnetic and optical recording.

Sample reading list:
B.G. Streetman, *Solid State Electronic Devices, Prentice Hall 1995*
D. Neamen, *Semiconductor Physics and Devices*

Schedule: 10:00 am - 10:50 am M W F

ELE 351 Electromagnetic Field Theory and Optics
Professor(s): Gerard Wysocki

Description/Objectives: This course should provide the students with a broad and solid background in electromagnetics, including both statics and dynamics, as described by Maxwell's equations. Emphasis will be on basic engineering principles, and applications will be discussed throughout. Examples include cavities, waveguides, antennas, and fiber optic communications.

Sample reading list:
David K. Cheng, *Fundamentals of Engineering Electromagnetics*
I.D. Kraus and D. A. Fleisch, *Electromagnetics with Applications*
N.N. Rao, *Elements of Engineering Electromagnetics*
S. Ramo, J. Winnery, and T. VanDozer, *Fields and Waves in Communication Electronics*
E. Hecht, *Optics*

Schedule: 1:30 pm - 2:50 pm M W

ELE 382 Distributed Algorithms and Optimization Methods for Engineering Applications
Professor(s): Mung Chiang

Description/Objectives: The first part of the course introduces algorithms to optimize networked systems in electronic, biological, and social substrates, with examples from signal processing, computer networking, and financial engineering. The second part focuses on the details of optimization methodology's applications to Green Information Technology, including modeling and design of energy-aware and environmentally-friendly communication, computation, and control in the emerging field of Green IT.

Schedule: 3:00 pm - 4:20 pm M W

ELE 431 / EGR 431 / ENV 431 / MAE 431 Solar Energy Conversion
Professor(s): Emily A. Carter , Sigurd Wagner

Description/Objectives: Principles, designs, and economics of solar conversion systems. Quantity and availability of solar energy. Physics and chemistry of solar energy conversion: solar optics; quantum processes; optical excitation; and transport of excitations, electronic, and ionic charge. Methods for conversion: photovoltaics; photoelectrochemistry; photocatalysis; photosynthesis; and solar thermal conversion. Energy collection, transport, and storage. Economics: life cycle costing; and societal value of renewable energy.

Sample reading list:
D. Yogi Goswami, Frank Kreith, Jan F. Kreider, *Principles of Solar Engineering*
George C. Schatz, Mark A. Ratner, *Quantum Mechanics in Chemistry*
Martin A. Green, *Solar cells: Operating Principles, Technology*
Jeremy Berg, John I.. Tymoczko, Lubert Stryer, *Biochemistry*
Christiana Honsberg and Stuart Bowden,

http:/pvcdrom.pveducation.org. Review articles
Auditors - Knowledge of linear algebra and differential equations is essential.

Schedule: 10:00 am - 10:50 am M W F

ELE 441 Solid-State Physics I
Professor(s): Mansour Shayegan

Description/Objectives: An introduction to the properties of solids. Theory of free electrons--classical and quantum. Crystal structure and methods of determination. Electron energy levels in a crystal: weak potential and tight-binding limits. Classification of solids--metals, semiconductors and insulators. Types of bonding and cohesion in crystals. Lattice dynamics, phonon spectra and thermal properties of harmonic crystals.

Sample reading list:
Ashcroft & Mermin, *Solid State Physics*
Kittel, *Introduction to Solid State Physics*
Ziman, *The Theory of Solids*

Schedule: 11:00 am - 12:20 pm M W F

ELE 453 Optical Electronics
Professor(s): Claire F. Gmachl

Description/Objectives: Lasers, detectors, modulators, high speed pulsed lasers, light-matter interactions, optical resonators, semiconductor optoelectronics, modern topics in optical electronics.

Sample reading list:
B.E.A. Saleh; M.C. Teich, *Fundamentals of Photonics*

Schedule: 3:00 pm - 4:20 pm T Th

ELE 488 Image Processing
Professor(s): Bede Liu

Description/Objectives: Introduction to the basic theory and techniques of image processing. Topics include image perception, acquisition, display, enhancement, restoration, compression, transformation, tomography, medical imaging, video coding and content analysis. Applications to HDTV, machine vision, medical imaging, etc.

Sample reading List:
Gonzalez & Woods, *Digital Image Processing*

Schedule: 3:00 pm – 3:40 pm T Th

ENGLISH

ENG 133 Princeton University Reads
Professor(s): Sophie G. Gee

Description/Objectives: This course involves the close study of the work of distinguished writers who teach at Princeton. The reading list will include recent books by these authors as well as other works, old or new, which they have indicated are important to them. The writers themselves will actively participate in the class. The larger context of the course will include other contemporary writers, both in the U.S. and elsewhere, who form part of the current conversation about what living literature is, where it is going and what it can do.

Sample reading list:
Jeffrey Eugenides, *Middlesex*
Toni Morrison, *Paradise*
Joyce Carol Oates, *Blonde*
Paul Muldoon, *Horse Latitudes*
C. K. Williams, *The Singing*
Edmund White, *Hotel de Dream*

Schedule: 10:00 am - 10:50 am M W

ENG 200 Reading Literature: Poetry
Professor(s): Meredith A. Martin , James Richardson

Description/Objectives: An introduction to the art, science and pleasure of poetry in English, with examples ranging from limericks to sestinas to free verse, from Shakespeare to hip hop lyrics to Dr. Seuss, from the Middle Ages to last Tuesday.

Sample reading list:
Shakespeare,
Dr. Seuss,
Elizabeth Bishop,
Paul Muldoon,
Keats,
Attridge and Carper, *Meter and Meaning*

Schedule: 11:00 am - 11:50 am M W

ENG 310 Shakespeare I
Professor(s): Lawrence N. Danson

Description/Objectives: The first half of Shakespeare's career, from the romantic comedies, early tragedies, and English history plays to Hamlet. This is Shakespeare in Love--with language, theater, his own bursting creativity. Emphasis above all on learning how to read Shakespeare with pleasure and understanding, paying attention to both poetry and theater. We locate him in his own historical context--Elizabethan England--but will also see him as alive and well in the twenty-first century.
Special attention to the dramatization of identity and subjectivity; erotic desire and communal restraint; dramatic structure and theatrical genre as modes of meaning; royalty and its discontents. Some consideration of the non-theatrical (but still dramatic) Sonnets. Occasional film clips as a way to suggest varieties of potential readings.

Sample reading list:
Twelfth Night
A Midsummer Night's Dream
Richard II
Henry IV
Romeo and Juliet
Taming of the Shrew

Schedule: 11:00 am - 11:50 am T Th

ENG 315 Milton
Professor(s): Nigel Smith

Description/Objectives: We will explore John Milton's entire career both as writer and thinker; a lifelong effort to unite the aims of intellectual, political, and literary experimentation. In doing so, Milton made himself the most influential non-dramatic poet in the English language.

Sample reading list:
Paradise Lost
Paradise Regained
Samson Agonistes
Areopagitica

Schedule: 10:00 am - 10:50 am M W

ENG 320 English Literature of the 18th Century
Professor(s): Sophie G. Gee

Description/Objectives: In the eighteenth century, England took a great leap into modernity. In this course we will be reading literature from a century in which the novel was "invented" and poetry was changing radically; in which literary tastes were shaped by contemporary revolutions in science, philosophy, music and the visual arts. The pursuit of empire and international trade, with the political and social upheavals that these generated, left deep impressions upon eighteenth-century writing.

Sample reading list:
Swift, *A Modest Proposal; Abolishing of Christanity in England*
Pope, *Dunciad and other works*
Gay, *The Beggars Opera*
Mary Wortley Monatgu, *Turkish Embassy Letters*
Fielding, *Tom Jones*
Austen, *Mansfield Park*

Schedule: 1:30 pm - 2:20 pm M W

ENG 328 Romanticism and the Age of Revolution
Professor(s): Susan J. Wolfson

Description/Objectives: Romanticism was a revolution in literary styles and subjects, and its writers lived in an age of revolutions...American, French, and roiling debates about the rights of men, of women, and the atrocity of the slave trade, and amid, within, and across this, the vital power of imagination. Our study will concern literary aesthetics and practices in this revolutionary age.

Sample reading list:
William Blake, *Poetry*
William Wordsworth, *Poetry*
Mary Wollstonecraft, *The Vindicatons: Rights of Men; Rights of Woman*
Thomas DeQuincey, *Confessions of an English Opium Eater*
S. T. Coleridge, *Poetry and Prose*
Dorothy Wordsworth, *Poetry, Journals*

Schedule: 11:00 am - 11:50 am M W

ENG 331 19th-Century Fiction
Professor(s): Jeff E. Nunokawa

Description/Objectives: This course will acquaint students with the distinctive features of the nineteenth century novel, from Austen to Hardy. Lectures will seek to illuminate relations between social and aesthetic dimensions of the texts we read. We will consider how these fictional imaginings of things like love, sex, money, class, and race help to shape the ways we live now.

Sample reading list:
Brontë, *Jane Eyre*
Thackeray, *Vanity Fair*
Collins, *Woman in White*
Eliot, *Middlemarch*
Dickens, *Our Mutual Friend*
Hardy, *Tess of the D'Urbervilles*

Schedule: 2:30 pm - 3:20 pm M W

ENG 345 Modern Drama
Professor(s): Michael W. Cadden

Description/Objectives: A study of major plays by Ibsen, Strindberg, Chekhov, Pirandello, Brecht and Beckett--artists who revolutionized the stage by transforming it into a venue for avant-garde social, political, psychological, artistic, and metaphysical thought. Their love-hate relationships with the theater, its dramatic styles, and its often resistant audiences gave birth to forms of representation and thought we live with to this day.
When possible, we will attend relevant productions and watch videos to better appreciate the fact that a play is a form of literature written to be performed.

Sample reading list:
Ibsen, *A Doll House; Hedda Gabler*
Strindberg, *Miss Julie, The Ghost Sonata*
Chekhov, *Uncle Vanya, The Cherry Orchard*
Pirandello, *Six Characters in Search of an Author*
Brecht, *Mother Courage; Good Person of Sezuan*
Beckett, *Endgame; Happy Days*

Schedule: 10:00 am - 10:50 am T Th

ENG 363 American Literature: 1930-Present
Professor(s): Benjamin L. Widiss

Description/Objectives: A study of selected twentieth- and twenty-first-century American writers, with an emphasis on the relations between formal experimentation, generic innovation, and the imagination of possibility.

Sample reading list:
Hurston, *Their Eyes Were Watching God*
Didion, *The White Album*
Ellison, *Invisible Man*
Spiegelman, *Maus: A Survivor's Tale*
Faulkner, *As I Lay Dying*
Nabokov, *Lolita*

Schedule: 1:30 pm - 2:20 pm M W

ENG 365 Topics in American Literature - Henry James and William Faulkner
Professor(s): Lee C. Mitchell

Description/Objectives: This course will examine the careers of two of America's most accomplished novelists. Manifest differences aside, both authors are obsessed with the ensnaring effects of plot, prompting both to imagine fictional realms that are as much "designs" on the reader as on characters. We will investigate a set of recurrent emphases in these realms: on the language of perception and the relativism of perspective; on the morality of art; on the costs of education; and preeminently on the active textual role of the reader.

