ECONOMICS (Div II)
Chair: Professor Jon M. Bakija

Associate Chair: Professor Steven Nafziger

- Quamrul H. Ashraf, Halvorsen Professor for Distinguished Teaching and Research of Economics
- Jon M. Bakija, Chair of Economics and W. Van Alan Clark ’41 Third Century Professor in the Social Sciences
- Gregory P. Casey, Assistant Professor of Economics
- Ralph Chami, Visiting Professor of Economics
- Matthew Chao, Associate Professor of Economics
- William M. Gentry, Carl Van Duyne Professor of Economics
- Philip R. Gerson, Visiting Professor of Economics
- Matthew Gibson, Associate Professor of Economics
- Susan Godlonton, Associate Professor of Economics, Chair of Public Health Program; affiliated with: Economics, Public Health
- Katie Gutierrez, Visiting Assistant Professor of Economics
- Caitlin E. Hegarty, Assistant Professor of Economics
- Sarah A. Jacobson, Professor of Economics
- Pamela Jakiela, Associate Professor of Economics
- Kenneth N. Kuttner, Robert F. White Class of 1952 Professor of Economics
- Sara LaLumia, David A. Wells Professor of Economics
- David A. Love, Class of 1969 Professor of Economics
- Steven E. Nafziger, Fairleigh S. Dickinson, Jr. ’41 Professor of Economics
- Will Olney, Professor of Economics
- Owen Ozier, Associate Professor of Economics
- Peter L. Pedroni, William Brough Professor of Economics
- Greg Phelan, Associate Professor of Economics
- Ashok S. Rai, Professor of Economics
- Shyam Raman, Visiting Assistant Professor of Economics
- Neal J. Rappaport, Visiting Professor of Economics
- Michael Samson, Senior Lecturer in Economics
- Lara D. Shore-Sheppard, Dean of the Faculty, Kimberly A. ’96 and Robert R. ’62 Henry Professor of Economics; affiliated with: Dean of the Faculty's Office, Economics
- Anand V. Swamy, Chair of the Executive Committee for the Center for Development Economics and The Willmott Family Third Century Professor of Economics; affiliated with: Economics, Center for Development Economics
- Owen Thompson, Associate Professor of Economics
- Burak Uras, Associate Professor of Economics
- Tara E. Watson, Professor of Economics
- David J. Zimmerman, Professor of Economics and Orrin Sage Professor of Political Economy

GENERAL INFORMATION
The primary objective of the economics major is to develop an understanding of how individuals, organizations and societies meet their material needs. The introductory courses present the fundamental principles of economics at a level that is useful for understanding a wide range of social and policy issues. The core theory courses provide a more rigorous grounding in the tools used in analyzing individual choice, the functioning of markets, and the behavior of output, employment, and inflation. The econometrics course familiarizes students with the methods used to analyze economic data, and equips them with the tools necessary to critique and conduct empirical research. The electives draw on the skills developed in the introductory and core courses to gain a richer understanding of specific aspects of economic behavior and public policy.

Planning for a possible economics major. Given the hierarchical structure of the economics major, students considering an economics major should try to start with ECON 110 during their first year. Since ECON 255 requires a prior statistics course (STAT 161, 201 or 202), prospective economics majors should complete the statistics requirement relatively early in their college careers. Since the 400-level electives typically require at least two of the intermediate core courses (ECON 251, 252, or 255), students are strongly encouraged to complete the core courses by the end of junior year. We prefer that the three intermediate core classes be taken at Williams, so students planning on studying abroad as juniors should aim to complete these courses before departure if possible.

Preparation for graduate school. Graduate study in economics requires considerably more mathematical training than that necessary for the economics major. We advise students who are considering pursuing a Ph.D. to take at a minimum MATH 150 or 151, MATH 250, MATH 350, MATH/STAT 341, and MATH 309. We also advise students to consider electives such as ECON 451, 471, 472, 474, or 475 that present advanced perspectives on contemporary economic theory or econometrics. As graduate schools look for evidence of research aptitude, we also encourage those interested in graduate school to pursue the Honors program.

The economics major and business careers. The analytical and critical thinking skills taught in economics classes are useful for many careers, including business. The major is not designed to provide pre-professional training in business or management, however. Students from a wide variety of majors, including the sciences and humanities, have gone on to successful business careers. We therefore advise those interested in business to acquire a broad exposure to the arts, social science, and natural sciences, and to major in a subject that engages their interest even if that subject is something other than economics.

MAJOR REQUIREMENTS

Nine courses are required for the economics major. These are:

Introductory Courses

- Economics 110 Principles of Microeconomics
- Economics 120 Principles of Macroeconomics. Prerequisite: ECON 110

Passing the quantitative studies exam or the equivalent is a prerequisite for both classes. Both are suitable for non-majors. Courses numbered 200-299 will require one or both as prerequisites.

Core Courses

- Economics 251 Price and Allocation Theory. Prerequisites: differential calculus (MATH 130 or equivalent) and ECON 110
- Economics 252 Macroeconomics. Prerequisites: differential calculus (MATH 130 or equivalent), ECON 110 and ECON 120
- Economics 255 Econometrics. Prerequisites: differential calculus (MATH 130 or equivalent) plus STAT 161, 201 or 202 or a score of 5 on the AP Statistics exam. STAT 101 will also serve as a prerequisite, but only if taken prior to the fall of 2018. STAT 346 can be used to satisfy the ECON 255 major requirement, although not all upper-level electives and seminars accept STAT 346 as a prerequisite in lieu of ECON 255. Students with a double major in Statistics and Economics who choose to use STAT 346 to satisfy the ECON 255 requirement must take an additional ECON elective at any level. POEC 253 may not substitute for ECON 255 in fulfilling the major requirements, although some electives may accept POEC 253 as a prerequisite in lieu of ECON 255.

The three core classes may be taken in any order. All of the 300- and 400-level electives will require at least one of the core classes, and many of the 400-level seminars require ECON 255.

Elective Courses

Students must complete at least four economics electives at the 200-level or higher in addition to the introductory and core classes listed above. At least two must be advanced electives numbered 300 to 398. At least one must be a seminar numbered 400-490. A second seminar may be taken in lieu of a 300-level elective. Enrollment preference for 400-level classes is given to seniors who have not already taken a seminar. Note that some of the advanced electives may have specific requirements beyond the core economics courses and MATH 130. With the permission of the instructor, undergraduates may enroll in 500-level graduate courses given by the Center for Development Economics. These courses can substitute for advanced electives numbered 300-398, unless otherwise noted in the course description.

AP, IB and A-level Exams
The ECON 110 requirement may be waived for students who earned a 5 on the microeconomics AP exam, and the ECON 120 requirement may be waived for those who received a 5 on the macroeconomics AP exam. Both the ECON 110 and 120 requirements may be waived for students who received an A on the A-level exam in economics or earned a 6 or 7 in the higher economics IB exam. A requirement may be waived for students who earned below a 5 on the microeconomics or macroeconomics AP exams or below a 6 on the higher economics IB exam after consultation with the department. In all cases, results from the department placement exam are taken into account in making the determination of whether a requirement will be waived.

Students who started at Williams prior to Fall 2020 will receive major credit for each course requirement that is waived and may complete the major with either eight or seven additional courses, depending on whether they place out of one or both introductory courses. These would include the introductory course for which no advanced placement was granted (if applicable), the three core classes, and four electives.

Students who started at Williams in Fall 2020 and following receive advanced placement, but no reduction in the number of courses required for the major. Completion of a major in Economics requires nine semester courses. These would include the introductory course for which no advanced placement was granted (if applicable) and one additional elective at the 200-level or higher, or two additional electives at the 200-level or higher if both ECON 110 and 120 requirements are waived, the three core theory classes, and the four electives.

A score of 5 on the statistics AP exam, a 6 or a 7 on the statistics IB exam, or an A on the A-level statistics exam will satisfy the statistics prerequisites for ECON 255.

STUDY ABROAD AND TRANSFER CREDIT

Students may receive credit towards the major for college courses taken at other institutions, including those taken as part of a study abroad program. Most economics courses taken elsewhere that have an introductory economics prerequisite will qualify for 200-level elective credit. Some may be able to count towards a specific departmental requirement, including the introductory or core courses, or qualify as a 300-level elective. In order to receive major credit, courses must count towards the student's Williams degree. Students wanting major credit for courses taken outside of Williams should contact the Department’s Coordinator for Transfer/Study Abroad Credit prior to taking the course for approval. (The Department’s web site will indicate which faculty member is serving as the Coordinator.) General study away guidelines for Economics are posted at econ.williams.edu/major/study-abroad.

THE DEGREE WITH HONORS IN ECONOMICS

Graduating with honors requires the completion of a substantial piece of independent research. Those with an economics GPA of at least 3.5 are encouraged to apply. In addition, because theses typically make use of empirical methods, those considering writing a thesis are strongly advised to complete Econ 255 before the end of junior year.

The honors program involves working closely with a faculty adviser on a subject related to the faculty member’s area of expertise. The first step in pursuing honors is therefore to develop a thesis proposal in consultation with a faculty adviser. The proposal is then submitted to the Department for approval.

The Department offers both a half-year and a full-year honors program:

The half-year program entails enrolling in a one-semester seminar plus a WSP class. Students may either enroll in ECON 491 in the fall semester and ECON 30 during winter study, or they may take ECON 30 during winter study and ECON 492 in the spring. Proposals for a fall semester thesis are due in May of the junior year, while those doing a spring thesis will submit their proposals in December of the senior year. Those choosing the half-year option often base their projects on research that had been initiated in an advanced elective or a seminar, although this is not a requirement.

The full-year program involves taking ECON 493 in the fall, ECON 31 during winter study, and ECON 494 in the spring. Proposals are due in May of the junior year.

Both programs require students to remain on campus during winter study.

Prospective honors students considering studying abroad during their junior year should plan to complete the core courses and at least one 300-level elective by the end of their sophomore year. They are also urged to begin their collaboration with their intended adviser prior to departure, and to consult with the Director of Research on the options for pursuing honors. (The Department’s web site will indicate which faculty member is serving as the Director of Research.)

Further details on the two routes, the application procedure and deadlines are contained in memos sent to economics majors in the spring and fall semesters. The information is also available on the Department’s web site.

In addition to completing the research project, the College requires that in order to graduate with honors, students must take at least one course in addition to the minimum number required for the major. Students in the full-year program may substitute ECON 493 for an upper-level elective (excluding those numbered 400-490). Students enrolled in the half-year program may not substitute ECON 491 or 492 for one of their electives.

GRADUATE COURSES IN DEVELOPMENT ECONOMICS

Graduate courses given by the Center for Development Economics are open to undergraduates who have taken the prerequisites, although in
most cases, permission of instructor is also required. Unless otherwise specified in the course description, these courses can substitute for electives numbered 300-398 in the major.

**ECON 105 (F) Gender in the Global Economy (DPE)**

**Cross-listings:** WGSS 211

**Secondary Cross-listing**

This course will present a feminist economic analysis of the global economy, and some of the urgent issues facing women in the Global South. The course will start by developing theoretical resources: these will include feminist critiques of economic theory, work on care labor and the shifting boundaries between markets, governments, households and the environment, and discussions of intersectionality and difference. Then we will discuss a series of interlinked issues which may include the contradictory effects of structural adjustment and its successors; the informal sector and global value chains; the economics of sex work and global sex trafficking; climate change; and migration. We will finish by looking at community-based activism, non-governmental organizations, and the possibilities for North/South alliances.

**Class Format:** lecture/discussion

**Requirements/Evaluation:** reaction papers, research paper; participation in class discussion will count for part of the grade

**Prerequisites:** none

**Enrollment Limit:** 20

**Enrollment Preferences:** Women's, Gender and Sexuality Studies majors

**Expected Class Size:** 12

**Grading:** no pass/fail option, yes fifth course option

**Unit Notes:** This course cannot count toward the ECON major.

**Distributions:** (D2) (DPE)

**This course is cross-listed and the prefixes carry the following divisional credit:**

ECON 105(D2) WGSS 211(D2)

**Difference, Power, and Equity Notes:** This course meets the DPE requirement because it asks students to reflect critically on issues of gender and economic power around the world in a comparative contextual framework.

**Attributes:** GBST Economic Development Studies  WGSS Racial Sexual + Cultural Diversity Courses

Fall 2024

SEM Section: 01    TF 2:35 pm - 3:50 pm    Kiaran Honderich

**ECON 110 (F)(S) Principles of Microeconomics (QFR)**

This course is an introduction to the study of the forces of supply and demand that determine prices and the allocation of resources in markets for goods and services, markets for labor, and markets for natural resources. The focus is on how and why markets work, why they may fail to work, and the policy implications of both their successes and failures. The course focuses on developing the basic tools of microeconomic analysis and then applying those tools to topics of popular or policy interest such as minimum wage legislation, pollution control, competition policy, international trade policy, discrimination, tax policy, and the role of government in a market economy.

**Requirements/Evaluation:** problem sets, quizzes, short essays, two midterms, final exam

**Prerequisites:** none

**Enrollment Limit:** 40

**Enrollment Preferences:** This course is required of Economics and Political Economy majors and highly recommended for those non-majors interested in Environmental Studies and Women's, Gender and Sexuality Studies.

**Expected Class Size:** 40

**Grading:** yes pass/fail option, no fifth course option

**Unit Notes:** The department recommends students follow this course with ECON 120 or with a lower-level elective that has ECON 110 as its
prerequisite; students may alternatively proceed directly to ECON 251 after taking this introductory course.

**Distributions:** (D2) (QFR)

**Quantitative/Formal Reasoning Notes:** Course involves mathematical modeling of real-world phenomena, analyzing quantitative results, and describing those results in words.

**Attributes:** POEC Required Courses

---

**Fall 2024**

<table>
<thead>
<tr>
<th>Section</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>TF</td>
<td>1:10 pm - 2:25 pm</td>
<td>Matthew Chao</td>
</tr>
<tr>
<td>02</td>
<td>TF</td>
<td>2:35 pm - 3:50 pm</td>
<td>Matthew Chao</td>
</tr>
<tr>
<td>03</td>
<td>TR</td>
<td>11:20 am - 12:35 pm</td>
<td>Susan Godlonton</td>
</tr>
<tr>
<td>04</td>
<td>TR</td>
<td>9:55 am - 11:10 am</td>
<td>Owen Thompson</td>
</tr>
<tr>
<td>05</td>
<td>MWF</td>
<td>8:30 am - 9:45 am</td>
<td>Nate Vellekoop</td>
</tr>
<tr>
<td>06</td>
<td>MWF</td>
<td>11:00 am - 12:15 pm</td>
<td>Nate Vellekoop</td>
</tr>
</tbody>
</table>

**Spring 2025**

<table>
<thead>
<tr>
<th>Section</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>TF</td>
<td>1:10 pm - 2:25 pm</td>
<td>Ethan Holdahl</td>
</tr>
<tr>
<td>02</td>
<td>TF</td>
<td>2:35 pm - 3:50 pm</td>
<td>Ethan Holdahl</td>
</tr>
</tbody>
</table>

**ECON 120 (F)(S) Principles of Macroeconomics** (QFR)

This course provides an introduction to the study of the aggregate national economy. It develops the basic theories of macroeconomics and applies them to topics of current interest. Issues to be explored include: the causes of inflation, unemployment, recessions, and depressions; the role of government fiscal and monetary policy in stabilizing the economy; the determinants of long-run economic growth; the long- and short-run effects of taxes, budget deficits, and other government policies on the national economy; the role of financial frictions in amplifying recessions; and the workings of exchange rates and international finance.

**Requirements/Evaluation:** Depending on instructor, may include: problem sets, short essays, quizzes, reading assignments, either one or two midterms, and a final exam.

**Prerequisites:** ECON 110

**Enrollment Limit:** 40

**Enrollment Preferences:** First-year students and sophomores.

**Expected Class Size:** 40

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D2) (QFR)

**Quantitative/Formal Reasoning Notes:** Course involves mathematical modeling of real-world phenomena, analyzing quantitative results, and describing those results in words.

**Attributes:** POEC Required Courses

---

**Fall 2024**

<table>
<thead>
<tr>
<th>Section</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>MWF</td>
<td>11:00 am - 12:15 pm</td>
<td>Bumsoo Kim</td>
</tr>
<tr>
<td>02</td>
<td>TR</td>
<td>9:55 am - 11:10 am</td>
<td>David A. Love</td>
</tr>
</tbody>
</table>

**Spring 2025**

<table>
<thead>
<tr>
<th>Section</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>MR</td>
<td>1:10 pm - 2:25 pm</td>
<td>Caitlin E. Hegarty</td>
</tr>
<tr>
<td>02</td>
<td>MR</td>
<td>2:35 pm - 3:50 pm</td>
<td>Caitlin E. Hegarty</td>
</tr>
<tr>
<td>03</td>
<td>TR</td>
<td>11:20 am - 12:35 pm</td>
<td>Bumsoo Kim</td>
</tr>
<tr>
<td>04</td>
<td>MWF</td>
<td>11:00 am - 12:15 pm</td>
<td>David A. Love</td>
</tr>
<tr>
<td>05</td>
<td>TR</td>
<td>8:30 am - 9:45 am</td>
<td>Will Olney</td>
</tr>
</tbody>
</table>
ECON 204 (S) Global Poverty and Economic Development  (DPE)

Cross-listings: ENVI 234

Primary Cross-listing

Why are some nations rich while other nations are poor, and what can be done to end global poverty and promote shared prosperity? This course explores the historical determinants of global poverty and inequality, and analyzes the range of policy options available to promote economic development and equalize opportunities. Drawing on research in development economics, development studies, political science, and anthropology, we seek to understand the factors that shaped the global economy and contributed to the cross-country income disparities observed today. In addition, we'll use the tools of modern empirical microeconomics to assess the possibilities for eliminating global poverty and underdevelopment in the future. Undergraduate students will receive 200-level credit and should not register at the 500-level.

Class Format: discussion

Requirements/Evaluation: class discussion, short written assignments and/or empirical exercises, in-class quizzes and exams

Prerequisites: one economics course or permission of instructor

Enrollment Limit: 25

Enrollment Preferences: first-year and sophomore students

Expected Class Size: 25

Grading: no pass/fail option, yes fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 204(D2) ECON 507(D2) ENVI 234(D2)

Difference, Power, and Equity Notes: This course provides a setting for students to learn about the causes and consequences of poverty in developing countries. It requires students to engage with questions of political and economic power, stressing attentiveness to how market relationships may not generate welfare-maximizing opportunities for poor and marginalized populations. The course builds analytical and empirical skills for diagnosing and addressing constraints on economic development.

Attributes: ENVI Environmental Policy  GBST African Studies  GBST Economic Development Studies  POEC Comparative POEC/Public Policy Courses

Not offered current academic year

---

ECON 205 (F) Public Economics

This course examines the role of the government in the economy. We consider three broad issues: When should governments intervene in the economy? What is the most effective form of intervention? What effects do government policies have on incentives and behavior? In addition to a theoretical perspective, we will discuss particular government spending programs in the United States, including Social Security, various types of publicly-provided insurance, spending on education, and public assistance for the poor. Finally, we will study how the government raises revenue through taxation. We will discuss the principles that guide tax design and consider the effects of the tax code on behavior.

Class Format: Lecture / discussion format.

Requirements/Evaluation: problem sets, short writing assignments, participation in discussion and activities, midterm exam, and final exam

Prerequisites: ECON 110

Enrollment Limit: 25

Enrollment Preferences: Prospective economics and political economy majors

Expected Class Size: 20

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

Attributes: PHLH Decision-Making by Institutions + Individuals  POEC Depth

Not offered current academic year

---

ECON 213 (S) Introduction to Environmental and Natural Resource Economics  (QFR)

Cross-listings: ENVI 213 / CAOS 213
Primary Cross-listing

We'll use economics to provide one perspective on reasons humans harm the environment and overuse natural resources, and what we can do about it. We'll study climate change, pollution in general, cost benefit analysis, environmental justice, natural resources (like fisheries, forests, and fossil fuels), and energy. We'll talk about how economists put a dollar value on nature and ecosystem services (as well as human health and life!), and the concerns people may have about doing so. We will take an economic approach to global sustainability, and study the relationship between the environment and economic growth. Consideration of justice and equity will be woven throughout the whole semester.

Requirements/Evaluation: problem sets, short essays, final paper; intermediate assignments may include a poster, one or more short presentation(s), other brief writing assignment(s)

Prerequisites: ECON 110 or equivalent

Enrollment Limit: 30

Enrollment Preferences: first-year and sophomore students

Expected Class Size: 30

Grading: yes pass/fail option, yes fifth course option

Unit Notes: this course will count toward both the Environmental Studies major and concentration

Distributions: (D2)  (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 213(D2) ENVI 213(D2) CAOS 213(D2)

Quantitative/Formal Reasoning Notes: We will use formal theory expressed in math and graphs, perform calculations, and consume statistical data.

