CAP LECTURE LIST
Spring 2024 Classes

Princeton University
Office of Community and Regional Affairs
Community Auditing Program (CAP)
4 Mercer Street
Princeton, NJ 08540

Telephone (609)258-0202

Email: PUCAP@princeton.edu

Website: https://community.princeton.edu
Community Auditing Program Courses  
2023-2024 Spring  
Website:  https://community.princeton.edu  
Email:  pucap@princeton.edu  
CAP office hours:  M – F, 9 a.m. – 4 p.m.  Telephone:  (609) 258-0202

Registration details:
- Registration on Day 1 and Day 2 is limited to one (1) course.
- Auditors may register for a total of 3 University classes plus the Auditor Only classes. Auditor Only course registration is unlimited.

DAY 1 - Wednesday, January 24, 2024
- Online registration: opens at 11a.m. – Day 1 ends on 1/25/2024 at 10:30 am  
  Day 1 Activated auditors only, one course limit

DAY 2 - Thursday, January 25, 2024
- Online registration: opens at 11a.m. – Day 2 ends on 1/26/2024 at 10:30 am  
  Day 2 Activated auditors only, one course limit

DAY 3 - Friday, January 26, 2024
- Online registration opens at 11a.m. – for all activated auditors

Friday, January 26 – Wednesday, February 7, 2024
Registration will remain open for all auditors online through the first two (2) weeks of classes for courses with space available.

Tuition:
University Course fee $200 per course, per semester. Auditor Only Series fee $125 per course.  
- The credit cards we accept are Visa, MasterCard, and Discover.

Refund Deadline:  
To drop a course and receive a refund, you must notify the CAP office in writing (email acceptable) by 5:00 pm on or before Wednesday, February 7, 2024.

<table>
<thead>
<tr>
<th>Spring 2024 Academic Calendar</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, January 29, 2024</td>
<td>First Day of Classes</td>
</tr>
<tr>
<td>Wednesday, February 7, 2024</td>
<td>Last Day for Refunds, Written request required by 5:00 p.m.</td>
</tr>
<tr>
<td>March 4-8, 2024</td>
<td>Midterm Exam week</td>
</tr>
<tr>
<td>March 9-17, 2024</td>
<td>Spring break week</td>
</tr>
<tr>
<td>March 18, 2024</td>
<td>Classes resume</td>
</tr>
<tr>
<td>April 26, 2024</td>
<td>Spring semester ends</td>
</tr>
</tbody>
</table>
AUDITOR ONLY SERIES

ASC101 Mozart’s Comic Operas

Professor: Scott Burnham, Professor Emeritus, Department of Music

Description: This course will focus on Mozart’s two most significant comic operas, The Marriage of Figaro and Don Giovanni. We will attempt to discover for ourselves why these operas are “considered to be” not just Mozart’s greatest but easily among the greatest of all time. We will first take account of the broader presence of the Figaro and Don Juan stories in Western culture and then how these stories are told in Mozart’s operas, focusing on the depiction of each character through their individual arias, the ways that these characters interact in Mozart’s brilliantly conceived ensembles, and the incomparable music throughout—from the captivating openings of the overtures to the rousing conclusions of the finales.

Scott Burnham is Distinguished Professor of Music at the CUNY Graduate Center and Scheide Professor of Music History Emeritus at Princeton University. His teaching and research centers on issues of music criticism, analysis, and reception; historical music theory of the 18th- through 20th centuries; and the music of Western composers such as Haydn, Mozart, Beethoven, Schubert, and Schumann. Burnham’s best-known books are Beethoven Hero (1995), a study of the values and reception of Beethoven’s heroic-style music, and Mozart’s Grace (2013), on beauty in the music of Mozart. He is the grateful recipient of various honors, including Princeton University’s Howard T. Behrman Award for Distinguished Achievement in the Humanities, the Society of Music Theory’s Wallace Berry Award for Beethoven Hero, and the American Musicological Society’s Otto Kinkeldey Award for Mozart’s Grace.

Devoted to the challenge of speaking about music to general audiences, Burnham lectures regularly for Princeton University Concerts, and he has presented pre-concert talks for Lincoln Center in New York, McCarter Theatre in Princeton, the Bard Music Festival, the Cleveland Orchestra, and the Chicago Symphony Orchestra.

Schedule: Thursday – February 29, March 7, March 21, March 28, 2024

Time: 1:30 – 3:00 pm Location: on campus

ASC302 AI for Humans: Understanding Big Data

Description: Despite the recent hype about AI taking over the world, AI has been embedded in technologies we use every day for quite a long while. This course will introduce students to the ways in which we have been using AI without even realizing it. Students will learn to identify which specific technologies generate, measure, and deploy large amounts of data through everyday usage, routines, and lifestyles. The course will spotlight ways to recognize, take ownership of, share, and even monetize one's personal data, if one so
chooses. Ultimately, students will gain a deeper and more nuanced understanding of big data, and all the ways it can be used to enrich, augment, and improve our lives.

**Schedule:** Friday’s - February 23, March 8, March 22, April 5, 2024

**Time:** 2:30-4:00 pm  **Location:** on campus

Manail Anis Ahmed is visiting faculty in technology ethics at the school of public and international affairs at Princeton university. She is also the cofounder of an AI-powered digital personal assistant for home and family management called iJuno. She has been building American-style higher education institutions in the Middle East and South Asia for the past 15 years.

Currently a research fellow at the Center for AI and Digital Policy in Washington, D.C., she also invests in early-stage education technology startups in Asia. She works to mitigate the inequities being perpetuated by new technologies around the world – the very same inequities that we hope ethical technology can address.

Manail is frequently invited internationally as a consultant, guest speaker and contributing author. She has a BA in Political Science from Swarthmore College, Pennsylvania, and an MA in Asian Studies from the University of Wisconsin-Madison. She has also studied the political economy of development at SOAS, University of London, and trained in Indian and Islamic Art History at the British Museum.

**ASC401 Topics in Contemporary Public Policy: New Jersey and Beyond**

**Professor:** Anastasia Mann, School of Public and International Affairs

**SPIA NJ Fellows:** Adriana Abizadeh, Tennyson Donyéa, Brandon McKoy, Nedia Morsy

**Description:** American democracy is currently under attack by white supremacists and others who oppose the very idea of government of, by and for the people.

At the same time, even the most enthusiastic proponents of participatory democracy recognize that the US experiment with the form has consistently failed large swaths of the population, especially wage workers and communities of color.

Over four weeks, we will probe such essential questions as:

- **What is the significance of democracy for populations that have been historically exploited and excluded from the opportunity that is their birthright?**
- **What would it take to make the promise of democracy real for everyone who calls the US home?**
- **How did wealth, land and political power become so concentrated in the hands of the few?**
- **What specific policy mechanisms could support multiracial democracy? What might that look like on the ground?**
Community Auditing Program Courses  
2023-2024 Spring

Assignments will include short texts selected for their combined significance and readability.

February 13th - Nedia Morsy: *The Powell Memo: How the Right Intentionally Built Megacorporations*
February 20th - Adriana Abizadeh, *Decommodifying Land for Collective Wealth Building*
February 27th - Brandon McKoy, *Freedom Isn’t Free: State Budgets as a Tool for Democracy*
March 5th - Tennyson Donyéa & Anastasia Mann, *Intentional Redress: American Institutions and the Case for Reparations*

**Schedule:** Tuesday, February 13, 20, 27 & March 5, 2024

**Time:** 1:30 pm - 3:00 pm  **Location:** on campus

**Anastasia Mann**’s work is attuned to the ways that gender, race, class, and ethnicity shape structures of opportunity. Mann’s career spans academia (Northwestern, Princeton, Rutgers), research-driven nonprofits (the Russell Sage Foundation, New Jersey Policy Perspective), and the civic sphere (Princeton’s Human Services and Civil Rights Commissions, and the New Jersey Commission on New Americans). Her publications include contributions to The Encyclopedia of Working Class America (Routledge), *Flunking Out: New Jersey’s Support for Public Higher Education Falls Short*, *Garden State Dreams: In-State Tuition for Undocumented Kids* (both New Jersey Policy Perspective), and *Middlesex County, New Jersey: Crossroads of the World* (Rutgers, Eagleton Institute). As Director of the Program on Immigration and Democracy, Mann spearheaded Citizenship Rutgers, a tri-campus collaboration at the state’s public research university, offering free citizenship application assistance to New Jersey’s almost 600,000 legal permanent residents. Stacy’s current teaching centers on the contemporary reparations’ movement. Her research examines the fresh air movement. Specifically, “fresh air” has smoothed over an awkward contradiction that lies at the heart of the American experiment. Over 140 years, the charity has paired children from historically exploited and under-resourced communities with hosts who zealously protect their privileges but are happy to host a youngster for a holiday. In March of 2020, Stacy worked with neighbors, students, strangers, and friends to establish Princeton Mutual Aid, a lively hub of political education, resource redistribution, and connection.