Sample reading list:
James, *The American*
James, *The Turn of the Screw*
James, *The Wings of the Dove*
Faulkner, *Absalom, Absalom!*

Faulkner, *As I Lay Dying*
Faulkner, *Light in August*

Schedule: 11:00 am - 11:50 am M W

ENG 369 American Women Writers
Professor(s): Diana J. Fuss

Description/Objectives: A survey of the two literary genres 20th Century American women writers have influenced the most: fiction and poetry. In the fiction section of the course we move from a turn of the century Southern novelist, Kate Chopin, to a contemporary Nobel prize winner, Toni Morrison, and in the poetry section from one of literature's most anthologized modernist poets, H. D., to America's former poet laureate, Rita Dove.

Sample reading list:
Wharton, *The House of Mirth*
Cather, *My Antonia*
Hurston, *Their Eyes Were Watching God*
H. D., *Trilogy*
Plath, *Collected Poems*
Bishop, *Complete Poems*

Schedule: 10:00 am - 10:50 am T Th

PROGRAM IN ENVIRONMENTAL STUDIES

ENV 201A Fundamentals of Environmental Studies: Population, Land Use, Biodiversity, and Energy
Professor(s): Lars O. Hedin , David S. Wilcove

Description/Objectives: An expanding human population and the desire of all people for a more prosperous life have placed tremendous demands on the environment. We will explore how human activities have affected land use, agriculture, fisheries, biodiversity, and the use of energy. Our focus is both global and local, highlighting not only fundamental changes in the biosphere, but also the ways in which individual decisions lead to major environmental changes. We explore the fundamental principles underlying contemporary environmental issues, and we use case studies to illustrate the scientific, political, economic, and social dimensions of environmental problems.

Sample reading list:
Course Packet

Schedule: 10:00 am - 10:50 am M W

FRENCH

FRE 221 The Rise of France: French Literature, Culture, and Society from the Beginnings to 1789
Professor(s): Sarah Kay

Description/Objectives: The evolution of French culture, and society from the beginnings to the Revolution: the Middle Ages, the Renaissance, Neo-Classicism, and the Enlightenment. The distinguishing cultural and social ideals of these four periods will be discussed, and representative cultural productions will be discussed in the context of France's evolving relation to its others.

Sample reading list:
Coudrette, *Mélusine*
Rabelais, *Gargantua*
Molière, *Le Tartuffe*
Voltaire, *Candide*
Le Cycle de Guillaume d'Orange

Auditors – Course will be conducted in French.
Schedule: 11:00 am - 12:20 pm M

FRE 327 / COM 357 Tales of Hospitality: France, North Africa, and the Mediterranean
Professor(s): André Benhaïm

Description/Objectives: Since the Revolution, France has declared itself a haven for refugees from all countries. Yet, a series of laws and often fierce debates have recently marred this benevolence with sometimes dramatic limitations. Keeping in mind different models of hospitality in the Western, Mediterranean, and Arab traditions, we will examine the 'case study' of France and North Africa by comparing ethical and political, individual and collective models of hospitality. We will address issues such as immigration, nationality, and cultural identity and reflect on what it means to welcome a stranger.

Sample reading list:
Homère, *L'Odyssée (selections)*
Albert Camus, *L'Hôte*
Tahar Ben Jelloun, *Hospitalité française*
Assia Djebar, *Femmes d'Alger dans leur appartement*
Albert Cohen, *Solal*
Joann Sfar, *Le Chat du Rabbin (graphic novel)*

Auditors – Course will be conducted in French.

Schedule: 1:30 pm - 2:50 pm M

FRE 361 French Romanticism
Professor(s): Efthymia Rentzou

Description/Objectives: This course studies literature, arts, and culture which manifest the Romantic vision and sensibility that was shaped in the French Revolution and diffused by the rise of bourgeois-industrial society. The course stresses poetry, the novel, and art, placing them in the context of the history of ideas. Romanticism is viewed in its relation with the past (classicism) but also with regard to the new modernist aesthetic emerging after the second half of the 19th century (e.g. Baudelaire). Close analysis of texts is combined with a broader perspective on the cultural significance of the movement.

Sample reading list:
Lamartine, *Méditations Poétiques*
Hugo, *Les orientales*
Stendahl, *Le Rouge et le noir*
Chateaubriand, *René*

Auditors - Course will be conducted in French.

Schedule: 3:00 pm - 4:20 pm T

GEOSCIENCES

GEO 102A / ENV 102A Climate: Past, Present, and Future
Professor(s): Michael L. Bender , Daniel M. Sigman , Geoffrey K. Vallis

Description/Objectives: An introduction to the processes and conditions that control Earth's climate; an overview of past climate evolution from the time of Earth's origin to the period of human

history; and an investigation of ongoing climate changes and those predicted for the future, including the capacity of human activities to alter climate and the impacts of climate change on environment and society

Sample reading list:
Cockell, C., *An Introduction in the Earth-Life-System*
Graedel, T.E., Crutzen, P.J., *Atmospheric Change*
Kump, L.R. et al., *The Earth System*
Ruddiman, W.F., *Earth's Climate*
Stanley, S.M., *Earth System History*

Schedule: 10:00 am - 10:50 am M W F

GEO 203 / CEE 235 Geology
Professor(s): Laurel P. Goodell , Nadine McQuarrie

Description/Objectives: An introduction to the study of Earth systems, physical processes operating in and on the surface of the Earth, and Earth history. Topics include plate tectonics, formation of minerals and rocks, earth structure, earthquakes, volcanoes, faults, mountain building, weathering, erosion, flooding, landslides and the development of landscape.

Sample reading list:
Grotzinger, Jordan, Press & Siever, 5th Edition, *Understanding Earth, W.H. Freeman & Co. 2006*

Schedule: 11:00 am - 12:20 pm T Th

GEO 361 / CEE 360 / ENV 361 Physics of the Ocean and Atmosphere
Professor(s): Samuel G. Philander

Description/Objectives: The habitability of our planet depends critically on the motion of the oceans and atmosphere, which determines our weather and climate. Associated phenomena include hurricanes, tornadoes, the Jet Streams, the Gulf Stream, El Nino, La Nina, and the recurrent Ice Ages of the past million years. The course includes the use of an idealized computer model (which runs on a laptop) to study how these phenomena depend on the Earth's rotation and sphericity, and to explore the predictability of weather, and of long-term changes in climate, including future global warming. The main goal of the course is to demonstrate how interplay between measurements and a hierarchy of models (that starts with the highly idealized and gradually becomes more elaborate) can lead to an understanding of very complex phenomena such as weather and climate.

Sample reading list:
M.J. Wallace & P. Hobbs, *Atmospheric Science: An Introductory Survey*
Dennis L. Hartmann, *Global Physical Climatology*
Geoff Vallis, *Atmospheric and Oceanic Fluid Dynamics*
J. Marshall & R.A. Plumb, *Atmosphere, Ocean and Climate Dynamics*

Schedule: 1:30 pm - 2:50 pm T Th

GEO 365 Evolution and Catastrophes
Professor(s): Gerta Keller

Description/Objectives: This course introduces students to the evolution of life and mass extinction's based on a broad survey of major events in Earth history as revealed by the fossil record. Concepts and techniques of paleontology are applied to all aspects, including colonization of the oceans, invasion of land, mass extinction's and evolutionary radiations. The roles of major catastrophes in the history of life are evaluated, including meteorite impacts, volcanism, climate change, and oceanic anoxia.

Sample reading list:
Hallam and Wignall, Oxford Univ. Press, *Mass Extinctions and Their Aftermath*
Vince Courtillot, Cambridge Univ. Press, *Evolution and Catastrophes*
McKinney, Prentice Hall, *Evolution of Life, Processes, Patterns and Prospects*

Schedule: 1:30 pm - 4:20 pm W

GEO 371 / PHY 371 Global Geophysics
Professor(s): Frederik J. Simons

Description/Objectives: An introduction to the fundamental principles of global geophysics. Four parts, taught over three weeks each in an order allowing the material to build up to form a final coherent picture of (how we know) the structure and evolution of the solid Earth: 1. Gravity and 2. Magnetism: the description and study of the Earth's magnetic and gravitational fields. 3. Seismology: body waves, surface waves and free oscillations. 4. Geodynamics: heat flow, cooling of the Earth, and mantle convection. The emphasis is on physical principles including the mathematical derivation and solution of the governing equations.

Sample reading list:
Fowler, C.M.R., *The Solid Earth-An Introduct. to Global Geophysics, 2nd Ed.*
Lowrie, W., *Fundamentals of Geophysics, 2nd Ed.*
Stacey, F.D. & Davis, P.M., *Physics of the Earth, 4th Ed.*

Schedule: 1:30 pm - 2:50 pm T Th

HISTORY

HIS 207 / EAS 207 History of East Asia to 1800
Professor(s): Martin C. Collcutt , Willard J. Peterson

Description/Objectives: A general introduction to the history of the traditional cultures in China, Japan, and Korea with some heed to comparisons with the Western world.

Sample reading list:
Schirokauer, *Brief History of Chinese & Japanese Civilization*
Peach Blossom Fan
Chushingura
deBary, *Sources of Chinese Tradition*

Schedule: 11:00 am - 11:50 am M W

HIS 211 Europe from Antiquity to 1700
Professor(s): James Byrne

Description/Objectives: This course will survey the ancient background to European civilization and trace major themes in European history down to 1700.

Sample reading list:
Winks and Mattern-Parks, *Ancient Mediterranean World*
Winks and Ruiz, *Medieval Europe and the World*
Winks and Wandel, *Europe in a Wider World*
Course Packet

Schedule: 10:00 am - 10:50 am M W

HIS 236 / HLS 266 The Greeks: History of a People
Professor(s): Molly Greene
Description/Objectives: How and why does a people survive? That is the question at the heart of this course, which is organized around the history of a people, rather than a state or country. The Greeks possess one of the most continuous records on earth, yet their history after Antiquity remains surprisingly little known. We will explore that history, beginning in Late Antiquity and moving across the globe¿from the Mediterranean to Russia, Turkey, and early 20th century America¿we will take the story up to the present. Prominent themes include: pre-modern and modern identity, community and state, and the place of a mercantile people in global economic history. The course will also make extensive use of music and visual material, as well as include the screening of several films.

Sample reading list:
Sp.Vryonis, *The decline of medieval Hellenism in Asia Minor and the proc*
M. Mazower, *The Balkans*
Av. Cameron, *The Mediterranean World in Late Antiquity*
ed. N. Diamandouros, *Hellenism and the First Greek War of Independence*
Ernst Renan, *"What is a Nation?" in H.K. Babha (ed) Nation and Narration*
A. Karakasidou, *Fields of Wheat, Hills of Blood*

Schedule: 10:00 am - 10:50 am M W

HIS 325 / EAS 355 China, 1850 to the Present
Professor(s): Janet Y. Chen

Description/Objectives: This course is an introduction to the history of modern China, from imperial dynasty to Republic, from the Red Guards to Starbucks. We will explore, through primary sources in translation, political and social revolutions, transformations in intellectual life and culture, as well as competing explanations for events such as the rise of the Communist Party and the Cultural Revolution. Major themes include: the impact of imperialism and war, gender relations, tensions between governance and dissent, and the emergence of nationalism.

