ECONOMICS (Div II)
Chair: Professor Lara Shore-Sheppard

- Quamrul H. Ashraf, Professor of Economics; on leave Spring 2021
- Jon M. Bakija, W. Van Alan Clark '41 Third Century Professor in the Social Sciences
- Ralph M. Bradburd, David A. Wells Professor of Political Economy
- Gerard Caprio, Chair of the Executive Committee for the Center for Development Economics and William Brough Professor of Economics; affiliated with: Ctr-Development Economics
- Gregory P. Casey, Assistant Professor of Economics
- Matthew Chao, Assistant Professor of Economics
- William M. Gentry, Professor of Economics
- Matthew Gibson, Assistant Professor of Economics
- Susan Godlonton, Associate Professor of Economics
- Sarah A. Jacobson, Associate Professor of Economics
- Pamela Jakiela, Associate Professor of Economics
- Kenneth N. Kuttner, Robert F. White Class of 1952 Professor of Economics
- Sara LaLumia, Professor of Economics, Chair of Political Economy Program; affiliated with: Political Economy Program
- David A. Love, Provost, Class of 1969 Professor of Economics; affiliated with: Economics Department
- Peter J. Montiel, Fairleigh S. Dickinson, Jr. '41 Professor of Economics
- Steven E. Nafziger, Professor of Economics; on leave 2020-2021
- Will Olney, Associate Professor of Economics; on leave 2020-2021
- Owen Ozier, Associate Professor of Economics
- Peter L. Pedroni, Professor of Economics
- Greg Phelan, Associate Professor of Economics
- Ashok S. Rai, Professor of Economics
- Michael Samson, Senior Lecturer in Economics
- Lucie Schmidt, John J Gibson Professor of Economics
- Stephen C. Sheppard, Class of 2012 Professor of Economics
- Lara D. Shore-Sheppard, Chair and Kimberly A. ’96 and Robert R. ’62 Henry Professor of Economics
- Anand V. Swamy, The Willmott Family Third Century Professor of Economics; on leave Spring 2021
- Owen Thompson, Assistant Professor of Economics
- Tara E. Watson, Professor of Economics; affiliated with: Public Health Program
- David J. Zimmerman, Professor of Economics and Orrin Sage Professor of Political Economy; on leave Spring 2021

GENERAL INFORMATION

The primary objectives of the economics major are 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.

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.

Planning for a possible economics major. Given the hierarchical structure of the economics major, students considering the 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 209 or 309, MATH 250, and MATH 350. 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.

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 either STAT 161, 201 or 202. 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 major 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 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 start at Williams in Fall 2020 and following will 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 any level, or two additional electives at any level 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 for college courses taken at other institutions, including those taken as part of a study abroad program. Most economics courses taken elsewhere 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 the appropriate credit, courses must be approved ahead of time by the Department’s Coordinator for Transfer/Study Abroad Credit. (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 Bulletin states 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

Cross-listings: WGSS 211 ECON 105

Secondary Cross-listing

This course will present a feminist economic analysis of the global economy, and some of the urgent issues facing women in poor countries. 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 and households, 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; 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: 12

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

Expected Class Size: 12

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

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

Distributions: (D2)

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

WGSS 211 (D2) ECON 105 (D2)

Fall 2020

SEM Section: R1 MWF 11:45 am - 1:00 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.

Class Format: Sections taught by Professors Bradburd and Chao will be strictly remote, with both asynchronous and synchronous components. All other sections will be taught in a hybrid format and will include in-person elements.

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

Prerequisites: none

Enrollment Limit: 30

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: 30

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.

Fall 2020
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.

Class Format: Prof. Bakija and Prof. LaLumia intend to teach their synchronous class meetings primarily in an in-person, and not hybrid, format. Students who need to participate remotely must enroll in Prof. Casey's sections instead. Prof. Bakija intends to implement some mix of in-person lecture and discussion (maybe outside when the weather permits), pre-recorded video lectures to watch before class, and possibly occasional Zoom-based discussion, depending on public health conditions at the time.

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: 30

Enrollment Preferences: First-year students and sophomores.

Expected Class Size: 30

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.
Cross-listings: WGSS 205  ECON 203

Primary Cross-listing

This course uses economic analysis to explore how gender differences can lead to differences in economic outcomes, in both households and the labor market. Questions to be covered include: How does the family function as an economic unit? How do individuals allocate time between the labor market and the household? How have changes in family structure affected women's employment, and vice-versa? What are possible explanations for gender differences in labor force participation, occupational choice, and earnings? What is the role of government in addressing gender issues in the home and the workplace? How successful are government policies that primarily affect women (e.g., AFDC/TANF, parental leave, subsidization of child care)? The course will focus on the current experience of women in the United States, but will place these gender differences in a historical and cross-cultural context.

Class Format: Course will be remote and will include synchronous lecture/discussion, possibly combined with some asynchronous components.

Requirements/Evaluation: weekly discussion papers, two midterms, and a final paper and presentation

Prerequisites: ECON 110

Enrollment Limit: 25

Enrollment Preferences: If overenrolled, students will be asked to submit short statement of interest.

Expected Class Size: 25

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

Distributions: (D2)

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

WGSS 205 (D2) ECON 203 (D2)

Spring 2021

LEC Section: R1  TF 3:15 pm - 4:30 pm  Lucie Schmidt

ECON 204  (S) Economics of Developing Countries  (DPE)

Cross-listings: ENVI 234  ECON 204

Primary Cross-listing

The leaders of developing countries almost universally proclaim "economic development" to be their eventual destination, but it is not easy to visualize the journey. Is rapid economic growth sufficient to generate development, or do governments need to invest proactively in health, education and social protection? Can agriculture support incomes and provide jobs, or is urban industrial development a prerequisite? How do households in developing countries insure themselves against adverse outcomes? Can policies enable entrepreneurship and innovation in such economies? Is it true that corruption is a significant obstacle? Has the climate crisis upended our traditional models to the point where we need to rethink the notion of development? How does the global COVID-19 pandemic threaten the progress developing countries have achieved, and what policy responses will be most effective in addressing the crisis? The class will introduce these and other issues, as analyzed by economists.

Class Format: discussion

Requirements/Evaluation: short essays/assignments; two individual take-home exams; final group project

Prerequisites: one ECON class at Williams or prior course deemed equivalent by the Economics Department

Enrollment Limit: 25

Enrollment Preferences: first-year and sophomore students

Expected Class Size: 25

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:

ENVI 234 (D2) ECON 204 (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. Through exercises and a group project, the
ECON 205 (F) Public Economics
This course examines the role of the government in a market economy. We consider three broad issues: under what conditions is government intervention in the economy appropriate? When merited 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. In the fall of 2020, special consideration will be given to policy responses to public health crises, including Covid-19.