Attributes: ENVI Environmental Policy  EVST Social Science/Policy  POEC Depth

Spring 2025

LEC Section: 01    MWF 8:30 am - 9:45 am     Sarah A. Jacobson

ECON 214 (F) The Economics and Ethics of CO2 Offsets  (WS)

Cross-listings: ENVI 212

Primary Cross-listing

Some electric utilities and other CO2 emission polluters are allowed to purchase carbon offsets to achieve a portion of their mandated emissions cuts, in effect, to pay others to reduce carbon emissions in their stead. Some individuals, college and universities, and for-profit and non-profit institutions have chosen voluntarily to purchase carbon offsets as a way of reducing their carbon footprint. But do offsets actually succeed in reducing carbon emissions? What separates a legitimate offset from one that is not? How should we measure the true impact of an offset? How do carbon offsets compare to other policies for reducing carbon emissions in terms of efficiency, equity, and justice? Is there something inherently wrong about "commodifying" the atmosphere? Is there something inherently wrong about selling or buying the right to pollute? Should colleges and universities be using the purchase of offsets to achieve "carbon neutrality?"

Class Format: Each student will be the tutorial partner of one other student, and each pair of tutorial partners will meet with the instructor for 75 minutes each week.

Requirements/Evaluation: a 5- to 7-page paper every other week; a 3-page written critique every other week; one re-write paper

Prerequisites: ECON 110 or the equivalent, permission of instructor

Enrollment Limit: 10

Enrollment Preferences: first-year students and sophomores intending to major in Economics and/or to major or concentrate in Environmental Studies

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)  (WS)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 214(D2) ENVI 212(D2)

Writing Skills Notes: Each student will write five 5-7 page papers on which I will provide written feedback regarding grammar, style, and argument.
Each student will write five 3-page critiques of their partner's papers. As the final assignment, each student will revise one of their five papers.

Attributes: ENVI Environmental Policy POEC Depth

Not offered current academic year

ECON 215 (F) Globalization

Cross-listings: GBST 315 / CAOS 216

Primary Cross-listing

This course will examine the causes and consequences of globalization. This includes studying topics such as trade, immigration, foreign direct investment, and offshoring. The impact of these forms of globalization on welfare, wages, employment, and inequality will be a focal point. Throughout we will rely on economic principles, models, and empirical tools to explain and examine these contentious issues.

Class Format: discussion

Requirements/Evaluation: problem sets, two midterms, and a final paper and presentation

Prerequisites: ECON 110

Enrollment Limit: 25

Expected Class Size: 25

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

GBST 315(D2) ECON 215(D2) CAOS 216(D2)

Attributes: GBST Economic Development Studies POEC Depth

Fall 2024

LEC Section: 01 TR 8:30 am - 9:45 am Will Olney

LEC Section: 02 TR 9:55 am - 11:10 am Will Olney

ECON 216 (S) Global Crises and Socio-Economic Policies

Socio-economic policies (health, education, welfare, jobs) that respond to global crises have evolved over the past four decades. For most of the last century, macroeconomic priorities in developing countries constrained the potential of these policies during crisis periods when governments faced pressure to cut public spending, with adverse consequences for the most vulnerable. However, over the past two decades, developing country governments have increasingly integrated health, education, welfare and employment policies to counter shocks and build economic resilience. These more comprehensive responses proved vital during the COVID-19 crisis's cascading series of epidemiological, economic, social, and political shocks, as public health measures created severe livelihoods disasters for the most vulnerable. In this respect, COVID-19 serves as a harbinger of the future shocks that climate change threatens.

This tutorial will focus on how developing country governments can build bridges across vital policy sectors—particularly health, education, welfare and employment—and link these to other economic interventions in order to better tackle future global crises. Building on a historical analysis, the course will examine the path-breaking examples of many developing countries' bold responses to the COVID-19 pandemic, the resulting fiscal challenges, and the lessons these offer for future crises including those resulting from climate change. The course will conclude with a forward-looking exercise, examining the role of integrated health, education, welfare and employment policies in better enabling developmental responses to both climate change adaptation and mitigation strategies. This will include an exploration of the emerging work across the global South on a Just Transition to green and sustainable development, which aims to optimally integrate climate, development and equity strategies.

Requirements/Evaluation: Students will write five papers during the term and will prepare and deliver formal comments on five papers written by your tutorial partner.

Prerequisites: Econ 110 or equivalent

Enrollment Limit: 10

Enrollment Preferences: First-year students and sophomores intending to major in economics.

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option
Distributions: (D2)
Attributes: GBST Economic Development Studies  POEC Depth
Not offered current academic year

ECON 218 (F) Capital and Coercion  (DPE)
Cross-listings: CAOS 218

Primary Cross-listing
Capital, tradable ownership shares in long-lived corporations, invented in the 17th century, has connected people of different races, religions, and geographies. There are huge profits from such economic interactions, but also risks: of being cheated, deceived, or coerced. This course uses insights from the economics of incentives (principal-agent models, contracts, mechanism design) to investigate the interplay between capital, coercion, and resistance. The role of prejudice will be central, as will the rise of middlemen as enforcers of coercion. Case studies span the 17th century to the 20th and include: the spice trade and conflict in the Indian Ocean, capital markets and fraud in Amsterdam and London, the Atlantic trade in enslaved people, the Dutch "cultivation system" in Java, the slow end of slavery in Brazil, and colonial control and independence in Kenya. Required readings for this class will include primary historical sources, and even excerpts from autobiographical novels!

Requirements/Evaluation: Students will be evaluated based on weekly reading responses, class participation, a midterm and a final.
Prerequisites: Econ 110
Enrollment Limit: 15
Enrollment Preferences: If overenrolled, students will be asked to submit a short statement of interest.
Expected Class Size: 15
Grading: no pass/fail option,  no fifth course option
Distributions: (D2)  (DPE)
This course is cross-listed and the prefixes carry the following divisional credit:
CAOS 218(D2)  ECON 218(D2)

Difference, Power, and Equity Notes: This course analyzes the evolution of economic inequity. It analyzes how global market opportunities have been shaped by race, religion, wealth, and power.
Attributes: GBST Economic Development Studies  POEC Depth
Not offered current academic year

ECON 219 (S) Global Economic History  (WS)
What generated the rise of agricultural civilizations and early empires in the ancient world? Why did Western Europe--and not China, India, or the Middle East--first experience the Industrial Revolution? Why did Latin America stagnate over the 20th century, while Japan and eventually China and India boomed? What explains the historical success of the US economy? Why did the Soviet Union rise and fail? And why was African economic growth slow for so long before taking off in recent decades? These and other questions will guide our exploration of global economic development over the past several millennia. Our focus will be broadly comparative across space and time, with an emphasis on how institutions, resource endowments, culture, technology, and market forces help explain economic differences and change around the world. Throughout the course, we will draw on micro and macroeconomic concepts and simple empirical tools to understand and interpret the historical roots of the modern global economy.

Class Format: tutorial; weekly one hour meetings in groups of two
Requirements/Evaluation: evaluation will be based on five 5- to 6-page papers, critiques of fellow students’ papers, a longer revision of a paper, and engagement in discussion
Prerequisites: ECON 110 and ECON 120 or equivalent courses subject to instructor approval
Enrollment Limit: 10
Enrollment Preferences: first-year students and sophomores intending to major in Economics and/or History
Expected Class Size: 10
Grading: no pass/fail option,  no fifth course option
Distributions: (D2)  (WS)
Writing Skills Notes: This tutorial course requires students to write five 5-7-page papers, to write 1-2 page responses to their tutorial partner's papers, and to revise and extend one of their papers into a larger final paper of approximately 10-12 pages. Along the way, I offer detailed comments on all of their writing, with an eye towards producing a very polished final paper.

Attributes: GBST Economic Development Studies

Spring 2025
TUT Section: T1 TBA Steven E. Nafziger

ECON 220 (F) We Hold These Truths: Growth, Change, and Struggle in American Economic History

This course examines the growth and development of the American economy from the colonial era to today. The emphasis will be on the use of economic theory and quantitative evidence to explore key questions and themes in U.S. history. While we will study the key drivers of longer-term American economic success, we will also concentrate on the experiences of those marginalized, coerced, or otherwise oppressed over this history. Topics may include some or all of the following: the development of colonial markets, the economics of the U.S. Constitution, Native Americans in the American economy, slavery and racial inequality, innovation, industrialization, government regulation and policymaking, the Great Depression, the changing roles of women in the U.S. economy, post-World War II growth, the construction of the social safety net, and the place of the United States in the modern global economy. Comparisons will be made to European and non-European experiences when appropriate.

Class Format: lecture/seminar
Requirements/Evaluation: small exams, short assignments, and a research paper
Prerequisites: ECON 110 and 120
Enrollment Limit: 30
Enrollment Preferences: Sophomores and juniors
Expected Class Size: 30
Grading: yes pass/fail option, yes fifth course option
Distributions: (D2)
Attributes: POEC U.S. Political Economy + Public Policy Course

Not offered current academic year

ECON 227 (F) Acquiring Art: Selecting and Purchasing Objects For WCMA

Cross-listings: ARTH 527 / ARTH 327
Secondary Cross-listing

How do museums acquire art? Factors considered in selecting objects include: the museum's existing collection, its mission, the availability of suitable objects, evaluation of the art historical importance of potential purchases, and the available budget. How can objects be identified and obtained at the most reasonable cost? How do auctions work and what strategies are best for purchasing works at auction? Is it more economical to purchase art at auction or to work with dealers or (for contemporary works) directly with artists? Do museums consider value in the same way as private collectors? What role does an object's history and condition play in the evaluation process? In this course students will work as teams to identify and propose objects for addition to the collection of the Williams College Museum of Art (WCMA). A significant budget will be made available for the acquisition. We will discuss approaches for identification, acquisition and evaluation of objects. Student teams will be responsible for identifying a set of objects that would make appropriate additions to the WCMA collection, and a strategy for acquiring one or more of those objects. Working with the advice of WCMA curatorial staff, one or more of these objects will be acquired using the agreed strategy, and the object will become part of the WCMA permanent collection. Graduate students will participate in all aspects of the class but may be required to undertake different assignments.

Requirements/Evaluation: Three papers of 10-15 pages each and class participation; student teams will make proposals for objects; each student will be required to submit three papers, dealing with the objects, the likely cost, and the best strategy for acquisition.
Prerequisites: ECON 110 or permission of instructor
Enrollment Limit: 20
Enrollment Preferences: Senior majors in Art History, Economics and Political Economy; graduate students will be admitted only by permission of instructors
Expected Class Size: 20
ECON 229  (F)  Law and Economics  (QFR)
This course applies the tools of microeconomic analysis to private (i.e., civil) law. This analysis has both positive and normative aspects. The positive aspects deal with how individuals respond to the incentives created by the legal system. Examples include: how intellectual property law encourages the creation of knowledge while simultaneously restricting the dissemination of intellectual property; how tort law motivates doctors to avoid malpractice suits; and how contract law facilitates agreements. The normative aspects of the analysis ask whether legal rules enhance economic efficiency (or, more broadly, social welfare). Examples include: what legal rules are most appropriate for mitigating pollution, ensuring safe driving, and guaranteeing workplace safety? The course will also cover the economics of legal systems; for example, what are the incentives for plaintiffs to initiate lawsuits and what role do lawyers play in determining outcomes.

Class Format: discussion
Requirements/Evaluation: class participation, problem sets, paper based on actual court cases, a midterm exam, and a final exam
Prerequisites: ECON 110
Enrollment Limit: 35
Enrollment Preferences: ECON and POEC majors (and potential majors) will receive priority if the course is overenrolled
Expected Class Size: 20
Grading: yes pass/fail option, yes fifth course option
Distributions: (D2)  (QFR)
Quantitative/Formal Reasoning Notes: This course uses economic models to explore the logic of legal concepts. While some arguments will be qualitative, students will also use numerical examples to illustrate the principles of the course.
Attributes: JLST Interdepartmental Electives  POEC Depth

Fall 2024
SEM Section: 01  W 7:00 pm - 9:40 pm  William M. Gentry

ECON 230  (S)  The Economics of Health and Health Care  (WS)
What is health? How do we improve it? Health is an essential component of individual well-being and a fundamental input to a productive economy, making its production a societal priority, as well as an individual one. This course examines the economics of the supply and demand for health through applied microeconomic analysis. The course focuses on three broad areas: the inputs to health and the demand for health care; the structure and functioning of health care markets and the roles of key institutions; and the role of public policy in furthering individual and population health. Special attention will be devoted to topics of current policy interest, including health disparities, problems of health care costs and cost containment, health insurance reform and the Affordable Care Act, the role of public health interventions, and drug development and regulation.

Class Format: The class is a mixture of lecture and discussion.
Requirements/Evaluation: Several short papers, participation in class discussion, and a final research project and presentation.
Prerequisites: ECON 110 and a class in statistics
Enrollment Limit: 30
Enrollment Preferences: Economics majors who need a 200-level elective, Political Economy majors, and Public Health concentrators
Expected Class Size: 30
Grading: no pass/fail option, yes fifth course option
Distributions: (D2)  (WS)
Writing Skills Notes: Students will write 3 policy memos over the course of the semester. Synthesis of peer-reviewed literature, use of citation
management systems, and clarity in technical writing will be emphasized. Students will receive timely, substantial, individualized feedback to develop their technical writing ability over the course of the semester. Opportunities to meet with professor outside of class at any stage of writing.

**Attributes:** PHLH Decision-Making by Institutions + Individuals  POEC Depth  POEC Skills

**Spring 2025**
LEC Section: 01  TR 11:20 am - 12:35 pm  Shyam Raman

**ECON 231  (S)  The Economics of Inequality**
There are many outcomes in the United States that show profound levels of inequality: education, earnings, wealth, housing, environmental health, and life expectancy, just to name a few. This course examines the economic forces that drive and/or explain these inequalities in the U.S. The beginning of the course covers definitions and economic techniques used to measure income and wealth inequality, as well as differences between perceived and actual inequalities. We then move on to the theoretical underpinnings of the rise of domestic economic inequality, as well as models and theories of discrimination. Finally, we will explore how economic inequalities carry over into health, housing, and environmental quality through policies or social mechanisms. We will discuss and investigate the following questions and more: How are skill and education related to income? How do income and health interact, and which causes the other? How is the level of economic inequality in the country perceived? Which historic policies have led to specific inequalities, and was the inequality an intentional or inadvertent outcome? What have other countries done differently, and how does what the U.S. has done compare in terms of disparities? What exactly is discrimination, and what are the cumulative effects of it in the labor market and health outcomes?

**Class Format:** Lecture and small discussion groups

**Requirements/Evaluation:** Several short papers (peer- and instructor-reviewed), article review, and final project and presentation

**Prerequisites:** ECON 110

**Enrollment Limit:** 25

**Enrollment Preferences:** Economics majors

**Expected Class Size:** 25

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D2)

**Attributes:** POEC Depth

Not offered current academic year

**ECON 232  (S)  Financial Markets, Institutions and Policies  (QFR)**
The focus of the course will be on how firms, financial markets, and central banks interact in the economy. Key questions addressed in the course include: How do firms allocate their resources to enhance their value? How are firms evaluated by the financial markets? How are asset prices determined, and how are these prices related to interest rates? Are financial markets efficient, and what are the implications of their efficiency or lack thereof? How does the financial system help with the management of risks faced by society? We will also study the role of the central bank (the Federal Reserve in the US), monetary policy, and government regulation and their impacts on financial decision making. Key questions include: How do central banks set monetary policy and how do those policies affect the economy and the financial decision-making process? How does monetary policy change when interest rates are (virtually) zero?

**Class Format:** There will be a mix of lecture and discussion.

**Requirements/Evaluation:** 5-7 Problem Sets, Quantitative Exercises, Group Paper, and Final Exam

**Prerequisites:** ECON 110 and ECON 120

**Enrollment Limit:** 25

**Enrollment Preferences:** Sophomore and Junior Economics majors

**Expected Class Size:** 25

**Grading:** yes pass/fail option, no fifth course option

**Distributions:** (D2)  (QFR)

**Quantitative/Formal Reasoning Notes:** We will use mathematical models, graphs, and data analysis to understand financial decisions at the firm and economy-wide levels.
**ECON 233 (S) Behavioral Economics and Public Policy**

In many ways, the fields of psychology and economics both study the same phenomena: the motives that guide our decision-making across different contexts. This course provides a survey of the ways in which these two fields intersect, i.e., behavioral economics. Topics include how individual responses to economic incentives can be influenced by heuristics, framing, social norms, and other psychological motives; we will also study how these concepts are incorporated into microeconomics models. Concurrently, the course will review applications of these ideas to public policy and firm strategy. For instance, we will examine how behavioral economics has informed efforts to reduce poverty, increase environmental conservation, encourage long-term financial planning, and improve health and diet outcomes, among many other topics. The course will also discuss whether and how we ought to judge which behaviors are socially desirable and worth encouraging through policy.

**Requirements/Evaluation:** One midterm, one final exam, 4-6 problem sets, and 1-2 writing assignments

**Prerequisites:** ECON 110

**Enrollment Limit:** 30

**Enrollment Preferences:** If over-enrolled, I will aim to accept a mix of years and majors

**Expected Class Size:** 30

**Grading:** yes pass/fail option, no fifth course option

**Distributions:** (D2)

**Attributes:** POEC Depth  POEC Skills

---

**ECON 240 (S) Colonialism and Underdevelopment in South Asia**  (DPE)  (QFR)

**Cross-listings:** ASIA 241

**Primary Cross-listing**

British colonial rule in South Asia shaped economy and society in fundamental ways. As resistance to colonial rule emerged in the late nineteenth century, "nationalist" writers developed a critique of its economic impact via taxation, fiscal policy, trade, and many other policies. In their turn, supporters of British rule, "apologists," argued that British rule had laid the foundations of economic growth by securing property rights, enforcing contracts, and developing infrastructure. The debate between "nationalists" and "apologists" has never quite ended, but after the recent growth of the Indian economy it has lost some of its emotional charge. We will use this opportunity to revisit the controversy.

**Requirements/Evaluation:** essays (one every other week) and responses to partner's essays will be evaluated

**Prerequisites:** one course in ECON

**Enrollment Limit:** 10

**Enrollment Preferences:** Economics major, prior course on South Asia

**Expected Class Size:** 10

**Grading:** no pass/fail option, no fifth course option

**Distributions:** (D2)  (DPE)  (QFR)

**This course is cross-listed and the prefixes carry the following divisional credit:**

ASIA 241(D2) ECON 240(D2)

**Difference, Power, and Equity Notes:** Issues of difference, power, and equity are at the heart of any analysis of colonialism, hence the DPE designation.

**Quantitative/Formal Reasoning Notes:** Students will write six essays, in which they will employ economic models and engage with quantitative evidence, so the course satisfies the QFR requirement.
ECON 251 (F)(S) Price and Allocation Theory (QFR)
A study of the determination of relative prices and their importance in shaping the allocation of resources and the distribution of income. Subjects include: behavior of households in a variety of settings, such as buying goods and services, saving, and labor supply; behavior of firms in various kinds of markets; results of competitive and noncompetitive markets in goods, labor, land, and capital; market failure; government policies as sources of and responses to market failure; welfare criteria; limitations of mainstream analysis.

Requirements/Evaluation: Requirements vary by professor, but typically include frequent problem sets and multiple exams, including a final exam. They may also include one or more quizzes, short essays, collaborative projects, or presentations.

Prerequisites: ECON 110 and MATH 130 or its equivalent

Enrollment Limit: 30

Enrollment Preferences: Current or prospective Economics majors.

Expected Class Size: 30

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2) (QFR)

Quantitative/Formal Reasoning Notes: Course involves developing and analyzing mathematical models of real-world phenomena, grounded in tools like calculus and game theory. Students are assumed to be comfortable with topics from introductory calculus, including differentiation and integration.

Fall 2024
LEC Section: 01 MR 1:10 pm - 2:25 pm Greg Phelan
LEC Section: 02 MR 2:35 pm - 3:50 pm Greg Phelan
LEC Section: 03 TF 1:10 pm - 2:25 pm Ethan Holdahl

Spring 2025
LEC Section: 01 TR 9:55 am - 11:10 am Greg Phelan
LEC Section: 02 MR 1:10 pm - 2:25 pm Sara LaLumia
LEC Section: 03 MR 2:35 pm - 3:50 pm Sara LaLumia

ECON 252 (F)(S) Macroeconomics (QFR)
A study of aggregate economic activity: output, employment, inflation, and interest rates. The class will develop a theoretical framework for analyzing economic growth and business cycles. The theory will be used to evaluate policies designed to promote growth and stability, and to understand economic developments in the U.S. and abroad. Instructors may use elementary calculus in assigned readings, exams and lectures.

Requirements/Evaluation: Requirements vary by professor, but typically include frequent problem sets and/or written assignments, midterm(s), and a final exam.

Prerequisites: ECON 110 and 120 and MATH 130 or its equivalent

Enrollment Limit: 30

Enrollment Preferences: Current or prospective Economics majors.

Expected Class Size: 30

Grading: yes pass/fail option, no fifth course option

Distributions: (D2) (QFR)

Quantitative/Formal Reasoning Notes: Course involves mathematical modeling of real-world phenomena, analyzing quantitative results, and describing those results in words.