Sample reading list:
R. Keith Schoppa, *Revolution and Its Past*
Lu Xun, *The True Story of Ah Q*
Paul Cohen, *History in Three Keys*
Gao Yuan, *Born Red*
Ian Johnson, *Wild Grass*

Schedule: 1:30 pm - 2:20 pm M W

HIS 351 France, 1815 to the Present
Professor(s): Philip G. Nord

Description/Objectives: The history of France in the 19th and 20th centuries appears a rapid and perplexing turnover of regimes and administrations. This course has two interrelated aims: (1) to account for France's peculiar political instability in terms of social struggles which were played out in one form or another in all European states, and thereby, (2) to set France's unique pattern of development in its European context. Topics will include: the Restoration and the legacy of the French Revolution; 1848 and Bonapartism; popular revolt in the fin de siecle and the triumph of the Third Republic, etc.

Sample reading list:
Balzac, *Pere Goriot*
Tocqueville, *Recollections*
Maupassant, *Bel-Ami*
Beauvoir, *Memoirs of a Dutiful Daughter*
Vercors, *The Silence of the Sea*
Herge, *Tintin in America*

Schedule: 11:00 am - 11:50 am T Th

HIS 360 The Russian Empire: From Peter the Great to Nicholas II
Professor(s): Ekaterina Pravilova

Description/Objectives: This course is a survey of Russian history from the late 1600s to the fall of the Romanov dynasty in 1917. During this period Russia emerged as one of the greatest powers in Europe and Asia. In 1917, it collapsed, and the first socialist state grew up on the debris of the former Empire. In this course we'll analyze the causes of Russia's enormous territorial growth and the reasons for its backwardness; explore why the Russian monarchy outlived other European monarchies and escaped the turmoil of the 19th century revolutions; and pay attention to the development of Russian art, culture, and intellectual life.

Sample reading list:
Nikolai Karamzin, *Memoirs on Ancient and Modern Russia*
Nikolai Gogol, *Dead Souls*
Leo Tolstoy, *Hadji Murad*
Semen Kanatchikov, *From the Story of My Life*
Isaiah Berlin, *Russian Thinkers*

Schedule: 11:00 am - 11:50 am T Th

HIS 369 Britain 1688-1815: From Revolution to Global Pre-eminence
Professor(s): Linda J. Colley

Description/Objectives: This course will give you a broad understanding of a period in which Britain (which is smaller than Texas) came by way of war, trade, and political, imperial, financial and industrial changes to be the richest of the world's powers, claiming authority over a fifth of the globe. We shall look at the different cultures in Britain and Ireland, at the links with the American colonies and why these snapped in 1776, at the slave trade, and at the ideas of the men and women who lived here.

Sample reading list:
W.B. Willcox, *The Age of Aristocracy 1688-1830*
Linda Colley, *Britons: Forging the Nation 1707-1837*
Roy Porter, *English Society in the 18th Century*
E.P. Thompson, *Making of the English Working Class*
Linda Colley, *Captives: Britain, Empire & the World*

Schedule: 10:00 am - 10:50 am T Th

HIS 373 The New Nation
Professor(s): Robert S. Wilentz

Description/Objectives: An interpretive survey of U.S. history from the ratification of the Constitution to the Compromise of 1850. The course will emphasize intensive reading of documents and historical interpretations.

Sample reading list:
Wilentz, *Major Problems in the History of the Early Republic*

Schedule: 11:00 am - 11:50 am M W

HIS 383 The United States since 1920
Professor(s): Kevin M. Kruse

Description/Objectives: This course introduces students to major themes in modern American history, with an emphasis on domestic political changes and social movements. The course covers the period since 1920, but pays particular attention to three important eras -- (1) the Great Depression, Roosevelt's New Deal, and World War II; (2) the civil rights movement, LBJ's Great Society, the Vietnam War, Nixon and Watergate; and (3) the Reagan Revolution, the conservative ascendancy and the "culture wars."

Sample reading list:
Story, *The Rise of Conservatism in America*
Polenberg, *The Era of Franklin D. Roosevelt*
Raines, *My Soul is Rested*
Gosse, *The Movements of the New Left*
Schulman, *Lyndon B. Johnson and American Liberalism*

Schedule: 2:30 pm - 3:20 pm M W

HIS 396 History of Biology
Professor(s): Angela N. Creager

Description/Objectives: This course examines the emergence of biology as a scientific discipline since 1750, examining both the cultural context and social impact of biological knowledge. We will pay particular attention to how specific organisms, materials, and instruments have altered the course of biological research and conceptions of life. Topics include natural history, cell theory, eugenics (and its relationship to genetics), evolution and Darwin's contribution of natural selection, ecology, molecular biology, biotechnology, and genomics/proteomics.

Sample reading list:
Darwin, *On the Origin of Species*
Watson, *The Double Helix*
Hall, *Invisible Frontiers: The Race to Synthesize a Human Gene*
Allen, *Life Science in the Twentieth Century*

Schedule: 11:00 am - 11:50 am M W

PROGRAM IN HUMANISTIC STUDIES

HUM 216 Interdisciplinary Approaches to Western Culture I: Literature and the Arts/HUM 217 Interdisciplinary Approaches to Western Culture I: History, Philosophy, and Religion
Professor(s): Sarah M. Anderson, Daniel Cloud , Andrew L. Ford , Daniel Heller-Roazen , P. A. Sitney

Description/Objectives: This course, along with HUM 217, form the first part of an intensive yearlong exploration of the landmark achievements of the Western intellectual tradition. With an interdisciplinary team of faculty drawn from the humanities and social sciences, students examine pivotal texts, events, and artifacts of European civilization from antiquity to the middle ages as part of an ongoing cultural conversation. The course is enhanced by guest lectures and cultural excursions to museums, concerts, and plays. This course explores the landmark achievements of European civilization from antiquity to the middle ages.

Sample reading list:
Homer, *The Odyssey*
Aeschylus, *The Oresteia*
Ovid, *Metamorphoses*
Tacitus, *Annals of Imperial Rome*
Apulieus, *The Golden Ass*
Dante, *Divine Comedy*
Augustine, *Confessions*
Boethius, *Consolation of Philosophy*
Christine de Pisan, *City of Ladies*
Plato, *Republic*
Aristotle, *Nicomachean Ethics*

Schedule: 11:00 am - 11:50 am T W Th

HUM 233 / COM 233 / EAS 233 East Asian Humanities I: The Classical Foundations
Professor(s): Martin Kern

Description/Objectives: An introduction to the literature, art, religion, and philosophy of China, Japan, and Korea from antiquity to ca. 1400. Readings are focused on primary texts in translation and complemented by museum visits, films, and other materials from the visual arts. The lectures include faculty members from East Asian Studies, Comparative Literature, Art and Archaeology, and Religion. Students are encouraged to enroll in HUM/EAS/COM 234 in the spring, which will continue the course from ca. 1400 into the 20th century.

Sample reading list:
Confucius, *Analects*
Sima Qian, *Records of the Historian*
Marshall R. Pihl, *The Korean Singer of Tales*
Tale of Genji
Classic of Poetry
Lotus Sutra

Schedule: 12:30 pm - 1:20 pm T Th

ITALIAN

ITA 220 Italian Civilization Through the Centuries
Professor(s): Simone Marchesi , Gaetana Marrone-Puglia

Description/Objectives: This course is designed to give an overview of pivotal moments in Italian culture, such as the relationship between Church and Empire in the Middle Ages, Machiavelli's political theory during the Renaissance, and the rise and fall of Fascism in the 20th century. Through the examination of the most relevant intellectual, historic, and artistic movements and their main geographical venues, students will be able to acquire a comprehensive understanding of the development of Italian history and civilization.
Sample reading list:
Brand & Pertile, *History of Italian Literature*
Dante, *Comedia (selections)*
Machiavelli, *Il Principe*
Leopardi, *Canti*
Morante, *La storia*
Levi, *La tregua*

Auditors – Course will be conducted in Italian.

Schedule: 11:00 am - 12:20 pm T

ITA 314 Risorgimento, Opera, Film
Professor(s): Gaetana Marrone-Puglia

Description/Objectives: Explores the way in which national identity

was imagined and implemented within Italian history, culture, and cinema before, during, and after the period of Italian Unification in the 19th century. Examples are drawn from a wide range of historical, literary, artistic, and cultural media.

Sample reading list:
Clark, *The Italian Risorgimento*
Foscolo, *Ortis*
Visconti, *Senso*
Collodi, *Pinocchio*
Aleramo, *Una donna*
Lampedusa, *Il gattopardo*

Auditors – Course will be conducted in Italian.

Schedule: 12:30 pm - 1:20 pm Th

PROGRAM IN LINGUISTICS

LIN 201 / ENG 213 Introduction to Language and Linguistics
Professor(s): Adele E. Goldberg

Description/Objectives: The eyes may be the mirror of the soul, but language is the mirror of the mind. Linguists study the structure of language to understand the complex computations that we do unconsciously every time we speak or comprehend utterances. This class will offer an introduction to the scientific analysis of human language, including the study of sound patterns, word formation, sentence structure, and the mental representation of linguistic knowledge.

Sample reading list:
Ohio State U., Linguistics Dept., *The Language Files*
Everett, Dan, *Don't Sleep There Are Snakes*

Schedule: 11:00 am - 11:50 am M W

MECHANICAL AND AEROSPACE ENGINEERING

MAE 221 Thermodynamics
Professor(s): Daniel M. Nosenchuck , Michael Vocaturo

Description/Objectives: Heat and work in physical systems. Concepts of energy conversion and entropy, primarily from a macroscopic viewpoint. Thermodynamic potentials and chemical equilibrium. Applications to engines, heat pumps, and fuel cells.

Sample reading list:
Moran & Shapiro, *Fundamentals of Engineering Thermodynamics, 5th Ed.*

Schedule: 10:00 am - 10:50 am M W F

MAE 223 / CEE 323 Modern Solid Mechanics
Professor(s): Mikko P. Haataja

Description/Objectives: Fundamental principles of solid mechanics: equilibrium equations, reactions, internal forces, stress, strain, Hooke's law, torsion, beam bending and deflection, and analysis of stress and deformation in simple structures. Integrates aspects of solid mechanics that have applications to mechanical and aerospace structures (engines and wings), as well as to microelectronic and biomedical devices (thin films and artificial hearts). Topics include stress concentration, fracture, plasticity, and thermal expansion. The course synthesizes descriptive observations, mathematical theories, and engineering consequences.

Sample reading list:
R.C. Hibbeler, *Mechanics of Materials, 6th Edition, Prentice Hall*
J.P. Den Hartog, *Mechanics (Dover)*

Schedule: 11:00 am - 12:20 pm T Th

MAE 228 / CHE 228 / EGR 228 Energy Solutions for the Next Century
Professor(s): Jay B. Benziger , Yiguang Ju

Description/Objectives: This course will deal with issues of regional and global energy demands, sources, carriers, storage, current and future technologies and costs for energy conversion, and their impact on climate and the environment. Students will learn to perform objective cost-efficiency and environmental impact analyses from source to end-user on both fossil fuels (oil, coal, and natural gas), and alternative energy sources (bio-fuels, solar energy, wind, batteries, and nuclear). We will also pay particular attention to energy sources, technologies, emissions, and regulations for transportation.

Sample reading list:
J. Tester et al., *Sustainable Energy*
D. Goodstein, *Out of Gas*
G. Boyle et al., *Energy Systems and Sustainability:Power for a Sustainable...*

Schedule: 11:00 am - 12:20 pm M W

MAE 234 The Flow of Life: An Introduction to Biological Fluid Mechanics
Professor(s): Alexander J. Smits , Josué Sznitman

Description/Objectives: An overview of the fundamental principles underlying the fluid mechanics of animal swimming and flying. The course will emphasize the importance of using dimensionless physical numbers to gain insight into the mechanisms responsible for animal locomotion in a fluid and interactions of flow with living organisms. Physiological and zoological flows will be studied. Physiological flows will examine internal flows inside living organisms. Zoological flows will concentrate on flows external to living bodies at the macroscopic and microscopic level.
No prior background in fluid mechanics needed to learn to use engineering science to build physical insight and intuition for the mechanisms responsible for animal swimming and flying, with an emphasis on illustrative examples taken from biology and ecology.