Class Format: Lecture / discussion format. Fall 2020: in some weeks, we will meet as a full group for one 75 minute block (in person if possible) and break into smaller groups for one hour discussion sections (most likely remote); section times will be arranged at the beginning of the term.

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

Prerequisites: ECON 110

Enrollment Limit: 25

Enrollment Preferences: Prospective economics and political economy majors

Expected Class Size: 25

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

Distributions: (D2)

ECON 209 (S) Labor Economics and Policy
Employment--finding it (or looking for but not finding it), its compensation, and the conditions under which it occurs--is a key concern for most residents of advanced economies throughout their adult lives. Work is the main source of income for the vast majority of working-age adults in these economies, and work-related issues and policies reliably top national policy agendas. Labor economics is the study of these issues--how the level and distribution of skills, wages, employment, and income are determined in the market for labor and how various policies affect this market and its outcomes. In this course we will apply the tools of microeconomics to analyze labor force participation, the allocation of time to market work, migration, labor demand, investment in human capital (education and on-the-job training), discrimination, unions and unemployment. We will also examine the impact of government programs and mandates such as employment-based tax credits, unemployment insurance, antipoverty programs, and minimum wages on the labor market. We will devote particular attention to topics of current U.S. policy interest, including immigration, income inequality, and education.

Class Format: discussion

Requirements/Evaluation: problem sets, short writing assignments, midterm and final exam

Prerequisites: ECON 110

Enrollment Limit: 40

Enrollment Preferences: Economics and Political Economy majors and sophomores

Expected Class Size: 30

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

Distributions: (D2)

Not offered current academic year

ECON 212 (F) Markets And Morals
What are the moral foundations necessary to support a free market economy? Does capitalism need a moral base--and if so, does the operation of a
market economy erode the moral and ethical foundations on which it rests? We read Adam Smith, Mill, Keynes, Galbraith and other neoclassical philosophers writing about the social fabric that holds an atomistic free market political economy together, with particular emphasis on Smith's "other book"—Theory of Moral Sentiments—as an argument for limits to self-interested behavior inherent in human nature. (What is the sound of one Invisible Hand clapping?) We test our own articulated moral and political values against the existing political economy of Western democracies with help from more contemporary authors like Amartya Sen, Kenneth Boulding and Robert Kuttner. We will examine in depth the market for carbon offsets as a case study for the evaluation of the ethical validity of market-based solutions to climate problems. Students will write final papers on how well selected aspects of free market economies (organization of production, distribution of resources, mechanisms of inheritance, taxation) measure up to their own stated sense of justice—and how we might reform or perfect markets to align better with our morals.

Requirements/Evaluation: 3- to 5-page opinion paper (15%), 5-page comparative paper (20%), final paper applying learning to a specific context (40%), class participation and discussion posts (25%)

Prerequisites: ECON 110

Enrollment Limit: 19

Enrollment Preferences: letters written to instructor

Expected Class Size: 19

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

Distributions: (D2)

Not offered current academic year

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

Primary Cross-listing

We'll use economics to learn why we harm the environment and overuse natural resources, and what we can do about it. We'll talk about whether and how we can put a dollar value on nature and ecosystem services. We'll study cost benefit analysis, pollution in general, climate change, environmental justice, natural resources (like fisheries, forests, and fossil fuels), and energy. We will take an economic approach to global sustainability, and study the relationship between the environment and economic growth and trade. Consideration of justice and equity will be woven through the whole semester.

Class Format: We will likely use small, focused discussion groups in combination with lectures

Requirements/Evaluation: problem sets, short essays, final paper; intermediate assignments may include poster, presentation, brief writing assignment

Prerequisites: ECON 110 or equivalent

Enrollment Limit: 25

Enrollment Preferences: first-year and sophomore students

Expected Class Size: 25

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)

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

Fall 2020

LEC Section: H1  MW 6:45 pm - 8:00 pm  Sarah A. Jacobson

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

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: This tutorial will be taught remotely via Zoom meetings. 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. Individual "office hour meetings" will also occur via Zoom meetings.

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:

POEC 214 (D2) ENVI 212 (D2) ECON 214 (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.

Spring 2021

TUT Section: RT1 TBA Ralph M. Bradburd

ECON 215 (S) Globalization

Cross-listings: GBST 315 ECON 215

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)

Not offered current academic year

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

Cross-listings: ARTH 527 ECON 227 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

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

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

Distributions: (D1)

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

ARTH 527 (D1) ECON 227 (D1) ARTH 327 (D1)

Not offered current academic year

ECON 228 (F) Water as a Scarce Resource

Cross-listings: ECON 228 ENVI 228

Primary Cross-listing

For a variety of reasons including environmental pollution, urbanization, changing agricultural techniques, resource mismanagement, and the consequences of climate change, water is becoming a scarce resource even in places where it was relatively plentiful in the past, and it is likely to become an increasingly scarce resource over the coming decades. In this course we will use basic economic models to consider policy issues relating to water: Is access to water a basic human right, and if so, what market and non-market mechanisms should play a role in water allocation? Does public ownership of water improve the way it is provided and used? Why do societies differ in their approaches to allocating water and are some systems better than others? What does it mean to have a property right to water? Could private property rights to water help address the water pollution problem? How can societies change their water-related property rights, regulations and social institutions when individuals have implicit or explicit rights to the institutional status quo? Who has the right to water that crosses international boundaries? How should societies allocate water across generations?

Class Format: meeting with the instructor in pairs for an hour each week

Requirements/Evaluation: a 5- to 7-page paper every other week (5 in all), prepare and present a written critique of their partners’ papers in alternate weeks, and revise and re-write one of their five papers; evaluation will be based on the quality of the papers and on the quality of the student's oral presentations and commentary on the work of their colleagues

Prerequisites: ECON 110 or equivalent

Enrollment Limit: 10

Enrollment Preferences: first-year students and sophomores intending to major in Economics and/or to major or concentrate in Environmental Studies, and to students who are already major or concentrators in those subjects

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 228 (D2) ENVI 228 (D2)

Not offered current academic year
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. The course will also consider potential reforms of the legal system.