**Adriana Abizadeh** is the executive director of the Kensington Corridor Trust in Philadelphia, the nation’s first neighborhood trust focused on a commercial corridor, and a Senior Policy Fellow at the Rutgers University Bloustein School. Adriana is also the President of Catalyst Consulting Group (CCG), a boutique consulting firm moving projects forward for nonprofits and other stakeholders. A passionate leader and social justice advocate paving the way to ensure fair treatment and access to resources for people of color. She has committed herself to serving on several boards that reflect some of her deepest passions: immigration, racial and health equity, and youth development. Adriana has a BA from Rutgers University in Political Science with a minor in Security Intelligence and Counter Terrorism. She also has an MS in Public Policy from Drexel
Tennyson Donyea is a seasoned journalist, storyteller, and aspiring filmmaker continues to leave his mark on New Jersey's media landscape. A Temple University alumnus, he holds a B.A. in Media Studies and Production (2016) and later deepened his journalistic expertise through the Entrepreneurial Journalism Creators program at CUNY Newmark Graduate School of Journalism in 2022. Over the past seven years, Tennyson has extensively reported for various platforms including TV, radio, and both print and digital mediums. His journey has taken him to various states – from California to Maine – but his role at WHYY News in Philadelphia stands out, showcasing his dedication to delivering quality news about New Jersey politics. In 2023, Tennyson's commitment to local journalism was recognized when he received the New Jersey News Commons' Partner of the Year award. This accolade celebrated his significant contributions to bolstering New Jersey's local news ecosystem. Keenly aware of the narratives surrounding New Jersey's Black community, Tennyson took it upon himself to challenge and reshape these perspectives. In 2021, he founded "Black In Jersey" with the aim to provide a more accurate representation of Black communities and address pertinent issues in the fight for Black liberation. Originally hailing from Washington, D.C., Tennyson has called New Jersey home since 2019 and is currently based in Trenton, NJ, where he continues to be a beacon of change in the world of journalism.

Brandon McKoy is a fiscal and social policy expert with over 15 years of experience in national, state, and local policy research, analysis, and advocacy. McKoy has contributed to efforts in New Jersey that resulted in the passage and implementation of $15 minimum wage, paid sick leave for all workers, the regulation of cannabis, tuition equity for all students, driver's licenses for all residents, and equitable taxation - much of this was accomplished during his tenure at New Jersey Policy Perspective, where he worked as a policy analyst and was Director of Government Affairs before ultimately holding the position of President from 2019 to 2021. McKoy currently teaches at his alma mater, the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, where he holds a master's degree in City and Regional Planning and Policy Development. He also received a Bachelor of Science degree in Social Psychology from The College of New Jersey. Born in Secaucus and having grown up in South Orange, he currently lives in Hunterdon County with his wife and dog.

Nediya Morsy is the Director of Strategic Projects at Make the Road New Jersey (MRNJ). Founded in late 2014, MRNJ has built a powerful grassroots movement of immigrant and working-class people, operating three organizing hubs that provide legal and support services, adult education and youth development programming and winning 11 pro-immigrant and pro-worker statewide policies. Nedia graduated from Amherst College and was a Coro Fellow in St. Louis, MO.
ART AND ARCHAEOLOGY

Art and Power in the Middle Ages
ART 228
Professor(s): Schneck,Nomi

Description/Objectives: The course explores how art worked in politics and religion from ca. 300-1200 CE in Europe, the Middle East and Africa. Students encounter the arts of Catholicism and Orthodoxy, Judaism and Islam, great courts and migratory societies; dynamics of word and image, multilingualism, intercultural connection, and local identity. We examine how art can represent and shape notions of sacred and secular power. We consider how the work of 'art' in this period is itself powerful and, sometimes, dangerous. Course format combines lectures on various cultural contexts with workshop discussion focused on specific media and materials, or individual examples.

Schedule: 07:30 PM - 08:50 PM M W

Ten Essential Topics in Chinese Art
ART 218
Professor(s): Wang,Cheng-hua

Description/Objectives: What was the role of women in Chinese art? How did Chinese people think about this life and the afterlife? Why and how is calligraphy considered an art form in China? These are but three of the questions this course asks and endeavors to explore. Focusing on ten important and provocative topics, this course aims to provide a comprehensive but spotlighted picture of Chinese art and culture. Together the ten point to the interrelated nature of the visual and Chinese philosophical thought, aesthetic values, religious beliefs, social life, political expression and commercial practices.

Schedule: 01:30 PM - 02:20 PM M W

ASIAN AMERICAN STUDIES

Asian American Literature and Culture
ASA 224
Professor(s): Nadal,Paul

Description/Objectives: What is the relationship between race and genre? Through a survey of major works and debates in Asian American literature, this course examines how writers employ a variety of generic forms--novels, comics, memoirs, film, science fiction--to address issues of racial and ethnic identity, gender, queerness, memory, immigration, and war. By placing racial formation in relation to social, economic, and intellectual developments, we will explore the potential of literary texts to deepen our historical understanding of Asians in the U.S. and beyond, and probe into what labeling a work of literature as "Asian American" allows us to know and do.
Schedule: 03:00 PM - 04:20 PM T

ASTROPHYSICAL SCIENCES

Cosmology
AST 401
Professor(s): Bahcall,Neta A. Guo,Minghao Ma,Yilun

Description/Objectives: A general review of extragalactic astronomy and cosmology. Topics include the properties and nature of galaxies, clusters of galaxies, superclusters, the large-scale structure of the universe, evidence for the existence of Dark Matter and Dark Energy, the expanding Universe, the early Universe, Microwave Background radiation, Einstein Equations, Inflation, and the formation and evolution of structure.

Schedule: 01:30 PM - 02:50 PM M W

The Science of Fission and Fusion Energy
AST 309
Professor(s): Goldston,Robert James Jeon,Jihye

Description/Objectives: Power from the nucleus offers a low-carbon source of electricity. Fission power is well developed, but carries risks associated with safety, waste, and nuclear weapons proliferation. Fusion energy research, which presents less such risk, is making important scientific progress and progress towards commercialization. We will study the scientific underpinnings of both of these energy sources, strengthening your physical insight and exercising your mathematical and computational skills. We will also ask ourselves the thorny ethical questions scientists should confront as they contribute to the development of new technologies.

Schedule: 03:00 PM - 04:20 PM T TH

The Universe
AST 203
Professor(s): Amon,Alexandra Geda,Robel Hemler,Zach Spitkovsky,Anatoly Strauss,Michael Abram

Description/Objectives: This course, whose subject matter covers the entire universe, targets the frontiers of modern astrophysics. Topics include the planets of our solar system; the search for extrasolar planets and extraterrestrial life and intelligence; the birth, life, and death of stars; black holes; the zoo of galaxies and their evolution; the Big Bang and the expanding universe; and dark matter, dark energy, and the large-scale structure of the universe. This course is designed for the non-science major and has no prerequisites past high school algebra and geometry. High school physics would be useful, but is not required.
Community Auditing Program Courses  
2023-2024 Spring

Schedule: 03:00 PM - 04:20 PM T TH

Topics in Modern Astronomy  
AST 204  
Professor(s): Modak, Shaunak Tejada Arevalo, Roberto Alexander Winn, Joshua Nathan

Description/Objectives: The solar system and planets around other stars; the structure and evolution of stars; supernovae, neutron stars, and black holes; gravitational waves; the interstellar matter; the formation and structure of galaxies; cosmology, dark matter, dark energy, and the history of the entire universe. Compared to AST 203, this course employs more mathematics and physics. Intended for quantitatively oriented students.

Schedule: 03:00 PM - 04:20 PM M W

CHEMICAL AND BIOLOGICAL ENGINEERING

Enzymes  
CBE 419  
Professor(s): Link, James A.

Description/Objectives: Enzymes are the engines that fuel life, catalyzing a vast array of different chemical reactions. This course will focus first on enzyme kinetics and the structural biology of enzymes. With these tools we will next move to a series of case studies about different enzymes and enzyme families.

Schedule: 11:00 AM - 12:20 PM T TH

Ethics & Technology Engineering  
CBE 260  
Professor(s): Koel, Bruce E.

Description/Objectives: This course examines engineering as a profession and the responsibilities of that profession to society. Professional responsibilities of engineers are compared to those of lawyers, doctors, scientists, and business leaders. Ethical theories are introduced as frameworks to guide ethical decisions on technology implementation. Simple quantitative decision-making concepts, including risk-benefit analysis, are introduced as a method for engineers to make ethically optimal choices. A wide range of technologies are discussed and ethical issues facing engineers in maintaining existing technologies and implementing new technologies are examined.