Sample reading list:
Vogel, Steven, *Life in Moving Fluids*
Homsy, G.M., *Multi-Media Fluid Mechanics*
Class notes

Schedule: 1:30 pm - 2:50 pm T Th

MAE 244/EGR 244 Introduction to Biomedical Innovation and Global Health
Professor(s): Karen A. Malatesta, Winston O. Soboyejo

Description/Objectives: The course will focus on introductory biomedical innovation in three specific areas: Biomedical Implants; Nanotechnology and BioMEMS for Cancer Detection and Treatment; and Ceramic Water Filters for Water Purification. Topics will include basic concepts in cell and molecular biology, as well as fundamentals of materials science and bioengineering. The course will demonstrate how biomedical innovation has had an impact on

global health and enterprise in the developed and the developing world.
Sample reading list:
Rutner et. al., *Biomaterials Science*
Silverman, S., *Fundamentals of BioMEMS*
Alberts, B. et. al., *Essential Cell Biology*
Markle, W. et. al., *Understanding Global Health*
Speight, C. & Toki, J., *Hands on Clay: An Introduction to Ceramics*
Clark, D., *Molecular Biology Made Simple and Fun*

Schedule: 11:00 am – 11:50 am M W F

MAE 324 Structure and Properties of Materials
Professor(s): Craig B. Arnold

Description/Objectives: Provides the materials background needed to satisfy the department requirement in this area. Relates properties of metals, alloys, polymers, composite materials, semiconductors, and ceramics to their atomic level and microscopic structure. Relates special materials properties to their exploitation in advanced technology and will illustrate this with specific examples.

Sample reading list:
Callister, *Materials Science & Engineering*
Askeland and Phule, *The Science and Engineering of Materials*

Schedule: 1:30 pm - 2:50 pm T Th

MAE 345 Robotics and Intelligent Systems
Professor(s): Robert F. Stengel

Description/Objectives: This course provides students with a working knowledge of methods for design and analysis of robotic and intelligent systems. Particular attention is given to modeling dynamic systems, measuring and controlling their behavior, and making decisions about future courses of action. Topics include system modeling and control, principles of decision-making, Monte Carlo evaluation, genetic algorithms, simulated annealing, neural networks, and expert systems.

Sample reading list:
Course Packets
http://www.princeton.edu/~stengel/MAE345.html

Schedule: 3:00 pm - 4:20 pm T Th

MAE 412 Microprocessors for Measurement and Control
Professor(s): Michael G. Littman , David Radcliff

Description/Objectives: Introduction to microcomputers for measurement and control. This is a hardware course in the area of electro mechanical systems. Students design and build microcomputer controllers and apply them to the automation of various aspects of a model railroad.

Sample reading list:
Lancaster, *TTL Cookbook (optional)*
Horowitz & Hill, *The Art of Electronics (optional)*

Schedule: 1:30 pm - 2:50 pm T Th

MAE 434 Modern Control
Professor(s): Clarence W. Rowley

Description/Objectives: This course provides an introduction to modern state-space methods for robust control system design and analysis. Applications include controlling the performance of a variety of dynamical systems. Topics include stability, controllability and observability, state feedback control, observers and output feedback control, linear matrix inequalities, and optimal and robust control design methods.

Sample reading list:
Skogestad and Postlethwaite, *Multivariable Feedback Control Analysis and Design*
Dullerud and Paganini, *A Course in Robust Control Theory: A Convex Approach*
Doyle, Francis, and Tennenbaum, *Feedback Control Theory*
Dorato, Abdallah, and Cerone, *Linear-Quadratic Control: An Introduction*

Schedule: 1:30 pm - 2:50 pm T Th

MAE 437 / EGR 437 Introduction to Innovation Process Management
Professor(s): Karl H. Zaininger

Description/Objectives: In today's hypercompetitive global marketplace, innovation is the lifeblood of any business enterprise and the engine of economic growth. This course exposes students to all fundamental aspects of the technological innovation process, from idea/concept development through critical success factors to commercialization. It also covers the basic management practices required to excel--in a complex technological society--in the craft of successful innovation and prepares students to become technology-savvy entrepreneurs, leaders, executives, and/or managers of industry or government.

Sample reading list:
M.L. Patterson, *Accelerating Innovation*
V. Govindarajan and C. Trimble, *10 Rules for Strategic Innovators-From Idea to Execution*
C.R. Carlson and W.W. Wilmot - Innovation:, *The Five Disciplines for Creating What Customers Want*
J.A. Heim and W.D. Compton-National Academy Press, 1992, *Manufacturing Systems: Foundations of World-Class Practice*
C.J. Touhill, G.J. Touhill, T.A. O'Riordan, *Commercialization of Innovative Technologies*
S. Shane, *Technology Strategy for Managers and Entrepreneurs*

Schedule: 11:00 am - 12:20 pm T Th

MOLECULAR BIOLOGY

MOL 101B From DNA to Human Complexity
Professor(s): Heather A. Thieringer , Eric F. Wieschaus

Description/Objectives: This lecture and laboratory course will acquaint non-biology majors with the theory and practice of modern molecular biology, with a focus on biological topics of current public interest. Topics include: structure of DNA, RNA, proteins, genomes and an overview of state-of-the-art technologies including cloning, recombinant DNA and PCR. The course will address how recent scientific advances affect issues relevant to human biology including forensics, stem cells, molecular evolution and the genetic basis of human traits and behaviors such as obesity and aggression.

Sample reading list:
Selected Articles from:, *Scientific American*
Selected Articles from:, *The New York Times Tuesday Science Section*

Schedule: 11:00 am - 12:20 pm T Th

MOL 215/EEB 215 Quantitative Principles in Cell and Molecular Biology
Professor(s): Edward C. Cox, Philip G. Felton

Description/Objectives: Central concepts and experiments in cellular, molecular, and developmental biology with an emphasis on underlying physical and engineering principles. Topics include important insights into the genetic code; energetic and cellular organization; communication, feeding, and signaling between cells; ideas about feedback loops and cellular organization; problems and solutions in development; and the organization of large cellular systems, such as the nervous and immune systems.
MOL 215 will cover the basic principles of cell and molecular biology as an introduction to the discipline, but will also emphasize wherever possible insights available from engineering, pysics, chemistry, and computer science.

Sample reading list:
Alberts et al., *Essential Cell Biology, 2nd Edition*

Schedule: 11:00 am – 11:50 am M W F

MOL 342 Genetics
Professor(s): Mark D. Rose , Gertrud M. Schupbach

Description/Objectives: Basic principles of genetics illustrated with examples from prokaryote and eukaryote organisms with emphasis on classic genetic techniques. The evolving conception of the gene and genome will be the primary focus of the course. Selected advanced topics will include Drosophila developmental genetics, yeast cell biology and human disease.

Sample reading list:
Daniel L. Hartl and Elizabeth W. Jones, *Genetics: Analysis of Genes and Genomes, 6th or 7th Edition*
Daniel L. Hartl, Elizabeth W. Jones, Elena R. Lozovsky, *Student Solutions Manual for Genetics: Analysis of Genes...*
Griffiths, Wessler, et al., *An Introduction to Genetic Analysis, 9th Edition*
William D. Fixsen and Diane K. Lavett, *Mega Solutions Manual for Introduction to Genetic Analysis*

Auditors – This course is extremely mathematical.

Schedule: 11:00 am - 12:20 pm T Th

MOL 345 / CHM 345 Biochemistry
Professor(s): Jane Flint

Description/Objectives: This survey course will examine the structures and functions of biological molecules (including nucleic acids, proteins and lipids), intermediary metabolism and its regulation, and mechanisms of gene expression.

Sample reading list:
Berg, Tymoczko, Stryer, *Biochemistry, 6th Edition*

Schedule: 1:30 pm - 2:50 pm M W

MUSIC

MUS 104 When Music Is Made
Professor(s): Paul Lansky

Description/Objectives: An introduction to the fundamentals of music theory through exercises in songwriting harmony, notation, ear-training, transcription, composition and analysis. A variety of musics will be studied. Students should have some knowledge of notation. The main emphasis in the course will be on song-writing as a means to master rudiments.

Sample Reading List: TBA

Schedule: 1:30 pm - 2:20 pm M W

MUS 105 Music Theory through Performance and Composition
Professor(s): Dmitri Tymoczko

Description/Objectives: Music 105 is a comprehensive introduction to music theory, covering the basic principles of a wide range of Western musical styles, including medieval music, Renaissance music, classical music, jazz and rock. The emphasis throughout is on learning by creating, performing, and listening to music. Though this is an academic course, we try not to lose sight of the fact that music is something that brings us joy.

J.S. Bach, *371 Harmonized Chorales & 69 Chorale Melodies with Figured*
Bass, Riemenschneider, ed. (New York: G. Schirmer/Warner Bros.)
W.A. Mozart, *Complete Sonatas for Pianoforte (Dover)*
MacGamut, *(a computer program for ear training)*

Sample Reading List: TBA

Schedule: 11:00 am - 11:50 am T Th

MUS 240 Musical Modernism 1890-1945
Professor(s): Simon A. Morrison

Description/Objectives: This course is an overview of modernism in European and Euro-American art music, including movements such as symbolism, expressionism, and neoclassicism. We will listen to music of-among others-Bartók, Berg, Copland, Debussy, Ives, Mahler, Milhaud, Satie, Schoenberg, Scriabin, Stravinsky, and Varèse. Topics will include introduction to a wide variety of musical languages and forms, as well as different cultural contexts for music making (music and ethnicity, music's relation to other art forms such as dance and visual art, music and politics).

Sample reading list:
Claude Debussy, *La Mer*
Igor Stravinsky, *The Rite of Spring*
Charles Ives, *"Concord" Sonata*
Alban Berg, *Lyric Suite*
Aaron Copland, *Appalachian Spring*
Dmitri Shostakovich, *Symphony no. 7*

Auditors -Useful to have some prior experience with classical music, whether as listeners or performers. Ability to read music not required.

Schedule: 12:30 pm - 1:20 pm M W

MUS 251 Music and Film
Professor(s): Simon A. Morrison

Description/Objectives: This course assesses the role of music in (predominantly) American film from the early days of synchronized sound to the present. Lectures will address the changing modalities

and parameters of film music: the ambivalences in certain films between "diegetic," "non-diegetic," "meta-diegetic," and displaced diegetic" music; the behavior and meaning of "acousmatic" music (and sound); audio-visual counterpoint and audio-visual synchronism. The lectures will consider such technical matters as the structure and harmonic language of scores by Aaron Copland, Bernard Hermann, and Gyorgy Ligeti.

Sample reading list:
Rick Altman, *The American Film Musical*
Royal Brown, *"Hermann, Hitchcock, and the Music of the Irrational"*
Michel Chion, *Audio Vision*
Stephen Marchant, *How Laura Happens: Ontology, Enunciation, Event"*
Stefan Mattesich, *"Grotesque Caricature:Eyes Wide Shut as Allegory"*
Robyn Stilwell, *"The Fantastical Gap Between Diegetic and Non-Diegetic"*

Schedule: 10:00 am - 10:50 am M W

MUS 262 / AAS 262 Evolution of Jazz Styles
Professor(s): Anthony D. Branker

Description/Objectives: An introductory survey examining the historical development of jazz from its African origins through the present. The course will place emphasis on the acquisition of listening skills and explore related musical and social issues.