Class Format: discussion

Requirements/Evaluation: class participation, problem sets, short papers based on actual court cases and possible legal reforms, a midterm exam, and a final exam

Prerequisites: ECON 110

Enrollment Limit: 35

Expected Class Size: 25

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

Distributions: (D2) (QFR)

Not offered current academic year

ECON 230 (S) The Economics of Health and Health Care

Health, health care, and economics intersect in important ways. 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. Health care expenditures make up substantial fractions of economic activity in developed countries; in the United States health care expenditures are nearly one-fifth of the national economy, raising questions of why health care spending is so high and whether the spending effectively produces better health. At the same time, health is about more than just health care; it is driven by many other factors, from individual behavior, to market forces, to government policy. In this course we will examine the economics of health by applying microeconomic analysis to the problems of health and health care provision. 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. The COVID-19 pandemic has brought many of the challenges of health and health care into sharp focus, and we will examine the pandemic as a particularly instructive case study.

Class Format: The class is a mixture of lecture and discussion. I anticipate conducting the "hybrid" version of the course similarly to the in-person version, with students who are participating remotely attending synchronous lectures/discussions via Zoom.

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: 25

Enrollment Preferences: Economics majors who have not yet taken a 200-level elective, Political Economy majors, and Public Health concentrators

Expected Class Size: 25

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

Distributions: (D2)

Spring 2021

LEC Section: H1  MWF 11:45 am - 1:00 pm   Lara D. Shore-Shappard

ECON 232 (F) Financial Markets, Institutions and Policies (QFR)

This course first explores the role of the financial system and financial markets, and how they interact with the economy. What does finance do? 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? Second, it analyzes the role of the central bank and the conduct of monetary policy. How do central banks set monetary policy and how do those policies affect the economy? How does monetary policy change when interest rates are (virtually) zero? Third, it studies the complexities associated with managing and regulating modern financial instruments and markets. Why are financial crises so common, and why has regulation not succeeded in preventing them?

Requirements/Evaluation: problem sets, midterm, a debate and/or presentation, and a final exam

Prerequisites: ECON 110 and ECON 120

Enrollment Limit: 25

Expected Class Size: 25

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

Distributions: (D2) (QFR)

Not offered current academic year

ECON 233 (S) Behavioral Economics and Public Policy

In many ways, the fields of psychology and economics both study the same phenomena: the incentives that influence 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 cognitive or social motives, as well as how these concepts are incorporated into microeconomics models. Concurrently, the course will review how these concepts are being applied to firm strategy, development, and public policy contexts. These include the role of behavioral economics in programs geared towards reducing poverty, increasing environmental conservation, and encouraging education investment, among others. The course will also discuss whether and how we ought to judge which behaviors are socially desirable and worth encouraging through policy.

Class Format: Remote. We will have regular recorded lectures that you watch on your own time, and occasional meetings during class time via Zoom for a mix of lecture and discussion.

Requirements/Evaluation: One midterm, one final exam, 3-5 problem sets, and 1-2 writing assignments

Prerequisites: ECON 110

Enrollment Limit: 25

Enrollment Preferences: I will accept a mix of majors, non-majors, and underclassmen

Expected Class Size: 25

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

Distributions: (D2)

Spring 2021

LEC Section: R1 TF 3:15 pm - 4:30 pm Matthew Chao

ECON 238 (F) Sustainable Economic Growth

Cross-listings: ENVI 238 ECON 238

Primary Cross-listing

Is it possible to have infinite economic growth on a finite planet? This question has sparked a great deal of inquiry across the social sciences. Some argue that we need to slow or even end economic growth to prevent environmental catastrophe. Others argue that market forces, especially changing prices and improved technology, will ensure that growth can continue unabated without significant negative consequences. Still others argue that government intervention is necessary to limit negative consequences of economic progress, but that effective interventions are still compatible with sustained economic growth. In this class, we will explore the insights that economics has to offer on this important question. We will start by considering the importance of finite inputs used in production, including fossil fuels, minerals, and land, among others. Then, we will consider whether undesirable byproducts of economic growth will prevent sustained growth. This second part of class will place a lot of emphasis on climate change. Throughout the class, we will pay special attention to the role that government intervention can or cannot play in promoting sustainable economic growth. This class will reinforce important concepts taught in introductory microeconomics and introductory macroeconomics.

Class Format: This class will be conducted remotely. The lectures will be asynchronous (videos posted online). Scheduled class times will be used for small group discussions and as review.
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)

**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.

**Not offered current academic year**

**ECON 242 (F) Evaluating the Costs and Benefits of Public Policies**

How do we determine whether introducing a new vaccine is cost-effective and worth the investment costs or whether a policy to protect a wetland is worth the sacrifice? Is it possible to assess the economic consequences in terms of benefits and costs of new healthcare regulations? Economists typically use the tools of applied cost-benefit (CBA) and cost-effectiveness analysis (CEA) in order to address such policy questions. The goal of applied economic evaluations is to identify, measure, and value all relevant costs and benefits of new public policy investments and regulations. This course covers both theory and practice of economic appraisal of a public policy (an investment project, regulation, a specific treatment etc.), with an emphasis on health care and public health applications. The CBA and CEA methods covered in the class are widely used in many other policy areas as well, including public transportation, infrastructure investment and environmental policy.

**Requirements/Evaluation:** computer lab assignments, active class participation, midterm exam, and final exam

**Prerequisites:** ECON 110 or equivalent, MATH 130 or equivalent

**Enrollment Limit:** 30

**Enrollment Preferences:** Econ Majors and Public Health Concentrators

**Expected Class Size:** 20

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

Class Format: Sections taught by Professors Jakiela and Sheppard in the fall will be strictly remote, with both asynchronous and synchronous components. Sections taught by Professor Rai in the spring will be fully remote; students are expected to participate in both synchronous and asynchronous components. The spring section taught by Jacobson will be in person.

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 or short essays.

Prerequisites: ECON 110 and MATH 130 or its equivalent

Enrollment Limit: 20

Enrollment Preferences: Current or prospective Economics majors.

Expected Class Size: 20

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

Distributions: (D2)  (QFR)

Quantative/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 2020
LEC Section: R1    TF 1:30 pm - 2:45 pm     Pamela Jakiela
LEC Section: R2    TF 3:15 pm - 4:30 pm     Pamela Jakiela
LEC Section: R3    MR 1:30 pm - 2:45 pm     Stephen C. Sheppard
LEC Section: R4    MR 3:15 pm - 4:30 pm     Stephen C. Sheppard

Spring 2021
LEC Section: 01    TR 11:30 am - 12:45 pm     Sarah A. Jacobson
LEC Section: R2    MR 1:30 pm - 2:45 pm     Ashok S. Rai
LEC Section: R3    MR 3:15 pm - 4:30 pm     Ashok S. Rai

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.

Class Format: Sections taught by Professor Pedroni in the fall will be strictly remote, with both asynchronous and synchronous components. Professor Montiel's fall section will be taught in person. Spring section formats are TBD.