Fall 2024
LEC Section: 01 TR 8:30 am - 9:45 am Kenneth N. Kuttner
LEC Section: 02 MR 1:10 pm - 2:25 pm Burak Uras
ECON 255  (F)(S)  Econometrics  (QFR)
An introduction to the theory and practice of applied quantitative economic analysis. This course familiarizes students with the strengths and weaknesses of the basic empirical methods used by economists to evaluate economic theory against economic data. Emphasizes both the statistical foundations of regression techniques and the practical application of those techniques in empirical research, with a focus on understanding when a causal interpretation is warranted. Computer exercises will provide experience in using the empirical methods, but no previous computer experience is expected. Highly recommended for students considering graduate training in economics or public policy.

Requirements/Evaluation:  Requirements vary by professor, but typically include frequent problem sets, multiple exams, a group project, and possible additional assignments or quizzes.

Prerequisites:  MATH 130, plus STAT 161, 201 or 202 (or equivalent, including a score of 5 on the AP Statistics Exam), plus one course in ECON; STAT 101 will also serve as a prerequisite, but only if taken prior to the fall of 2018

Enrollment Limit:  30

Enrollment Preferences:  Current or prospective Economics and Political Economy majors.

Expected Class Size:  30

Grading:  no pass/fail option,  no fifth course option

Unit Notes:  Students may substitute the combination of STAT 201 and 346 for ECON 255

Distributions:  (D2)  (QFR)

Quantitative/Formal Reasoning Notes:  Course teaches research tools necessary to analyze data.

Attributes:  POEC Required Courses

Fall 2024
LEC Section:  01    TR 11:20 am - 12:35 pm    Owen Ozier
LEC Section:  02    MWF 8:30 am - 9:45 am    Shyam Raman
LEC Section:  03    TR 8:30 am - 9:45 am    David J. Zimmerman

Spring 2025
LEC Section:  01    TR 9:55 am - 11:10 am    Anand V. Swamy
LEC Section:  02    TF 2:35 pm - 3:50 pm    Anand V. Swamy

ECON 257  (F)  Economic Perspectives on Racial Inequality  (DPE)
This course will examine the causes and consequences of racial disparities in economic outcomes. Specific topics will include the determinants and consequences of racial differences in earnings and human capital; formal models of taste-based and statistical discrimination; racial segregation in neighborhoods and schools; the economic history of slavery, Reconstruction and the Civil Rights Movement; and the structure and efficacy of government anti-discrimination policies. Much of the course will focus on racial discrimination faced by African Americans specifically, but there will also be coverage of other racial and ethnic minority groups. The course will additionally focus almost exclusively on the US, although many of the theories and techniques we will develop are applicable to other contexts as well. The course will utilize basic microeconomic tools, such as straightforward extensions of the supply and demand model, and ECON 110 is a prerequisite. We will also make extensive use of descriptive statistics, and an introductory statistics course such as STAT 161 will be useful, but is not required.

Requirements/Evaluation:  exams, short written responses, problem sets, participation

Prerequisites:  ECON 110

Enrollment Limit:  25

Enrollment Preferences:  First- and second-year students.

Expected Class Size:  25
Grading: yes pass/fail option, yes fifth course option

Distributions: (D2) (DPE)

Difference, Power, and Equity Notes: The course is well suited for the DPE distribution requirement as it will develop in detail not only the existence of race-based differences in a wide variety of key socioeconomic outcomes, but also explore the historical and contemporary processes that lead to those differences.

Attributes: POEC Depth  POEC Skills

Fall 2024
LEC Section: 01  TF 1:10 pm - 2:25 pm  Owen Thompson

ECON 297  (F) Independent Study: Economics
Students are invited to apply to undertake independent study on subjects of their own choosing. Interested students should consult with a faculty member about designing an appropriate project well in advance of fall registration.

Requirements/Evaluation: Determined in consultation with the faculty member advising the independent study
Prerequisites: Consent of an instructor and of the department chair
Enrollment Limit: none
Enrollment Preferences: none
Expected Class Size: NA
Grading: yes pass/fail option, yes fifth course option
Unit Notes: With permission of the department, an approved project may count as a 200-level elective for the major.
Distributions: (D2)

Fall 2024
IND Section: 01  TBA  Owen Ozier

ECON 298  (S) Independent Study: Economics
Students are invited to apply to undertake independent study on subjects of their own choosing. Interested students should consult with a faculty member about designing an appropriate project well in advance of spring registration.

Requirements/Evaluation: Determined in consultation with the faculty member advising the independent study
Prerequisites: Consent of an instructor and of the department chair
Enrollment Limit: none
Enrollment Preferences: none
Expected Class Size: NA
Grading: yes pass/fail option, yes fifth course option
Unit Notes: With permission of the department, an approved project may count as a 200-level elective for the major.
Distributions: (D2)

Spring 2025
IND Section: 01  TBA  Owen Ozier

ECON 299  (F) Economic Liberalism and Its Critics

Cross-listings: POEC 250 / PSCI 238

Secondary Cross-listing
Economic liberalism holds that society is better off if people enjoy economic freedom. Its critics point to what they believe this position ignores or what it wrongly assumes, and hence, how it would make bad policy. This course explores the relationship between politics and economics by surveying
influential works of political economy. Its first part examines major thinkers in relation to the historical development of capitalism in Western Europe and the United States: the classical liberalism of Adam Smith, Karl Marx's revolutionary socialism, and the reformist ideas of John Maynard Keynes. The second part considers mid-20th-century writers who revise and critique economic liberalism from a variety of perspectives, including Joseph Schumpeter, Friedrich Hayek, Milton Friedman, Ronald Coase, Arthur Okun, and Albert O. Hirschman. The third part surveys significant topics relevant to the themes of the course, with applications to current public policy issues, such as: power relations and autonomy in the workplace; asymmetric information and social insurance; economic inequality and distributive justice; equality of opportunity; the economics of health care; positional goods and the moral foundations of capitalism; social media and addiction; economic nationalism; behavioral economics; climate change and intergenerational equity; finance and financial crises; and rent-seeking. The combination of the historical focus of the early part of the course with discussion of modern policy issues and debates in the latter part of the course permits you to appreciate the ongoing dialogue between classical and contemporary views of political economy.

Class Format: This course uses a flipped classroom approach. Before each class meeting, students watch a lecture video, and (at least six times) write an essay relating to the assigned reading and video. In-person class time is devoted primarily to Socratic discussion.

Requirements/Evaluation: six short essays and a final exam

Prerequisites: ECON 110 and 120 or equivalent; PSCI 110 (formerly PSCI 201; may be taken concurrently with POEC 250); open to non-majors

Enrollment Limit: 30

Enrollment Preferences: Political Economy majors and sophomores intending a Political Economy major

Expected Class Size: 25

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
POEC 250(D2) PSCI 238(D2) ECON 299(D2)

Attributes: AMST Critical and Cultural Theory Electives POEC Required Courses

Fall 2024

SEM Section: 01 MR 2:35 pm - 3:50 pm James E. Mahon, William M. Gentry

ECON 308  (S)(S) Skills for a Modern Economy and How to Pay for Them

Cross-listings:
Secondary Cross-listing

Skills are a major driver of economic growth. The skills gap between rich and poor countries explains many of their income differences. The skills gap is a determinant of structural change, the process by which economies grow certain sectors (like manufacturing and services) and shrink others (like agriculture) in the process of achieving high-income country status and reducing poverty. The skills gap both affects and is affected by every other aspect of the economy: agricultural productivity, health, poverty rates, and fiscal capacity. This course will examine the economic policies that are essential for nations to upgrade the skills of their workforce, including the fiscal policies to finance those investments. The course will also explore complementary economic policies—in areas from labor markets to agriculture to healthcare—that allow maximum returns to skills investments.

Class Format: Students will meet the professor in pairs, approximately one hour each week.

Requirements/Evaluation: During a typical week one student in the pair will write a short paper, and the other will respond. The following week the roles will be reversed. Evaluation will be based on the papers written as well as the responses.

Prerequisites: For CDE Fellows: fall semester courses. For undergraduates: Econ 251, Econ 252, and Econ 255, or permission of instructor.

Enrollment Limit: 10

Enrollment Preferences: CDE Fellows, Economics majors.

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 308(D2)

Attributes: POEC Depth POEC Skills
Evidence from across the developing world suggests that the "binding constraints" to economic growth can be remarkably heterogeneous—i.e., the growth potential of stagnating or underperforming economies may be unlocked in a large variety of ways. For instance, pre-reform China had been constrained by poor supply incentives in agriculture, whereas Brazil has been held back by an inadequate supply of credit, South Africa by poor employment incentives in manufacturing, El Salvador by insufficient production incentives in tradables, Zimbabwe by bad governance, and so forth. How can developing-country policymakers determine country-specific constraints like these, thus enabling them to pragmatically pursue a selected set of growth-promoting policies rather than attempting to implement a "laundry list" of reforms that are naively based on "best practice" rules-of-thumb?

This course will serve as a primer on "growth diagnostics," an empirically-driven analytical framework for identifying the most binding constraints to economic growth in a given country at a point in time, thereby allowing policymakers to develop well-targeted reforms for relaxing these constraints while being cognizant of the nation's prevailing economic, political, and social context. The course will first build on the basic theories and empirics of economic growth to elucidate the diagnostic framework and will then employ a wide range of country-specific case studies to demonstrate how the framework can be operationalized for policy making. Throughout the semester, students will be required to work in groups, each representing a given developing or emerging-market economy, in order to build a growth diagnostic for their group's assigned country by the end of the course.

Requirements/Evaluation: extensive class participation, several short (5-page) reports, a final group project comprising a country growth diagnostic, and a final group presentation on the diagnostic

Prerequisites: for undergraduates ECON 251, ECON 252, and either ECON 255 or STAT 346

Enrollment Limit: 19

Enrollment Preferences: CDE fellows and senior Economics majors

Expected Class Size: 19

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 345(D2) ECON 545(D2)

Quantitative/Formal Reasoning Notes: The course material will be drawn heavily on mathematical and statistical models of economic growth and macroeconomic development, and students will be required to routinely develop mathematical models and/or conduct econometric analysis in their assignments.
ECON 349 (S) The Economics of Labor Market Institutions

This course offers an introduction to the economics of modern labor markets. On the one hand, the course offers analytical tools to assess the efficiency of the labor market. On the other hand, the course gives an overview of "real-world" economics by showing differences in labor markets between countries. In some countries there are strict rules about the hiring and firing of workers. In some countries unions are well organized and influential, in others union membership is low. Some countries have high minimum wages, others have no minimum wage at all. Not only do institutions differ by country, the labor market outcomes in terms of unemployment, participation, job creation, wage distribution differ as well. We will study the empirical evidence, economic models, and policy issues germane to labor markets from an international perspective.

Requirements/Evaluation: Problem sets, group exercises, and exams
Prerequisites: POEC 253 or ECON 255
Enrollment Limit: 25
Enrollment Preferences: Students majoring in economics or political economy
Expected Class Size: 25
Grading: no pass/fail option, yes fifth course option
Distributions: (D2)

Spring 2025
LEC Section: 01 TR 8:30 am - 9:45 am Nate Vellekoop

ECON 350 (S) Household Finance

Household decisions about borrowing, saving, investment, housing, and labor supply have major implications for the financial system and the behavior of the economy as a whole. This was perhaps most vividly illustrated by the roles of household borrowing and spending in the Global Financial Crisis. But household finance is also central to understanding some of the most important current topics in economics and policy research, including wealth inequality, inflation, Social Security and pension reform, health care, and macroeconomic policy. This class applies both theory and empirical evidence to investigate some of the most important household decisions and their role in shaping the macroeconomy. We will begin with a study of household savings and portfolio choice, with an emphasis on some of the ways that real-world behavior departs from the assumptions of full rationality and complete information. We will then apply this framework to study a range of topics, including fiscal and monetary policy, government debt, inflation expectations, student loans, housing leverage, social insurance, and inequality.

Class Format: About half the class will be lecture, with the other half discussion.
Requirements/Evaluation: Class participation, problem sets, written assignments, and exams
Prerequisites: Econ 251 and Econ 255, or permission of instructor
Enrollment Limit: 25
Enrollment Preferences: Economics majors
Expected Class Size: 25
Grading: yes pass/fail option, yes fifth course option
Distributions: (D2)
Attributes: POEC Depth POEC Skills

Spring 2025
ECON 352 (S)  Financial Development and Regulation

**Cross-listings:**

**Secondary Cross-listing**

This course focuses on the financial system in developing countries and its role in economic development and stability. From both theoretical and applied perspectives, we will investigate the implications of financial development on economic development & growth, income inequality, and short-term fluctuations. We will also explore the dynamics that shape the institutions of a society’s financial structure and study the complexities of financial policy design. Throughout the course, a variety of tools of modern economics will be considered, such as theory-based quantitative structural methods, reduced form empirics, and field experiments, and we will study the consequences of finance on economic well-being. The first part of the course focuses on the functions of finance, how it contributes to growth and poverty alleviation, and what can be done to increase financial inclusion. What are the key parts of the infrastructure that are needed to improve access to financial services, including via ‘fintech,’ which is taking off in many developing countries? The second part of the course will build upon the first part and investigate how imperfections in financial development could make developing countries susceptible to short-term stability issues. A key focus of the second part will be how to prevent or minimize crises, and we will analyze the government’s role as regulator, supervisor, standard setter, contract enforcer, and owner.

**Class Format:** discussion

**Requirements/Evaluation:** Midterm, team assignment and formal in-class debates, and a final research paper.

**Prerequisites:** For undergraduates, Econ 110, 120, and POEC 253 or ECON 255; undergraduate enrollment limited and requires instructor's permission

**Enrollment Limit:** 20

**Enrollment Preferences:** CDE students, as well as undergraduates interested in the role of the financial system in low and middle-income countries.

**Expected Class Size:** 20

**Grading:** no pass/fail option, yes fifth course option

**Distributions:** (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 352(D2) ECON 510(D2)

**Attributes:** GBST Economic Development Studies POEC Depth POEC Skills

Spring 2025

LEC Section: 01  MR 1:10 pm - 2:25 pm  Burak Uras

ECON 355 (F)  Financial Crises, Credit Cycles, and Macroeconomic Policies

This course examines macroprudential policies which aim to mitigate systemic risk to the financial system. We will discuss several instances of financial crises and the conditions leading up to these episodes. Particular focus will be placed on recent research into current macroprudential policies and their implications for financial stability. Topics to be covered include: the concept of cycles in macroeconomics, business and credit cycle measurement, co-movement between economic aggregates, domestic and international policies targeting financial stability, and the effect of these policies on financial markets and the real economy.

**Requirements/Evaluation:** Problem sets, presentations, and a final paper

**Prerequisites:** Economics 252 and 255

**Enrollment Limit:** 25

**Enrollment Preferences:** junior and senior Economics majors

**Expected Class Size:** 25

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D2)

Not offered current academic year
ECON 357  (F)  The Economics of Higher Education
This tutorial will utilize economic theory and econometric methods to understand a variety of issues pertaining to the economics of colleges and universities. In particular, we'll discuss the logic of non-profit enterprises, the financial structure of a college or university, competition in the market for higher education, policies impacting tuition and financial aid, the individual and societal returns from investments in higher education, and the distinctive features of academic labor markets. Particular attention will be paid to selective liberal arts colleges.

Class Format: will meet weekly in groups of two

Requirements/Evaluation:  six 5- to 7-page papers and on the quality of the student's oral presentations and commentary on the work of their colleagues

Prerequisites:  ECON 251 and 255 or STAT 346 or permission of instructor

Enrollment Limit:  10

Enrollment Preferences:  Economics majors

Expected Class Size:  10

Grading:  no pass/fail option,  no fifth course option

Distributions:  (D2)

Attributes:  POEC Depth  POEC Skills

Not offered current academic year

ECON 359  (S)  Developing Country Macroeconomics II: Institutions and Policy Regimes

Cross-listings:

Secondary Cross-listing

Developing countries must confront a number of macroeconomic challenges that industrialized countries do not have to contend with: exchange rate volatility, large capital flows and commodity price fluctuations, for example. Building on ECON 505, this course examines these issues from both theoretical and empirical standpoints. The focus will be on the design of monetary, fiscal and exchange rate policies and institutions to enhance macroeconomic stability, and create an environment conducive to growth.

Requirements/Evaluation:  two midterms and a final project

Prerequisites:  ECON 505 or 506; undergraduate enrollment limited and requires instructor's permission

Enrollment Limit:  none

Enrollment Preferences:  none

Expected Class Size:  25-30

Grading:  yes pass/fail option,  no fifth course option

Distributions:  (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 515(D2) ECON 359(D2)

Attributes:  GBST Economic Development Studies

Spring 2025

SEM Section: 01    TR 8:30 am - 9:45 am     Bumsoo Kim

ECON 360  (F)  Monetary Economics  (QFR)

This course covers a range of theoretical and applied issues bearing on monetary policy as conducted in the U.S. and abroad. Topics to be covered include: the causes of inflation, how central banks manage interest rates, the channels through which monetary policy affects the economy, and the costs and benefits of imposing rules on the conduct of policy. The class will also touch on a number of current issues facing central banks, such as unconventional monetary policy and cryptocurrencies.

Requirements/Evaluation:  Two exams, a research paper and/or class presentation

Prerequisites:  ECON 252 and 255. Multivariate calculus (MATH 150 or 151) is recommended but not required

Enrollment Limit:  20
Enrollment Preferences:  junior and senior Economics majors
Expected Class Size:  20
Grading:  yes pass/fail option,  no fifth course option
Distributions:  (D2) (QFR)
Quantitative/Formal Reasoning Notes:  The course entails the use of mathematical economic models, the presentation of quantitative information, and the interpretation of statistical analysis.
Attributes:  GBST Economic Development Studies  POEC Depth
Not offered current academic year

ECON 364 (S) Theory of Asset Pricing  (QFR)
What is the price of time? What is the price of risk? How do markets allocate resources across time and uncertain states of the world? This course theoretically studies how markets allocate scarce resource across time and when outcomes are risky. The "goods" in such markets are called "assets" and the prices of "assets" determine the cost of trading resources across time and across uncertain states of the world. We theoretically investigate how equilibrium determines the price of time, then asset price implications; then asset allocations and prices in the presence of risk; finally, implications for new assets.
Requirements/Evaluation:  problem sets and exams
Prerequisites:  ECON 251 or ECON 252; and ECON 255 or STAT 201
Enrollment Limit:  25
Enrollment Preferences:  Economics majors
Expected Class Size:  25
Grading:  no pass/fail option,  yes fifth course option
Distributions:  (D2) (QFR)
Quantitative/Formal Reasoning Notes:  uses extensive mathematical modeling, including engaging with results from econometrics and statistics

Spring 2025
LEC Section: 01  TR 8:30 am - 9:45 am  Greg Phelan

ECON 365 (F) Exchange Rates and International Finance
This course provides an overview of exchange rates, international financial flows, and the conduct of policy. The first half of the course explores the exchange rate -- what we know, what we don't know, what determines them, why the classic "puzzles" are puzzling, and the reign of the dollar as a dominant currency. The second half of the course transitions to the broader sphere of international finance, navigating through global imbalances, global financial cycles, and the role of currency unions and policies. We will study the historical evolution of thought in this strand of literature to better understand contemporary research and policy questions.
Requirements/Evaluation:  Problem sets, presentations, and one or more exams
Prerequisites:  ECON 252 and ECON 255. ECON 215 recommended but not required.
Enrollment Limit:  25
Enrollment Preferences:  Economics majors
Expected Class Size:  25
Grading:  no pass/fail option,  yes fifth course option
Distributions:  (D2)

Fall 2024
LEC Section: 01  MWF 8:30 am - 9:45 am  Bumsoo Kim

ECON 366 (S) International Trade and Development
Cross-listings:
Secondary Cross-listing

This course will examine the causes and consequences of globalization and its implications for less-developed countries. We will study the classic models of international trade and discuss the empirical relevance of these theories. In addition, we will focus on other dimensions of globalization that are of particular importance to developing countries such as trade and education, emigration, brain drain, remittances, foreign direct investment, trade policies, infant industry protection, trade and growth, the resource course, and trade agreements.

Class Format: discussion

Requirements/Evaluation: problem sets, midterm, presentation, and final

Prerequisites: ECON 251 and ECON 255; undergraduate enrollment limited and requires instructor's permission

Enrollment Limit: 19

Expected Class Size: 19

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 516(D2) ECON 366(D2)

Attributes: GBST Economic Development Studies POEC Depth

Spring 2025

SEM Section: 01 TR 11:20 am - 12:35 pm Will Olney

ECON 367 (S) The Political Economy of Social Insurance (WS) (QFR)

The Great Society policies of the 1960s dramatically changed the ways people living in poverty interacted with the federal government, but the benefits associated with these policies seem to have stagnated. Since 1965, the annual poverty rate in the United States has hovered between 10% and 15%, though far more than 15% of Americans experience poverty at some point in their lives. In this course, we will study public policies that, explicitly or implicitly, have as a goal improving the well-being of the poor in the United States. These policies include social insurance programs such as Unemployment Insurance; safety net programs such as Temporary Assistance to Needy Families, Supplemental Nutrition Assistance Program, Medicaid, and housing assistance; education programs such as Head Start and public education; and parts of the tax code, including the Earned Income Tax Credit and Child Tax Credit. We will explore the design and function of these programs, with a particular focus on the context in which they were developed. What political incentives and constraints have strung up our social safety net? How do these factors affect the goals of policy, the trade-offs inherent to the policy’s design, and why poverty has not sustained a downward trend in the United States? Through careful consideration, students will learn how to communicate a path forward for public policy which accounts for theoretical economic expectations and the reality of political constraints in policy design.