Schedule: 10:00 AM - 10:50 AM T TH
CIVIL AND ENVIRONMENTAL ENGINEERING

Risk Analysis
CEE 460
Professor(s): Lin,Ning


**Schedule:** 01:30 PM - 02:50 PM M W

Statics of Structures
CEE 312
Professor(s): Glisic, Branko

**Description/Objectives:** Develops notions of internal forces and displacements, and instructs students how to design and analyze structures. Presents the fundamental principles of structural analysis, determination of internal forces, and deflections under the static load conditions, and introduces the bending theory of plane beams and the basic energy theorems. The theory of the first order will be developed for continuous girders, frames, arches, suspension bridges, and trusses, including both statically determinate and indeterminate structures. Basic principles for construction of influence lines and determination of extreme influences will be presented.

**Schedule:** 09:00 AM - 09:50 AM M W

CLASSICS

Archaic and Classical Greece
CLA 216
Professor(s): Domingo Gygax, Marc

**Description/Objectives:** The social, political, and cultural history of ancient Greece from ca.750 B.C. through the time of the Peloponnesian War (404 B.C.). Special attention is paid to the emergence of the distinctively Greek form of political organization, the city state, and to democracy, imperialism, social practices, and cultural developments. Emphasis is placed on the study of the ancient sources, methods of source analysis, and historical reasoning.

**Schedule:** 03:30 PM - 04:20 PM M W
Nature in Greco-Roman Antiquity  
CLA 226  
Professor(s): Holmes, Brooke A.  

Description/Objectives: Nature shapes how many of us think about the world. It's a balanced ecological system; the opposite of culture; a way of explaining how living things work; and a way of regulating how living things, especially people, should live. We will look at how ideas about natures, Nature, and "living naturally" take shape in texts from ancient Greece and Rome. We'll consider the Greek and Roman texts in relationship to other ways of imagining human and non-human life and the world in the Mediterranean and other cultures. We'll think, too, about how these ancient ideas bear on how we think about nature today and how we might think differently.

Schedule: 01:30 PM - 02:20 PM T TH

Origins and Nature of English Vocabulary  
CLA 208  
Professor(s): Lundquist, Jesse  

Description/Objectives: The origins and nature of English vocabulary, from Proto-Indo-European prehistory to current slang via *Beowulf*. Emphasis on linguistic tools and methodology. Topics include the Greek and Latin elements of English, the wonders and complexities of reading and translating ancient texts, the study of language families.

Other Information: No knowledge of Greek or Latin is necessary. Please note that this is not a vocabulary-building course. Instead, we will focus on how English has developed, how it functions now, and how languages, in general, work.

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

COMPARATIVE LITERATURE  

Fantastic Fiction: Fairy Tales  
COM 235  
Professor(s): Alliston, April  

Description/Objectives: Fairy tales are among the first stories we encounter, often before we can read. They present themselves as timeless—"Once upon a time..." - yet are essentially modern. They are often presented as children’s literature yet are filled with sex and violence. They have been interpreted as archetypal patterns of the subconscious mind or of deep cultural origins yet perform the work of shaping contemporary culture. They circulate in myriad oral variations and are written down in new ones by the most sophisticated literary authors. In this course we will explore the fantasy, enchantment, labor, and violence wrought by fairy tales.

Schedule: 01:30 PM - 02:50 PM T
Community Auditing Program Courses  
2023-2024 Spring

COMPUTER SCIENCE

Advanced Programming Techniques  
COS 333  
Professor(s): Dondero Jr., Robert M.

Description/Objectives: This is a course about the practice of programming. Programming is more than just writing code. Programmers must also assess tradeoffs, choose among design alternatives, debug and test, improve performance, and maintain software written by themselves & others. At the same time, they must be concerned with compatibility, robustness, and reliability, while meeting specifications. Students will have the opportunity to develop these skills by working on their own code and in group projects.

Schedule: 03:00 PM - 04:20 PM T TH

Blockchains, Decentralized Trust, and  
COS 471  
Professor(s): Fish, Robert S. Singh, Jaswinder Pal

Description/Objectives: This course serves as an introduction to the fast-developing computer science discipline focused on blockchain, decentralized trust, and the applications of these technologies such as cryptocurrencies, NFT's, and new forms of collective organizations. Students will learn about blockchains and the decentralization of trust and power through technology, launch a cryptocurrency token, create non-fungible tokens, and build an application on a blockchain. We will also discuss applications, ethical implications, and policy questions around decentralization.

Schedule: 01:30 PM - 04:20 PM W

Introduction to Machine Learning  
COS 324  
Professor(s): Arora, Sanjeev Hazan, Elad

Description/Objectives: Provides a broad introduction to different machine learning paradigms and algorithms, providing a foundation for further study or independent work in machine learning, artificial intelligence, and data science. Topics include linear models for classification and regression, support vector machines, neural networks, clustering, principal components analysis, Markov decision processes, planning, and reinforcement learning. The goals of this course are three-fold: to understand the landscape of ml, how to compute the math behind techniques, and how to use Python and relevant libraries to implement and use various methods.

Schedule: 01:30 PM - 02:50 PM M W
Community Auditing Program Courses  
2023-2024 Spring

Introduction to Programming Systems  
COS 217  
Professor(s): Gabai, Donna Strauss Moretti, Christopher M.

**Description/Objectives:** Developing programming skills for systems building, including modular program design, programming style, testing, debugging, and performance tuning. Additionally, an introduction to ARM assembly language and machine language.

**Schedule:** 10:00 AM - 10:50 AM M W

Theory of Algorithms  
COS 423  
Professor(s): Tarjan, Robert Endre

**Description/Objectives:** Design and analysis of efficient data structures and algorithms. General techniques for building and analyzing algorithms.

**Schedule:** 11:00 AM - 12:20 PM M W

EAST ASIAN STUDIES

How Does It Move?: Modern Japanese Media  
EAS 262  
Professor(s): Yamazaki, Junko

**Description/Objectives:** The course offers an introduction to moving image cultures in modern Japan with a focus on how technological aesthetic media has transformed the experience and understanding of action. While emphasis is placed on the production and reception of popular action film genres from Japan, the course also explores the relationship of those films to international film cultures in the context of broader historical transformations in media practices and in modes of distribution and reception. We will engage with ethical and political questions concerning issues such as gendered and racialized representations of action and the aesthetics of violence.

**Schedule:** 10:00 AM - 10:50 AM T TH

Qin & the Beginnings of Empire in China  
EAS 279  
Professor(s): Wilson, Trenton Wayne

**Description/Objectives:** This course tells the epic story of the people, ideas, and institutions that made the first Chinese empires, ca. third century BCE to the first century BCE. The course looks at the rise and fall of the Qin empire as well as the way Qin institutions and ideas reverberated through the succeeding Han dynasty--and beyond. The course will cover most recent archeological materials and excavated texts (in translation), including ongoing excavations of the terracotta warriors, funerary art, excavated legal
codes, legal cases, religious and philosophical texts, and much more. Finally, we ask: did the Qin empire ever end?

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

ECOLOGY AND EVOLUTIONARY BIOLOGY

Behavioral Ecology
EEB 313
Professor(s): Riehl, Christina Pauline

Description/Objectives: How does a swarm of honeybees collectively decide on a new site for their hive? When a mother mouse protects her young, are her behaviors genetically determined? Why do ravens share food with each other? This course is an introduction to behavioral ecology, which asks why animals act the way they do, how their behaviors have been shaped by natural selection, and how these behaviors influence their surroundings. We will first discuss behaviors at the individual level, then move to reproductive behaviors. The final section of the course will focus on social evolution, the origins of cooperation, and human behavioral ecology.

Schedule: 01:30 PM - 02:50 PM T TH

ECONOMICS

Asian Capital Markets
ECO 492
Professor(s): Qiu, Yinan Zhou, Haonan de Swaan, JC

Description/Objectives: This course explores the increasing weight of Asia in global financial markets and its implications. It frames the discussion in the context of the globalization of financial markets, with emphasis on concepts of economic development, institutional reform of markets, and public and private market investments. Discussions and investment case studies combine analysis of historical trends and recent data with insights from practical experience in Asian markets. Course considers the constraints in China's shift toward a capital market-based financial system, potential revival of the Japanese corporate sector, and growth of Indian capital markets.

Schedule: 01:30 PM - 04:20 PM TH

Econometrics
ECO 302
Professor(s): Honoré, Bo E. Li, Ziang

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.
Community Auditing Program Courses  
2023-2024 Spring

**Economics of Food and Agriculture**  
ECO 355  
Professor(s): Weyerbrock, Silvia Zhang, Xiang

**Description/Objectives:** This course uses microeconomic analysis (specifically, tools drawn from demand/supply analysis, development, trade, and public economics) to study issues related to agriculture and food. These include the role of agriculture in the global economy and in economic development; biofuels; the Green Revolution and GMOs; agriculture and the environment/climate change; agricultural trade and trade disputes; hunger, famines, and food aid; and food insecurity and obesity in the U.S. The course assesses whether farm, food and nutrition policies in poor and rich countries, including the U.S., address current challenges.