Requirements/Evaluation: 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: 20

Enrollment Preferences: Current or prospective Economics majors.

Expected Class Size: 20

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

Distributions: (D2)  (QFR)

Quantative/Formal Reasoning Notes: Course involves mathematical modeling of real-world phenomena, analyzing quantitative results, and
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.

Class Format: Professor Ozier’s fall section will be strictly remote, with both asynchronous and synchronous components. Professor Zimmerman’s fall section will be taught in a hybrid format and will include in-person elements. Spring section formats are TBD.

Requirements/Evaluation: problem sets, two exams, group project, and possible additional assignments

Prerequisites: MATH 130, plus STAT 161, 201 or 202 (or equivalent), 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: 20

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

Expected Class Size: 20

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.
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 101 will be useful, but is not required.

Class Format: I anticipate conducting the "hybrid" version of the course broadly similarly to the in-person version, but with students participating remotely attending synchronous discussions/lectures via Zoom. A teaching assistant will monitor the Zoom feed so I can respond to questions and comments from students participating online.

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.

Fall 2020
LEC Section: H1 TR 11:30 am - 12:45 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 2020
IND Section: H1 TBA Lara D. Shore-Sheppard

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.
ECON 299 (F) Economic Liberalism and Its Critics

Cross-listings: ECON 299 PSCI 238 POEC 250

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 Friedrich Hayek, Milton Friedman, Ronald Coase, Arthur Okun, and Albert O. Hirschman. The third part surveys significant recent contributions relevant to the themes of the course, with applications to current public policy issues, including topics 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; economic nationalism and new trade theory; 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: Lectures recorded for viewing prior to class sessions; discussion in separate sections for in-person and remote students. Section 01 (afternoon) is in-person and section R2 (evening) is remote. Cap for both sections combined is 25. Students taking the class in-person should register for 01, and students taking the class remotely should register for R2. We will allow enrollment to be unbalanced between the two sections subject to the constraint that the total number of students cannot exceed 25.

Requirements/Evaluation: six short essays, several short homework assignments, and a final exam

Prerequisites: ECON 110 and 120 or equivalent; PSCI 201, 202, 203, or 204 (may be taken concurrently with POEC 250); open to non-majors

Enrollment Limit: 12

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

Expected Class Size: 12

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 299 (D2) PSCI 238 (D2) POEC 250 (D2)

Fall 2020

LEC Section: 01 MR 3:15 pm - 4:30 pm Jon M. Bakija, James E. Mahon
LEC Section: R2 TR 6:45 pm - 8:00 pm Jon M. Bakija, James E. Mahon

ECON 345 (S) Growth Diagnostics (QFR)

Cross-listings: ECON 545 ECON 345

Primary 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, two short (5-page) papers, two 15-page team papers comprising a country growth diagnostic, and a team 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 545 (D2) ECON 345 (D2)

Quantative/Formal Reasoning Notes: The course material will be draw 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.

Not offered current academic year

ECON 348 (F) Human Capital and Development

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 problem sets, two in-class exams, and short presentations by students.

Prerequisites: ECON 255, POEC 253, STAT 346, or permission of the instructor

Enrollment Limit: 20

Enrollment Preferences: Economics majors

Expected Class Size: 20

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

Distributions: (D2)

Not offered current academic year

ECON 352 (S) Financial Development and Regulation

Cross-listings: ECON 352 ECON 510

Secondary Cross-listing

This course focuses on the financial system and its role in economic development. The first part explores the functions of finance, how it contributes to growth and income inequality, examining what can be done to increase financial inclusion. It will examine experiences with financial sector repression and subsequent liberalization, and investigate the causes and impact of financial crises. Then it will study how to make finance effective and how to prevent or minimize crises, analyzing government's role as regulator, supervisor, standard setter, contract enforcer, and owner. In this final part, attention will be devoted to the role of institutions (laws, norms, culture) and incentives in financial sector development.

Class Format: discussion

Requirements/Evaluation: midterm, participation in class discussion and debates, and a final research paper

Prerequisites: for undergraduates, POEC 253 or ECON 255; undergraduate enrollment limited and requires instructor's permission
Enrollment Limit: 25
Expected Class Size: 20-25
Grading: no pass/fail option, no fifth course option
Distributions: (D2)
This course is cross-listed and the prefixes carry the following divisional credit:
ECON 352 (D2) ECON 510 (D2)
Not offered current academic year

ECON 353 (F) Mathematical Economics (QFR)
This course integrates economics at the intermediate level with the tools of mathematics. Topics such as univariate and multivariate calculus will be reviewed or introduced in the context of how these mathematical concepts enhance economic analysis. The combination of economic and mathematical analysis will provide a strong foundation for thesis writing and advanced study of economic theory.
Requirements/Evaluation: quizzes, midterm and a final
Prerequisites: ECON 251 and MATH 130
Enrollment Limit: 25
Expected Class Size: 15
Grading: no pass/fail option, yes fifth course option
Distributions: (D2) (QFR)
Not offered current academic year

ECON 356 (S) Empirical Methods in Macroeconomics (QFR)
Cross-listings: ECON 513 ECON 356
Secondary Cross-listing
Macroeconomics and related fields in international finance and macro development have evolved specialized empirical techniques, known generally as macroeconometrics, which are designed to meet the practical challenges that the data and the empirical questions pose in these fields. The course will introduce the theory and application of these techniques, and students will learn how to implement these techniques using real world data to address practical questions drawn from the field of macro development. The course is also available to undergraduates with permission of the instructor. However, in lieu of Econ 356, undergraduates with good quantitative skills are encouraged to take Econ 371, which will cover a broader range of topics in greater depth.
Requirements/Evaluation: weekly homework assignments, term paper
Prerequisites: ECON 252, ECON 255 or equivalent Students may not earn credit for both Econ 356 and Econ 371
Enrollment Limit: 19
Enrollment Preferences: Economics majors and CDE fellows
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:
ECON 513 (D2) ECON 356 (D2)
Not offered current academic year

ECON 357 (S) 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
ECON 359  (S)  Developing Country Macroeconomics II: Institutions and Policy Regimes

Cross-listings:  ECON 515  ECON 359

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)

Not offered current academic year

ECON 360  (S)  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 discussed include: What causes inflation? What are the channels through which monetary policy affects the economy? Why should central banks commit to policy rules? How do exchange rates respond to monetary policy? How did the gold standard work? And will cryptocurrencies replace the dollar? In addition, we will develop and learn how to simulate the “New Keynesian” macroeconomic model, which has become the standard framework for monetary policy analysis for central banks around the world.