Class Format: Lecture with substantial class discussion.

Requirements/Evaluation: Several short policy memos, participation in class discussion, and a final analytical essay.

Prerequisites: ECON 253 or 255

Enrollment Limit: 25

Enrollment Preferences: Students majoring in economics or political economy.

Expected Class Size: 25

Grading: no pass/fail option, yes fifth course option

Distributions: (D2) (WS) (QFR)

Writing Skills Notes: Students will write 4 policy memos over the course of the semester followed by a longer, final analytical essay. Synthesis of peer-reviewed literature, use of citation management systems, and clarity in technical writing will be emphasized. Students will receive timely, substantial, individualized feedback to develop their technical writing ability over the course of the semester. Opportunities to meet with professor outside of class at any stage of writing.

Quantitative/Formal Reasoning Notes: This course will use quantitative tools of economics. Focus on building data visualization & science communication skills after ECON 255.

Attributes: POEC Skills
ECON 368 (F) Public Economics and Fiscal Policies

The public sector is an important part of the economy. Its objectives are to increase efficiency by correcting market failures, redistribute to achieve a more equal distribution, conduct fiscal policies to stabilize the economy, and, in a broader sense, set the rules of the game. This course discusses the role of the government in the economy, the different ways it acts to solve market failures and redistribute, and the consequences of government actions and government failures. We will draw on a political economy perspective to discuss how the nature of government decision-making impacts these outcomes. The course takes a comparative perspective in discussing differences in addressing market failures and redistribution in more market-oriented economies - like the US - and in economies where the government plays a more active role - like the Nordic countries. The course will also give considerable attention to the structure of fiscal policies and how they are employed to stabilize the economy.

Requirements/Evaluation: Problem sets, writing assignments, and a final exam

Prerequisites: Economics 251 and 255

Enrollment Limit: 25

Enrollment Preferences: Junior and Senior Economics and Political Economy majors

Expected Class Size: 25

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Not offered current academic year

ECON 370 (F) Data Science for Economic Analysis

This course provides a hands-on introduction to data science tools most relevant for economic analysis including data visualization, machine learning, and text analysis. Economists and other social scientists tend to use these data science tools differently than many researchers in statistics and computer science - conducting empirical analysis that is explicitly grounded in economic theory, and focusing on causal inference rather than prediction. Through a combination of lectures, hands-on labs, and group projects, students will develop the theoretical and practical skills needed to analyze economic data using modern data science techniques in both R and Python.

Class Format: The course includes traditional lectures, interactive labs in R and Python, and in-class presentations by students. Prior experience with statistical software (Stata or R) or computer programming is required.

Requirements/Evaluation: Grades are based on class participation, empirical exercises in R and Python, class presentations, and one exam.

Prerequisites: ECON 255 or or STAT 346

Enrollment Limit: 25

Enrollment Preferences: Economics majors

Expected Class Size: 25

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

ECON 371 (F) Time Series Econometrics and Empirical Methods for Macro (QFR)

Econometric methods in many fields including macro and monetary economics, finance and international growth and development, as well as numerous fields beyond economics, have evolved a distinct set of techniques which are designed to meet the practical challenges posed by the typical empirical questions and available time series data of these fields. The course will begin with an introductory review of concepts of estimation and inference for large data samples in the context of the challenges of multivariate endogenous systems, and will then focus on associated methods for analysis of short run dynamics such as vector autoregressive techniques and methods for analysis of long run dynamics such as cointegration techniques. Students will be introduced to concepts and techniques analytically, but also by intuition, learning by doing, and by computer simulation and illustration. The course is particularly well suited for economics majors wishing to explore advanced empirical methods, or for statistics,
mathematics or computer science majors wishing to learn more about the ways in which the subject of their majors interacts with the field of economics. The method of evaluation will include a term paper. ECON 252 and either STATS 346 or ECON 255 are formal prerequisites, although for students with exceptionally strong math/stats backgrounds these can be waived subject to instructor permission. Students who complete this course will also be permitted to enroll in Econ 471 (a follow up senior seminar course) during the spring semester if they are interested.

Requirements/Evaluation: term paper and regular homework assignments

Prerequisites: ECON 252 and either ECON 255 or STATS 346

Enrollment Limit: 19

Enrollment Preferences: students wishing to write an honors thesis, and students with strong MATH/STAT/CSCI backgrounds

Expected Class Size: 19

Grading: no pass/fail option, yes fifth course option

Distributions: (D2) (QFR)

Quantitative/Formal Reasoning Notes: Uses quantitative/formal reasoning intensively in the form of mathematical and statistical arguments, as well as computer programming.

Fall 2024

SEM Section: 01 W 7:00 pm - 9:40 pm Peter L. Pedroni

ECON 375 (S) Inclusive Growth and Crisis Response: The Role of Social Protection Systems

Cross-listings:

Secondary Cross-listing

Over the past three decades, developing countries have increasingly expanded social protection systems to tackle poverty and vulnerability while promoting inclusive social development and equitable economic growth. These systems provide pro-poor policy instruments that can balance trade and labor market reforms, fiscal adjustments (such as reduced general subsidies) and other economic policies aimed at enabling better market performance. In addition, social protection systems help vulnerable people to cope with shocks to their livelihoods, promoting resilience, human capital development and sometimes high-return risk-taking. In times of crisis, these systems are more important than ever. From March to June 2020, the World Bank identified 195 countries that have adapted and expanded their social protection systems to respond to the COVID-19 pandemic. This tutorial offers the opportunity to explore how shock-responsive social protection systems can better enable developing countries to respond to global and local shocks in a manner that minimizes the medium- to long-term costs of the resulting crises. The tutorial examines how developing countries build social protection systems to tackle poverty, vulnerability and social exclusion that result from global and local shocks. Topics include how the design and implementation of effective interventions both respond to crises and strengthen long-term developmental outcomes. The tutorial focuses on country responses to the COVID-19 pandemic as both a relevant case study and an example of the kinds of global crises to which national social protection systems must be able to respond in the future.

Requirements/Evaluation: Students will write five papers during the term, and will prepare and deliver formal comments on five papers written by other students

Prerequisites: ECON 251 or ECON 252

Enrollment Limit: 10

Enrollment Preferences: CDE Fellows; Junior and senior Economics majors at instructor's discretion.

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 532(D2) ECON 375(D2)

Spring 2025

TUT Section: T1 TBA Michael Samson

ECON 377 (S) Inspiration/Perspiration: The Economics of Innovation
From the iron plow, to the steam engine, to modern biotechnology, innovation drives economic growth and raises living standards. Whether we are talking about great inventions or small tweaks, the tools of economics can help us understand how new ideas, technologies, and products emerge, spread, and become obsolete. In this course, we will examine the creation of new knowledge, the translation of ideas and scientific advances into practical applications, and the adoption of new technologies by producers and consumers. We will study the incentives that potential innovators face, how these are affected by patents and other forms of intellectual property rights, how entrepreneurs finance and market their innovations and how different market structures can influence the resulting trajectory of innovation and adoption. We will also discuss how government policies can foster the financing and development of innovation. Throughout the course, we will explore historical and contemporary case studies of the creation, exploitation, and consequences of innovation.

Class Format: discussion

Requirements/Evaluation: reading responses and short writing assignments; empirical exercises; constructive contributions to class discussions; an exam; and a final group project.

Prerequisites: ECON 251 and (ECON 255 or POEC 253 or STAT 346)

Enrollment Limit: 25

Enrollment Preferences: junior and senior Economics majors

Expected Class Size: 25

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

Attributes: POEC Depth  POEC Skills

Not offered current academic year

ECON 378 (F) Long-Run Comparative Development  (QFR)

The world today is marred by vast disparities in the standard of living, with about a 30-fold difference in real GDP per capita between the poorest and most affluent of nations. What are the causes of such differences in prosperity across countries? Are the origins of global inequality to be found in underlying differences among societies over the past few decades, the past few centuries, or the past few millennia? If contemporary differences in living standards have such "deep" historical roots, what scope exists for policies to reduce global inequality today? Can we expect inequality to be reduced through some natural process of macroeconomic development, or is it likely to persist unless acted upon by policy? This course will present a unified theory of economic growth for thinking about these and related questions. Examples of issues to be covered include: the Neoclassical growth model and its inefficacy for answering questions about development over long time horizons; Malthusian stagnation across societies during the pre-industrial stage of economic development; the importance of the so-called demographic transition and of human capital formation in the course of industrialization; the persistent influence of colonialism, slavery, and ethnic fragmentation in shaping the quality of contemporary politico-economic institutions; and the enduring effects of geography on comparative development, through its impact on the emergence of agriculture in early human societies and its influence in shaping the composition of traits in populations across the globe.

Class Format: discussion

Requirements/Evaluation: problem sets, at least one exam, a research paper, and a class presentation

Prerequisites: ECON 251, ECON 252, and either ECON 255 or STAT 346

Enrollment Limit: 25

Enrollment Preferences: junior and senior Economics majors

Expected Class Size: 25

Grading: no pass/fail option, no fifth course option

Distributions: (D2)  (QFR)

Quantitative/Formal Reasoning Notes: The course material will draw heavily on mathematical and statistical models of economic growth and macroeconomic development. Students will be required to routinely develop and solve sophisticated mathematical models of economic growth, involving the rigorous application of solution concepts from constrained optimization and from optimal control theory. Students will also be required to perform some econometric analyses in their assignments.

Attributes: GBST Economic Development Studies  POEC Comparative POEC/Public Policy Courses

Not offered current academic year
ECON 379 (S) Program Evaluation for International Development

Cross-listings:

Secondary Cross-listing

Development organizations face strict competition for scarce resources. Both public and private organizations are under increasing pressure to use rigorous program evaluation in order to justify funding for their programs and to design more effective programs. This course is an introduction to evaluation methodology and the tools available to development practitioners, drawing on examples from developing countries. It will cover a wide range of evaluation techniques and discuss the advantages and disadvantages of each. The course is a mix of applied econometrics and practical applications covering implementation, analysis, and interpretation. You will learn to be a critical reader of evaluations, and to develop your own plan to evaluate an existing program of your choice.

Requirements/Evaluation: Empirical exercises, exams, writing assignments, and collaborative projects

Prerequisites: one public economics course or microeconomics course (ECON 504 or ECON 110), and one empirical methods course (POEC 253 or ECON 255, 502, or 503)

Enrollment Limit: 20

Enrollment Preferences: CDE Students, but undergraduates with the prerequisites are welcome

Expected Class Size: 20

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 523(D2) ECON 379(D2)

Attributes: PHLH Methods in Public Health POEC Depth POEC Skills

Spring 2025

SEM Section: 01 MWF 11:00 am - 12:15 pm Pamela Jakiela

ECON 381 (S) Global Health Policy Challenges

Cross-listings:

Primary Cross-listing

Poor health is both a cause and a consequence of poverty. It can trap individuals in poverty and reduce aggregate economic growth. This course will be structured around major global health challenges, including maternal health, infectious diseases (e.g. HIV/AIDS, tuberculosis, COVID), neglected tropical diseases (e.g. malaria, dengue, Ebola), nutritional deficiencies, and mental health. We will focus primarily, but not exclusively, on health in low-income countries in this course. Students will read papers and conduct empirical assignments related to the various topics, as well as develop their own research idea during the semester related to one of the topics covered.

Requirements/Evaluation: empirical problem sets, a short paper and a substantive research paper that includes some analysis of existing data

Prerequisites: ECON 251 and (POEC 253 or ECON 255 or STAT 346) or permission of instructor

Enrollment Limit: 25

Enrollment Preferences: juniors and sophomores

Expected Class Size: 25

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 381(D2) ECON 571(D2)

Attributes: PHLH Decision-Making by Institutions + Individuals POEC Depth POEC Skills

Spring 2025

LEC Section: 01 W 7:00 pm - 9:40 pm Susan Godlonton
ECON 382 (F) Gentrification and Neighborhood Change (DPE)

While the phenomenon we call "gentrification" was first noted in the 1960s, these changes in urban neighborhoods have recently drawn increasing scrutiny and concern. Coming at a time of growing income inequality, the movement of higher income households into neighborhoods previously occupied by lower-income households has raised concerns about displacement, housing affordability, access to employment and other problems that may be associated with a gentrifying city. These problems may be further exacerbated by residential segregation and reduced support for public housing and transportation. This course will provide an opportunity to study these issues in depth. What, exactly, is gentrification? What do we know about the economic causes and consequences of gentrification and neighborhood change? How are these causes and consequences affected by growing income inequality and continued segregation in housing? What policy options might be pursued that could improve the well-being of existing and potential residents of the neighborhoods in US cities?

Requirements/Evaluation: Students will meet in pairs once per week. On alternate weeks students will write a 10-12 page primary paper on an assigned topic, and on the next week write a 4-5 page comment and discussion on the primary paper. At least one of the primary papers written by each student during the course must incorporate some analysis of data on gentrification using data introduced in discussion.

Prerequisites: Economics 251 (Price and Allocation Theory), Statistics 161 or Economics 255 (Econometrics) or POEC 253 (Empirical Methods in Political Economy) or instructor permission.

Enrollment Limit: 10
Enrollment Preferences: Economics and Political Economy majors, Juniors and Seniors
Expected Class Size: 10
Grading: no pass/fail option, no fifth course option
Distributions: (D2) (DPE)

Difference, Power, and Equity Notes: Gentrification has been identified in the survey of DPE suggestions as a worthwhile and important topic for a course satisfying the DPE requirement. Gentrification, with its consequent displacement of low-income and frequently minority households in cities is widely viewed as a problem and there have been increasing demands for local policies to limit the rate or extent of gentrification. We will address the causes, measurement of gentrification and extent to which it burdens poor households.

Attributes: POEC Depth POEC Skills
Not offered current academic year

ECON 384 (F) Corporate Finance (QFR)

This course analyzes the major financial decisions facing firms. While the course takes the perspective of a manager making decisions about both what investments to undertake and how to finance these projects, it will emphasize the underlying economic models that are relevant for these decisions. Topics include capital budgeting, links between real and financial investments, capital structure choices, dividend policy, and firm valuation.

Class Format: Lecture / discussion
Requirements/Evaluation: Problem sets, exams, short project
Prerequisites: ECON 251, 252, and some familiarity with statistics (e.g., ECON 255)
Enrollment Limit: 25
Enrollment Preferences: Economics majors; seniority
Expected Class Size: 25
Grading: yes pass/fail option, yes fifth course option
Distributions: (D2) (QFR)
Quantitative/Formal Reasoning Notes: The course uses quantitative models to evaluate decisions.

Fall 2024
LEC Section: 01 MWF 11:00 am - 12:15 pm Caitlin E. Hegarty

ECON 385 (F) Games and Information (QFR)

This course is a mathematical introduction to strategic thinking and its applications. Ideas from game theory, including Nash equilibrium and its refinements, commitment and credibility, repeated games, and information asymmetries, incentive contracts, and signaling, will be introduced.
Applications will be drawn from economics, history, and politics around the globe, and include topics such as: trust between strangers, corruption and fraud, racial bias, violence and deterrence. And we will explore how to write and recognize game-theory models to help make sense of strategic interactions in the world around us.

Requirements/Evaluation: Two exams, regular problem sets and assignments in which students create game-theoretic models.

Prerequisites: ECON 251 or permission of instructor

Enrollment Limit: 25

Enrollment Preferences: juniors

Expected Class Size: 25

Grading: no pass/fail option, no fifth course option

Unit Notes: students who have taken MATH 335 or CSCI 357 cannot receive credit for this class

Distributions: (D2) (QFR)

Quantitative/Formal Reasoning Notes: Mathematical analysis of strategic interaction is emphasized throughout,

Fall 2024

LEC Section: 01 TR 9:55 am - 11:10 am Ethan Holdahl

ECON 387 (S) Economics of Climate Change (QFR)

Cross-listings: CAOS 387

Primary Cross-listing

This course introduces the economic view of climate change, including both theory and empirical evidence. Given the substantial changes implied by the current stock of greenhouse gases (GHGs) in the atmosphere, we will begin by looking at impacts on agriculture, health, income, and migration. We will consider the distribution of climate damages across poor and wealthy people, both within and across countries. Next we will study adaptation, including capital investments and behavioral changes. We will examine the sources of climate change, especially electricity generation and transportation, and think about optimal policies. Throughout the course we will discuss the limits of the economic approach, pointing out normative questions on which economic theory provides little guidance.

Requirements/Evaluation: problem sets, midterm, group presentation, final exam

Prerequisites: ECON 251, familiarity with statistics

Enrollment Limit: 25

Enrollment Preferences: Junior/Senior Economics majors and CDE fellows

Expected Class Size: 25

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

CAOS 387(D2) ECON 387(D2) ECON 522(D2)

Quantitative/Formal Reasoning Notes: The course involves simple calculus-based theory and applied statistics.

Attributes: ENVI Environmental Policy MAST Interdepartmental Electives POEC Comparative POEC/Public Policy Courses

Not offered current academic year

ECON 389 (S) Tax Policy in Global Perspective (QFR)

Cross-listings:

Secondary Cross-listing

Government policy is important for economic development. To finance their policies, governments must build the fiscal capacity to implement a tax system. In turn, fiscal capacity—the ability for the government to raise revenue—depends on economic development. This endogeneity between fiscal capacity and economic development creates challenges for tax policy in developing countries. Given these challenges, what types of taxes should countries use to raise revenues? How can governments build the fiscal capacity to generate revenue to finance critical services? This class explores tax policy from a global and comparative perspective. Because most students will be CDE fellows, we will emphasize tax policy issues, examples, and
evidence that are pertinent to developing countries. However, many tax policy lessons are universal so we will also learn about tax policies in developed countries, especially issues relevant for transnational transactions. Topics addressed include: how economic principles can be applied to the efficiency and equity consequences of tax policies; how personal income taxes, corporate income taxes, and value-added taxes are designed and administered and how they influence the economy; ideas for fundamental tax reforms; the debate over progressive taxes versus "flat" taxes; how taxes affect incentives to save and invest; how market failures and administrative problems may influence the optimality of tax policy; the implications of global capital flows and corporate tax avoidance for tax policy; tax holidays and other special tax incentives for investment; empirical evidence on the influence of taxes on foreign direct investment, labor supply, and tax evasion; tax policy towards natural resources such as minerals and oil; case studies of efforts to reform tax administration and reduce tax evasion and corruption; taxes on land and property; taxes on imports and exports; presumptive taxation; and the informal economy and its implications for tax policy.

Requirements/Evaluation: midterm exam, several problem sets, two 10-page essays

Prerequisites: one public economics course or microeconomics course (ECON 504 or ECON 110), and one empirical methods course (POEC 253 or ECON 255, 502, or 503); students who have previously taken ECON 351 will not be enrolled

Enrollment Limit: 19

Enrollment Preferences: CDE students, but undergraduates with the prerequisites are welcome

Expected Class Size: 15-19

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 389(D2) ECON 514(D2)

Quantitative/Formal Reasoning Notes: The course builds on other QFR Reasoning econ classes.

Attributes: POEC Depth  POEC Skills

Spring 2025
SEM Section: 01    MR 2:35 pm - 3:50 pm     Jon M. Bakija

ECON 394  (S)  European Economic History

Economic history directly informs our understanding of the processes of economic development. With this in mind, this course will explore a series of questions related to the economic development of Europe from the pre-modern period until today. What was economic life like in the Roman Empire and Medieval Europe? Why did modern economic growth first occur in Europe, and not in China or the Middle East? Why did the Industrial Revolution occur in Britain and not France? What was the role of colonialism in the acceleration of European growth? What explains the rise and fall of the Soviet economy? What are the causes and consequences of European economic integration since World War II? To answer these and other questions, we will investigate how institutional changes, the evolution of technology, aspects of globalization, and various forms of government intervention have impacted economic growth and living standards in European history, and how those developments have affected the rest of the world. Drawing on a wide variety of empirical and theoretical readings, the course will focus on how economic historians marshal evidence and construct arguments in ways that borrow from and contribute to other fields of economics.

Class Format: discussion

Requirements/Evaluation: class participation, reading responses, short assignments, quizzes, and a final research paper

Prerequisites: ECON 251 or ECON 252 AND (ECON 255 or POEC 253 or STAT 346)

Enrollment Limit: 25

Enrollment Preferences: Students majoring in economics, political economy, or history.

Expected Class Size: 25

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

Not offered current academic year

ECON 397  (F)  Independent Study: Economics (Advanced)

Students are invited to apply to undertake independent study on subjects of their own choosing. Interested students should consult with a faculty
members about designing an appropriate project well in advance of fall registration.