Sample reading list:
Alyn Shipton, *A New History of Jazz*
Robert Walser, *Keeping Time: Readings in Jazz History*
Ben Sidran, *Talking Jazz: An Oral History*
Jonny King, *What Jazz Is*
Paul Berliner, *Thinking in Jazz: The Infinite Art of Improvisation*
Lewis Porter and Michael Ullman, *Jazz: from its Origins to the Present*

Schedule: 1:30 pm - 2:20 pm T Th

NEAR EASTERN STUDIES

NES 201 / HIS 223 Introduction to the Middle East
Professor(s): Michael A. Cook

Description/Objectives: A broad background that could help you understand why the Middle East and the United States are increasingly at odds with each other. We reach back into the Middle Eastern past--the rise of Islam, the Caliphate, the coming of the Turks, the European expansion, the discovery if oil--and use these developments to explain the unsettled political, social, economic, and religious landscape of the region today. Thus we will set ourselves to explain why Turkey is a secular republic whereas Iran is an Islamic one, why so many Arab governments confront threats from violent religious radicals, and what role oil plays in all this.
There will be background reading, but the main focus will be on close study of short primary-source texts; these are to be read the way historians read them.

Sample reading list:
Koran (selections)
Ibn Hisham, *Life of Muhammad (selections)*
Ibn Khaldun, *Muqaddimah (selections)*
Sayyid Qutb, *Milestones (selections)*
Ayman al-Zawahiri, *Letter to Zarqawi*
Osama Bin Laden, *Messages to the World (selections)*

Schedule: 2:30 pm - 3:20 pm M W

NES 240 / REL 240 Muslims and the Qur'an
Professor(s): Muhammad Q. Zaman

Description/Objectives: A broad-ranging introduction to pre-modern, modern, and contemporary Islam in light of how Muslims have approached their foundational religious text, the Qur'an. Topics include: Muhammad and the emergence of Islam; theology, law and ethics; war and peace; mysticism; women and gender; and modern debates on Islamic reform. We shall examine the varied contexts in which Muslims have interpreted their sacred text, their agreements and disagreements on what it means and, more broadly, their often competing understandings of Islam and of what it is to be a Muslim.

Sample reading list:
M. Abdel-Haleem, *The Qur'an: A New Translation*
Jonathan Berkey, *The Formation of Islam*
Wael Hallaq, *Sharia: Theory, Practice, Transformations*
M. Kamrava, *New Voices of Islam*
Attar, *Conference of the Birds*

Schedule: 10:00 am - 10:50 am M W

NES 269 / POL 353 The Politics of Modern Islam
Professor(s): Bernard A. Haykel

Description/Objectives: This course examines the political dimensions of Islam. This will involve a study of the nature of Islamic political theory, the relationship between the religious and political establishments, the characteristics of an Islamic state, the radicalization of Sunni and Shi'i thought, and the compatibility of Islam and the nation-state, democracy, and constitutionalism, among other topics. Students will be introduced to the complex and polemical phenomenon of political Islam. The examples will be drawn mainly, though not exclusively, from cases and writings from the Middle East.

Sample reading list:
Enayat, Hamid, *Modern Islamic Political Thought*
Ajami, Fouad, *The Vanished Imam: Musa al-Sadr and the Shia of Lebanon*
Sivan, Emmanuel, *Radical Islam: Medieval Theology and Modern Politics*
Qutb, Sayyid, *Milestones*
Eickelman, Dale and Piscatori, James, *Muslim Politics*
Bin Laden, Usama, *Declaration of War against the Americans*

Schedule: 1:30 pm - 2:20 pm T Th

NES 323 Introduction to Early Sufism (ca. AD 800-AD 1200)
Professor(s): Michael Barry

Description/Objectives: Popularized through translations of world-famous poets like the 13th-century Rûmî, the Sufi mystical strain pervaded Islamic culture for a thousand years and played a major historic role in furthering friendly relations between Muslims and other religious communities through endorsement of spiritual tolerance. This two-term course examines Sufism's origins, growth, social role, guiding ideas, impact on Islamic literature, and even on medieval European thought as filtered through Spain, and the profound but controversial influence of the Spanish-Muslim Ibn `Arabî (1165-1240) as far as India.

The Fall term discusses Early Sufism (ca. AD 800 - AD 1200), its social organization and the growth and flowering of the Neoplatonic and Gnostic currents in Islamic thought under the Baghdâd caliphs and Seljuk sultans in the Near East and Almohad rulers in Spain, while the Spring term addresses Later Sufism, ca. AD 1200 - modern times and the overwhelming influence of the Spanish-Muslim Ibn `Arabî (d. 1240 AD) on all higher Islamic mystical speculation and poetical literature.

Sample reading list:
R.A. Nicholson, *Translations from Rûmî, Dîvân; Masnavî*
Miguel Asín Palacios, *La Escatología musulmana en la Divina Comedia*
Henry Corbin, *Avicenna and the Visionary Recital*
R.J.W. Austin, *Translation of Ibn Arabî's Fusûs al-Hikam*
Toshihiko Izutsu, *Sufism and Taoism*

Schedule: 1:30 pm - 4:20 pm Th

OPERATIONS RESEARCH AND FINANCIAL ENGINEERING

ORF 245 / EGR 245 Fundamentals of Engineering Statistics
Professor(s): Philippe Rigollet , Hugo Passos Simão

Description/Objectives: To acquaint the student with the language, mathematics and applications of probability and statistics in engineering and the sciences.

Sample reading list:
William Navidi 2nd Edition, *Statistics for Engineers and Scientists*

Schedule: 10:00 am - 10:50 am M W F

ORF 309 / EGR 309 / MAT 309 Probability and Stochastic Systems
Professor(s): Erhan Çinlar

Description/Objectives: An introduction to probability and its applications. Random variables, expectation, independence. Poisson processes, Markov chains, and Brownian motion. Stochastic models of queues, population dynamics, and reliability.

Sample reading list:
Ross, *Introduction to Probability Models*
Bremaud, *An Introduction to Probabilistic Modeling*
Cinlar, *Introduction to Stochastic Processes*

Schedule: 11:00 am - 11:50 am M W F

ORF 311 Optimization under Uncertainty
Professor(s): John M. Mulvey

Description/Objectives: A survey of quantitative approaches for making optimal decisions under uncertainty, including decision trees, Monte Carlo simulation, and stochastic programs. Forecasting and planning systems are integrated with a focus on financial applications.

Sample reading list:
Winston and Albright, *Practical Management Science*
Handouts:, *Multi-objective optimization, optimization under uncertainty*
Birge and Louveaux, *Introduction to Stochastic Programming*

Schedule: 3:00 pm - 4:20 pm T Th

ORF 411 Operations and Information Engineering
Professor(s): Hugo Passos Simão

Description/Objectives: The management of complex systems through the control of physical, financial and informational resources. The course focuses on developing mathematical models for resource allocation, with an emphasis on capturing the role of information in decisions. The course seeks to integrate skills in statistics, stochastics and optimization using applications drawn from problems in dynamic resource management which tests modeling skills and teamwork.

Schedule: 11:00 am - 12:20 pm T Th

ORF 435 Financial Risk Management
Professor(s): Birgit Rudloff

Description/Objectives: This course covers the basic concepts of modeling, measuring and managing financial risks. Topics include mean-variance portfolio theory, Fixed Income securities, option pricing and hedging, Greeks, risk measures and utility functions.

Sample reading list:
Luenberger, D.G. (1998), *Investment Science*
Hull, J.C. (2003)., *Options, Futures and Other Derivatives.*
Föllmer, H., Schied, A., *Stochastic Finance*

Schedule: 1:30 pm - 2:50 pm M W

PHILOSOPHY

PHI 200 Philosophy and the Modern Mind
Professor(s): Daniel Garber

Description/Objectives: A historical introduction to philosophy since 1600, emphasizing close reading of classic texts, but including some attention to the scientific, religious, political, literary, and other contexts.

Sample reading list:
Descartes, *Meditations*
Hume, *Enquiry Concerning Human Understanding*
Locke, *Essay Concerning Human Understanding*

Schedule: 11:00 am - 11:50 am M W

PHI 201 Introductory Logic
Professor(s): Delia G. Fara

Description/Objectives: Logic is the study of the principles of valid reasoning. This course provides an introduction to symbolic logic, which studies the principles of valid reasoning from an abstract point of view -- paying attention to the form of valid arguments rather than their subject matter. We will cover the basic concepts and principles of symbolic logic: validity, logical truth, truth-functional and quantificational inference, formal languages and formal systems, axiomatic and deductive proof procedures.

Sample reading list:
Jon Barwise & John Etchemendy, *Language, Proof and Logic*

Schedule: 11:00 am - 11:50 am M W

PHI 203 Introduction to Metaphysics and Epistemology
Professor(s): Gideon A. Rosen

Description/Objectives: An introduction to central questions of

philosophy. Topics include: The rationality of religious belief, our knowledge of the external world, freedom of the will and the identity of persons over time.

Sample reading list:
R. Descartes, *Meditations*
B. Russell, *Problems of Philosophy*
W. James, *The Will to Believe*
D. Hume, *Enquiry Concerning Human Understanding*

Schedule: 2:30 pm - 3:20 pm M W

PHI 302 British Empiricism
Professor(s): Desmond P. Hogan

Description/Objectives: An examination of the metaphysical and epistemological teachings of some central figures of the British empiricist tradition.

Sample reading list:
Locke, John, *Essay Concerning Human Understanding*
Berkeley, George, *Principles of Human Knowledge*
Hume, David, *Enquiry Concerning Human Understanding*
Hume, David, *Treatise on Human Nature*
Reid, Thomas, *An Inquiry into the Human Mind...*

Schedule: 3:30 pm - 4:20 pm M W

PHI 307 / CHV 311 Systematic Ethics
Professor(s): Sarah E. McGrath

Description/Objectives: A survey of major problems and developments in twentieth century metaethics, from G.E. Moore to the present.

Sample reading list:
Gibbard, Darwall, and Railton, *Moral Discourse and Practice*

Schedule: 11:00 am - 11:50 am T Th

PHI 312 Intermediate Logic
Professor(s): John P. Burgess

Description/Objectives: Proofs of some of the principal results regarding first-order languages (and the theories expressed in them): Church's undecidability theorem, the Lowenheim-Skolem Theorem, Gödel's theorems on the completeness of first-order logic and the incompleteness of arithmetic; because several of these concern the possibility of devising computational tests for semantic properties (logical validity, truth), an introduction to the theory of computability (Turing Machines/ recursive functions); if time permits, some properties of second-order logic.

Sample reading list:
Boolos, Burgess & Jeffrey, *Computability and Logic, 4th Edition*

Schedule: 10:00 am - 10:50 am M W

PHI 315 / CHV 315 Philosophy of Mind
Professor(s): Frank C. Jackson

Description/Objectives: This course will offer a comprehensive account of current work on the mind/body problem with reference where appropriate to the historical background. Topics will include: the place of the mind in a world apparently composed entirely of physical stuff and governed by physical laws; competing accounts of mental states; the language of thought hypothesis versus connectionism; theories of mental content; the nature of psychological explanation.