Requirements/Evaluation:  at least one exam, a research paper and a 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.
ECON 362 (S) Global Competitive Strategies

Econ 362 acknowledges both the importance of large, diversified multinational firms in global economic activity, and the forms of strategic thinking that often displace, in practice, the optimization models of traditional economic analysis. In this course, we seek to describe competition in global markets by developing competence in decoding and critiquing (and even formulating) varieties of business and corporate strategies employed during the past forty years. While we treat a variety of theoretical models that seek or have sought to explain patterns of international economic activity, our priority is to ascertain their descriptive integrity and usefulness today. Our historical interest begins with mercantilism and covers Smith, comparative advantage, varieties of factor endowment theories, and much more, proceeding to strategic management perspectives and contributions of the 20th and early 21st century. We complete these efforts with a few original attempts to reconcile modern growth theory (e.g., Romer) with modern strategic practice (e.g., Porter). Further, substantial recent shifts in the nature of globalized economic activity, including the changing relative mobility and power of capital and labor, are examined. While the course is largely descriptive, it cannot fail to treat a few normative issues. We treat the efficacy of various government policies in promoting the competitiveness of home-based industries in regional and global markets. Finally, welfare propositions and policy ideas for addressing welfare impacts in a descriptively accurate context are advanced.

Class Format: mix of lecture, discussion, and case analyses

Requirements/Evaluation: written cases (in teams), class participation, a mid-term exam, and a final paper (can be co-authored) or exam are expected

Prerequisites: ECON 251

Enrollment Limit: 25

Enrollment Preferences: senior Economics majors

Expected Class Size: 25

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

Distributions: (D2)

Not offered current academic year

ECON 364 (F) Theory of Asset Pricing

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: 20

Enrollment Preferences: Economics majors

Expected Class Size: 20

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

Distributions: (D2)

Fall 2020

LEC Section: R1 MW 11:45 am - 1:00 pm Greg Phelan

ECON 366 (S) International Trade and Development

Cross-listings: ECON 516 ECON 366

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)

Not offered current academic year

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**ECON 370  Data Science for Economic Analysis**

The goal of data science is to use empirical information from a broad range of sources to improve our understanding of the world around us. Economists increasingly rely on the tools of data science to access novel sources of data and information, characterize the economic environment, and conduct empirical analysis. This course provides hands-on introduction to data science tools most relevant for economic analysis including data visualization, exploratory data analysis, and statistical learning. The objective of the course is to help students: (i) formulate economic research questions that can be explored using data science tools, (ii) identify sources of data and prepare data for analysis, (iii) produce persuasive visualizations, and (iv) analyze data using both classical statistics and machine learning.

**Class Format:** The course includes traditional lectures, interactive activities in both Stata and R, and in-class presentations by students. Some prior knowledge of either Stata or R is helpful, but not required.

**Requirements/Evaluation:** Grades are based on in-class participation and performance on two take-home exams as well as problem sets and data visualization/analysis projects.

**Prerequisites:** ECON 255 or STAT 201, STAT 202, or STAT 346 or permission of instructor

**Enrollment Limit:** 25

**Enrollment Preferences:** Economics majors

**Expected Class Size:** 25

**Grading:**

**Distributions:** (D2)

Not offered current academic year

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**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 endogeneous systems, and will then focus on associated methods for analysis of short 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 fields 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. Credit may not be earned for both ECON 371 and ECON 356.

**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
ECON 374  (F) Poverty and Public Policy  (WS)
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 this country. 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 functioning of these programs, focusing on questions economists typically ask when evaluating public policy such as: What are the goals of the policy and does the policy achieve them? Does the design of the policy lead to unintended effects (either good or bad)? What are the trade-offs inherent in the policy’s design? Could the policy be redesigned to achieve its goals more effectively? Through in-depth study of these programs, students will learn how economists bring theoretical models and empirical evidence to bear on important questions of public policy.

Requirements/Evaluation: evaluation will be based on 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: POEC 253 or ECON 255 or STAT 346 or permission of instructor

ECON 375  (S) Inclusive Growth and Crisis Response: The Role of Social Protection Systems
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
ECON 376 (F) The Economics of Global Inequality (QFR)

This course focuses on the proximate and ultimate causes of global economic inequality 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 global economic inequality remain difficult to answer.

Class Format: This course will be taught in hybrid format in Fall 2020. All classroom lectures will be recorded and made available for remote learners unable to attend lectures virtually. Problem set assignments and exams may be submitted electronically as needed, and all exams will be "take home." Additional office hours will be offered to accommodate the needs of remote learners.

Requirements/Evaluation: Problem sets, one midterm exam, final exam.

Prerequisites: ECON 252 and either ECON 255 or STAT 346. ECON 251 recommended but not required.

Enrollment Limit: 20

Enrollment Preferences: Junior and senior economics majors.

Expected Class Size: 20

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 cross-country comparative development. Students will routinely work on sophisticated mathematical models of economic growth, involving the application of solution concepts from dynamic optimization and differential equations. Students will also be required to perform some econometric analyses in their assignments.

Spring 2021

TUT Section: RT1    TBA    Michael Samson

ECON 377 (F) 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 and technologies 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.

Requirements/Evaluation: reading responses and short writing assignments; empirical exercises; constructive contributions to class discussions; a group project; and an 8- to 10-page research paper

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

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)

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.

Not offered current academic year

ECON 379 (S) Program Evaluation for International Development

Cross-listings: ECON 523 ECON 379

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.

Class Format: This course will be taught remotely in the Spring of 2021.

Requirements/Evaluation: problem sets, short writing assignments, and one collaborative project

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)

Spring 2021

SEM Section: R1  TR 11:30 am - 12:45 pm  Pamela Jakiela

ECON 380  (S) Population Economics

Cross-listings: ECON 380  ECON 519

Primary Cross-listing

This course is an introduction to the economic analysis of demographic behavior and the economic consequences of demographic change. An
important aim is to familiarize students with historical and contemporary trends in fertility, mortality, migration, and family composition, and the
implications of these trends for the economy. The course demonstrates the application of microeconomic theory to demographic behavior, including
fertility, marriage, and migration. Students are introduced to basic techniques of demographic measurement and mathematical demography. Selected
topics include the economic consequences of population growth in developing countries, the economics of fertility and female labor force participation,
the effects of an older age structure on the social security system, and the relationship between population growth and natural resources.

Class Format: Course will be remote and will include synchronous lecture/discussion, possibly combined with some asynchronous components.

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

Prerequisites: ECON 251; POEC 253 or ECON 255 or permission of instructor

Enrollment Limit: 20

Enrollment Preferences: If overenrolled, students will be asked to submit a brief statement of interest.