**Schedule:** 11:00 AM - 12:20 PM M W

**Economics of Health and Health Care**  
ECO 332  
Professor(s): Che, Yan Noonan, Kelly

**Description/Objectives:** Health economics is a growing field of applied microeconomics and is an important aspect of public policy. This course explores the health care sector and health policy issues from an economic perspective. Microeconomics tools will be used to analyze the functioning of different pieces of the health care system. Topics will range from fundamental subjects, such as the demand for health, to more recent developments, such as mental health, child health and risky health behaviors. This course teaches an economic approach to studying the various policies that affect health and health behaviors.

**Schedule:** 11:00 AM - 12:20 PM M W

**Introduction to Macroeconomics**  
ECO 101  
Professor(s): Rogerson, Richard Yoon, Chansik

**Description/Objectives:** This course focuses on the forces that shape changes in overall economic outcomes in both the short and long run, and the potential for macroeconomic policy to affect these outcomes in a positive way. The course will introduce students to the basic frameworks that are used by researchers and policy makers. Specific topics covered include growth, development, inequality, the stock market, the environment, unemployment, inflation, business cycles, the financial system and trade. Problem sets will help students build skills in basic data analysis and quantitative methods.

**Schedule:** 11:00 AM - 11:50 AM T TH
Community Auditing Program Courses  
2023-2024 Spring

**Introduction to Microeconomics**  
ECO 100  
Professor(s): Boustan, Leah, Platt, Vaeth, Martin  

**Description/Objectives:** Economics studies the allocation of scarce resources. This course focuses on the decisions made by individual consumers and producers. We will consider a variety of different market structures ranging from monopoly to perfect competition and discuss the rationale for government involvement in market activity.

**Schedule:** 11:00 AM - 11:50 AM M W

**Microeconomic Theory**  
ECO 300  
Professor(s): Chassang, Sylvain

**Description/Objectives:** This course will cover the key tools of microeconomics. In particular we will learn how to model the behavior of individual decision makers, and how to aggregate their behavior to better understand the way larger institutions operate. A lot of the class will be geared towards a fundamental economic institution *the market* to develop a better understanding of when it thrives, and when it fails.

**Other Information:**  
The course will be self-contained and buying a book is not necessary. For those of you who want a reference book, the course notes will highlight corresponding chapters from Microeconomics by Douglas Bernheim and Michael Whinston.

**Schedule:** 11:00 AM - 12:20 PM T TH

**ELECTRICAL AND COMPUTER ENGINEERING**

**Information Signals**  
ECE 201  
Professor(s): Kulkarni, Sanjeev Ramesh  

**Description/Objectives:** Signals that carry information, e.g. sound, images, sensors, radar, communication, robotic control, play a central role in technology and engineering. This course teaches mathematical tools to analyze, manipulate, and preserve information signals. We discuss both continuous signals and digital signals. Major focus points are the Fourier transform, linear time-invariant systems, frequency domain, and filtering.

**Schedule:** 09:30 AM - 10:50 AM T TH

**ENERGY STUDIES**

**Renewable Energy and Smart Grids**  
ENE 273  
Professor(s): Chen, Minjie Li, Haoran
Community Auditing Program Courses
2023-2024 Spring

Description/Objectives: This course explores broadly renewable energy systems and smart grids. Technical and operational principles of the modern electric grids will be introduced, followed by an overview of various energy sources from fossil-fuel generators to photovoltaic systems. The intermittency of renewable energy systems and its impact on the electric grid will be discussed together with its potential solutions: energy storage systems and demand response techniques. This course will also include a few experimental demo sessions in which students will gain hands-on experience in understanding the fundamental principles of power conversion.

Schedule: 11:00 AM - 12:20 PM M W

ENGINEERING

Reclamation Studio: Humanistic Design
EGR 361
Professor(s): Carter, Majora Juliette

Description/Objectives: Assumptions and practices by the nonprofit industrial complex, government agencies and affordable housing developers treat poor communities, especially poor communities of color as problems to be managed by those from outside these communities. The Reclamation Studio explores the humanistic design practices applied by social entrepreneurs from low-status communities near Princeton (our "clients") that counteract that history of systemic bias with innovative development projects designed to retain the talent from within their communities. Students will have the opportunity to learn from and contribute to their efforts.

Schedule: 11:00 AM - 12:20 PM TH

Technology and Society
EGR 277
Professor(s): Kshirsagar, Mihir Eknath

Description/Objectives: Technology and society are unthinkable without each other; each provides the means and framework in which the other develops. To explore this dynamic, this course investigates a wide array of questions on the interaction between technology, society, politics, and economics, emphasizing themes such as innovation and regulation, risk and failure, ethics and expertise. Specific topics covered include nuclear power and disasters, green energy, the development and regulation of the Internet, medical expertise and controversy, intellectual property, the financial crisis, and the electric power grid.

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

Venture Capital & Finance of Innovation
EGR 395
Professor(s): Hejazi, Shahram
Community Auditing Program Courses  
2023-2024 Spring

**Description/Objectives:** Venture capital is a driving force behind innovation and entrepreneurship, although the unique working details of venture capital firms and their processes are well-kept secrets. Early-stage investors not only fund startups but also enable innovation through mentorship and partnership with the entrepreneurs. Understanding how these investors think and operate is critical to students who are interested in entrepreneurship, as well as to those who would like to pursue venture capital.

**Other Information:** This class is by application only. To be considered please submit a detailed description of your background and your reason for wanting to take this class. Submit to pucap@princeton.edu by January 12, 2024.

**Schedule:** 01:30 PM - 04:20 PM F

---

**ENGLISH**

**American Literature, 1865-1930**  
ENG 351  
Professor(s): Mitchell, Lee Clark

**Description/Objectives:** A study of the development of American literature within the context of the shifting social, intellectual, and literary conventions of the period. Emphasis will be on the artistic achievement of writers such as James, Howells, Chesnutt, Crane, Wharton, Cather, Hemingway, and Faulkner.

**Schedule:** 11:00 AM - 11:50 AM T TH

**Children's Literature**  
ENG 304  
Professor(s): Gleason, William Albert

**Description/Objectives:** A survey of classic texts written for children from the past 200 years in (primarily) England and America. We will examine the development and range of the genre from early alphabet books to recent young adult fiction. We'll try to put ourselves in the position of young readers while also studying the works as adult interpreters, asking such questions as: How do stories written for children reflect and shape the lives of their readers? What can children's literature tell us about the history of reading, or of growing up, or of the imagination itself? In the process we will consider psychological and social questions as well as literary ones.

**Schedule:** 12:30 PM - 01:20 PM M W

**Rewriting the World: Literatures in Engl**  
ENG 200  
Professor(s): Lewis, Rhodri
Community Auditing Program Courses
2023-2024 Spring

**Description/Objectives:** A survey of extraordinary writing, ideas, characters, and voices from the medieval period through the 18th century. We read diversely from Chaucer to Shakespeare, Milton, Austen and others, to trace the origins of our own modernity. What did reading and writing mean in the early modern world? Are they different today? We examine England in relation to the globe, and we ask who gets included and excluded from "great books." What do people, places and situations that existed on the margins of early English society and literature teach us about the problems we currently face? Does seeing things their way help us view our own world differently?

**Schedule:** 10:00 AM - 10:50 AM M W

**Shakespeare: Hamlet and After**
ENG 319
**Professor(s):** Cormack, Bradin T.

**Description/Objectives:** This class covers the second half of Shakespeare's career, with a focus on the major tragedies and late comedies.

**Schedule:** 09:00 AM - 09:50 AM M W

**The Essay**
ENG 203
**Professor(s):** Nunokawa, Jeff

**Description/Objectives:** This course introduces students to the range of essay forms as it has developed from the early modern period to our own. The class will be organized, for the most part, chronologically, beginning with the likes of Bacon and Hobbes, and ending with some contemporary examples of and reflections on the form. It will consider how writers as varied as Sidney, Hume, Johnson, Emerson, Woolf, C.L.R. James, and Stephen Jay Gould have defined and revised The Essay.

**Schedule:** 02:30 PM - 03:20 PM T TH

**FRENCH**

**Surrealism at One Hundred**
FRE 358
**Professor(s):** Rentzou, Efthymia

**Description/Objectives:** This course explores the basic ideas, works, and principles of Surrealism as it developed in France and around the world from the early 1920s into the present. A very wide array of material will cover diverse literary genres and media to show how the Surrealists wanted to revolutionize both art and life in its political and ethical dimensions, as well as the movement's ongoing impact. The course is highly interactive, built around two digital creative and critical projects, which will constitute the students' assignments throughout the semester.
Community Auditing Program Courses
2023-2024 Spring

Other Information: Class taught in English.

Schedule: 01:30 PM - 02:50 PM M

GEOSCIENCES

Natural Disasters
GEO 103
Professor(s): Schoene, Blair

Description/Objectives: An introduction to natural (and some society-induced) hazards and the importance of public understanding of the issues related to them. Emphasis is on the geological processes that underlie the hazards, with discussion of relevant policy issues tied to reading recent newspaper/popular science articles. Principal topics: Earthquakes, volcanoes, landslides, tsunami, hurricanes, floods, meteorite impacts, global warming. Intended primarily for non-science majors.