Sample reading list:
David Braddon-Mitchell and Frank Jackson, *Philosophy of Mind and Cognition, 2nd edition*

Schedule: 12:30 pm - 1:20 pm M W

PHI 323 / MAT 313 Advanced Logic
Professor(s): Hans P. Halvorson

Description/Objectives: An introduction to category theory, including limits and colimits, functors, adjoints, natural transformations, monads and algebras. The material will be developed alongside applications to abstract algebra, topology, and mathematical logic.

Sample reading list:
Awodey, Steve, *Category Theory*
Lane, Saunders Mac, *Categories for the Working Mathematician*
Borceux, Francis, *Handbook of Categorical Algebra*

Schedule: 3:30 pm - 4:20 pm M W

PHI 326 / HUM 326 Philosophy of Art
Professor(s): Alexander Nehamas

Description/Objectives: Ethics, Aesthetics and the Arts: Ever since Plato's REPUBLIC, the arts have been the target of ethical criticisms. We will examine these criticisms, discuss whether the aesthetics status of art renders it immune to them, and consider in detail the case --not of the fine but-- of the popular arts, in particular, television, which gives such criticisms an unexpected immediacy and leads to many of the most important problems of aesthetics.

Sample reading list:
Plato, *Republic*
Aristotle, *Poetics*
Newcomb, Horace, *Television: The Critical View*
An anthology on aesthetics?

Schedule: 1:30 pm - 2:20 pm M W

PHYSICS

PHY 101 Introductory Physics I
Professor(s): Suzanne T. Staggs

Description/Objectives: The course is concerned with an introduction to the fundamental laws underlying physics and having general application in other areas of science. The treatment is complete and detailed, however, less mathematical preparation is assumed than for PHY 103-104. Mechanics and thermodynamics are treated quantitatively with a special emphasis on problem solving. In the spring semester PHY 102 covers electricity and magnetism, optics and relativity using the topics treated in PHY 101.

Sample reading list:
Cutnell & Johnson, *Physics*

Schedule: 12:30 pm - 1:20 pm Th

PHY 103 General Physics I
Professor(s): James D. Olsen

Description/Objectives: To understand the basic physics needed for further study in science and engineering. Logical, quantitative approach to problem solving. Applying fundamental concepts to idealized, practical problems.
Sample reading list:
Knight, *Physics for Scientists and Engineers 2nd Edition Volumes 1-3*

Schedule: 9:00 am - 9:50 am T

PHY 205 Classical Mechanics B
Professor(s): Robert Seiringer

Description/Objectives: Classical Mechanics with emphasis on the Lagrangian method. The underlying physics is Newtonian, but with more sophisticated mathematics introduced as needed to understand more complex phenomena. Topics include the formalism of Lagrangian mechanics, central force motion and scattering, rigid body motion and non-inertial forces, small oscillations, coupled oscillations and waves. The course is intensive but rewarding.

Sample reading list:
Hand & Finch, *Analytical Mechanics*
Marion & Thornton, *Classical Dynamics*
Landau & Lifschitz, *Mechanics*
Goldstein, *Classical Mechanics*

Schedule: 11:00 am - 12:20 pm T Th

PHY 207 Mechanics and Waves
Professor(s): Herman L. Verlinde

Description/Objectives: This course covers wave phenomena, both classical and quantum, and it also includes an account of special relativity and introductory aspects of statistical physics. Topics include: special relativity, Lagrangians, small oscillations, coupled oscillations and waves, wave-packets and the Schrodinger equations, and elements of statistical mechanics. Mathematical methods will be developed as appropriate, in parallel to physical concepts.

Sample reading list:
Marion and Thorton, *Classical Dynamics*

Schedule: 11:00 am - 12:20 pm T Th

PHY 301 Thermal Physics
Professor(s): Lyman A. Page

Description/Objectives: A unified introduction to thermodynamics and statistical mechanics, both classical and quantum. Topics include heat engines, kinetic theory, black-body radiation, ideal Fermi and Bose gases and phase transitions.

Sample reading list:
Reif, *Fundamentals of Statistical and Thermal Physics*

Schedule: 10:00 am - 10:50 am M W F

PHY 305 Introduction to the Quantum Theory
Professor(s): Christopher P. Herzog

Description/Objectives: This course is a continuation of PHY 208. We will continue to develop the formalism of quantum mechanics and to explore its basis. We will apply our methods to phenomena from atomic, high energy, and condensed matter physics.

Sample reading list:
Griffiths, *Introduction to Quantum Mechanics*
Bransden & Joachain, *Quantum Mechanics*
Schedule: 11:00 am - 12:20 pm T Th

PHY 406 Modern Physics II: Nuclear and Elementary Particle Physics
Professor(s): Valerie Halyo

Description/Objectives: Introduction to the Standard Model of particle physics describing elementary particles and their interactions. Specific topics include symmetries and conservation laws; electromagnetic, weak, and strong interactions between quarks, leptons, and gauge bosons; and experimental methods in particle physics. Selected topics covering current research in high energy physics will also be discussed.

Sample reading list:
Griffiths, *Introduction to Elementary Particle*
Perkins, *Introduction to High Energy Physics*
Kane, *Modern Elementary Particle Physics*
Halzen and Martin, *Quarks and Leptons*
Cahn and Goldhaber, *Experimental Foundations of Particle Physics*

Schedule: 1:30 pm - 2:50 pm M W

POLITICS

POL 210 Political Theory
Professor(s): Rahul Sagar

Description/Objectives: In a world where interests and values often conflict, how should societies be governed? Which form of government is best? Is the form we have in America the best there is? This introductory course examines these and other vital questions of political theory. We will seek answers in the writings of ancient and modern theorists including Aristotle, Machiavelli, Montesquieu and the American Founders. We will also seek to understand important concepts such as virtue, moderation, justice, and order.

Sample reading list:
Aristole, *Politics*
Cicero, *Of Duties*
Machiavelli, *The Prince*
Hobbes, *Leviathan*
Montesquieu, *Spirit of the Laws*
Publius, *Federalist Papers*

Schedule: 2:30 pm - 3:20 pm T Th

POL 240 International Relations
Professor(s): Christina Davis

Description/Objectives: This course examines international relations from a historical and theoretical perspective. The course will address how balance of power politics, international institutions, and the domestic political process have influenced world affairs. These perspectives will be compared in analysis of important historical periods from classical Greece to the challenges leaders face today. Topics include the causes of war, establishment of postwar order, the pursuit of economic prosperity, cooperation for environmental protection, and questions about ethics and international relations.

Sample reading list:
Robert Art and Robert Jervis, *International Politics: Enduring Concepts and Contemp...*

Jack Snyder, *Myths of Empire*
Thucydides, *The History of the Peloponnesian War*
Barton, Goldstein, Josling, and Steinberg, *The Evolution of the Trade Regime*
DeSombre, *The Global Environment and World Politics*

Schedule: 3:30 pm - 4:20 pm T Th

POL 301 Ancient and Medieval Political Theory
Professor(s): Melissa Lane

Description/Objectives: This course focuses on classical political theory in ancient Greece and its appropriation and development in the Roman, medieval, and Renaissance periods. It examines Greek democracy, drawing on tragedy, rhetoric and history; the ethics and politics of Plato and Aristotle; and the Roman republican thought of Cicero and Livy. It considers the influence of Plato on Augustine and More, Aristotle on Aquinas and Marsilius, and Cicero and Livy on Machiavelli. Topics include nature and convention; democracy, oligarchy and tyranny; church and state; consent and representation; and virtue, property, and law.

Sample reading list:
Thucydides, *The Peloponnesian War (selections)*
Plato, *Apology, Crito, Republic*
Aristotle, *Politics, Nicomachean Ethics (selections)*
St. Augustine, *The City of God (selections)*
Sigmund, ed. transl., *St. Thomas Aquinas On Politics and Ethics*
Marsilius of Padua, *The Defender of Peace*

Schedule: 9:00 am - 9:50 am M W

POL 304 Conservative Political Thought
Professor(s): Jan-Werner Müller

Description/Objectives: We ask whether conservatism is a disposition or a doctrine, whether it is a particularly modern phenomenon, and whether it needs to be grounded in religion. We compare the history of European, American, and non-western conservative thought and investigate whether doctrines such as libertarianism and nationalism are inherently conservative - leading up to the question whether the conservative movement in the US is characterized by inner tensions, or might even be in terminal crisis, as some now claim. The last part of the course is devoted to contemporary policy issues in areas such as bioethics and the legitimacy of nation-building abroad.

Sample reading list:
Edmund Burke, *Reflections on the Revolution in France*
Friedrich von Hayek, *The Road to Serfdom*
George H. Nash, *The Conservative Intellectual Movement in America Since 1945*
Michael Oakeshott, *Rationalism in Politics*

Schedule: 10:00 am - 10:50 am M W

POL 315 Constitutional Interpretation
Professor(s): Robert P. George

Description/Objectives: What is the Constitution? Who are its authoritative interpreters? How should they go about the task of interpretation?

Sample reading list:
John Hart Ely, *Democracy and Distrust*
Murphy, Fleming, and Barber, *American Constitutional Interpretation*

Schedule: 11:00 am - 12:20 pm T

POL 320 Judicial Politics
Professor(s): Jonathan Kastellec

Description/Objectives: This course provides an introduction to the political science of law and courts. Topics typically include: bargaining and decision making on the U.S. Supreme Court; political struggles over doctrine within the judicial hierarchy; the politics of Supreme Court nominations; juries as political institutions; court packing, jurisdiction stripping and judicial intimidation; political use of litigation by activists, firms, and interest groups; judicial oversight of the administrative state; judicial activism by state attorneys general; social and economic impact of courts.

Sample reading list:
Lee Epstein and Jack Knight, *The Choices Justices Make*
Murphy, Pritchett, Epstein and Knight, *Courts, Judges and Politics: An Intro. to the Judicial...*

Schedule: 1:30 pm - 2:20 pm T Th

POL 322 Public Opinion
Professor(s): Tali Mendelberg

Description/Objectives: This course is an introduction to the study of American public opinion. We pay particular attention to the questions of where people get their opinions and to the public's competence to govern, contrasting approaches from psychology, sociology and economics.

Sample reading list:
Mutz, *Hearing the Other Side*

Schedule: 1:30 pm - 2:20 pm M W

POL 330 Campaigns and Elections
Professor(s): Markus Prior

Description/Objectives: Examines how election campaigns affect voters by presenting an overview of the different explanations of how people make voting decisions, from stable long-term factors (partisan identification and socioeconomic status) to short-term influences of campaigns, media and interpersonal communication. The primary focus will be on the nature of modern elections campaigns and their impact on people's political reasoning and voting behavior. The goal of this class is to provide a theoretical understanding of campaign conduct and effects. We will use that understanding to analyze recent presidential elections, with special emphasis on 2000 and 2008.