Expected Class Size: 20

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 380 (D2) ECON 519 (D2)

Spring 2021

LEC Section: R1  TF 1:30 pm - 2:45 pm  Lucie Schmidt

ECON 381  (S) Global Health Policy Challenges

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.
**ECON 382 (S) 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?

**Class Format:** The initial meeting of the class and all meetings of tutorial pairs will be held remotely via Zoom teleconference. Students will need a computer and reliable internet connection to participate.

**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, yes fifth course option

**Distributions:** (D2)

**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.

Spring 2021

TUT Section: RT1    TBA    Stephen C. Sheppard

**ECON 383 (S) Cities, Regions and the Economy**

Cities and urbanization can have significant impacts on the economy. In many developed economies, a process of regional decline is associated with older, industrial cities. In developing countries, the process of economic growth is generally associated with increasing urbanization. Urbanization, with its increasing concentration of population and production, puts particular pressure on markets to allocate resources for provision of land, housing, transportation, labor and public goods. Urbanization can alter the productivity of land, labor, and capital in ways that can improve the welfare of residents and the performance of the broader economy. In this course we will examine these conflicting economic forces and examine some recent research that contributes to our understanding of the difference between regional growth and decline, and the role that the urban structure plays in
these processes. We will examine the function of land, housing, transportation, and labor markets in the urban context, and the scope for public policies to improve the performance of the regional economy.

**Class Format:** This class will be conducted remotely, with lecture/discussions recorded as videos available on Glow, and class discussions held during the assigned meeting time of the class via Zoom teleconference. Students will need a computer and reliable internet connection to participate.

**Requirements/Evaluation:** Two midterms and a research paper on an approved topic that is at least 5000 words in length.

**Prerequisites:** ECON 251 or instructor's permission

**Enrollment Limit:** 20

**Enrollment Preferences:** Seniors and Juniors

**Expected Class Size:** 20

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

**Distributions:** (D2)

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Spring 2021

LEC Section: R1   TR 11:30 am - 12:45 pm   Stephen C. Sheppard

**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. Additional topics may include issues in corporate risk management, corporate governance and corporate restructuring, such as mergers and acquisitions. In the fall of 2020, special consideration will be given to how both financial and real economic shocks interact with firms’ financial decisions.

**Class Format:** Lecture / discussion; in the fall of 2020, some weeks we will meet for one 75-minute section (in person when possible) and break into smaller groups for one hour section groups (most likely remote). The timing of the sections will be arranged at the beginning of the semester.

**Requirements/Evaluation:** class participation, problem sets, short quizzes, short projects such as case write ups, a midterm exam, a final exercise and a research paper (possibly written with a partner)

**Prerequisites:** ECON 251, 252, and some familiarity with statistics (e.g., ECON 255)

**Enrollment Limit:** 20

**Enrollment Preferences:** Senior Economics majors

**Expected Class Size:** 20

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

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

**Quantitative/Formal Reasoning Notes:** The course uses quantitative models to evaluate decisions.

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Fall 2020

LEC Section: 01   MW 6:45 pm - 8:00 pm   William M. Gentry

LEC Section: R2   MWF 11:45 am - 1:00 pm   William M. Gentry

**ECON 385 (F) Games and Information**

This course is a mathematical introduction to strategic thinking and its applications. Nash equilibrium, commitment, credibility, repeated games, and incentives, are discussed. Examples are drawn from economics, politics, history and everyday campus life. A focus will be models of distrust and prejudice.

**Class Format:** Remote

**Requirements/Evaluation:** One exam, regular problem sets and modeling assignments.

**Prerequisites:** ECON 251 and MATH 150, or permission of instructor

**Enrollment Limit:** 20
Enrollment Preferences: juniors and seniors
Expected Class Size: 20
Grading: no pass/fail option, yes fifth course option
Unit Notes: students who have taken MATH 335 cannot receive credit for this class
Distributions: (D2)

Fall 2020
LEC Section: R1 MR 3:15 pm - 4:30 pm Ashok S. Rai

ECON 387 (F) Economics of Climate Change (QFR)
Cross-listings: ECON 522 ENVI 387 ECON 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. What is the socially optimal amount of climate change? Why have countries had such a hard time agreeing on GHG emissions reductions, and how might we overcome such difficulties? We will consider the growing body of evidence from attempts to regulate GHGs, including China's cap-and-trade programs, the EU ETS, and US state policies. Throughout the course we will discuss the limits of the economic approach, pointing out normative questions on which economic theory provides little guidance.

Class Format: Lectures, office hours and TA sessions will take place on Zoom.
Requirements/Evaluation: problem sets, midterm, group presentation, final exam
Prerequisites: ECON 251, familiarity with statistics
Enrollment Limit: 20
Enrollment Preferences: Junior/Senior Economics majors and CDE fellows
Expected Class Size: 20
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 522 (D2) ENVI 387 (D2) ECON 387 (D2)
Quantative/Formal Reasoning Notes: The course involves simple calculus-based theory and applied statistics.

Fall 2020
LEC Section: R1 MR 1:30 pm - 2:45 pm Matthew Gibson

ECON 389 (S) Tax Policy in Global Perspective (QFR)
Cross-listings: ECON 514 ECON 389
Secondary Cross-listing
Taxes are half of what government does. So if you are interested in what government policy can do to promote efficiency, equity, and economic development, you should be interested in tax policy. Governments must raise tax revenue to finance critical public goods, address other market failures and distributional issues, and to avoid problems with debt and inflation. Taxes typically take up anywhere from ten to fifty percent of a country's income, they profoundly affect the incentives to undertake all varieties of economic activity, and the government expenditures that they finance have potentially large consequences for human welfare. So the stakes involved in improving tax policy are quite large. This class provides an in-depth exploration of tax policy, from a global and comparative perspective. Because most students in this class will be CDE fellows, we will emphasize tax policy issues, examples, and evidence that are most pertinent to developing countries, but we will also learn something about tax systems in the U.S. and other industrialized nations. Topics addressed in this class include: how basic economic principles can be applied to help one think about 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 reforms of these taxes; theory and evidence in the debate over progressive taxes versus "flat" taxes; how various elements of tax design affect incentives to save and invest; how market failures and administrative problems may influence the optimality of different tax policies; the implications of global capital flows and corporate tax avoidance for the design of tax policy; tax holidays and other special tax incentives for investment; empirical evidence on the influence of taxes on economic growth, 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, 4 problem sets, two 8-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 514 (D2) ECON 389 (D2)

Not offered current academic year

ECON 390 (S) Financial Crises: Causes and Cures

Cross-listings: ECON 390 ECON 536

Primary Cross-listing

Financial crises have been with us for as long as banking has existed. Why are crises such a regular fixture of societies, and what can be done to prevent them, or at least reduce their cost? Topics examined include bubbles and swindles, especially when these spillover to the broader macroeconomy; the role of information in banking in normal times and in bank runs; boom-bust cycles in asset markets; international contagion; crisis resolution techniques; and the extensive history of attempts to improve regulation so as to reduce the frequency and cost of crises. Crises in developing and developed economies from the South Sea Bubble to the Euro Crisis will be examined, and the role of political economy factors in their run-up and resolution will be featured.