Schedule: 11:00 AM - 12:20 PM T TH

GLOBAL HEALTH AND HEALTH POLICY

Epidemiology: Unpacking Health with Classic Tools, Ecology and Evolution
GHP351
Professor(s): Metcalf, Jessica E.

Description/Objectives: This required course for GHP students explores how we study the distribution and determinants of disease, introducing methods for measuring health status, disease occurrence, the association between risk factors and health outcomes, probing evidence for causality, and characterizing how ecology and evolution shapes human health. Emphasis on study design and sampling, bias and confounding, the generalizability of research, identifying causality, infectious disease dynamics, global health.

Schedule: 11:00 AM - 12:20 PM M W

HISTORY

Europe in the World: 1776 to the Present
HIS 212
Professor(s): Bell, David A.

Description/Objectives: An overview of European history since the French Revolution, taking as its major theme the changing role of Europe in the world. It looks at the global legacies of the French and Russian revolutions, and how the Industrial Revolution augmented the power of European states, sometimes through formal and sometimes
informal imperialism. How did ideologies like nationalism, liberalism, communism, and fascism emerge from European origins and how were they transformed? How differently did Europeans experience the two phases of globalization in the 19th and 20th centuries? Biographies are used as a way of approaching the problem of structural change.

**Schedule:** 01:30 PM - 02:20 PM M W

**Faith & Power in the Indian Ocean Arena**  
**HIS 241**  
**Professor(s):** Laffan, Michael F.

**Description/Objectives:** This course offers a chronological and topical overview of one of the world's most diverse and contested spaces. Sketching the deep linkages between East Africa, the Subcontinent and Southeast Asia, short, focused readings and in-depth precepts will highlight such issues as the spread of Buddhism and Islam, the rise of colonialism, the importance of nationalist and Third-Worldist movements, the struggles for exclusive ethno-religious enclaves and the consequences for diasporic communities with ever-tightening links to the Americas, Europe and Australasia.

**Schedule:** 10:00 AM - 10:50 AM M W

**Gender and Sexuality in Modern America**  
**HIS 384**  
**Professor(s):** Canaday, Margot

**Description/Objectives:** This course examines the history of gender and sexuality across the 20th century, with emphasis on both regulation and resistance. Topics include early homosexual subcultures; the commercialization of sex; reproduction and its limitation; sex, gender, and war; cold war sexual containment; the feminist movement; conservative backlash; AIDS politics; same-sex marriage; Hillary; and many others.

**Schedule:** 11:00 AM - 11:50 AM M W

**Making America: Technology & History US**  
**HIS 295**  
**Professor(s):** Thompson, Emily

**Description/Objectives:** This course will introduce students to technology in U.S. history, from the Colonial Era through the Twentieth Century. Throughout, we will consider how people designed, made, and used technologies in order to accomplish work, to organize society, and to make sense of their world. Warfare and agriculture; transportation and communication networks; plantations and factories; media, money, and information systems; engineers and other kinds of technologists: all will be explored, examined, and analyzed to understand the role of technology in making the nation.

**Schedule:** 10:00 AM - 10:50 AM T TH
Community Auditing Program Courses  
2023-2024 Spring

Race, Drugs, and Drug Policy in America  
HIS 393  
Professor(s): Wailoo, Keith Andrew

Description/Objectives: This course examines ebbs and flows in U.S. drug policy, and how issues of race and identity inform the creation, implementation, impact, and dismantling of substance control policy. From "Chinese opium" in the 19th c. to "Hillbilly heroin" (as OxyContin was once labeled) and from "crack" cocaine to menthol cigarettes and marijuana, we examine the forces shaping drug policies, how policies are transformed, why they change, and what drug laws reveal about society. We also examine how social, political, and economic circumstances shape drug policies, and how the US built a vast system governing people and the substances they can and cannot use.

Schedule: 10:00 AM - 10:50 AM T TH

Revolutionary America  
HIS 372  
Professor(s): Blaakman, Michael Albert

Description/Objectives: Why was there an American Revolution? How revolutionary was it, and for whom? Why did it end with the creation of a fractious independent republic, an "empire of liberty" rooted in slavery? This class explores the causes, course, and consequences of the American Revolution, from the Seven Years War through the ratification of the U.S. Constitution. Lectures, readings, and precepts will trace the ideas and experiences of the many peoples whose lives intersected with the United States' struggle for independence: female and male, Black and white and Native American, free and enslaved, American and British, Loyalist and Patriot.

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

The Civilization of the High Middle Ages  
HIS 344  
Professor(s): Jordan, William Chester

Description/Objectives: In lectures, to provide my interpretation (and a conspectus of differing interpretations) of the civilization of Western Europe, 11th-14th century; by readings, to introduce students to the variety of surviving sources; through the paper, to give students a taste of doing medieval history.

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

The Soviet Empire  
HIS 362  
Professor(s): Heinzen, James
Community Auditing Program Courses
2023-2024 Spring

Description/Objectives: An examination of the transformation of the Russian Empire into the Soviet Empire. Topics include: the invention and unfolding of single-party revolutionary politics, the expansion of the machinery of state, the onset and development of Stalin's personal despotism, the violent attempt to create a non-capitalist society, the experiences, and consequences of the monumental war with Nazi Germany, and the various postwar reforms. Special attention was paid to the dynamics of the new socialist society, the connection between the power of the state and everyday life, global communism, and the 1991 collapse.

Schedule: 11:00 AM - 11:50 AM T TH

The Spanish Empire
HIS 307
Professor(s): Glazer-Eytan,Yonatan

Description/Objectives: From a relatively poor, multi-religious, and politically fragmented land during the Middle Ages, Spain became in the early modern period one of the biggest empires in world history. This introductory course offers a historical overview of the Spanish empire, from its emergence in the late fifteenth century to its eventual dissolution in the nineteenth century. We will examine the nature of Spanish imperial rule, the societies and cultures that were forged in the process, and the asymmetric connections that it facilitated between Europe, Asia, Africa, and the Americas.

Schedule: 09:00 AM - 09:50 AM M W

The United States Since 1974
HIS 361
Professor(s): Zelizer,Julian E.

Description/Objectives: The history of contemporary America, with particular attention to political, social and technological changes. Topics will include the rise of a new conservative movement and the reconstitution of liberalism, the end of the divisive Cold War era and the rise of an interconnected global economy, revolutionary technological innovation coupled with growing economic inequality, a massive influx of immigrants coupled with a revival of isolationism and nativism, a revolution in homosexual rights and gender equality coupled with the rise of a new ethos of "family values."

Schedule: 11:00 AM - 11:50 AM T TH

The World of Late Antiquity
HIS 210
Professor(s): Tannous,Jack Boulos Victor

Description/Objectives: This course will focus on the history of the later Roman Empire, a period which historians often refer to as "Late Antiquity." We will begin our class in pagan Rome at the start of the third century and end it in Baghdad in the ninth century: in
between these two points, the Mediterranean world experienced a series of cultural and political revolutions whose reverberations can still be felt today. We will witness civil wars, barbarian invasions, the triumph of Christianity over paganism, the fall of the Western Empire, the rise of Islam, the Greco-Arabic translation movement and much more.

**Schedule:** 01:30 PM - 02:20 PM M W

**PROGRAM IN HUMANISTIC STUDIES**

**Creation Stories: Babylonian, Biblical and Greek Cosmogonies Compared**  
HUM 245  
Professor(s): Haubold, Johannes

**Description/Objectives:** This course compares the canonical cosmogonies of ancient Mesopotamia, Israel, and Greece. We will study in detail the creation epic Enuma eliš and the flood epic Atra-hasis from Babylon, the opening chapters of the Biblical book of Genesis, and Hesiod's Theogony and Catalogue of women; as well as considering related texts from across the ancient Mediterranean. We will ask how the set texts describe the earliest history of the world and what this meant for their ancient audiences, how they relate to each other, and how they inform the long history of human investigation into the origins of the universe.

**Schedule:** 11:00 AM - 11:50 AM T TH

**Jesus and Buddha**  
HUM 290  
Professor(s): Gold, Jonathan C. Pagels, Elaine Hiesey

**Description/Objectives:** This course invites us to compare the stories, teachings, lives, deaths, and communities associated with Jesus and Buddha. While respecting each tradition's unique and distinctive sources, cultures, ideas and legacies, it invites us to deepen our understanding of each tradition by looking through the lens of the other. Course readings include accounts of the lives of Jesus and Buddha, what each taught about how to live and create society, and how they articulate the meaning of life and death, suffering and salvation.