Sample reading list:
Johnston, Hagen and Jamieson (2004), *The 2000 Presidential Election & the Foundations of Party...*

Patterson (1993), *Out of Order*
Simon (2002), *The Winning Message*
Zaller (1992), *The Nature and Origins of Mass Opinion*

Schedule: 2:30 pm - 3:20 pm M W

POL 345 Quantitative Analysis and Politics
Professor(s): Kosuke Imai

Description/Objectives: What accounts for who votes and their choice of candidate? Do politicians make policy based on constituency interests or their own ideologies? Would universal health insurance improve the health of the poor? Policy makers and academic researchers use statistics to answer these questions. However, the validity of their conclusions depends upon underlying assumptions and correct application of statistical methods. This course introduces the basics of applied statistics to students who have had little previous exposure to the subject. Topics will include causal inference, descriptive inference, survey analysis, and probability.
Sample reading list:
Agnesti and Finlay, *Statistical Methods for the Social Sciences*
Freedman, Pisani, and Purves, *Statistics*
Verzani, *Using R for Introductory Statistics*

Schedule: 3:30 pm - 4:20 pm M W

POL 347 Mathematical Models in the Study of Politics
Professor(s): Scott O. Ashworth

Description/Objectives: An introduction to the use of formal game-theoretic models in the study of politics. Applications include: voting, legislative institutions, party formulation, and international relations. Familiarity with mathematical reasoning is helpful.

Sample reading list:
Martin Osborne, *An Introduction to Game Theory*

Schedule: 10:00 am - 10:50 am T Th

POL 351 Politics in the Developing Countries
Professor(s): Evan S. Lieberman

Description/Objectives: This course examines the politics of development through discussions of theory and comparative analysis in selected countries in Africa, Asia and Latin America. Topics include colonialism. nationalism, ethnic and class conflict, state-building and state failure, globalization, HIV/AIDS and the causes and consequences of democratic regime change.

Sample reading list:
Herbst, Jeffrey, *States and Power in Africa*
Sachs, Jeffrey, *The End of Poverty*

Schedule: 11:00 am - 11:50 am T Th

POL 381 Theories of International Relations
Professor(s): Joanne S. Gowa

Description/Objectives: This course introduces students to theories about the international system. It examines sources of conflict and cooperation among states on both trade and security issues. In addition, it considers whether domestic politics influence international outcomes. The course will include some use of economics, game theory, and statistics, but it presumes no background knowledge in any of these areas.
Sample reading list:
Nalebuff, Barry, & Avinash Dixit, *Thinking Strategically*
Fearon, James, *Rationalist Explanations of War*

Schedule: 2:30 pm - 3:20 pm M W

PSYCHOLOGY

PSY 101 Introduction to Psychology
Professor(s): Daniel M. Oppenheimer

Description/Objectives: The study of human nature from the viewpoint of psychological science. Topics range from the biological bases of human perception, thought and action to the social-psychological determinants of individual and group behavior.
Sample reading list:
Myers, David, *Psychology*

Schedule: 11:00 am - 11:50 am M W

PSY 208 The Brain: A User's Guide
Professor(s): Barry L. Jacobs

Description/Objectives: The course provides a basic introduction to neuroscience, especially as it impacts upon practical issues: mental disease, drugs, neurological disorders, development, learning, memory, etc.

Sample reading list: TBA

Schedule: 10:00 am - 10:50 am T Th

PSY 214 Human Identity in the Age of Neuroscience and Information Technology

Professor(s): Daniel N. Osherson
Description/Objectives: A central challenge for modern society is to construct individual and group identity in the face of technologies that come ever closer to understanding the mechanisms of thought and feeling. We live in a time when cognitive neuroscience is poised to trace the executive functions of the mind to the workings of the brain and computer science is coming closer to replicating those functions. This course offers a multi-disciplinary introduction to the scientific and social issues that underlie the potential cultural impact of advances in self-understanding. Twenty different faculty from a wide range of departments will provide lectures.

Sample reading list:
D. Hubel & T. Weisel, *Brain Mechanisms of Vision*
Gross,C., Biol Sci. 1992 Jan 29;335(1273):3-10., *"Representat. of Visual Stimuli in Inferior Temporal Cortex"*
J. Friedenberg, *Cognitive Science: An Introduction to the Study of Mind*

Schedule: 1:30 pm - 2:50 pm T Th

PSY 252 Social Psychology
Professor(s): J. Nicole Shelton

Description/Objectives: The scientific study of social behavior, with an emphasis on social interaction and group influence. Topics covered will include social perception, the formation of attitudes and prejudice, attraction, conformity and obedience, altruism and aggression, and group dynamics.

Sample reading list:
Myers, David, *Social Psychology (10th Edition)*

Schedule: 11:00 am - 11:50 am M W

PSY 258 / NEU 258 Fundamentals of Neuroscience
Professor(s): Michael S. Graziano

Description/Objectives: An introduction to the brain. 1) Structure and function of the nervous system, including neuroanatomy, neurochemistry, neurophysiology, and psychopharmacology. 2) Sensation, arousal and movement. 3) Selected problems in the

neuroscience of motivation (e.g. appetite), emotion (e.g. addiction) and mental disorders (e.g. depression).
Sample reading list:
Bear, et al., *Neuroscience: Exploring the Brain, Vol. 3.*

Schedule: 11:00 am - 12:20 pm T Th

PSY 308 / MUS 304 The Psychology of Music
Professor(s): Philip N. Johnson-Laird

Description/Objectives: Music is universal to all cultures, but mysterious because it communicates emotions without recourse to pictures or propositions. Its creation and perception depend on properties of the human mind that the course aims to explain. It focuses on tonal music - from the Baroque to rock, but it also considers atonal music, jazz, and music from other cultures. It describes the cognitive structures underlying the perception of rhythm and meter, melody, consonance and dissonance, harmony, and polyphony; and it aims to elucidate their role in composition and improvisation. It considers their computational modeling and their experimental investigation

Sample reading list:
Clarke, E.F. (1999) Rhythm and timing in music., *The Psychology of Music. 2nd Ed.San Diego:Acd. Press, p. 473*
Deutsch, D. (1999) Grouping mechanisms in music., *The Psychology of Music. 2nd Ed.San Diego:Acd. Press, p. 299*
Handel, S. (1989) The production of sound (Ch. 2)., *Listening: An Intro. Cambridge, MA: MIT. Pp. 7-72*

Auditors – Must be able to read music.

Schedule: 10:00 am - 10:50 am M W

PSY 311 Rationality and Human Reasoning
Professor(s): Daniel N. Osherson

Description/Objectives: Reaching belief and making decisions are two activities performed especially well by humans. Contemporary investigation distinguishes normative from descriptive questions about belief and decision. The former concern how our cognition ought to function; the latter, how it actually functions. Fundamental theories of belief and decision will be presented in the course, and discussed from both the normative and descriptive perspectives. Utility, logic, probability, and abduction will all be examined, with additional topics drawn from computability theory and from collective choice.

Sample reading list:
Hacking, Ian, *An Introduction to Probability and Inductive Logic*
Grandy, Richard and Osherson, Daniel, *Sentential Logic Primer*

Schedule: 10:00 am - 10:50 am M W

PSY 329 / WOM 329 Psychology of Gender
Professor(s): Stacey A. Sinclair

Description/Objectives: Gender is a topic with which everybody feels intimately familiar. Indeed, people hold strong beliefs about how women and men are similar to and different from each other and about why gender differences exist. This course holds those beliefs up to scientific scrutiny, examining major theories and empirical findings in psychological research on gender. Topics include empirical comparisons of men and women, gender stereotypes and their perpetuation, and the role of gender and gendered beliefs in achievement, interpersonal relationships, and physical and psychological well-being.

Sample reading list:
Helgeson, V.S., *The Psychology of Gender*
Eagly, A.H. & Wood, W., *The Origins of Sex Differences in Human Behavior*
Glick, P. & Fiske, S.T., *An Ambivalent Alliance: Hostile and Benevolent Sexism*
Peplau, L.A., *Human Sexuality: How do Men and Women Differ?*

Schedule: 11:00 am - 12:20 pm T Th

PSY 337 / NEU 337 Neuroscience of Social Cognition and Emotion
Professor(s): Alexander T. Todorov

Description/Objectives: This course explores the neural foundations of social cognition and social emotions. The objective is to provide a comprehensive overview of research topics relevant to the emerging field of social neuroscience. We will also discuss questions that cut across the specific topics that will be covered. Do neural systems exist that are specialized for social cognition or do the systems that participate in social cognition have more general cognitive functions? Can neuroscientific research shed new light on social cognition? How can different disciplines in neuroscience and the social sciences contribute to social neuroscience research?

Sample reading list:
Adolphs, R., "Cognit. Neurosc. of Human Social Behav.", *Nature Reviews Neuroscience, 4, pgs. 165-178.*
Haxby, J.V., "The Distributed Human Neural System..", *Trends in Cognitive Sciences, 4, pgs. 223-233.*
Cunningham, W.A., "Separable Neural Components..", *Psychological Science, 15, pgs. 806-813.*
Gallagher, H.L., "Functional Imaging of Theory of Mind", *Trends in Cognitive Sciences, 7, pgs. 77-83.*
Bechara, A., "Deciding Advantageously Before Knowing..", *Science, 275, pgs. 1293-1295.*
Frith, U., "Mind Blindness and the Brain in Autism", *Neuron, 32, pgs. 969-979.*

Schedule: 1:30 pm - 4:20 pm W

PSY 351 Advanced Quantitative Analysis in Psychological Research
Professor(s): Andrew R. Conway

Description/Objectives: The purpose of the course is to provide in-depth coverage of some of the most popular statistical methods used in psychological research. This course will be particularly beneficial to students as they consider how to design and analyze their senior thesis. Also, for those students interested in graduate school in psychology, this course will provide an extremely solid foundation for graduate-level work in research and statistics. More generally, this course will provide students with critical thinking skills that will prove beneficial in many domains.

Sample reading list:
Keppel, G. & Wickens, T. D., *Design and Analysis: A Researcher¿s Handbook (4th ed., 2004)*
Keith, T. Z., *Multiple Regression and Beyond (1st ed., 2006)*
Abelson, R. P., *Statistics as Principled Argument (1st ed., 1995)*

Schedule: 3:30 pm - 4:20 pm T Th

RELIGION

REL 224 Nonviolence Across Religious History
Professor(s): Jonathan C. Gold

Description/Objectives: When the Reverend Martin Luther King, Jr. took inspiration from Gandhi's Hindu doctrine of ahimsa, he was drawing upon many centuries of "East-West" dialogue. Gandhi himself owed the idea in large part to Tolstoy, who for his part had found his Christian beliefs reshaped through studying Asian religions. This course traces an intellectual history of the modern doctrine of nonviolence, emphasizing its emergence through transnational, multi-religious dialogue. Topics include nonviolence in Jainism, Buddhism and Hinduism; Hume and Spinoza; Max Müller; Theosophy and South Asian religious reformers; Transcendentalism; Tolstoy, Gandhi, and King.

Sample reading list:
Kenneth Kraft, ed., *Inner Peace, World Peace*
Shabkar, *Food of Bodhisattvas*
Max Müller, *The Essential Max Müller*
Thoreau, *Walden and Civil Disobedience*
Leo Tolstoy, *The Kingdom of God is Within You*
Gandhi, *`Hind Swaraj' and other Writings*

Schedule: 1:30 pm - 2:20 pm T Th

REL 252 The Early Christian Movement
Professor(s): Elaine H. Pagels

Description/Objectives: Investigation of the history of the Christian movement, starting from the earliest gospel sources, from the New Testament gospels of Mark, Luke, Matthew, and John to gospels outside the canon, including the gospels of Thomas and Mary Magdalene. Topics include: the letters of the apostle Paul, and how they were read; questions about what resurrection means; what sexual practices Christians should--or should not--observe; the formation of "heresy" and "orthodoxy"; early sources on persecution of Christians, and the "acts of the martyrs"; the impact of persecution on church organization; and some writings of major "church fathers".