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

Prerequisites: ECON 252 and 255

Enrollment Limit: 10

Enrollment Preferences: 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 390 (D2) ECON 536 (D2)

Not offered current academic year

ECON 394 (F) European Economic History

Economic history directly informs our understanding of the process of economic development. With this in mind, this course will explore a series of questions related to the economic development of Europe from the early modern period until today. 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, and a final research paper

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

Enrollment Limit: 25

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 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: 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 2020

IND Section: H1 TBA Lara D. Shore-Sheppard

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 2021

IND Section: H1 TBA Lara D. Shore-Sheppard

ECON 451 (F) Topics in Economic Growth

In this seminar, we will discuss some of the ‘big questions’ in macroeconomics, with a particular focus on economic growth. For example: Why are some countries richer than others? How does government intervention affect economic growth? Is it possible to have continued economic growth while
avoiding dangerous levels of climatic change? Does inequality help or harm growth? How will automation and artificial intelligence affect growth, inequality, and unemployment? In addition to class discussions, students will complete an independent research project on a topic related to economic growth.

**Class Format:** This class will be conducted remotely. There will be a mix of synchronous and asynchronous class sessions. This class alternates between lectures and in-class discussions. Lectures will be asynchronous (videos posted online). During lecture weeks, scheduled class time will be used for individual/small group meetings to discuss the semester-long research project. Class discussions will be synchronous.

**Requirements/Evaluation:** class presentations, problem sets, short-writing assignments, research paper

**Prerequisites:** ECON 251, ECON 252, and (ECON 255 or STAT 346)

**Enrollment Limit:** 15

**Enrollment Preferences:** senior Economics majors

**Expected Class Size:** 15

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

**Distributions:** (D2)

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**ECON 453 (F) Research in Labor Economics and Policy**

The labor market plays a crucial role in people's lives worldwide. In industrialized countries, most households contain at least one wage earner, and income from working represents the largest component of total income. Thus analyses of the labor market are fundamentally relevant to both public policy and private decision-making. This seminar will explore the structure and functioning of the labor market using theoretical and empirical tools. Topics to be covered include labor supply and demand, minimum wages, labor market effects of social insurance and welfare programs, the collective bargaining relationship, discrimination, human capital, immigration, wage distribution, and unemployment. As labor economics is an intensely empirical subfield, students will be expected to analyze data as well as study the empirical work of others.

**Class Format:** I anticipate conducting the "hybrid" version of the course broadly similarly to the in-person version, but with students who are participating remotely attending synchronous class sessions via Zoom. Some use of written discussion boards to supplement in-person discussion and Socratic dialogues is also likely. That is my plan for now, but I will of course flexibly adapt the format as needed, both over the remainder of the summer and once the class begins.

**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 (written in stages)

**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)

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**ECON 455 (F) Research in Economic History**

Historical approaches towards understanding economic development and current economic issues are increasingly in vogue. This course will explore new developments in the field of economics history, focusing on how economic historians are using old and new, qualitative and quantitative, data and methods 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 economic 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)

Not offered current academic year

**ECON 456 (F) Income Distribution**

This course examines the distribution of income in the U.S., with emphasis on how it is affected by taxes, transfers, and other government programs. 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:** 15

**Enrollment Preferences:** senior Economics majors

**Expected Class Size:** 15

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

**Distributions:** (D2)

Fall 2020

SEM Section: H1     MR 1:30 pm - 2:45 pm     Sara  LaLumia

**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—such as managing a portfolio or 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

**Enrollment Limit:** 10

**Enrollment Preferences:** senior Economics majors
ECON 459  (S) Economics of Institutions  (QFR)

Why are some countries so rich and others so poor? Typical answers to this question have emphasized proximate causes like factor accumulation (i.e., growth in a nation's physical and human capital endowments), technological progress, and demographic change. The institutional approach to this question, however, emphasizes the role of sociopolitical and cultural factors, broadly defined, as a fundamental determinant of its economic prosperity. The central idea is that the added-value of economic activities to society at large is primarily conditioned by the social arrangements within which these activities occur. Specifically, these social arrangements invariably 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. As such, the key to economic development in this view is the establishment of a suitable set of institutions and structures of governance in society. This course will survey the rapidly expanding literature on the topic of institutions and economic development, with an emphasis on the latest empirical evidence that has come to bear 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 of inquiry. 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
Enrollment Limit: 19
Enrollment Preferences: senior Economics majors

ECON 463  (S) Financial History

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 Bitcoin; 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 technology changes and climate risk.

Class Format: As of October 2020, the spring 2021 class will be remote. While many sessions will include the entire class, if we are at the cap (15 students), for some topics I will break the class up into smaller groups. For those in town, when the weather warms up, I hope to include distanced meetings outside, doing separate meetings for any students who are remote only. Liberal use of discussion boards will be made.
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
ECON 465 (F) 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.

Class Format: Seminars and office hours will take place on Zoom

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: 15

Enrollment Preferences: Economics majors, seniority

ECON 468 (S) Your Money or Your Life: Health Disparities in the United States
A 25-year-old man living in a high-income household can expect to live 10 years longer than his low-income counterpart. There are also stark differences in mortality and health by race, education, employment status, region, and gender. This course will explore many of the potential explanations for health disparities, including access to insurance and health care, health behaviors, stress, environmental exposure, trust in institutions, and intergenerational transmission of health. We will emphasize causal inference and focus on assessing the quality of evidence. We will also investigate how government policies contribute to or ameliorate health disparities in the U.S.

Class Format: including frequent small group meetings that may occur outside regularly scheduled class times

Requirements/Evaluation: Class discussion, oral presentations, six short response papers, two 5-page critiques of published articles, three Stata exercises, and one 15-page original empirical research paper. Please note that the course can be taken P/F only by those who do not intend to use it to satisfy the requirements for the Economics major.