Requirements/Evaluation: Determined in consultation with the faculty member advising the independent study

Prerequisites: At least one of (Econ 251, Econ 252, or Econ 255), consent of an instructor and of the department chair

Enrollment Limit: none

Enrollment Preferences: none

Expected Class Size: NA

Grading: yes pass/fail option, yes fifth course option

Unit Notes: An approved project may count as one of the two advanced electives required for the major

Distributions: (D2)

Fall 2024

ECON 398  (S)  Independent Study: Economics (Advanced)

Students are invited to apply to undertake independent study on subjects of their own choosing. Interested students should consult with a faculty member about designing an appropriate project well in advance of spring registration.

Requirements/Evaluation: Determined in consultation with the faculty member advising the independent study

Prerequisites: At least one of (Econ 251, Econ 252, or Econ 255), consent of an instructor and of the department chair

Enrollment Limit: none

Enrollment Preferences: none

Expected Class Size: NA

Grading: yes pass/fail option, yes fifth course option

Unit Notes: An approved project may count as one of the two advanced electives required for the major

Distributions: (D2)

Spring 2025

ECON 439  (S)  Debt Sustainability

The stock of government debt has skyrocketed in many countries. At the same time, interest rates have risen as global central banks have sought to tame inflation, generating concerns about the sustainability of public debt, especially in many lower-income and emerging market economies. What does fiscal/debt sustainability mean, and what are the implications of high public debt for growth and stability? How do the IMF and other institutions assess a country’s public debt sustainability? How does uncertainty factor into these assessments, and what special considerations are relevant for natural resource exporters? How have governments sought to bring down high levels of debt, or to prevent excessive debt levels from arising in the first place? Do these approaches need to be modified to account for the impact of COVID on debt stocks? How will demographic developments and climate change affect debt sustainability? By addressing these questions, the course will seek a nuanced understanding of the role of public debt in the economy and its benefits and risks.

Class Format: Students will meet the professor in pairs, approximately one hour each week.

Requirements/Evaluation: During a typical week one student in the pair will write a short paper, and the other will respond. The following week the roles will be reversed. Evaluation will be based on the papers written as well as the responses.

Prerequisites: For CDE Fellows: fall semester courses. For undergraduates: Econ 251, Econ 252, and Econ 255, or permission of instructor.

Enrollment Limit: 10

Enrollment Preferences: CDE Fellows, Economics majors.

Expected Class Size: 10

Grading:

Distributions: (D2)
ECON 450 (F) Advanced Topics in Macroeconomics
This seminar explores some of the central topics in macroeconomics, including economic growth, saving and investment, business cycle fluctuations, monetary policy, and financial crises. The first part of the course focuses on long-run economic growth. Using economic theory and evidence, we will attempt to answer some of the most important questions in all of economics: Why are some countries poor and other countries rich? What can governments do to achieve faster and environmentally sustainable rates of growth? What are the growth consequences of sustained budget deficits? Understanding the behavior of the economy in the long run is one of the key tasks of macroeconomics. But as illustrated by the Global Financial Crisis and the Covid pandemic, the short run matters as well. In the second part of the class, we will turn our attention to economic downturns and financial crises. Using historical work on past crises and the accumulating evidence on recent ones, we will study a host of short-run topics, including financial markets, the effectiveness of fiscal and monetary policies, consumer expectations, asset prices, employment, and productivity. Because this is an advanced class in macroeconomics, we will approach these issues as practicing economists working with the best possible models and empirical techniques. Students will have an opportunity to apply these methods in a required end-of-term research paper.

Requirements/Evaluation: Midterm, final, class participation and research paper
Prerequisites: Economics 251, 252, and 255
Enrollment Limit: 19
Enrollment Preferences: Preference will be given to senior Economics majors
Expected Class Size: 19
Grading: yes pass/fail option, yes fifth course option
Distributions: (D2)

Fall 2024
SEM Section: 01 MR 1:10 pm - 2:25 pm David A. Love

ECON 452 (S) Foundations of Money, Credit, Banking, and FinTech
This course aims to address fundamental questions at the core of monetary and financial macroeconomics: what is money, and why is it an essential means for transactions? What is monetary policy, when does it become effective, and what should optimal monetary policy arrangements look like? How do financial markets and institutions interact with monetary policy? Throughout the course we will develop and solve rigorous general equilibrium macro models that feature money, financial markets, and institutions to address these questions. We will also connect the implications of the models with real world evidence. In the first part of the course, we will study the monetary policy transmission mechanisms and familiarize ourselves with the implications of rational expectations for monetary policy. We will build familiarity with discrete-time dynamic optimization techniques, develop and solve workhorse monetary DSGE (dynamic-stochastic general equilibrium) models, and explore the interactions between nominal variables (such as inflation and nominal interest rates) and real economic variables (such as output and unemployment) - over the business cycle and in the long-run. The second part of the course will extend the monetary macro models developed in the first part by incorporating foundations for credit, banking, and fintech to understand why the needs for these financial arrangements arise and how they interact with money and monetary policy.

Class Format: discussion
Requirements/Evaluation: Homework assignments, exams, and a final group project.
Prerequisites: Econ 252 and Math 130 or equivalent.
Enrollment Limit: 19
Enrollment Preferences: Junior or senior economics majors who are interested in monetary economics and macro-finance.
Expected Class Size: 19
Grading: no pass/fail option, no fifth course option
Distributions: (D2)

Spring 2025
LEC Section: 01 MWF 8:30 am - 9:45 am Burak Uras
ECON 453  (S)  Research and Methods in Applied Microeconomics

The main goal of this course is to expose students to modern empirical economic research. The basic format for each class session will be to read and discuss in detail a single academic journal article. Students will additionally submit short written responses on each of the assigned articles, and replicate the findings of several of the articles in Stata. Finally, students will write an original empirical paper as a final project on a topic of their choosing. The papers we read will come from several fields of applied microeconomics, including labor economics, health economics, public economics, and the economics of education. Some of the specific topics we will cover include human capital development and the effectiveness of early childhood interventions, the returns to college, the effects of neighborhoods on long term outcomes, gaps in labor market outcomes by race and gender, and evaluations of a range of public policies including the minimum wage, abortion access, and Medicaid. In addition to being interested in the actual findings of research on these topics, the course will introduce students to the key research methodologies used in modern applied microeconomics. In particular, the assigned readings are sequenced to systematically introduce students to the use of fixed effects, differences-in-differences, instrumental variables, regression discontinuity designs, and randomized controlled trials. The course will be as much about these methodologies as about the specific findings of the assigned readings, and the hope is that seeing these methods used in actual research will reinforce and build on the topics covered in Econ 255 (Econometrics).

Requirements/Evaluation: a series of short papers and empirical exercises, constructive contributions to class discussion, class presentations, and a 15- to 20-page original empirical research paper

Prerequisites: ECON 251 and ECON 255 or POEC 253

Enrollment Limit: 15

Enrollment Preferences: senior Economics majors

Expected Class Size: 15

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Attributes: POEC Depth  POEC Skills

Not offered current academic year

ECON 454  (F)  Macroeconomic Perspectives on Labor Markets  (QFR)

This seminar will cover aggregate trends in the labor market from a macroeconomic perspective, along with the tools that economists use to study them. We will think about the workforce as a whole but we will also highlight research that studies heterogeneity within the economy, such as patterns by race, gender, education, or occupation. Students will learn basic search and matching models, as well as related empirical methods. We will read papers that employ a variety of survey and administrative data, and we will discuss what types of research questions are best answered by each data source. We will use real data to apply the methods we learn. Potential topics include occupational mismatch, wage inequality, and monopsony.

Requirements/Evaluation: Class participation, short assignments, midterm exam, and a final project

Prerequisites: Econ 251, 252, and 255

Enrollment Limit: 19

Enrollment Preferences: Junior and senior economics majors

Expected Class Size: 19

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)  (QFR)

Quantitative/Formal Reasoning Notes: Course includes regular problem sets that require quantitative and formal reasoning skills.

Fall 2024

SEM Section: 01    MWF 8:30 am - 9:45 am    Caitlin E. Hegarty

ECON 455  (F)  Research in Economic History: Sources, Methods, and Applications

Historical approaches towards understanding current economic issues are increasingly in vogue. This course will explore new developments in the field of economic history, focusing on how economic historians use qualitative and quantitative evidence and the conceptual tools of economics to address questions of historical and current relevance. Along the way, we will consider works from both sides of the history - economics boundary, focusing on the ways that the two disciplines can and should borrow from one another. We will range widely across space and time, but some possible
topics to be investigated include technological innovation, labor coercion, migration, trade and capital flows, colonialism, corporate governance, and political economy. Students are expected to not only read and analyze recent scholarship in economic history, but to also produce and present their own original research over the semester.

Requirements/Evaluation: short writing assignments and empirical exercises, constructive contributions to class discussion, class presentations, and a 15- to 20-page original research paper (written in stages)

Prerequisites: ECON 251 and ECON 255 or consent of instructor; a previous history course is recommended but not required

Enrollment Limit: 19

Enrollment Preferences: senior Economics majors

Expected Class Size: 19

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

Attributes: POEC Comparative POEC/Public Policy Courses

Not offered current academic year

ECON 456  (F)  Income Distribution

This course examines the distribution of income in the United States. Questions to be addressed may include the following: How have wage inequality and the skill premium evolved over time? What factors explain a rising skill premium? How does income differ with race and gender? How is poverty measured, and what are the factors associated with living in poverty? How do government programs change the distribution of income? How much income mobility is there across generations? Students will become more critical readers of current economic literature, and will apply their skills in conducting empirical research.

Requirements/Evaluation: short writing assignments, computer lab exercises, oral presentations, and a 15- to 20-page research paper including original empirical analysis (written in stages)

Prerequisites: ECON 251 and 255 or equivalent

Enrollment Limit: 20

Enrollment Preferences: senior Economics majors

Expected Class Size: 20

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

Attributes: POEC U.S. Political Economy + Public Policy Course

Not offered current academic year

ECON 458  (S)  Economics of Risk

Risk and uncertainty are pervasive features of economic decisions and outcomes. Individuals face risk about health status and future job prospects. For a firm, developing new products is risky; furthermore, once a product has been developed, the firm faces product liability risk if it turns out to be unsafe. Investment decisions—from managing a portfolio to starting a business—are also fraught with uncertainty. Some risks are environmental—both manmade problems and natural disasters; other risks include the possibility of terrorist attack and, more locally, issues of campus safety. This tutorial explores both the private market responses to risk (e.g., financial markets, insurance markets, private contracting, and precautionary investments and saving) and government policies towards risk (e.g., regulation, taxation, and the legal system). From a theoretical standpoint, the course will build on expected utility theory, diversification, options valuation, principal-agent models, contract theory, and cost-benefit analysis. We will apply these tools to a wide variety of economic issues such as the ones listed above. One goal of the course is to discover common themes across the disparate topics. Students will be expected to read and synthesize a variety of approaches to risk and uncertainty and apply them to various issues.

Class Format: tutorial; students will meet with the instructor in pairs in each week

Requirements/Evaluation: For the first ten weeks, each student will write a 5 - 7 page paper every other week, and comment (of 2 - 3 pages) on their partner's work in the other weeks; the final two weeks will be reserved for papers on a topic of each student's interest (again, 5 - 7 pages but without needing to write a comment on their partner's work); one of the papers during the term will be revised to reflect feedback from the instructor and the student's partner

Prerequisites: ECON 251, 252, and 255; or permission of the instructor
ECON 459  (F) Institutions and Development

Why are some societies rich and others poor? While typical answers emphasize proximate causes like factor accumulation (i.e., growth in physical and human capital), technological progress, and demographic change, the institutional approach highlights the role of social, political, and cultural factors, broadly defined, as fundamental determinants of economic prosperity. The central idea is that the value-added of economic activities to society is primarily conditioned by the social arrangements within which these activities occur -- namely, arrangements that generate a structure of private incentives, which can either promote behavior that is conducive to economic development or lead to the pursuit of private gain at the expense of the common good. Thus, the key to economic development in this approach is the emergence of complementary institutions and structures of governance in society. This course will survey the recent literature on the topic of institutions and economic development, with an emphasis on empirical evidence in the context of both historical and contemporary societies. The purpose of the course will be to expose students to the core ideas and empirical tools employed at the frontier of research in this area. The readings will primarily comprise published journal articles and unpublished working papers, and students should expect to apply concepts from across all the core courses in economics.

Requirements/Evaluation: extensive class participation, two 5-page review papers, two class presentations, and one 15- to 20-page empirical research paper (written in stages)

Prerequisites: ECON 251, ECON 252, and either ECON 255 or STAT 346

ECON 460  (F) Women, Work, and the World Economy from 5,000 BC to the Present

Now and throughout history, views of the appropriate role for women in society have varied tremendously across cultures and communities: are women autonomous productive agents, are they men's property, or do they fall somewhere in between? In this course, we explore the causes and consequences of women's position in society for growth and economic development, analyzing women's economic roles in historical and cultural perspective. Students will become more critical readers of current economic literature, and will apply their skills in conducting empirical research.

Requirements/Evaluation: short writing assignments, computer lab exercises, oral presentations, and a 15- to 20-page research paper including original empirical analysis (written in stages)

Prerequisites: ECON 251 and 255 or equivalent

ECON 462  (S) Topics in African Development

Fall 2024

SEM Section: 01    MWF 11:00 am - 12:15 pm    Pamela Jakiela
This course will examine a selection of current issues in development economics with a specific emphasis on how they relate to Sub-Saharan Africa. Core topics to be addressed include agriculture, labor markets with a specific emphasis on south-south migration, credit, and land markets. Some specific questions that may be addressed include: How has agricultural productivity changed over time? What are constraints to improving agricultural productivity? What drives south-south migration? What are the impacts of migration on destination and origin communities? Students will critically read published journal articles (or working papers) and actively participate in class discussions. Students will also complete original empirical analysis on a related topic.

Requirements/Evaluation: short writing assignments, class discussion, oral presentations, 15-20 page empirical research paper

Prerequisites: ECON 251 and 255 or equivalent

Enrollment Limit: 19

Enrollment Preferences: senior Economics majors

Expected Class Size: 19

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

Not offered current academic year

ECON 463 (F) Financial History (WS)

What can we learn from financial history to understand the successes and failures of finance today and in coming years? This course opens with a brief survey of some of the major characteristics, issues, and challenges of financial systems today, and then examines earlier experience with these phenomena. Topics to be examined include: the role of credit and more generally finance in economic development historically, including in the financial revolutions from Northern Italy, the Netherlands, Britain and the US; the evolution of money, from stones or cigarettes to digital currencies; the relationship between finance and government, and the extent to which it has changed over time; lessons from early asset bubbles and more recent crises (including that of 2008-09) for modern financial systems; the effect of institutions (laws, norms, and culture) and political systems in shaping the impact of finance, as illustrated by comparisons between Mexico and the U.S., among other cases; and lessons from U.S. financial history for policies today. The course also examines the tools that were developed in earlier eras to deal with different risks, evaluates their efficacy, and considers lessons for modern financial regulation, including how financial systems can be prepared, if possible, for the risks that are already unfolding -- such as those posed by technology change, electronic currencies, and climate risk.

Requirements/Evaluation: Either 6 short papers or 3 short papers and one longer research paper (student choice), at least two oral presentations, and contributions to class discussions.

Prerequisites: ECON 251, ECON 252, and ECON 255 (or STAT 346 or Poli Ec 253) are required.

Enrollment Limit: 15

Enrollment Preferences: Senior Economics majors

Expected Class Size: 15

Grading: no pass/fail option, yes fifth course option

Distributions: (D2) (WS)

Writing Skills Notes: Students will either write 6 shorter papers (5-8 pages) or 3 short and one longer research paper. Writing skills and clarity of exposition will be emphasized.

Not offered current academic year

ECON 465 (S) Pollution and Labor Markets

If your home town has polluted air, does that reduce your wage? Do you work less? Are you less likely to finish high school? These are specific instances of an important general question: how does pollution affect labor market outcomes? The answer matters for individual decisions (where to live) and government policies (air pollution regulations). This seminar begins from theories of optimizing worker behavior in the presence of pollution. Building on this foundation, we will critically evaluate new empirical research into the impacts of pollution on human capital, labor supply, and productivity. We will also study the impact of pollution regulations on wages and employment. Included papers will cover both developed and developing countries.

Requirements/Evaluation: class discussion, presentation of reading, paper replication, 15- to 20-page empirical paper (written in stages) and accompanying short presentation

Prerequisites: ECON 251 and ECON 255; STAT 201/346 acceptable in place of ECON 255 prerequisite with instructor permission
Enrollment Limit: 19
Enrollment Preferences: Economics majors, seniority
Expected Class Size: 19
Grading: no pass/fail option, no fifth course option
Distributions: (D2)
Attributes: ENVI Environmental Policy PHLH Decision-Making by Institutions + Individuals POEC Comparative POEC/Public Policy Courses
Not offered current academic year

ECON 471 (S) Topics in Advanced Econometrics (QFR)
The course uses both a practical and conceptual/theory based approach, with emphasis on methods of structural identification of dynamics in VARs and long run cointegration and nonlinear function estimation and analysis, both in conventional time series and especially panel time series which contain spatial dimensions. The course will also investigate methods of computer simulation related to these techniques. The course is well suited for students considering empirically oriented honors theses in fields that employ these techniques, such as macro, finance, growth, trade and development, as well as fields outside of economics that use time series data. It is also well suited for students majoring in economics, statistics, computer sciences or mathematics who wish to expand their econometrics training and understanding to a more advanced level.
Requirements/Evaluation: periodic homework assignments, term paper
Prerequisites: ECON 371

Enrollment Limit: 19
Enrollment Preferences: students with strong quantitative backgrounds, and to students intending to write an honors thesis
Expected Class Size: 19
Grading: no pass/fail option, yes fifth course option
Distributions: (D2) (QFR)
Quantitative/Formal Reasoning Notes: Course will make use of mathematics, statistics and computer analysis for the conceptualization and implementation of the econometric topics that are taught.

Spring 2025
SEM Section: 01  W 7:00 pm - 9:40 pm  Peter L. Pedroni

ECON 472 (F) Macroeconomic Instability and Financial Markets
This advanced course in macroeconomics and financial theory attempts to explain the role and the importance of the financial system in the global economy. The course will provide an understanding of why there is financial intermediation, how financial markets differ from other markets, and the equilibrium consequences of financial activities. Rather than separating off the financial world from the rest of the economy, we will study financial equilibrium as a critical element of economic equilibrium. An important topic in the course will be studying how financial market imperfections amplify and propagate shocks to the aggregate economy. The course may cover the following topics: the determination of asset prices in general equilibrium; consequences of limited asset markets for economic efficiency; theoretical foundations of financial contracts and justifications for the existence of financial intermediaries; the roles of financial frictions in magnifying aggregate fluctuations and creating persistence and instability; the role of leverage and financial innovation in fueling financial crises.
Requirements/Evaluation: problem sets, exams, and potentially student presentations
Prerequisites: ECON 251 and ECON 252
Enrollment Limit: 19
Enrollment Preferences: Economics majors
Expected Class Size: 15
Grading: no pass/fail option, no fifth course option
Distributions: (D2)
Not offered current academic year
ECON 474 (S) Advanced Methods for Causal Inference

Crosslistings:

Primary Cross-listing

How do we estimate the causal effect of a policy on an outcome? Building on a basic understanding of econometrics and statistics, this methodology course will take students through several applied microeconometric techniques for answering this question. Students will be expected to use statistical software throughout, as we explore the inner workings of these methods and the assumptions required for them to deliver credible estimates. We will discuss the randomized trial and its variants, then cover difference-in-difference, regression discontinuity, and instrumental variables. We will discuss historical roots of modern methods, and will explore newer alternatives to the most commonly used kinds of statistical tests.

Class Format: Students will work on laptops in class. Students without laptops should borrow them from the library. Some prior knowledge of either Stata, R, Matlab, or other mathematical/statistical software is essential.

Requirements/Evaluation: Grades are principally based on problem sets, participation in the in-class activities, one in-class exam, and a final replication project.

Prerequisites: Econ 251 and either Econ 255 or Stat 346. CDE Fellows should have taken ECON 502 or 503.

Enrollment Limit: 19

Enrollment Preferences: Junior and senior Economics majors. CDE Fellows require the instructor's permission.

Expected Class Size: 19

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 524(D2) ECON 474(D2)

Spring 2025

SEM Section: 01 TF 1:10 pm - 2:25 pm Owen Ozier

ECON 475 (S) Advanced Economic Theory (QFR)

This course studies advanced topics in micro and macro economic theory. A major focus is on the mathematical underpinnings of advanced modern economics, with a particular emphasis on proofs. Topics may include existence of Nash equilibria, games of incomplete information, equilibrium refinement and selection, global games, Bayesian persuasion, Mirrless taxation, dynamic programming, existence of general equilibrium, recursive equilibria, stochastic models in continuous time, and others. The focus of this class is primarily on mathematical formalism, rigor, and proofs. These tools are essential components of any graduate program in economics. Students who wish to see pure math theorems applied to other fields may also be interested.