Sample reading list:
K. King, *The Gospel of Mary of Magdala*
E. Pagels, *Beyond Belief*
W.H.C. Frend, *The Rise of Christianity*
Marcus Aurelius, *Meditations*
Lucretius, *On the Nature of the Universe*

Schedule: 11:00 am - 11:50 am M W

REL 257 Religion and American Movies
Professor(s): Judith L. Weisenfeld

Description/Objectives: The controversy over Mel Gibson's "The Passion of the Christ" sits in a long history of complex interactions between religious Americans and popular movies. In this course we explore the politics of representing religion at key moments in American film and religious history. We consider how movies provide unique insight into aspects of American religious life and how representations of religion reveal the shifting contours of constructions of American identity. Topics include: censorship; representations of religious, ethnic, and racial minorities; gender, sexuality, and religion; recent filmmaking strategies of religious groups.

Sample reading list:
Mark Kermode, *The Exorcist*
Colleen McDannell, ed., *Catholics in the Movies*
Alison Parker, *Purifying America*
Adele Reinhartz, *Jesus of Hollywood*
Robert Sklar, *Movie Made America*
Judith Weisenfeld, *Hollywood Be Thy Name*

Schedule: 10:00 am - 10:50 am T Th

REL 261 / CHV 261 Christian Ethics and Modern Society
Professor(s): Eric S. Gregory

Description/Objectives: An introduction to Christian ideals of conduct, character, and community, and to modern disputes over their interpretation and application. Are Christian virtues and principles fundamentally at odds with the ethos of liberal democracy oriented toward rights, equality, and freedom? What do Christian beliefs and moral concepts imply about issues related to feminism, racism, and pluralism? What is the relationship between religious convictions, morality, and law? Special emphasis on selected political and economic problems, sexuality and marriage, bioethics, capital punishment, the environment, war, and the role of religion in public life.

Sample reading list:
King, *I Have a Dream*
Gutierrez, *A Theology of Liberation*
Hauerwas, *The Peaceable Kingdom*
John Paul II, *Euthanasia*
Rorta, *Religion as Conversation Stopper*
Dershowitz, *The Torture Warrant*

Schedule: 11:00 am - 11:50 am T Th

SOCIOLOGY

SOC 227 Race and Ethnicity
Professor(s): Patricia Fernández-Kelly

Description/Objectives: Our goal in this course is (a) to understand various definitions of race and ethnicity from a theoretical perspective and in a plurality of contexts and (b) to account for the rise of ethnicity and race as political and cultural forces in the age of globalization. Why are ethnic and racial delimitations expanding in areas of the world where such distinctions were formerly muted? Is race and racial discrimination all the same regardless of geographical region? What are the main theories and methodologies now available for the study of race and ethnicity from a comparative point of view? These are among the questions our course aims to answer.

Sample reading list:
Steinberg, *The Ethnic Myth*
Massey, *American Apartheid*
Flere, *"Explaining Ethnic Antagonism in Yugoslavia"*
Evangelista, *The Chechen Wars: Will Russia Go the Way of the Soviet Union*
Twagilimana, *Hutu and Tutsi*
Jonsson, *Mien Relations: Mountain People and State Control in Thailan*

Schedule: 10:00 am - 10:50 am T Th

SOC 240 Families
Professor(s): Ana M. Goldani

Description/Objectives: Selected topics in the sociology of family life including family diversity, gender and household division of labor, demography and history of family life, and the role of the state and social policy.

Sample reading list:
Stephanie Coontz (ed.), *American Families: Multicultural Reader*
Goran Therborn, *Between Sex and Power*
Judith Stacey, *Brave New Families:*
Mary Ann Mason, et al., *All Our Own Families*
Harriet Presser, *Working in a 24/7 Economy:*
Lynne M. Casper & Susanne Bianchi, *Changing Family in a Changing Society*

Schedule: 2:30 pm - 3:20 pm M W

SOC 250 The Western Way of War
Professor(s): Miguel A. Centeno

Description/Objectives: A historical and analytical overview of war focusing on the origins and consequences of organized violence, the experience of battle, the creation and behavior of warriors, and the future of such conflicts.

Sample reading list:
Homer, *The Illiad*
J. Keegan, *The Face of Battle*
Paul Fussell, *Doing Battle*
Richard Rhodes, *Arsenals of Folly*
Thomas Ricks, *Fiasco*

Schedule: 11:00 am - 11:50 am T Th

SOC 301 Sociological Research Methods
Professor(s): Scott M. Lynch

Description/Objectives: Most research in sociology is quantitative, and it is important for students at a minimum to be able to critically evaluate published quantitative research. Ideally, students should also be able to conduct empirical research involving statistical methods. This course provides the foundation for both goals. The course focuses specifically on how to determine, apply, and interpret statistical methods appropriate for answering a sociological research question given a particular set of data. Basic probability theory is introduced as a building block of statistical reasoning, and a variety of commonly-used statistical tests are developed.

Sample Reading List: TBA

Schedule: 1:30 pm - 2:20 pm T Th

SOC 307 National Identities and Great Powers
Professor(s): Gilbert F. Rozman

Description/Objectives: Analysis of the components and evolution of national identities. Overview of recent identities in the U.S., Russia, China, and Japan. Review of the impact of identities on the principal bilateral relations of our times: causes and consequences of misperceptions, linkages of domestic policies to international relations, treatment of how images of one's own society shape debates on other societies, ideas for bridging gaps between conflicting worldviews.

Sample reading list:
T. Hasegawa and K. Togo, *East Asia's Haunted Present*:...
Suisheng Zhao, *A Nation-State by Construction: Dynamics of Modern Chinese*..
James Billington, *Russia in Search of Itself*
Samuel Huntington, *Who Are We? The Challenges to America's National Identity*

Schedule: 11:00 am - 11:50 am M W

SOC 331 / LAS 330 Social Exclusion in Latin America
Professor(s): Edward E. Telles

Description/Objectives: Introduction to social exclusion in modern Latin America. This course examines the historical development and structural roots of social exclusion in Latin America as well as demands for inclusion and government and civil society responses. Forms of social exclusion include those based on class, race, ethnicity and gender. The course emphasizes the context of democratization and neoliberalism in the region and a social environment of high income inequality and crime.

Sample reading list:
Gustavo Marquez, et al., *Outsiders? The Changing Patterns of Exclusion*
Charles H. Wood and Bryan R. Roberts, *Rethinking Development in Latin America*
Susan Eckstein and Timothy Wickham-Crowley, *What Justice? Whose Justice?*

Schedule: 2:30 pm - 3:20 pm T Th

SOC 345 Money, Work, and Social Life
Professor(s): Viviana A. Zelizer

Description/Objectives: The course offers a sociological account of production, consumption, distribution, and transfer of assets. Examining different sectors of the economy from corporations and finance to households, immigrants, welfare, and illegal markets, we explore how in all areas of economic life people are creating, maintaining, symbolizing, and transforming meaningful social relations. Economic life, from this perspective, is as social as religion, family, or education.

Sample reading list:
Viviana Zelizer, *The Purchase of Intimacy*
Marjorie Orellana, *The Work Kids Do*
Mitchell Duneier, *Sidewalk*
Mark Granovetter, *Getting a Job*
N.W. Biggart, *Charismatic Capitalism*
K. Edin & L. Lein, *Making Ends Meet*

Schedule: 11:00 am - 11:50 am M W

TRANSLATION AND INTERCULTURAL COMMUNICATION

TRA 200 / COM 209 Thinking Translation: Language Transfer and Cultural Communication
Professor(s): David M. Bellos

Description/Objectives: This course introduces students to a wide range of issues arising in the many acts of translation that constitute the modern world. Built on a central thread of reflection about translating between languages - What is a language? What is meaning? What do we mean by 'equivalence'? - the course looks at

issues in anthropology, artificial intelligence, cinema studies, international relations, literature, law, etc., that involve the boundaries of interlingual translation and intercultural communication. Students should acquire a better understanding of the problems and practices of translation in the modern world.

Sample reading list:
Bassnett-McGuire, *Translation Studies*
Hofstadter, *Le Ton beau de Marot*
Venuti, *The Translator's Invisibility*
Ong, *Orality and Literacy*
Steiner, *After Babel*
Sapir, *Language*

Schedule: 11:00 am - 12:20 pm T

PROGRAM IN URBAN STUDIES

URB 201 / SOC 203 Introduction to Urban Studies
Professor(s): Patricia Fernández-Kelly

Description/Objectives: Introduces students to the phenomenon of urbanism by summarizing the social structure and ecological organization of cities from their inception through the present and then presents selected aesthetic, humanistic, architectural, and philosophical reactions to cities in the 19th and 20th centuries.

Sample reading list:
Douglas Massey, *Strangers in a Strange Land: Humans in an Urbanizing World*
Jane Jacobs, *The Death and Life of Great American Cities*
Marshall Berman, *All That is Solid Melts into Air*
Le Corbusier, *Towards a New Architecture*
Robert Alter, *Imagined Cities:Urban Experience & the Language of the Novel*
Robert Venturi, Steven Izenour and Denise Scott Brown, *Learning from Las Vegas*

Schedule: 11:00 am - 11:50 am M W

WOODROW WILSON SCHOOL

WWS 307 / ECO 349 Economics and Public Policy
Professor(s): Elizabeth C. Bogan

Description/Objectives: The role of government in promoting efficiency and equity in the U.S. economy. Conditions when markets fail to be efficient. Problems with government allocation of resources. Economic analysis and public policies regarding health care, education, poverty, the environment, financial regulations and other important issues.

Sample reading list:
Gruber, *Public Finance and Public Policy*
Tietenberg, *Environmental and Natural Resource Economics*
Viscusi, Vernon and Harrington, *Economics of Regulation and Antitrust*

Schedule: 2:30 pm - 3:20 pm T Th

WWS 312 / PSY 321 The Psychology of Decision Making and Judgment
Professor(s): Eldar Shafir

Description/Objectives: An introduction to the logic and research findings underlying decision-making and judgment under uncertainty. The focus is on the contrast between the rational theory of judgment and choice, and the psychological principles that guide decision behavior, producing biases and errors. Among other topics, we will consider legal and medical decision-making, poverty, finance, well-being, and negotiation, along with the implications of the findings for the rational agent model typically assumed in economics, throughout the social sciences, and in policy making.

Sample reading list:
Baron, Jonathan, *Thinking and Deciding, 2nd. ed.*

Schedule: 11:00 am - 11:50 am T Th

WWS 479 / ECO 359 Special Topics in Public Affairs - International Development
Professor(s): Alicia Adsera

Description/Objectives: This course will focus on less developed countries and will consider topics such as economic growth and personal well-being; economic inequality and poverty; intra-household resource allocation and gender inequality; fertility and population change, credit markets and microfinance; labor markets and trade policy. It will tackle these issues both theoretically and empirically.

Sample reading list:
Debraj Ray, *Development Economics*
Gerald Meier and James E. Rauch (eds.), *Leading Issues in Economic Development*
William Easterly, *The Elusive Quest for Growth*
A. Banarjee and R. Benabou (eds.), *Understanding Poverty*
Solokoff, KL and S. Engerman, *Institutions, Factor Endowments, and Paths of Development*
World Bank Policy Research Report, *Engendering Development through Gender Equality*

Schedule: 11:00 am - 11:50 am M W