**Schedule:** 12:30 PM - 01:20 PM M W

**Medicine, Literature, Visual Arts**  
HUM 360  
Professor(s): Fratto, Elena Kesson, Anna Arabindan

**Description/Objectives:** This course explores the different ways that medicine is represented in the fields of literature and the visual arts, using the concept of storytelling to examine themes that are at once medical and existential, and that are part of everybody's lives, such as death and dying, epidemics, caregiving, disability, and public
Community Auditing Program Courses  
2023-2024 Spring

health. Focusing on literary texts and art, we'll analyze how these themes are staged in the different sources. We'll develop a toolbox of concepts and techniques by which to investigate the narrative structures used to convey meanings about medicine, be it as a field of knowledge, a set of practices, or a mode of experience.

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

ITALIAN

Fascism in Italian Cinema  
ITA 312  
Professor(s): Dossena, Elisa Marrone-Puglia, Gaetana

Description/Objectives: This course, conducted in English, is a study of Fascism through selected films from World War II to the present. Topics include: the concept of Fascist normality; Racial Laws; the role of women and homosexuals; colonialism; and the opposition of the intellectual left. Films include: Bertolucci's "The Conformist", Fellini's "Amarcord", Rossellini's "Rome Open City", Cavani's "Night Porter", and Wertmüller's "Seven Beauties". The approach is interdisciplinary and combines the analysis of historical themes with an in-depth cinematic reading of the films.

Other Information: Taught in Italian.

Schedule: 01:30 PM - 02:20 PM W

The Literature of Gastronomy  
ITA 319  
Professor(s): De Feo, Daniele Frassica, Pietro

Description/Objectives: What we do or do not eat and where we eat, are questions linked to anthropological and cultural matters. In a socio-political context, food, or the lack thereof, defines a society and its inadequacies. It becomes an agent of power, a metaphor for sex and gender, as well as a means of community. Whether as desire or transgression, whether corporal or spiritual - the representation of food is the depiction of Italian life. This course will examine translated Italian texts, along with visual art and film, in order to explore the function of eating, both as biological necessity as well as metaphor, within Italian society.

Other Information: Lecture in English.

Schedule: 07:30 PM - 08:50 PM W

PROGRAM IN LATIN AMERICAN STUDIES

Hemispheric Poetics & Politics  
LAS 307
Community Auditing Program Courses
2023-2024 Spring

Professor(s): Lott, Olivia Michael

Description/Objectives: The poetries of Latin American nations and the United States, like the histories of the American hemisphere, are in many ways intertwined and wrapped up in the legacies and continuities of imperialism and displacement. This course offers an exploration of the ways in which Latin American and U.S. literatures intersect, especially at pivotal moments of hemispheric political history: (1) the "Good Neighbor" era, (2) inter-American Cold War, (3) US military invasions, (4) second-wave neoliberalism, (5) present day. We pay particular attention to Latin American and Latinx writers, cultivating a South-to-North comparative approach.

Other Information: Course taught in English.

Schedule: 01:30 PM - 02:50 PM T TH

PROGRAM IN LINGUISTICS

Introduction to Language & Linguistics
LIN 201
Professor(s): Ahn, Byron T.

Description/Objectives: This course is an introduction to the scientific analysis of the structure and uses of language. Core areas covered include phonetics and phonology, morphology, the lexicon, syntax, semantics, and pragmatics, with data from a wide range of languages. Additional topics include sociolinguistics, historical linguistics, and language acquisition.

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

Language in Its Contexts
LIN 250
Professor(s): Kalin, Laura

Description/Objectives: This course investigates language in its social, cultural, political, and historical contexts. Does your native language influence your perception, your behavior, and your culture? How does your identity influence the properties of your language? What happens when unrelated languages come into contact for prolonged periods? How are new languages born? Why isn't English the official language of the United States, and should it be? We will explore these questions (and more) by engaging with the often-contradictory opinions of specialists and the public, as well as with the empirical realities behind these different language situations.

Schedule: 01:30 PM - 02:50 PM T TH
Phonetics and Phonology  
LIN 301  
Professor(s): Lionnet, Florian

**Description/Objectives:** This course is an introduction to the science of speech sounds (phonetics) and sound systems (phonology). Students will 1) learn how sounds from a wide variety of languages are produced, and learn to produce and transcribe them; 2) understand and analyze the acoustic properties of speech sounds using (free) software; 3) understand the unconscious knowledge speakers have of the rules and constraints that govern their native language's sound system; 4) extract phonological generalizations from phonetic data from various languages; 5) learn about the similarities and differences between the sound systems of the world's languages.

**Other Information:** No textbook required.

**Schedule:** 11:00 AM - 12:20 PM M W

---

**MATHEMATICS**

**Algebra II**  
MAT 346  
Professor(s): Katz, Nicholas Michael

**Description/Objectives:** Local Fields and the Galois theory of Local Fields.

**Schedule:** 01:30 PM - 02:50 PM T TH

**Single Variable Analysis with an Introduction to Proofs**  
MAT 215  
Professor(s): Pérez-Ayala, Samuel

**Description/Objectives:** An introduction to the mathematical discipline of analysis, to prepare for higher-level course work in the department. Topics include rigorous epsilon-delta treatment of limits, convergence, and uniform convergence of sequences and series. Continuity, uniform continuity, and differentiability of functions. The Heine-Borel Theorem. The Riemann integral, conditions for integrability of functions and term by term differentiation and integration of series of functions, Taylor's Theorem.

**Schedule:** 11:00 AM - 12:20 PM T TH

---

**MECHANICAL AND AEROSPACE ENGINEERING**

**Heat Transfer**  
MAE 423  
Professor(s): Nosenchuck, Daniel Mark
Community Auditing Program Courses
2023-2024 Spring

**Description/Objectives:** This course will cover fundamentals of heat transfer and applications to practical problems in energy conversion and conservation, electronics, and biological systems. Emphasis will be on developing a physical and analytical understanding of conductive, convective, and radiative heat transfer. Numerical methods will be introduced to simulate a variety of steady and unsteady heat transfer applications and will form the basis of the final project.

**Schedule:** 08:30 AM - 09:50 AM M W

**Mechanics of Fluids**
**MAE 222**
**Professor(s):** Nosenchuck, Daniel Mark

**Description/Objectives:** Introduction to the physical and analytical description of phenomena associated with the flow of fluids. Topics include the principles of conservation of mass, momentum, and energy; lift and drag; open channel flow; dynamic similitude; laminar and turbulent flow and an introduction to compressible subsonic and supersonic internal and external flows.

**Schedule:** 10:00 AM - 10:50 AM M W F

**Rocket and Air-Breathing Propulsion Technology**
**MAE 426**
**Professor(s):** Ju, Yiguang

**Description/Objectives:** The study of principles, flight envelopes, and engine designs of rocket and ram/scramjet propulsion systems. Topics include jet propulsion theory, space mission maneuver, combustion control, and system components of chemical and non-chemical rockets (nuclear and electrical propulsion), gas turbine, ramjet, and scramjet engines. Characteristics, optimal flight envelopes, and technical challenges of combined propulsion systems will be analyzed.

**Schedule:** 11:00 AM - 11:50 AM M W F

**MOLECULAR BIOLOGY**

**From DNA to Human Complexity**
**MOL 101**
**Professor(s):** Bassler, Bonnie Lynn Mallarino, Ricardo Schottenfeld-Roames, Jodi

**Description/Objectives:** This lecture and lab course will acquaint non-biology majors with modern molecular biology focusing on topics of current interest to society. The course covers fundamental topics such as information storage and readout by DNA, RNA and proteins. The course addresses how recent scientific advances influence issues relevant to humanity including stem cells and CRISPR; the human microbiome and
bacterial pathogens; vaccines and the current SARS-CoV-2 pandemic; how a single cell contains all the necessary instructions to build a complex multicellular organism; and how the human genome can be used to understand the evolution of modern humans.

**Schedule:** 11:00 AM - 12:20 PM T TH

**Intro to Cellular & Molecular Biology**
**MOL 214**
**Professor(s):** Gavis, Elizabeth Rose McDonald, Karin Rainey te Velthuis, AJ

**Description/Objectives:** Important concepts and elements of molecular biology, biochemistry, genetics, and cell biology, are examined in an experimental context. This course fulfills the basic biology requirement for students majoring in the biological sciences and satisfies the basic biology requirement for entrance into medical school and most other health professions schools.

**Schedule:** 11:00 AM - 12:20 PM T TH

**Molecular and Cellular Immunology**
**MOL 340**
**Professor(s):** Brooks II, John Francis Ploss, Alexander

**Description/Objectives:** A broad survey of the field of immunology and the mammalian immune system. The cellular and molecular basis of innate and acquired immunity will be discussed in detail. The course will provide frequent examples drawn from human biology in health and disease.

**Schedule:** 09:00 AM - 09:50 AM M W F

**PROGRAM IN MATERIALS SCIENCE AND ENGINEERING**

**Magic Materials**
**MSE 200**
**Professor(s):** Filsinger, Kai Alexander

**Description/Objectives:** When something seems to defy our understanding of how the world works, we would call it magical. Throughout human history, development of new materials was associated with magic because it made things that were formerly impossible or incomprehensible possible. The durability of a steel tool must have seemed magical for the bronze age worker. The Internet, instant access to all information of humankind at the touch of a button would have been incomprehensible a hundred years ago. This class will talk about the magic materials people encountered throughout history, what equates to magic materials today and how they might shape our future.