Requirements/Evaluation: May include problem sets, exams, participation, term paper

Prerequisites: MATH 150 or equivalent, ECON 251, or permission of instructor

Enrollment Limit: 19

Enrollment Preferences: Senior Economics Majors

Expected Class Size: 12

Grading: no pass/fail option, yes fifth course option

Distributions: (D2) (QFR)

Quantitative/Formal Reasoning Notes: Mathematical modeling and proofs

Not offered current academic year

ECON 476 (S) Behavioral Economics: Theory and Methods

Behavioral economics emphasizes that models in economics should account for the psychological plausibility of their assumptions and consequences. This course will cover how the field has incorporated insights from psychology into standard microeconomics models of decision-making. In the process, we will review the different methods that are used to empirically test the psychological foundations of these models, including laboratory experiments, field experiments, and quasi-experimental analyses. Assignments, lectures, and class discussions will focus on academic papers that use behavioral economics models to study a variety of topics, such as household finance, public policy, voting, and others. Throughout the semester,
students will also work towards formulating and completing their own original research project.

**Class Format:** Classes will be a mix of lectures and discussion sessions. The lectures will provide a broad overview of a specific topic or theory. Discussion sessions will center on a single academic paper (related to a topic covered in a previous lecture) that students will have read before class.

**Requirements/Evaluation:** one 15-25 page research paper, six to eight 1-2 page written responses to assigned readings, and class participation during discussion sessions

**Prerequisites:** ECON 251; ECON 255 or STAT 346

**Enrollment Limit:** 19

**Enrollment Preferences:** Economics majors

**Expected Class Size:** 19

**Grading:** no pass/fail option, no fifth course option

**Distributions:** (D2)

---

**Spring 2025**

**SEM Section:** 01  TF 2:35 pm - 3:50 pm  Matthew Chao

**ECON 477 (F) Economics of Environmental Behavior (QFR)**

**Cross-listings:** CAOS 477 / ENVI 376

**Primary Cross-listing**

A community maintains a fishery; a firm decides whether to get a green certification; you choose to fly home or stay here for spring break: behaviors of people and firms determine our impact on the environment. We'll use economics to model environmental behavior and to assess how policies can help or hurt the environment. Topics we may study include: common pool resources, voluntary conservation, social norms and nudges, discrimination and justice, rationality, firm responses to mandatory and voluntary regulation, voting and public opinion, and international environmental agreements. We'll also build familiarity with the main methodologies of modern economic research: theoretical modeling, empirical analysis of observational data, and experiments.

**Class Format:** Class sessions will largely consist of presentations and discussions of academic research papers, as well as lab sessions to work on empirical exercises and other interactive activities

**Requirements/Evaluation:** class participation, regular reading markup, empirical exercises, oral presentation(s), and an original research paper using an experiment, observational data, or theory

**Prerequisites:** ECON 251 and (ECON 255 or STAT 346)

**Enrollment Limit:** 19

**Enrollment Preferences:** senior Economics majors and junior Economics majors considering a thesis

**Expected Class Size:** 19

**Grading:** yes pass/fail option, yes fifth course option

**Distributions:** (D2) (QFR)

**This course is cross-listed and the prefixes carry the following divisional credit:**

CAOS 477(D2) ENVI 376(D2) ECON 477(D2)

**Quantitative/Formal Reasoning Notes:** The research students will consume and produce in the class will be based on math-based theory and/or econometric-based empirical analysis.

**Attributes:** CAOS Senior Seminars  ENVI Humanities, Arts + Social Science Electives  POEC Depth  POEC Skills

---

**Fall 2024**

**SEM Section:** 01  TR 8:30 am - 9:45 am  Sarah A. Jacobson

**ECON 491 (F) Honors Seminar: Economics**

This course is required of candidates for honors in economics. Each candidate prepares an honors thesis under the supervision of an economics professor who serves as the thesis advisor and the faculty member serving as the Economics Department's Director of Research. Candidates will
develop their projects independently, but will be guided by a common timeline and set of expectations. This is part of a one-semester thesis comprising this course as well as a Winter Study course.

Requirements/Evaluation: Students complete a major piece of novel, independent research in economics, culminating in submission of the written thesis and an oral presentation

Prerequisites: admission by the department in the spring of the junior year

Enrollment Limit: n/a

Enrollment Preferences: senior econ majors only

Expected Class Size: n/a

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Fall 2024

HON Section: 01  TBA  Owen Ozier

ECON 492  (S) Honors Seminar: Economics
This course is required of candidates for honors in economics. Each candidate prepares an honors thesis under the supervision of an economics professor who serves as the thesis advisor and the faculty member serving as the Economics Department's Director of Research. Candidates will develop their projects independently, but will be guided by a common timeline and set of expectations. This is part of a one-semester thesis comprising this course as well as a Winter Study course.

Requirements/Evaluation: Students complete a major piece of novel, independent research in economics, culminating in submission of the written thesis and an oral presentation

Prerequisites: admission by the department in the fall of the senior year

Enrollment Limit: n/a

Enrollment Preferences: senior economics majors only

Expected Class Size: n/a

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Spring 2025

HON Section: 01  TBA  Owen Ozier

ECON 493  (F) Honors Thesis: Economics
This course is required of candidates for honors in economics. Each candidate prepares an honors thesis under the supervision of an economics professor who serves as the thesis advisor and the faculty member serving as the Economics Department's Director of Research. Candidates will develop their projects independently, but will be guided by a common timeline and set of expectations. This is part of a full-year thesis comprising Econ 493 and 494 as well as a Winter Study course.

Requirements/Evaluation: Students complete a major piece of novel, independent research in economics, culminating in submission of the written thesis and an oral presentation

Prerequisites: admission by the department in the spring of the junior year

Enrollment Limit: n/a

Enrollment Preferences: senior economics majors only

Expected Class Size: n/a

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Fall 2024
ECON 494 (S) Honors Thesis: Economics
This course is required of candidates for honors in economics. Each candidate prepares an honors thesis under the supervision of an economics professor who serves as the thesis advisor and the faculty member serving as the Economics Department's Director of Research. Candidates will develop their projects independently, but will be guided by a common timeline and set of expectations. This is part of a full-year thesis comprising Econ 493 and 494 as well as a Winter Study course.
Requirements/Evaluation: Students complete a major piece of novel, independent research in economics, culminating in submission of the written thesis and an oral presentation
Prerequisites: admission by the department in the spring of the junior year
Enrollment Limit: n/a
Enrollment Preferences: senior economics majors only
Expected Class Size: n/a
Grading: no pass/fail option, no fifth course option
Distributions: (D2)

ECON 501 (F) Economic Growth and Development
This course focuses on the analysis of modern economic growth and comparative development across nations. Motivated by several stylized facts from cross-country data, we will pose a series of questions: Why are some countries so rich while others remain so poor? What explains heterogeneity in the experience of economic growth across nations, with some growing at a moderate pace over long periods of time, others experiencing rapid growth over shorter intervals, and yet others stagnating persistently? Do all economies face comparable challenges to achieving sustained economic growth? Will poorer countries ever catch up to richer ones? To answer these and other related questions, we will explore the underlying mechanisms of economic growth. What role is played by savings and investment (i.e., the accumulation of physical capital)? What is the influence of population growth? How important are investments in human capital (i.e., education and population health)? What about technological differences across nations? How much significance should we ascribe to cross-country differences in geographical characteristics? How much should we ascribe to differences in the quality of institutions? For each question, we will explore both theoretical and empirical approaches, ranging from formal models to qualitative historical evidence to cross-country growth regressions. We will debate the usefulness of these different approaches for development policy and will discuss the reasons why so many questions about economic growth remain difficult to answer.
Class Format: discussion
Requirements/Evaluation: problem sets, one midterm exam, and a final exam
Prerequisites: for undergraduates ECON 251, ECON 252, and either ECON 255 or STAT 346
Enrollment Limit: 32
Enrollment Preferences: junior and senior economics majors only; this is a core course in the master's program at the CDE, so undergraduate enrollment is very limited and requires instructor's permission
Expected Class Size: 30-32
Grading: no pass/fail option, no fifth course option
Distributions: (D2)
Attributes: GBST Economic Development Studies

ECON 502 (F) Statistics/Econometrics
This course focuses on basic methods of bringing economic theory and data together to provide empirical guidance for policy formulation, including use of computers in econometric analysis. This course covers techniques of econometric analysis using a moderate level of mathematical exposition.

Requirements/Evaluation: problem sets, group project, midterm exam, final exam.
Prerequisites: admission depends on previous background in statistics and mathematics
Enrollment Limit: 19
Enrollment Preferences: Limited to CDE students
Expected Class Size: 15
Grading: no pass/fail option, no fifth course option
Distributions: (D2)
Attributes: COGS Related Courses

Fall 2024
LEC Section: 01    TR 8:30 am - 9:45 am    Susan Godlonton

ECON 503  (F)  Statistics/Econometrics: Advanced Section
The course introduces students to the statistical methods used by economists, including those studying policy questions. The focus is on applications. Students will also work with Stata, a software widely used by economists.

Class Format: discussion
Requirements/Evaluation: problem sets, midterm exam, small project, and a final
Prerequisites: admission depends on previous background in statistics and mathematics
Enrollment Preferences: limited to CDE students
Expected Class Size: 15
Grading: no pass/fail option, no fifth course option
Distributions: (D2)

Fall 2024
SEM Section: 01    TR 8:30 am - 9:45 am    Owen Ozier

ECON 504  (F)  Public Economics in Developing Countries
This class is about microeconomic and empirical analysis of government expenditure programs in developing and transitional countries. It provides tools for understanding the effects of government policies, as well as a useful conceptual framework for analyzing normative questions such as “what role should government play in the economy” and “what is a good policy?” The course begins by considering the efficiency of market economies, and rationales for government intervention in the market, such as public goods, externalities, information-based market failures, imperfect competition, and equity. We also consider ways that human behavior might deviate from perfect rationality, and what that might imply for policy. Along the way, we apply these concepts to various examples of policy issues, including, among other things, the environment, education, health, infrastructure, security, social insurance, and aid to the poor. We then turn to the general question of how to make the government work better, addressing questions such as the following. When is it better to have the government own and produce things, and when is it better to privatize? What are the incentives of politicians and government employees, and how does the design of political and budgetary institutions affect the degree to which they serve the public interest? How should responsibilities be divided up between the central government and local governments, and what are the advantages and disadvantages of “decentralization?” What can be done to improve the delivery of basic services? For example, how might one address problems of corruption and absenteeism? Throughout the course, we consider examples of empirical research, and to facilitate this, we will occasionally introduce econometric tools that are particularly useful for microeconomic policy evaluation.

Class Format: discussion
Requirements/Evaluation: problem sets, one 10-page paper, a midterm, and a final exam
Prerequisites: ECON 110; in addition, an empirical methods course (POEC 253, ECON 255, 502 or 503, or STAT 346) must be taken before or concurrently with this class; undergraduate enrollment limited and requires instructor’s permission
Enrollment Limit: 35
Expected Class Size: 30-35
Grading: yes pass/fail option, yes fifth course option
Distributions: (D2)
Attributes: GBST Economic Development Studies, POEC Depth, POEC Skills

Fall 2024
SEM Section: 01 MWF 11:00 am - 12:15 pm Jon M. Bakija

ECON 505 (F) Developing Country Macroeconomics I: Theory
The macroeconomic structures of developing countries tend to be very different from those in high-income countries, and their macroeconomic policy environments also differ in important ways from those in rich countries. This course is intended to introduce students to a set of models that is particularly suitable for analyzing macroeconomic performance in developing countries, as well as to develop some analytical tools that help us understand why such countries have often experienced a variety of macroeconomic crises, including sovereign debt, currency, and banking crises.
Requirements/Evaluation: two hour tests and a comprehensive final exam
Prerequisites: ECON 251 and 252; undergraduate enrollment limited and requires instructor's permission
Enrollment Limit: 25
Expected Class Size: 20-25
Grading: yes pass/fail option, no fifth course option
Distributions: (D2)
Attributes: GBST Economic Development Studies

Fall 2024
LEC Section: 01 MWF 8:30 am - 9:45 am Peter J. Montiel

ECON 506 (F) Fundamentals of Developing Country Macroeconomics
This is a practically oriented course in macroeconomic theory and policy. Macroeconomics is the study of the economy's aggregate behavior, covering such topics as the determinants of output, employment, inflation, and the current account balance. The state of the economy affects everyone. As a result, macroeconomic issues play a central role in national and international debates. In this course, we will build a simple closed economy macro model suitable for analyzing macroeconomic policy. It will be extended to the open economy and the course will include discussions of key issues related to monetary, fiscal and exchange rate policies with a particular focus on developing and emerging economies.
Requirements/Evaluation: two hour tests and a comprehensive final exam
Prerequisites: none; enrollment limited to CDE students
Enrollment Limit: none
Enrollment Preferences: none
Expected Class Size: 15
Grading: no pass/fail option, no fifth course option
Distributions: (D2)

Fall 2024
LEC Section: 01 M 2:35 pm - 3:50 pm W 8:30 am - 9:45 am Andrew P. Powell

ECON 507 (S) Global Poverty and Economic Development (DPE)
Cross-listings: ENVI 234
Secondary Cross-listing
Why are some nations rich while other nations are poor, and what can be done to end global poverty and promote shared prosperity? This course explores the historical determinants of global poverty and inequality, and analyzes the range of policy options available to promote economic development and equalize opportunities. Drawing on research in development economics, development studies, political science, and anthropology, we seek to understand the factors that shaped the global economy and contributed to the cross-country income disparities observed today. In addition, we'll use the tools of modern empirical microeconomics to assess the possibilities for eliminating global poverty and underdevelopment in the future. Undergraduate students will receive 200-level credit and should not register at the 500-level.

Class Format: discussion

Requirements/Evaluation: class discussion, short written assignments and/or empirical exercises, in-class quizzes and exams

Prerequisites: one economics course or permission of instructor

Enrollment Limit: 25

Enrollment Preferences: first-year and sophomore students

Expected Class Size: 25

Grading: no pass/fail option, yes fifth course option

Distributions: (D2) (DPE)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 204(D2) ECON 507(D2) ENVI 234(D2)

Difference, Power, and Equity Notes: This course provides a setting for students to learn about the causes and consequences of poverty in developing countries. It requires students to engage with questions of political and economic power, stressing attentiveness to how market relationships may not generate welfare-maximizing opportunities for poor and marginalized populations. The course builds analytical and empirical skills for diagnosing and addressing constraints on economic development.

Attributes: ENVI Environmental Policy GBST African Studies GBST Economic Development Studies POEC Comparative POEC/Public Policy Courses

Not offered current academic year

ECON 508 (S)(S) Skills for a Modern Economy and How to Pay for Them

Skills are a major driver of economic growth. The skills gap between rich and poor countries explains many of their income differences. The skills gap is a determinant of structural change, the process by which economies grow certain sectors (like manufacturing and services) and shrink others (like agriculture) in the process of achieving high-income country status and reducing poverty. The skills gap both affects and is affected by every other aspect of the economy: agricultural productivity, health, poverty rates, and fiscal capacity. This course will examine the economic policies that are essential for nations to upgrade the skills of their workforce, including the fiscal policies to finance those investments. The course will also explore complementary economic policies—in areas from labor markets to agriculture to healthcare—that allow maximum returns to skills investments.

Class Format: Students will meet the professor in pairs, approximately one hour each week.

Requirements/Evaluation: During a typical week one student in the pair will write a short paper, and the other will respond. The following week the roles will be reversed. Evaluation will be based on the papers written as well as the responses.

Prerequisites: For CDE Fellows: fall semester courses. For undergraduates: Econ 251, Econ 252, and Econ 255, or permission of instructor.

Enrollment Limit: 10

Enrollment Preferences: CDE Fellows, Economics majors.

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Attributes: POEC Depth POEC Skills

Not offered current academic year

ECON 510 (S) Financial Development and Regulation

Cross-listings: 

Primary Cross-listing

This course focuses on the financial system in developing countries and its role in economic development and stability. From both theoretical and...
applied perspectives, we will investigate the implications of financial development on economic development & growth, income inequality, and short-term fluctuations. We will also explore the dynamics that shape the institutions of a society's financial structure and study the complexities of financial policy design. Throughout the course, a variety of tools of modern economics will be considered, such as theory-based quantitative structural methods, reduced form empirics, and field experiments, and we will study the consequences of finance on economic well-being. The first part of the course focuses on the functions of finance, how it contributes to growth and poverty alleviation, and what can be done to increase financial inclusion. What are the key parts of the infrastructure that are needed to improve access to financial services, including via 'fintech,' which is taking off in many developing countries? The second part of the course will build upon the first part and investigate how imperfections in financial development could make developing countries susceptible to short-term stability issues. A key focus of the second part will be how to prevent or minimize crises, and we will analyze the government's role as regulator, supervisor, standard setter, contract enforcer, and owner.

Class Format: discussion

Requirements/Evaluation: Midterm, team assignment and formal in-class debates, and a final research paper.

Prerequisites: For undergraduates, Econ 110, 120, and POEC 253 or ECON 255; undergraduate enrollment limited and requires instructor's permission

Enrollment Limit: 20

Enrollment Preferences: CDE students, as well as undergraduates interested in the role of the financial system in low and middle-income countries.

Expected Class Size: 20

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 352(D2) ECON 510(D2)

Attributes: GBST Economic Development Studies POEC Depth POEC Skills

Spring 2025
LEC Section: 01 MR 1:10 pm - 2:25 pm Burak Uras

ECON 514 (S) Tax Policy in Global Perspective (QFR)

Cross-listings:

Primary Cross-listing

Government policy is important for economic development. To finance their policies, governments must build the fiscal capacity to implement a tax system. In turn, fiscal capacity—the ability for the government to raise revenue—depends on economic development. This endogeneity between fiscal capacity and economic development creates challenges for tax policy in developing countries. Given these challenges, what types of taxes should countries use to raise revenues? How can governments build the fiscal capacity to generate revenue to finance critical services? This class explores tax policy from a global and comparative perspective. Because most students will be CDE fellows, we will emphasize tax policy issues, examples, and evidence that are pertinent to developing countries. However, many tax policy lessons are universal so we will also learn about tax policies in developed countries, especially issues relevant for transnational transactions. Topics addressed include: how economic principles can be applied to the efficiency and equity consequences of tax policies; how personal income taxes, corporate income taxes, and value-added taxes are designed and administered and how they influence the economy; ideas for fundamental tax reforms; the debate over progressive taxes versus "flat" taxes; how taxes affect incentives to save and invest; how market failures and administrative problems may influence the optimality of tax policy; the implications of global capital flows and corporate tax avoidance for tax policy; tax holidays and other special tax incentives for investment; empirical evidence on the influence of taxes on foreign direct investment, labor supply, and tax evasion; tax policy towards natural resources such as minerals and oil; case studies of efforts to reform tax administration and reduce tax evasion and corruption; taxes on land and property; taxes on imports and exports; presumptive taxation; and the informal economy and its implications for tax policy.

Requirements/Evaluation: midterm exam, several problem sets, two 10-page essays

Prerequisites: one public economics course or microeconomics course (ECON 504 or ECON 110), and one empirical methods course (POEC 253 or ECON 255, 502, or 503); students who have previously taken ECON 351 will not be enrolled

Enrollment Limit: 19

Enrollment Preferences: CDE students, but undergraduates with the prerequisites are welcome

Expected Class Size: 15-19
Grading: yes pass/fail option, yes fifth course option

Distributions: (D2) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 389(D2) ECON 514(D2)

Quantitative/Formal Reasoning Notes: The course builds on other QFR Reasoning econ classes.

Attributes: POEC Depth  POEC Skills

Spring 2025
SEM Section: 01    MR 2:35 pm - 3:50 pm     Jon M. Bakija

ECON 515  (S)  Developing Country Macroeconomics II: Institutions and Policy Regimes

Cross-listings:

Primary Cross-listing
Developing countries must confront a number of macroeconomic challenges that industrialized countries do not have to contend with: exchange rate volatility, large capital flows and commodity price fluctuations, for example. Building on ECON 505, this course examines these issues from both theoretical and empirical standpoints. The focus will be on the design of monetary, fiscal and exchange rate policies and institutions to enhance macroeconomic stability, and create an environment conducive to growth.

Requirements/Evaluation: two midterms and a final project
Prerequisites: ECON 505 or 506; undergraduate enrollment limited and requires instructor's permission
Enrollment Limit: none
Enrollment Preferences: none
Expected Class Size: 25-30
Grading: yes pass/fail option, no fifth course option
Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 515(D2) ECON 359(D2)
Attributes: GBST Economic Development Studies

Spring 2025
SEM Section: 01    TR 8:30 am - 9:45 am     Bumsoo Kim

ECON 516  (S)  International Trade and Development

Cross-listings:

Primary Cross-listing
This course will examine the causes and consequences of globalization and its implications for less-developed countries. We will study the classic models of international trade and discuss the empirical relevance of these theories. In addition, we will focus on other dimensions of globalization that are of particular importance to developing countries such as trade and education, emigration, brain drain, remittances, foreign direct investment, trade policies, infant industry protection, trade and growth, the resource course, and trade agreements.