**Schedule:** 08:30 AM - 09:50 AM T TH
Community Auditing Program Courses
2023-2024 Spring

MUSIC

Operatic Cultures in Dialogue: An Introduction to Sinitic and Italian Opera
MUS 235
Professor(s): Heller, Wendy Yu Wang, Anna

Description/Objectives: What makes a beautiful voice? How does spoken and sung language relate across cultural spaces? How are musical and bodily gestures codified differently across music theatrical traditions? This course takes a deep dive into these questions through a comparative exploration of two global manifestations of opera: Italian opera and Sinitic (Chinese-language) xiqu. We will consider such topics as gender and sexuality; nationalism and identity; scenic design, gesture and choreography; transmission and global circulation. Students will have the opportunity to attend at least one performance at the Metropolitan Opera or other venues in the area.

Schedule: 10:00 AM - 10:50 AM T TH

NEUROSCIENCE

Introduction to Cognitive Neuroscience
NEU 202
Professor(s): Krienen, Fenna

Description/Objectives: Cognitive neuroscience is a young and exciting field with many questions yet to be answered. This course surveys current knowledge about the neural basis of perception, cognition and action and will comprehensively cover topics such as high-level vision, attention, memory, language, decision making, as well as their typical and atypical development. Precepts will discuss the assigned research articles, pertaining to topics covered in class with an emphasis on developing critical reading skills of scientific literature.

Schedule: 01:30 PM - 02:20 PM M W

OPERATIONS RESEARCH AND FINANCIAL ENGINEERING

Analysis of Big Data
ORF 350
Professor(s): Dytso, Alex

Description/Objectives: This course is a theoretically oriented introduction to the statistical tools that underpin modern machine learning, whose hallmarks are large datasets and/or complex models. Topics include a rigorous analysis of dimensionality reduction, a survey of models ranging from regression to neural networks, and an analysis of learning algorithms.

Schedule: 03:00 PM - 04:20 PM M W
Networks
ORF 387
Professor(s): Rebrova, Elizaveta

Description/Objectives: This course showcases how networks are widespread in society, technology, and nature, via a mix of theory and applications. It demonstrates the importance of understanding network effects when making decisions in an increasingly connected world. Topics include an introduction to graph theory, game theory, social networks, information networks, strategic interactions on networks, network models, network dynamics, information diffusion, and more.

Schedule: 11:00 AM - 12:20 PM T TH

Optimization
ORF 307
Professor(s): Stellato, Bartolomeo

Description/Objectives: This course focuses on analytical and computational tools for optimization. We will introduce least-squares optimization with multiple objectives and constraints. We will also discuss linear optimization modeling, duality, the simplex method, degeneracy, interior point methods and network flow optimization. Finally, we will cover integer programming and branch-and-bound algorithms. A broad spectrum of real-world applications in engineering, finance and statistics is presented.

Schedule: 11:00 AM - 12:20 PM T TH

Stochastic Optimization and Machine Learning in Finance
ORF 311
Professor(s): Mulvey, John Michael

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 in the context of financial applications. Machine learning methods are linked to the stochastic optimization models.

Schedule: 01:30 PM - 02:50 PM T TH

PHILOSOPHY

Aristotle and His Successors
PHI 301
Professor(s): Morison, Benjamin Charles Atkin

Description/Objectives: We shall study Aristotle's contributions in logic, natural philosophy, metaphysics, and ethics, with emphasis on the ongoing philosophical interest
of some of his central insights.

**Schedule:** 10:00 AM - 10:50 AM T TH

**Freedom and Responsibility**  
**PHI 383**  
**Professor(s):** Rosen,Gideon Avram

**Description/Objectives:** We take it for granted that normal adults are responsible for what they do. But what does this mean, and is it really true? The course will address central issues in ethics, moral psychology and the philosophy of law. What is free will, and do we possess it? Do our practices of censure and criminal punishment presuppose that we are free? Does reflection on human freedom motivate a revision in these practices?

**Schedule:** 12:30 PM - 01:20 PM T TH

**Introduction to Moral Philosophy**  
**PHI 202**  
**Professor(s):** Nebel,Jacob Morris

**Description/Objectives:** An introduction to central topics of moral philosophy. Questions include: What makes an action morally right or wrong, and why? Is the right action the one with the best consequences? Do our intentions matter for the rightness of our actions? Is there a moral difference between killing someone and letting someone die? Is there 'moral luck'? What makes someone's life go best for her? What is the moral status of future people? Is abortion morally permissible? Is it permissible to kill animals to eat them? Is there a single true morality or is moral truth relative to cultures? Does anything really matter, or did we just evolve to think so?

**Schedule:** 11:00 AM - 11:50 AM T TH

**Introductory Logic**  
**PHI 201**  
**Professor(s):** Halvorson,Hans P.

**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.

**Schedule:** 11:00 AM - 12:20 PM M
Marxism and Race
PHI 357
Professor(s): Dror,Lidal

Description/Objectives: This course introduces students to the political and social philosophy of Marxism and poses a critical question. Can philosophy, so grounded on economics and class oppression, properly account for the ills of racial oppression? In exploring this question, we will look at the theoretical work of Black revolutionaries inspired by Marxism, such as Angela Davis, W. E. B. Du Bois, Claudia Jones and Walter Rodney, as well as work by some contemporary philosophers. This course will familiarize students with the thought of historical figures, and different views of the relationship between racial and class oppression, and how they operate.

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

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

Description/Objectives: The seventeenth and eighteenth centuries was a period of daring innovation. Figures like Descartes and Galileo challenged the inheritance of antiquity. Figures like Leibniz and Berkeley challenged what passed for common sense. Figures like Spinoza and Hume challenged what was accepted as religion. In this class we will introduce students to the study of philosophy by exploring some of the philosophical projects these thinkers and some of their contemporaries pursued, and in that way trace the emergence of the modern philosophical sensibility.

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

Philosophy of Mind
PHI 315
Professor(s): Kerr,Alex

Description/Objectives: This course focuses on several problems in the philosophy of mind: the mind-body problem, the problem of other minds, the problem of personal identity, the problem of free will, and the problem of perception.

Schedule: 01:30 PM - 02:20 PM T TH

Philosophy of Religion
PHI 325
Professor(s): Fullhart, Samuel

Description/Objectives: An examination of central questions in the philosophy of religion, from both historical and contemporary points of view. We will examine
questions in metaphysics about the existence and nature of God, in epistemology about
the justification of religious faith, and in ethics about the relationship between religion,
meaning, and morality.

**Schedule:** 10:00 AM - 10:50 AM T TH

**Philosophy, Religion, and Existential Commitments**
**PHI 211**
**Professor(s):** Buchak,Lara Marie Chignell,Andrew

**Description/Objectives:** The choice of a kind of life involves both fundamental
commitments and day-to-day decisions. This course is interested in zooming out and
zooming in: how should we adopt commitments, and how do we realize them in ordinary
life? What is the purpose of life, and how can you fulfill it? Should you live by an overall
narrative, or is your life just the sum of what you actually do? Are commitments chosen
or given to you? Are the decisions we think of as high stakes important at all? When
should you relinquish what you thought were your deepest commitments? What should
you do when commitments clash?

**Schedule:** 11:00 AM - 11:50 AM M W

**POLITICS**

**Civil Liberties**
**POL 316**
**Professor(s):** George,Robert Peter

**Description/Objectives:** An inquiry into the value of liberty and of particular civil rights
and liberties. The course considers competing theoretical justifications for rights and
liberties generally, as well as problems concerning freedom of speech and the press,
religion, sexuality, abortion, and discrimination. Supreme Court opinions regarding the
constitutionality of legislation in each of these areas will be discussed and criticized.

**Schedule:** 11:00 AM - 12:20 PM T

**Gender and Development**
**POL 357**
**Professor(s):** Goyal,Tanushree

**Description/Objectives:** This course will examine where and why women and men are
not treated equally, how gender inequality impacts human welfare and development, and
what works to minimize gender inequality in the Global South. This course will introduce
students to cutting-edge research on gender inequality in countries as diverse as India,
China, South Korea, Brazil, Tunisia, Saudi Arabia, and Mali, as well as the reasons why
some government efforts to reduce gender inequality are successful while others fail or
even backfire. The course will emphasize the importance of culture and norms.
Community Auditing Program Courses  
2023-2024 Spring

**International Relations**
**POL 240**
**Professor(s):** Blair, Christopher

**Description/Objectives:** This course introduces major theories of international relations, uses them to explain historical events from 10,000 BC to the present, and investigates contemporary policy issues such as human rights, terrorism, US foreign policy, climate change and global environmental regulation. The course also trains students how to write academic analyses, policy memos and media opinion pieces, thus preparing them for more specialized courses and research in international relations, as well as jobs in foreign policy.

**Schedule:** 11:00 AM - 11:50 AM M W

**Judicial Politics**
**POL 320**
**Professor(s):** Kastellec, John

**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.

**Schedule:** 10:00 AM - 10:50 AM M W

**Mass Media, Social Media, & American Politics**
**POL 327**
**Professor(s):** Guess, Andy

**Description/Objectives:** This course considers the role of both mass media and social media in American politics and the influence of the media on Americans' political attitudes, beliefs, and behaviors. We will examine the nature of news and news-making organizations, the role of the news media in electoral campaigns, how the media shape the behavior of politicians once in office, political advertising, and social media's impact on society, both positive and negative.

**Schedule:** 02:30 PM - 03:20 PM M W

**Modern Political Theory**
**POL 303**
**Professor(s):** Conti, Gregory Andrew

**Description/Objectives:** A survey of the foundational texts of modern political theory.
Emphasis is placed on close reading and the reconstruction and analysis of theoretical arguments.

**Schedule:** 11:00 AM - 11:50 AM T TH

**Political Economy of the United States**
**POL 335**
**Professor(s):** McCarty,Nolan

**Description/Objectives:** Many of America's problems are economic in nature, yet politics make the solutions elusive. In "The Political Economy of the United States", this conundrum is explored in detail. We seek to explicitly understand the links between economic outcomes and political processes. Among the concepts explored are special interest influence, the role of money in politics, and regulatory capture. These concepts are brought to life in discussions about key issues and debates such as wealth taxation, the monopolization of social media, and the political effects of economic shocks and de-industrialization.

**Schedule:** 10:00 AM - 10:50 AM T TH

**Radical Political Thought**
**POL 305**
**Professor(s):** Müller,Jan-Werner

**Description/Objectives:** This course will examine traditions of political thought--mostly, but not only, on the Left--which challenge mainstream conceptions of liberal democracy and modern capitalist society. The main focus will be on Marxism, anarchism, feminism, religious radicalism, ecological thought, and critiques of alienation in everyday life. Particular attention is paid to the relationship between political and cultural criticism, and to the philosophical anthropologies underlying different theories as well as the mechanisms for social change they envisage. We also ask if liberal democratic thought can effectively respond to radical challenges.

**Schedule:** 11:00 AM - 11:50 AM M W

**The Politics of Development**
**POL 351**
**Professor(s):** Kohli,Atul

**Description/Objectives:** This course will focus on the state's role in promoting economic growth and distribution in the developing world. The core organizing question for the course is: why some regions of the developing world have been more successful at industrialization and/or poverty alleviation than other regions. The students will learn about the patterns of development in Asia, Africa and Latin America, with special attention to such countries as China, India, South Korea, Nigeria and Brazil. General challenges that face all developing countries - globalization, establishing democracy and
Community Auditing Program Courses
2023-2024 Spring

ethnic fragmentation - will also be analyzed.

Other Information: auditor must attend regularly.

Schedule: 03:30 PM - 04:20 PM M W

PSYCHOLOGY

Health Psychology
PSY 317
Professor(s): Avena, Nicole M.

Description/Objectives: The objectives of this course are to understand the bio-psycho-social/processes that influence health-related behaviors, health and wellness, and healthcare delivery. Topics to be examined include the psycho-physiological, neuro-psychological, and socio-cultural bases of health and illness; pain; adaptation to chronic illness; stress; personality and illness; death, dying, and grief; substance use; obesity and nutrition.

Schedule: 11:00 AM - 11:50 AM T TH

Memory and Cognition
PSY 306
Professor(s): Norman, Kenneth Andrew

Description/Objectives: This course is an integrative treatment of memory in humans and animals. We explore working memory (our ability to actively maintain thoughts in the face of distraction), episodic memory (our ability to remember previously experienced events), and semantic memory (our ability to learn and remember the meanings of stimuli). In studying how the brain gives rise to different kinds of memory, we consider evidence from behavioral experiments, neuroscientific experiments (neuroimaging, electrophysiology, and lesion studies), and computational models.

Schedule: 01:30 PM - 02:50 PM M W

RELIGION

The Religions of China
REL 226
Professor(s): Teiser, Stephen F.

Description/Objectives: A thematic introduction to Chinese religion, ranging from ancient to contemporary. The first half focuses on classics of Chinese philosophy (Book of Changes, Analects of Confucius, Daoist classics, etc.). The second half utilizes journalism, ethnography, films, social media, and author interviews to consider contemporary China, popular movements, state control of religion, cosmology, gods, saints, divination, gender, and ritual.
Community Auditing Program Courses
2023-2024 Spring

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

SLAVIC LANGUAGES AND LITERATURES

Roma (Gypsies) in Eastern Europe
SLA 300
Professor(s): Beissinger, Margaret Hiebert

Description/Objectives: "Roma (Gypsies) in Eastern Europe" treats Romani history, cultural identity, folklore, music, religion, and representations in literature and film. Roma have been enslaved, targeted for annihilation, and persecuted for centuries. Yet they have repeatedly adapted and adjusted to the circumstances surrounding them, persisting as distinctive ethnic communities while simultaneously contributing to and forming part of the dominant worlds in which they live. This course offers novel perspectives on ethnic minorities and the dynamics of culture in Slavic and East European society.

Schedule: 01:30 PM - 02:50 PM T TH

SOCIOLOGY

Political Economy of the Digital Society
SOC 382
Professor(s): Fourcade, Marion

Description/Objectives: The combined deployment of digital systems, massive data collection and computer code have reshaped the basic rules of social life: how people communicate, work, exchange and associate; how they relate to one another, themselves, and the world around them; how institutions, public and private, frame and pursue their social mission and economic purpose; and how they sort, slot, and know populations and individuals. This course will analyze the specificity and power of digital technology as a driver of capital accumulation, a technique of government, an engine of social difference, and a cultural force with its own politics and moral lexicon.

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

Systemic Racism: Myths and Realities
SOC 373
Professor(s): Fernández-Kelly, Patricia

Description/Objectives: This course focuses on the structural and institutional foundations of racial discrimination in the United States. It emphasizes the contributions of sociologists. The course gives a historical overview followed by an investigation of key legislative actions and economic factors inhibiting racial equality. Subsequent topics include migration and immigration; urban development; and residential segregation. The end of the course reviews resistance movements and policies aimed at addressing
systemic racism, including restorative justice and reparations.

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

SCHOOL OF PUBLIC & INTERNATIONAL AFFAIRS

Law, Institutions and Public Policy
SPI 333
Professor(s): Starr, Paul Elliot

Description/Objectives: This course will examine how institutions develop, vary in design, and shape public policy. Law will be a primary focus because it is central to the development of institutions in modern societies and provides the formal means for expressing and fixing policy. The course will cover a wide range of institutions - social, economic, and political - not only in an American context but also in comparative perspective.

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

Problems of Constitutional Power
SPI 391
Professor(s): Pearlstein, Deborah Naomi

Description/Objectives: This course is about how U.S. constitutional law distributes policy-making power among and within the branches of the federal government; between the federal government and the states; between governing officials and the People they govern. It is not about what substantive policy should be, but about who does and should have the power to settle the answer. The course aims to provide students sufficient fluency in the language of law to excel in the world of U.S. public policy.

Schedule: 01:30 PM - 04:20 PM TH

Psychology for Policy
SPI 342
Professor(s): Paluck, Elizabeth Levy

Description/Objectives: This class is for students who are curious about how behavioral science and psychology can be used to inform policymaking. Lectures and readings introduce you to the basic concepts of behavioral science and to the evidence base for behavioral science in policy application. Precept activities help you test out these principles as applied to policy areas that interest you. The course also presents and invites you to explore psychologies that are key to the translation of any policy idea to action, including design thinking, and psychologically wise leadership, conflict management, and communication.

Schedule: 01:30 PM - 03:20 PM W
Psychology of Decision Making/Judgment  
SPI 340  
Professor(s): Gauri, Varun  

**Description/Objectives:** This course is an introduction to the main issues and research findings underlying decision-making and judgment under uncertainty. The focus is on the contrast between the normative theory of judgment and choice, and the psychological principles that guide decision behavior, often producing biases and errors. The course objectives are to introduce students to key issues in the field, discuss how individuals can recognize and address their own decision traps, and understand how policymakers are using the psychology of judgment and decision making to improve human welfare.

**Schedule:** 02:30 PM - 04:20 PM TH

**PROGRAM IN URBAN STUDIES**

Introduction to Urban Studies  
URB 201  
Professor(s): Boyer, M. Christine  

**Description/Objectives:** This course will examine different crises confronting cities in the 21st century. Topics will range from informal settlements, to immigration, terrorism, shrinking population, sprawl, rising seas, affordable housing, gentrification, smart cities. The range of cities will include Los Angeles, New Orleans, Paris, Logos, Caracas, Havana, New York, Hong Kong, Dubai among others.

**Schedule:** 01:30 PM - 02:50 PM W