Class Format: discussion
Requirements/Evaluation: problem sets, midterm, presentation, and final
Prerequisites: ECON 251 and ECON 255; undergraduate enrollment limited and requires instructor's permission
Enrollment Limit: 19
Expected Class Size: 19
Grading: no pass/fail option, no fifth course option
Distributions: (D2)
This course is cross-listed and the prefixes carry the following divisional credit:
ECON 516(D2) ECON 366(D2)

Attributes: GBST Economic Development Studies  POEC Depth

Spring 2025
SEM Section: 01    TR 11:20 am - 12:35 pm     Will Olney

**ECON 522 (S) Economics of Climate Change**  (QFR)

Cross-listings: CAOS 387

Secondary Cross-listing

This course introduces the economic view of climate change, including both theory and empirical evidence. Given the substantial changes implied by the current stock of greenhouse gases (GHGs) in the atmosphere, we will begin by looking at impacts on agriculture, health, income, and migration. We will consider the distribution of climate damages across poor and wealthy people, both within and across countries. Next we will study adaptation, including capital investments and behavioral changes. We will examine the sources of climate change, especially electricity generation and transportation, and think about optimal policies. Throughout the course we will discuss the limits of the economic approach, pointing out normative questions on which economic theory provides little guidance.

Requirements/Evaluation: problem sets, midterm, group presentation, final exam

Prerequisites: ECON 251, familiarity with statistics

Enrollment Limit: 25

Expected Class Size: 25

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:
CAOS 387(D2) ECON 387(D2) ECON 522(D2)

Quantitative/Formal Reasoning Notes: The course involves simple calculus-based theory and applied statistics.

Attributes: ENVI Environmental Policy  MAST Interdepartmental Electives  POEC Comparative POEC/Public Policy Courses

Not offered current academic year

**ECON 523 (S) Program Evaluation for International Development**

Cross-listings:

Primary Cross-listing

Development organizations face strict competition for scarce resources. Both public and private organizations are under increasing pressure to use rigorous program evaluation in order to justify funding for their programs and to design more effective programs. This course is an introduction to evaluation methodology and the tools available to development practitioners, drawing on examples from developing countries. It will cover a wide range of evaluation techniques and discuss the advantages and disadvantages of each. The course is a mix of applied econometrics and practical applications covering implementation, analysis, and interpretation. You will learn to be a critical reader of evaluations, and to develop your own plan to evaluate an existing program of your choice.

Requirements/Evaluation: Empirical exercises, exams, writing assignments, and collaborative projects

Prerequisites: one public economics course or microeconomics course (ECON 504 or ECON 110), and one empirical methods course (POEC 253 or ECON 255, 502, or 503)

Enrollment Limit: 20

Enrollment Preferences: CDE Students, but undergraduates with the prerequisites are welcome

Expected Class Size: 20

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)
This course is cross-listed and the prefixes carry the following divisional credit:
ECON 523(D2) ECON 379(D2)

Attributes: PHLH Methods in Public Health POEC Depth POEC Skills

Spring 2025
SEM Section: 01 MWF 11:00 am - 12:15 pm Pamela Jakiela

ECON 524 (S) Advanced Methods for Causal Inference

Cross-listings:

Secondary Cross-listing

How do we estimate the causal effect of a policy on an outcome? Building on a basic understanding of econometrics and statistics, this methodology course will take students through several applied microeconomic techniques for answering this question. Students will be expected to use statistical software throughout, as we explore the inner workings of these methods and the assumptions required for them to deliver credible estimates. We will discuss the randomized trial and its variants, then cover difference-in-difference, regression discontinuity, and instrumental variables. We will discuss historical roots of modern methods, and will explore newer alternatives to the most commonly used kinds of statistical tests.

Class Format: Students will work on laptops in class. Students without laptops should borrow them from the library. Some prior knowledge of either Stata, R, Matlab, or other mathematical/statistical software is essential.

Requirements/Evaluation: Grades are principally based on problem sets, participation in the in-class activities, one in-class exam, and a final replication project.

Prerequisites: Econ 251 and either Econ 255 or Stat 346. CDE Fellows should have taken ECON 502 or 503.

Enrollment Limit: 19

Enrollment Preferences: Junior and senior Economics majors. CDE Fellows require the instructor's permission.

Expected Class Size: 19

Grading: no pass/fail option, yes fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 524(D2) ECON 474(D2)

Spring 2025
SEM Section: 01 TF 1:10 pm - 2:25 pm Owen Ozier

ECON 532 (S) Inclusive Growth and Crisis Response: The Role of Social Protection Systems

Cross-listings:

Primary Cross-listing

Over the past three decades, developing countries have increasingly expanded social protection systems to tackle poverty and vulnerability while promoting inclusive social development and equitable economic growth. These systems provide pro-poor policy instruments that can balance trade and labor market reforms, fiscal adjustments (such as reduced general subsidies) and other economic policies aimed at enabling better market performance. In addition, social protection systems help vulnerable people to cope with shocks to their livelihoods, promoting resilience, human capital development and sometimes high-return risk-taking. In times of crisis, these systems are more important than ever. From March to June 2020, the World Bank identified 195 countries that have adapted and expanded their social protection systems to respond to the COVID-19 pandemic. This tutorial offers the opportunity to explore how shock-responsive social protection systems can better enable developing countries to respond to global and local shocks in a manner that minimizes the medium- to long-term costs of the resulting crises. The tutorial examines how developing countries build social protection systems to tackle poverty, vulnerability and social exclusion that result from global and local shocks. Topics include how the design and implementation of effective interventions both respond to crises and strengthen long-term developmental outcomes. The tutorial focuses on country responses to the COVID-19 pandemic as both a relevant case study and an example of the kinds of global crises to which national social protection systems must be able to respond in the future.

Requirements/Evaluation: Students will write five papers during the term, and will prepare and deliver formal comments on five papers written by
ECON 538 (S) Resilience and Macroeconomic Policy

Despite tremendous improvements in combating global hunger and child mortality, an increasing number of the world's population continue to live in fragile conditions, buffeted by climate change, conflict, forced migration, weak governance, and state inability to deliver basic services to its citizens. Setting macroeconomic policy is difficult in such countries. Not only are decisions affected by policymakers' distorted incentives and governments' internal conflicts, fragility also weakens policy transmission mechanisms and constrains policy spaces. This course aims at identifying the causes and consequences of fragility and at discussing how policies should be changed to enhance resilience in such countries. The course will, first, look into the definition and characteristics of fragility, its numerical representation, and its causes and main consequences. The course will also highlight how policy is made in states of fragility, in particular, fiscal policy, monetary policy, exchange rate policy, export promotion policy, etc.), as well as consider policy interactions. Finally, the course will focus on efforts to mitigate fragility and enhance resilience in such countries, including the role of structural policies and that of international financial institutions.

Requirements/Evaluation: Students will write 5-6 papers during the term, and will prepare and deliver formal comments on 5-6 papers written by other students. The required text is "Macroeconomic Policy in Fragile States," edited by Ralph Chami, Raphael Espinoza, and Peter Montiel, 2021, OUP.

Prerequisites: ECON 252 and ECON 255

ECON 539 (S) Debt Sustainability

The stock of government debt has skyrocketed in many countries. At the same time, interest rates have risen as global central banks have sought to tame inflation, generating concerns about the sustainability of public debt, especially in many lower-income and emerging market economies. What does fiscal/debt sustainability mean, and what are the implications of high public debt for growth and stability? How do the IMF and other institutions assess a country's public debt sustainability? How does uncertainty factor into these assessments, and what special considerations are relevant for natural resource exporters? How have governments sought to bring down high levels of debt, or to prevent excessive debt levels from arising in the first place? Do these approaches need to be modified to account for the impact of COVID on debt stocks? How will demographic developments and climate change affect debt sustainability? By addressing these questions, the course will seek a nuanced understanding of the role of public debt in the economy and its benefits and risks.

Class Format: Students will meet the professor in pairs, approximately one hour each week.

Requirements/Evaluation: During a typical week one student in the pair will write a short paper, and the other will respond. The following week the roles will be reversed. Evaluation will be based on the papers written as well as the responses.
Prerequisites: For CDE Fellows: fall semester courses. For undergraduates: Econ 251, Econ 252, and Econ 255, or permission of instructor.

Enrollment Limit: 10

Enrollment Preferences: CDE Fellows, Economics majors.

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

Not offered current academic year

ECON 540  (F)(S)  Research Studies

In this course, each Fellow carries out an individual research study on a topic in which they have particular interest, usually related to one of the three seminars. The approach and results of the study are reported in a major paper. Research studies are analytical rather than descriptive and in nearly all cases include quantitative analyses. Often the topic is a specific policy problem in a Fellow's own country.

Class Format: research

Grading: yes pass/fail option, yes fifth course option

Distributions: (D2)

Fall 2024
IND Section: 01    TBA    Quamrul H. Ashraf

Spring 2025
IND Section: 01    TBA    Quamrul H. Ashraf

ECON 545  (S)  Growth Diagnostics  (QFR)

Cross-listings:

Secondary Cross-listing

Evidence from across the developing world suggests that the "binding constraints" to economic growth can be remarkably heterogeneous—i.e., the growth potential of stagnating or underperforming economies may be unlocked in a large variety of ways. For instance, pre-reform China had been constrained by poor supply incentives in agriculture, whereas Brazil has been held back by an inadequate supply of credit, South Africa by poor employment incentives in manufacturing, El Salvador by insufficient production incentives in tradables, Zimbabwe by bad governance, and so forth.

How can developing-country policymakers determine country-specific constraints like these, thus enabling them to pragmatically pursue a selected set of growth-promoting policies rather than attempting to implement a "laundry list" of reforms that are naively based on "best practice" rules-of-thumb? This course will serve as a primer on "growth diagnostics," an empirically-driven analytical framework for identifying the most binding constraints to economic growth in a given country at a point in time, thereby allowing policymakers to develop well-targeted reforms for relaxing these constraints while being cognizant of the nation's prevailing economic, political, and social context. The course will first build on the basic theories and empirics of economic growth to elucidate the diagnostic framework and will then employ a wide range of country-specific case studies to demonstrate how the framework can be operationalized for policy making. Throughout the semester, students will be required to work in groups, each representing a given developing or emerging-market economy, in order to build a growth diagnostic for their group's assigned country by the end of the course.

Requirements/Evaluation: extensive class participation, several short (5-page) reports, a final group project comprising a country growth diagnostic, and a final group presentation on the diagnostic

Prerequisites: for undergraduates ECON 251, ECON 252, and either ECON 255 or STAT 346

Enrollment Limit: 19

Enrollment Preferences: CDE fellows and senior Economics majors

Expected Class Size: 19

Grading: no pass/fail option, no fifth course option

Distributions: (D2) (QFR)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 345(D2) ECON 545(D2)
Quantitative/Formal Reasoning Notes: The course material will be drawn heavily on mathematical and statistical models of economic growth and macroeconomic development, and students will be required to routinely develop mathematical models and/or conduct econometric analysis in their assignments.

Spring 2025
SEM Section: 01   TR 9:55 am - 11:10 am   Quamrul H. Ashraf

ECON 548  (S) Human Capital and Development
Cross-listings:
Secondary Cross-listing
Children around the world face unequal opportunities to attend school, and to learn. This course will introduce students to economic studies of education, focusing on pre-school through high school. The course will mainly cover research in low-income and middle-income countries, but will also discuss connections to policy debates in the United States and elsewhere. Topics will include the importance of early-life conditions and investments; the connections between health and education; the roles of information, incentives, inputs, and technology; research methods; and decisions between policy options. Students in this course will analyze data themselves, and will critically read published research.

Requirements/Evaluation: Grades are principally based on readings questions, problem sets, two in-class exams, and short presentations by students.
Prerequisites: ECON 255, POEC 253, STAT 346, or permission of the instructor. CDE Fellows should have taken ECON 502 or 503.
Enrollment Limit: 20
Enrollment Preferences: Economics majors and CDE Fellows
Expected Class Size: 20
Grading: yes pass/fail option, yes fifth course option
Distributions: (D2)
This course is cross-listed and the prefixes carry the following divisional credit:
ECON 348(D2) ECON 548(D2)
Attributes: GBST Economic Development Studies  POEC Comparative POEC/Public Policy Courses
Not offered current academic year

ECON 571  (S) Global Health Policy Challenges
Cross-listings:
Secondary Cross-listing
Poor health is both a cause and a consequence of poverty. It can trap individuals in poverty and reduce aggregate economic growth. This course will be structured around major global health challenges, including maternal health, infectious diseases (e.g. HIV/AIDS, tuberculosis, COVID), neglected tropical diseases (e.g malaria, dengue, Ebola), nutritional deficiencies, and mental health. We will focus primarily, but not exclusively, on health in low-income countries in this course. Students will read papers and conducted empirical assignments related to the various topics, as well as develop their own research idea during the semester related to one of the topics covered.

Requirements/Evaluation: empirical problem sets, a short paper and a substantive research paper that includes some analysis of existing data
Prerequisites: ECON 251 and (POEC 253 or ECON 255 or STAT 346) or permission of instructor
Enrollment Limit: 25
Enrollment Preferences: juniors and sophomores
Expected Class Size: 25
Grading: no pass/fail option, yes fifth course option
Distributions: (D2)
This course is cross-listed and the prefixes carry the following divisional credit:
ECON 381(D2) ECON 571(D2)
Attributes: PHLH Decision-Making by Institutions + Individuals  POEC Depth  POEC Skills
ECON 15 (W) Introduction to Management Consulting

Introduction to Management Consulting provides a broad overview of the management consulting industry from the perspective of an experienced practitioner. The objectives of the class are to provide a real world view as to what consultants do and to help prepare students who are considering joining a management consulting firm post-Williams. The class will begin with a broad discussion of the differences in the types of business consulting and how management consulting firms are utilized by corporations and private equity firms. The next section will introduce the complexities in developing successful business strategies and review common frameworks for structuring strategic analysis. Students will then be provided instruction on (and practice with) the tools utilized by strategy consultants to analyze markets, evaluate competitive environments, synthesize customer information, and perform financial analysis in order to develop growth strategies. Additionally, one class session will be devoted to tips for getting a job in management consulting including how to ace case interviews. The final small group project will entail the development and delivery of a consulting presentation for a business with a strategic need.

Requirements/Evaluation: Presentation(s); Other: Homework and class participation

Prerequisites: None

Enrollment Limit: 25

Enrollment Preferences: If the course is over enrolled, students will be asked to address a few short questions germane to their interest in the course, and I will make the final selection.

Expected Class Size: NA

Grading: pass/fail only

Unit Notes: Peter McKelvey ’86 is the former President of the Americas Region of L.E.K. Consulting, a global management consulting firm. He was with L.E.K. for 29 years and has extensive experience in corporate strategy development and mergers & acquisitions.

Materials/Lab Fee: $36

Attributes: EXPE Experiential Education Courses

Not offered current academic year

ECON 22 (W) Volunteer Income Tax Assistant

This experiential course provides students with the opportunity to explore public policy through training and work as volunteer income tax preparers for low-income working people in North Adams, Massachusetts. By the end of the term, students will be IRS-certified volunteer income tax preparers. Students will progress through the IRS "Link and Learn" online tax preparer training program that leads to certification, both in class and on their own time. Class sessions will also include several lectures/discussions that offer a brief overview of the U.S. income tax and its history, as well its relationship to U.S. social policy (especially policy towards lower-income households). This year’s course is co-taught by a behavioral economist, and thus some class time will be devoted to discussing the psychological aspects of filing taxes, both when filing for yourself and when serving as a volunteer assistant for low-income clients. At the end of the term, students have the option of writing a 10-page analytic essay or serving as volunteer tax preparers for local clients of the Berkshire Community Action Council. Note: This course satisfies the Political Economy Major Experiential Learning requirement.

Requirements/Evaluation: 10-page paper, or serving as volunteer tax preparers for local clients of the Berkshire Community Action Council

Prerequisites: none

Enrollment Limit: 18

Enrollment Preferences: statement of interest

Expected Class Size: NA

Grading: pass/fail only

Attributes: EXPE Experiential Education Courses

Not offered current academic year
ECON 23  (W)  Investing With Purpose: The planning and practice of endowment investing

Are you eager to learn about investing? Or perhaps you are interested in non-profits and want to understand how endowments support their mission? Maybe you've thought about a potential career in finance, but want to know the difference between asset management and investment banking?

ECON 23 is open to students of all majors and backgrounds; students with no prior experience are welcome and encouraged to apply. ECON 23 is designed to introduce students to investing and equip students with key industry knowledge and skills. The course is taught by members of the Williams College Investment Office, which oversee the college's $3.5 billion endowment. We'll start with an introduction to the role that the endowment plays in supporting the college's mission. Next, the course will cover different investment assets including equity, hedge funds, venture capital, private equity, fixed income, and impact investing. Students will receive a brief overview of accounting and will have the opportunity to learn about different career paths in finance. Through discussions, readings, and a group case study, students will apply skills learned. Students will learn from practicing investment professionals through guest speakers and will gain practical skills in Microsoft Excel through training and project work. The course will conclude with a required trip to Boston, where the class will spend the day with the Investment Office team and network with Williams alumni working in endowment management, private equity, consulting, and more. The course is open to first-years, sophomores, and juniors. To apply, please email investmentoffice@investments.williams.edu by 11:59 PM ET on Sunday, October 20, 2024 your resume and a brief personal statement discussing your background and curiosity inform your interest in this course and what you hope to gain from it. For students without a resume prepared, ensure your personal statement contains relevant information you wish to convey

Requirements/Evaluation: Other: Other: Evaluation is based on class attendance, participation, and completion of assignments, which include required readings, weekly journal reflections, Excel assignments, a financial statements analysis, and a group case study. Additionally, students are required to attend a day-long trip to Boston to meet with the Investment Office team and guest speakers.

Prerequisites: None

Enrollment Limit: 18

Enrollment Preferences: First-years, sophomores, and juniors

Expected Class Size: NA

Grading: pass/fail only

Unit Notes: Morgan Kochard is an Associate Director at the Williams College Investment Office, focusing on global long equity, venture capital, buyouts and real estate. Previously, she held investing roles at the UCSF investment office and Cambridge Associates.

Attributes: STUX Winter Study Student Exploration

Not offered current academic year

ECON 24  (W)  The Economics, Geography and Appreciation of Wine

This course provides an introduction to the economics, geography and appreciation of wine. We will be studying the economics and geography of wine production, and will also learn to identify, understand and appreciate the major wine types of the world. The course will involve lectures, outside readings, discussions, and in-class wine tastings. We will focus primarily on the Old World wine styles and regions of France, Italy, Germany, Austria, Spain and Portugal, but will also cover some New World wine regions including California, Oregon, Chile, Argentina, South Africa, New Zealand and Australia among others.

Requirements/Evaluation: final project or presentation and a blind tasting exam

Prerequisites: none, but students must be 21 years old on or before the first day of class

Enrollment Limit: 10

Enrollment Preferences: Mix of academic record and diversity of backgrounds and interests. Students are invited to email the instructor with a brief description of background and interests, but are not required to do so.

Expected Class Size: 10

Grading: pass/fail only

Materials/Lab Fee: $300

Attributes: EXPE Experiential Education Courses  STUX Winter Study Student Exploration  WELL Winter Study Wellness

Not offered current academic year

ECON 25    Advanced Topics in Economic Theory

This course will cover advanced, graduate-level topics in economic theory, potentially including topics in game theory, mechanism design, contract theory, global games, and macroeconomics. Emphasis on mathematical proofs and tools.
ECON 26 (W) Micro-Simulation Modeling for Ex Ante Policy Analysis

Cross-listings:

Micro-simulation modeling provides one of the most powerful tools for ex ante evidence-based analysis of economic and social policy interventions. Rooted in representative household surveys of a country's population, the models provide a picture of poverty, employment, consumption and income levels throughout the country. A micro-simulation model enables researchers to investigate the impact of existing economic and social policy interventions (such as tax and public benefit interventions) on income levels, poverty, inequality and other outcomes. In addition, researchers are able to simulate the impact and estimate the cost of new policy interventions. During this course, students will learn to apply these methods to analyze public policies and interpret the findings. The course examines measurement issues, analytical tools and their application to household survey data for a range of developing countries. The course also links the outcomes of the analysis with the challenges of policy implementation, exploring how the political environment and/or institutional setting may result in the implementation of second-best options. This is a hands-on modeling course, and students will build a micro-simulation model for a country of their choice and use this model in completing the course requirements. The course will employ Excel, Stata and advanced micro-simulation packages. The final requirement for the course is a policy paper that provides students with an opportunity to write accessible prose that communicates the methodology adopted and the key lessons of the analysis.

Requirements/Evaluation: two 10-page papers and final project and presentation
Prerequisites: Fall semester CDE courses for CDE fellows
Enrollment Limit: 10
Enrollment Preferences: CDE Fellows; undergraduate enrollment at the discretion of the instructor.
Expected Class Size: NA
Grading: no pass/fail option, no fifth course option
Distributions: (D2)
This course is cross-listed and the prefixes carry the following divisional credit:
ECON 52(D2) ECON 26(D2)
Attributes: EXPE Experiential Education Courses STUX Winter Study Student Exploration
Not offered current academic year

ECON 28 (W) Product Management and Solution Design

In this course, students will work in small teams to design a software product that solves a problem of their choosing. To support this endeavor, we will examine, critique, and apply methodologies intended to solve these problems, including those developed by Marty Cagan, Steve Blank, Don Norman, Steve Krug, and Eric Ries. Students will learn to act as effective product managers, achieving alignment between business, technology, and UI/UX design. Such alignment is crucial given that technology projects often fail not because of the quality of technical engineering but due to misalignment in these three areas. Google Glass failed to account for its price tag, fashion, and the privacy panic. The initial Obamacare website failed to address management issues and predict the volume of website visitors. Flexcube failed to update and incorporate users into the design of their product, resulting in a $500 M UX mistake for Citi bank. These organizations did not identify the right problem, or did not build the right solution. The underlying conflict is IT teams like to be told what to build, but users often do not know what they want or how to express it. We will learn how product managers and their interdisciplinary teams can bridge that gap.

Requirements/Evaluation: Presentation(s); Creative project(s)
Prerequisites: None
Enrollment Limit: 15  
Enrollment Preferences: Preference for upper classmen (seniors, juniors)  
Expected Class Size: NA  
Grading: pass/fail only  
Unit Notes: Allan Wellenstein is a SVP at DataArt, where he heads the DataArt Solution Advisors consulting group as well as their product management competency. Though technically headquartered in NYC, he lives with his wife and three children in Pittsfield.

Materials/Lab Fee: $25  
Attributes: EXPE Experiential Education Courses  STUX Winter Study Student Exploration  
Not offered current academic year

ECON 29 (W) Infrastructure Policy in Developing Countries  
Cross-listings:  
Secondary Cross-listing  
This is a CDE winter term course, open to undergraduates. Students will be introduced to policy-making challenges of infrastructure, with a focus on developing countries. Students will read and discuss case studies on how different countries have sought to address infrastructure challenges through policy interventions. Through these, students are expected to develop an appreciation for different elements of infrastructure policy, and how countries have succeeded - or not - in using policies to meet their development objectives. The course will touch on evolving energy technologies, different transportation sectors, public-private partnerships, infrastructure financing and the impacts of climate change. The course approach is applied political economy as opposed to theory, and there are no prerequisites. Case examples will be drawn from a range of developing countries, covering Latin America, Africa, the Middle East and Asia. Students are expected to participate actively in class discussions, and will write a paper and deliver a team presentation on ways in which infrastructure challenges can be approached in a country of their choosing.

Requirements/Evaluation: Paper(s) or report(s); Presentation(s); Other: Class participation

Prerequisites: None

Enrollment Limit: 10  
Enrollment Preferences: Interest in the topic.

Expected Class Size: NA  
Grading: no pass/fail option, no fifth course option

Unit Notes: The instructor is the former Global Director of Infrastructure at the World Bank Group's International Financial Corporation. He has over three decades of experience in economic development, and teaches, consults, and writes about infrastructure.

Distributions: (D2)  
This course is cross-listed and the prefixes carry the following divisional credit:
ECON 51(D2) ECON 29(D2)  
Attributes: STUX Winter Study Student Exploration  
Not offered current academic year

ECON 30 (W) Honors Project: Economics  
The "Specialization Route" to the degree with Honors in Economics requires that each candidate take an Honors Winter Study Project in January of their senior year. Students who wish to begin their honors work in January should submit a detailed proposal. Decisions on admission to the Honors WSP will be made in the fall. Information on the procedures will be mailed to senior majors in economics early in the fall semester. Seniors who wish to apply for admission to the Honors WSP and thereby to the Honors Program should register for this WSP as their first choice. Some seniors will have begun honors work in the fall and wish to complete it in the WSP. They will be admitted to the WSP if they have made satisfactory progress. They should register for this WSP as their first choice.

Class Format: honors project  
Grading: pass/fail only  
Not offered current academic year
ECON 31 (W) Honors Thesis: Economics
To be taken by students participating in year-long thesis research Economics 493-494.

Class Format: thesis
Grading: pass/fail only
Not offered current academic year

ECON 32 (W) The Fun of Fundraising
According to the National Center for Charitable Statistics, there are 1.5 million non-profit organizations registered in the U.S., and each of those organizations needs to actively fundraise in order to sustain their operations. Each year, hundreds of billions of dollars are contributed to charities from donors across the U.S. What is it that makes people want to give? What do donors consider when choosing what organizations to support? What type of an impact do individuals want to make through their philanthropy? This class will examine these questions and more through case studies, conversations with non-profit leaders and board members, and philanthropists. Students will gain a basic understanding of a non-profit financial model and how non-profits can demonstrate impact to existing and potential donors, as well as the different ways in which fundraising can actually be fun and can inform a potential career in the non-profit sector. Much of the course reading will involve actual fundraising materials and collateral, including appeals, brochures, grant applications, and stewardship reports. Final projects will give students the opportunity to try their own hand at creation of stewardship or solicitation pieces, potentially in partnership with for the benefit of a local non-profit. In addition to regular course meetings, occasional meetings with non-profit leaders or donors may be required; whenever possible (based on the schedule of the guest speaker), these will be scheduled during the day, and any evening events would be optional.

Requirements/Evaluation: Paper(s) or report(s); Presentation(s)
Prerequisites: None
Enrollment Limit: 20
Enrollment Preferences: Seniors receive priority; then by personal statement of interest
Expected Class Size: NA
Grading: pass/fail only
Unit Notes: Ryan Ford '09 has fifteen years experience in higher education supporting alumni engagement and philanthropy. He is currently Director of Milestone Reunion Programs at Williams after previously working at Dartmouth, Harvard, and non-profit setting.
Attributes: EXPE Experiential Education Courses STUX Winter Study Student Exploration

Not offered current academic year

ECON 33 (W) Climate and Energy Finance
How do we finance the energy transition? How do we use money to mitigate the worst effects of global warming? How can a career in finance fight climate change? This course introduces students to key topics, market players, and tools in climate and energy finance and surveys how to mobilize capital to finance clean energy (largely in a U.S. energy market context) and other climate-forward outcomes. Students will learn fundamental financial and investment concepts, including basic capital structures, three-statement models, and project finance. Students will explore sectors for decarbonization beyond energy, including food systems, buildings, and transportation. All modules will emphasize equity and social justice challenges and successes. Some modules may even be fun. Throughout, students will learn about market participants in each area and hear from guest speakers so that they may complete the course with a better understanding of careers at the intersection of climate change and finance.

Requirements/Evaluation: Paper(s) or report(s); Presentation(s)
Prerequisites: N/A
Enrollment Limit: 20
Enrollment Preferences: Preference will be given to students interested in exploring careers in energy, finance, and/or climate justice, based on a paragraph expressing their interest. All levels of experience are welcome, especially beginners.
Expected Class Size: NA
Grading: pass/fail only
Unit Notes: Kaitlin Butler '11 works on the Investment and Portfolio Management team at NY Green Bank, the largest green bank in the U.S., where she supports the origination of clean energy investments across New York. She earned an MBA from Columbia University.
Attributes: EXPE Experiential Education Courses STUX Winter Study Student Exploration
ECON 34 (W) Data for Development

Cross-listings:

Secondary Cross-listing

Recently we have experienced an explosion in publicly available data sources that can be helpful to inform development research. This course is designed to provide hands-on experience using microeconomic data to assess trends in key indicators used to measure progress towards the sustainable development goals. The course will build students’ skills in finding, accessing and using various data sources. It will also expose students to the range of new types of data for development. Students will build skills in data cleaning, data manipulation and data visualization techniques. The course will use Stata, and most of the course will involve hands-on in-class data workshops, interspersed with some lectures and readings. Each student will focus on a low- or middle-income country of their choice and produce a policy report using the data skills acquired during the course.

Requirements/Evaluation: Short paper and final project or presentation

Prerequisites: CDE students need to have completed their fall semester core classes. Undergrad students need to have taken STAT 161 or equivalent.

Enrollment Limit: 15

Enrollment Preferences: CDE preference. Undergrad students can enroll at the discretion of the instructor.

Expected Class Size: NA

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:
ECON 34(D2) ECON 53(D2)

Attributes: STUX Winter Study Student Exploration

ECON 35 Deconstructing Finance: An Introduction

Are you thinking of a career in Finance, but not sure what it really means? Conflicted? Have you ever talked to someone in Finance and learned from their career experience? Are you interested in developing your resume and interviewing skills? This introductory course will define the institutions that comprise the world of Finance. This will be accomplished in three units. First, we will explore the sell side from the buy side, defining the market interrelationships. This will require reading provided in a packet. Second, building on the first unit we will have panel discussions with various senior Finance professionals comprising asset management, investment banking and global markets. Third, we will develop skills in writing resume reviews and practice interviews. Students will practice as both interviewee and interviewer for specific job roles, graded for competencies and whether the results justify an offer/further interviews.

Requirements/Evaluation: Presentation(s); Performance(s)

Prerequisites: Freshman and Sophomores preferred with interest in segment of Finance

Enrollment Limit: 12

Enrollment Preferences: Freshman and Sophomore year preferred with statement on what they intend to learn from course.

Expected Class Size: NA

Grading:

Unit Notes: Henry Lee received a BA in Political Economy from Williams College in 1979 and an MBA in Finance from the Wharton School at the University of Pennsylvania in 1984. He has over 40 years of experience in capital markets with Goldman, Lehman and BNP.

Attributes: STUX Winter Study Student Exploration WELL Winter Study Wellness

Not offered current academic year

ECON 36 The Liberal Arts in Investing

Consider the following quotes and questions: "You can't really know where you are going until you know where you have been." -Maya Angelou
"Acquire worldly wisdom and adjust your behavior accordingly." -Charlie Munger Why does the CEO of the world's largest sovereign wealth fund, responsible for investing $1.6 trillion, have Master's Degrees in the History of Art and Social Psychology? How can a generalist background compete
in a world of increasing specialization? This course explores the intersection of liberal arts education and the field of investing. Investors such as family offices and foundations see a wide spectrum of the finance world through their investments across asset classes, geographies, sectors, and styles. Given this breadth of exposure, a broad educational background provides an advantageous toolkit for evaluating investment opportunities and building strong connections across the industry. By studying examples from subjects such as psychology, biology, history, economics, and more, students will see how interdisciplinary learnings can be applied to investments in asset classes such as public equities, venture capital, real assets, and more.

Consider artificial intelligence (AI), which many consider a generational investment opportunity. While specialists may only understand narrow aspects of this mega-trend, a well-rounded investor will draw lessons from historical examples of disruptive technologies, examine philosophical and ethical considerations, and evaluate potential implications across a variety fields. Between class discussions, readings, weekly reflections, and a final presentation, students will leave this class with an appreciation for the quotes and questions listed above. The only prerequisite is intellectual curiosity! All backgrounds, regardless of intent to work in finance, are encouraged to apply. All costs (books, films, optional coffee chats, etc.) will be covered by the instructor.

Requirements/Evaluation: Paper(s) or report(s); Presentation(s); Other: Class participation

Prerequisites: None; all backgrounds, regardless of intent to work in finance, are encouraged to apply.

Enrollment Limit: 10

Enrollment Preferences: If overenrolled, preference will be given to students who email a brief statement of interest to the instructor (jb@omptrustco.com).

Expected Class Size: NA

Grading:

Unit Notes: Jack Bissell ('16) is a Managing Director at Old Mountain, a Boston-based single-family office. He previously worked at the Williams Investment Office in Boston. Jack graduated Williams College with a degree in Economics and is CFA Charterholder.

Attributes: STUX Winter Study Student Exploration  WELL Winter Study Wellness

Not offered current academic year

**ECON 37  Storytelling in Business**

The liberal arts graduate interested in pursuing a corporate career may at first feel disadvantaged by their lack of a business, marketing, or communications major. However, it is precisely the core liberal arts skill set - research, critical thinking, persuasive writing, creativity - that is most valued in a corporate context. A key attribute of the successful businessperson is their ability to influence people and to spark change; storytelling is one of the most powerful tools by which to do so. In this interactive course, students will practice the art of storytelling in the business domain. We will begin by exploring the power of stories across the course of human history and in contemporary society today. From there, we will examine first-hand how quantitative information can serve as an effective means of marshalling evidence in support of a story. For better or worse, PowerPoint is the primary communications vehicle inside large businesses, so the next phase of the course will deal with telling stories through slide presentations. Finally, we will close with a session on how to tell your own story, which will be an important part of securing a job and progressing your career. Throughout the course, students will be required to present in front of their peers, culminating in the delivery of a final slide presentation on a topic of each student's choice. Additionally, the course will feature a number of guest speakers from various business backgrounds (e.g. tech start-up, venture capital, corporate messaging) who pitch and evaluate business stories every day.

Requirements/Evaluation: Presentation(s); Other: Class participation

Prerequisites: None

Enrollment Limit: 20

Enrollment Preferences: Seniority

Expected Class Size: NA

Grading:

Unit Notes: Laurence Birdsey is a Managing Director & Partner at Boston Consulting Group (BCG) where he serves healthcare clients on operations topics. He has over 15 years of professional experience in management consulting and non-profit management.

Attributes: STUX Winter Study Student Exploration

Not offered current academic year

**ECON 38  Case Studies: How the Internet Created a Cultural and Business Revolution**

How did new technology companies harness the power of the Internet to disrupt traditional industries and create new categories of culture and
commerce during the past 25 years? What management decisions led to the early demise of both emerging and once-dominant media businesses? In this Business Case Study Class, we will study the evolution of Internet technology, culture, and commerce through the lens of an emerging business and the issues that they were wrestling with on the path to success (or failure). Each case study will present a company's story with historical industry analysis and a specific range of issues and problems for which students are asked to discuss, debate, analyze, and ultimately take a position to solve complex problems. The case studies will follow business categories that include e-commerce, advertising, media publishing, social media, and on-demand sharing, through the lens of successfully disruptive businesses that include Amazon, Google, Netflix, Facebook, Airbnb, and Uber and failed businesses such as AOL, Myspace, and Blockbuster. Required Texts: *Here Comes Everybody* by Clay Shirky, Penguin Group (USA), 2008. *How We Got to Now* by Steven Johnson, Penguin Group (USA), 2018. *Understanding Michael Porter* by Joan Magretta, Harvard Business Press, 2011. Weekly news and scholarly articles related to each case study In addition to the readings, students will be asked to lead and participate in class discussion, produce short writing assignments, develop independent case analyses, and complete a take-home final exam.

**Requirements/Evaluation:** Paper(s) or report(s); Presentation(s); Performance(s); Other: Take-home test

**Prerequisites:** None

**Enrollment Limit:** 30

**Enrollment Preferences:** Class standing, majors, concentrations, specific courses taken, or areas of interest.

**Expected Class Size:** NA

**Grading:**

**Unit Notes:** Michael Cohen is an entrepreneur, strategy consultant, and investor primarily focused on media and disruptive technology through his firm, Catch Interact. He holds a BA in English from Tufts University and an MBA from Columbia Business School.

**Materials/Lab Fee:** $55

**Attributes:** EXPE Experiential Education Courses  STUX Winter Study Student Exploration

Not offered current academic year

---

**ECON 51 (W) Infrastructure Policy in Developing Countries**

**Cross-listings:**

**Primary Cross-listing**

This is a CDE winter term course, open to undergraduates. Students will be introduced to policy-making challenges of infrastructure, with a focus on developing countries. Students will read and discuss case studies on how different countries have sought to address infrastructure challenges through policy interventions. Through these, students are expected to develop an appreciation for different elements of infrastructure policy, and how countries have succeeded - or not - in using policies to meet their development objectives. The course will touch on evolving energy technologies, different transportation sectors, public-private partnerships, infrastructure financing and the impacts of climate change. The course approach is applied political economy as opposed to theory, and there are no prerequisites. Case examples will be drawn from a range of developing countries, covering Latin America, Africa, the Middle East and Asia. Students are expected to participate actively in class discussions, and will write a paper and deliver a team presentation on ways in which infrastructure challenges can be approached in a country of their choosing.

**Requirements/Evaluation:** Paper(s) or report(s); Presentation(s); Other: Class participation

**Prerequisites:** None

**Enrollment Limit:** 10

**Enrollment Preferences:** Interest in the topic.

**Expected Class Size:** NA

**Grading:** no pass/fail option, no fifth course option

**Unit Notes:** The instructor is the former Global Director of Infrastructure at the World Bank Group's International Financial Corporation. He has over three decades of experience in economic development, and teaches, consults, and writes about infrastructure.

**Distributions:** (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 51(D2) ECON 29(D2)

**Attributes:** STUX Winter Study Student Exploration

Not offered current academic year
ECON 52 (W) Micro-Simulation Modeling for Ex Ante Policy Analysis

Cross-listings:

Primary Cross-listing

Micro-simulation modeling provides one of the most powerful tools for ex ante evidence-based analysis of economic and social policy interventions. Rooted in representative household surveys of a country's population, the models provide a picture of poverty, employment, consumption and income levels throughout the country. A micro-simulation model enables researchers to investigate the impact of existing economic and social policy interventions (such as tax and public benefit interventions) on income levels, poverty, inequality and other outcomes. In addition, researchers are able to simulate the impact and estimate the cost of new policy interventions. During this course, students will learn to apply these methods to analyze public policies and interpret the findings. The course examines measurement issues, analytical tools and their application to household survey data for a range of developing countries. The course also links the outcomes of the analysis with the challenges of policy implementation, exploring how the political environment and/or institutional setting may result in the implementation of second-best options. This is a hands-on modeling course, and students will build a micro-simulation model for a country of their choice and use this model in completing the course requirements. The course will employ Excel, Stata and advanced micro-simulation packages. The final requirement for the course is a policy paper that provides students with an opportunity to write accessible prose that communicates the methodology adopted and the key lessons of the analysis.

Requirements/Evaluation: two 10-page papers and final project and presentation

Prerequisites: Fall semester CDE courses for CDE fellows

Enrollment Limit: 10

Enrollment Preferences: CDE Fellows; undergraduate enrollment at the discretion of the instructor.

Expected Class Size: NA

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 52(D2) ECON 26(D2)

Attributes: EXPE Experiential Education Courses STUX Winter Study Student Exploration

Not offered current academic year

ECON 53 (W) Data for Development

Cross-listings:

Primary Cross-listing

Recently we have experienced an explosion in publicly available data sources that can be helpful to inform development research. This course is designed to provide hands-on experience using microeconomic data to assess trends in key indicators used to measure progress towards the sustainable development goals. The course will build students' skills in finding, accessing and using various data sources. It will also expose students to the range of new types of data for development. Students will build skills in data cleaning, data manipulation and data visualization techniques. The course will use Stata, and most of the course will involve hands-on in-class data workshops, interspersed with some lectures and readings. Each student will focus on a low- or middle-income country of their choice and produce a policy report using the data skills acquired during the course.

Requirements/Evaluation: Short paper and final project or presentation

Prerequisites: CDE students need to have completed their fall semester core classes. Undergrad students need to have taken STAT 161 or equivalent.

Enrollment Limit: 15

Enrollment Preferences: CDE preference. Undergrad students can enroll at the discretion of the instructor.

Expected Class Size: NA

Grading: no pass/fail option, no fifth course option

Distributions: (D2)

This course is cross-listed and the prefixes carry the following divisional credit:

ECON 34(D2) ECON 53(D2)

Attributes: STUX Winter Study Student Exploration

Not offered current academic year
ECON 55 (W) Monetary Policy in Emerging and Developing Economies

The goal of the class is to help you become an effective macroeconomic policy analyst. Specifically, you will acquire experience in obtaining, manipulating, and presenting macroeconomic data, learn how to effectively communicate economic ideas and analysis in writing, and hone oral presentation skills. The focus will be on four practical issues encountered in the formulation and implementation of monetary policy: (1) estimating monetary policy rules, (2) measuring potential output, (3) modeling inflation, and (4) understanding monetary policy transmission. The course will entail writing a case study in which you will use macroeconomic theory as a guide for interpreting macroeconomic data, and a policy memo in which you will make a case for a specific policy action based on sound theoretical and empirical analysis.

Requirements/Evaluation: 1 case-study; 1 policy memo
Prerequisites: CDE Students only, not open to undergraduate students
Enrollment Limit: 10
Enrollment Preferences: CDE Graduate students
Expected Class Size: N/A
Grading: no pass/fail option, no fifth course option

Not offered current academic year

ECON 99 (W) Independent Study: Economics

Open to upperclass students. Students interested in doing an independent project (99) during Winter Study must make prior arrangements with a faculty sponsor. The student and professor then complete the independent study proposal form available online. The deadline is typically in late September. Proposals are reviewed by the pertinent department and the Winter Study Committee. Students will be notified if their proposal is approved prior to the Winter Study registration period. Winter Study 99 projects sponsored by the economics department must adhere to a specific set of rules outlined on the economics department website at (https://econ.williams.edu/major/economics-winter-study-99-guidelines/). Please review these rules well in advance of the deadline.

Class Format: independent study
Requirements/Evaluation: 5 page paper on the economics literature relevant to the project is due at the beginning of the Winter Study period. For an internship, a final 10 page paper summarizing the findings of the internship and relating them explicitly to the issues discussed in the proposal is required at the end of the Winter Study period. Proposals for 99s other than internships must set out a clear schedule of work and means of evaluation. Unless compelling considerations argue otherwise, you should expect to include a paper as part of your work.
Prerequisites: ECON 110 or ECON 120, plus one economics course relevant to the project.
Enrollment Limit: NA
Enrollment Preferences: NA
Expected Class Size: NA
Grading: pass/fail only

Not offered current academic year