Prerequisites: ECON 251 and ECON 255 or equivalent, or permission of instructor

Enrollment Limit: 15

Enrollment Preferences: senior Economics majors

Expected Class Size: 15

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

Distributions: (D2)
ECON 470  (F)  The Indian Economy: Development and Social Justice
The Indian economy has grown rapidly in the last three decades, but poverty has declined relatively slowly, malnutrition remains high, and the sex ratio remains heavily biased against women. Is this the persistence of long-standing historical disadvantages such as those faced by Scheduled Castes and Tribes? Does this reflect failures in policy, in areas such as trade, credit, or labor law? Or is the quality of governance primarily to blame? We will use the traditional theoretical and quantitative methods of an economist to consider these questions.

Class Format: The class will be remote, with synchronous and asynchronous elements. Lecture will be synchronous. Student presentations will be asynchronous. They will be Power-Point presentations with audio/video added. For discussion, students will submit comments ahead of time, following which further commentary will be synchronous.

Requirements/Evaluation: five short response papers (5 pages), and empirical research project
Prerequisites: ECON 251 and 255, or equivalent, or permission of instructor
Enrollment Limit: 15
Enrollment Preferences: junior and senior majors
Expected Class Size: 15
Grading: no pass/fail option, no fifth course option
Distributions: (D2)

Fall 2020
SEM Section: R1  MWF 9:20 am - 10:10 am  Anand V. Swamy

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 cointegration analysis, both in conventional time series and 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: 10
Enrollment Preferences: students with strong quantitative backgrounds, and to students intending to write an honors thesis
Expected Class Size: 10
Grading: yes pass/fail option, no fifth course option
Distributions: (D2)  (QFR)
Not offered current academic year

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: 15
Enrollment Preferences: Economics majors
Expected Class Size: 15
Grading: no pass/fail option, yes fifth course option
Distributions: (D2)

Fall 2020
SEM Section: R1    MW 10:00 am - 11:15 am     Greg Phelan

**ECON 474 (S) Advanced Methods for Causal Inference**

**Cross-listings:** ECON 524  ECON 474  

**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

Enrollment Limit: 15
Enrollment Preferences: Junior and senior Economics majors
Expected Class Size: 15
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 2021
SEM Section: R1    MW 11:45 am - 1:00 pm     Owen Ozier

**ECON 475 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:
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 analysis. Assignments and class discussions will focus on academic papers that use behavioral models to study a variety of topics, such as household finance, public policy, consumer marketing, and others. Throughout the semester, students will also work towards formulating and completing their own original research project.

Class Format: Remote. We will have a mix of recorded lectures that you watch on your own time, and regular class meetings on Zoom. The Zoom meetings will often involve in-depth analysis and discussion of academic publications that students will have read ahead of time. On other occasions, it will instead involve discussing progress on student research projects.

Requirements/Evaluation: one 15- to 25-page research paper, multiple shorter research-based writing assignments, and class participation

Prerequisites: ECON 251; ECON 255 or STAT 346

Enrollment Limit: 15

Enrollment Preferences: Economics majors. Juniors considering an economics thesis next year should inform the professor during pre-registration.

Expected Class Size: 15

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

Distributions: (D2)

Spring 2021

SEM Section: R1  MR 3:15 pm - 4:30 pm  Matthew Chao

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

Cross-listings: ECON 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 consider how policies can help or hurt the environment. Topics we'll study include: voluntary conservation, social norms and nudges, firm responses to mandatory and voluntary rules, and boycotts and divestment.

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; we may break the class into groups for some discussions

Requirements/Evaluation: regular reading responses, empirical exercises, class participation, 2 oral presentations, and a final original research paper using an experiment, existing data, or theory

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

Enrollment Limit: 15

Enrollment Preferences: senior Economics majors

Expected Class Size: 15

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 477 (D2) ENVI 376 (D2)

Quantative/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.
ECON 491  (F)  Honors Seminar: Economics
This course is a research seminar for candidates for honors in economics. Each candidate prepares an honors thesis. Candidates will meet as a group to discuss problems common to all of them (such as empirical methods, data sources, and theoretical approaches) and each one will report on their work at various stages for criticism by the group as a whole. Some work is required during the preceding semester.  
Prerequisites: admission by the department; required for honors in Economics unless a student writes a year-long thesis  
Grading:  yes pass/fail option,  yes fifth course option  
Distributions:  (D2)

ECON 492  (S)  Honors Seminar: Economics
This course is a research seminar for candidates for honors in economics. Each candidate prepares an honors thesis. Candidates will meet as a group to discuss problems common to all of them (such as empirical methods, data sources, and theoretical approaches) and each one will report on their work at various stages for criticism by the group as a whole. Some work is required during the preceding semester.  
Prerequisites: admission by the department; required for honors in Economics unless a student writes a year-long thesis  
Grading:  yes pass/fail option,  yes fifth course option  
Distributions:  (D2)

ECON 493  (F)  Honors Thesis: Economics
A year-long research project for those honors candidates admitted to this route to honors; this is part of a full-year thesis (493-494).  
Prerequisites: admission by the department in the spring of the junior year  
Grading:  yes pass/fail option,  yes fifth course option  
Distributions:  (D2)

ECON 494  (S)  Honors Thesis: Economics
A year-long research project for those honors candidates admitted to this route to honors; this is part of a full-year thesis (493-494).  
Prerequisites: admission by the department in the spring of the junior year  
Grading:  yes pass/fail option,  yes fifth course option  
Distributions:  (D2)

ECON 501  (F)  Economic Growth and Development
This course introduces some of the major theories and ideas about economic growth and development. Motivated by a number of stylized facts from
cross-country data, we will begin by posing a series of questions: Why are some countries rich and others poor? Why have some countries grown at high rates over extended periods of time, while others have experienced little or no growth? Do all economies face comparable challenges to achieving sustained economic growth? Will poor countries catch up to rich countries or are they doomed to stagnate in a poverty trap? To answer these "big" 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)? How important are technological differences across countries? How much should we ascribe to differences across countries in geographical characteristics? How much should we ascribe to differences in the quality of institutions? For each question, we will explore different theoretical and empirical strategies developed by economists to answer the question, ranging from formal models to historical and anecdotal evidence to cross-country growth and development regressions. We will evaluate the usefulness of the different approaches to each question for informing development-promoting and poverty-alleviation policies, and we will also discuss the reasons why so many important questions about economic growth continue to remain difficult to answer.

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.

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.

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)

Not offered current academic year

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 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

Expected Class Size: 25-30

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

Distributions: (D2)

Not offered current academic year

ECON 506 (F) Fundamentals of Developing Country Macroeconomics

This is a practically oriented course in macroeconomic theory and policy. It begins with a review of core concepts and definitions. It then discusses the contributions of households and firms to aggregate production and spending. Next is an introduction to monetary and fiscal policy. It goes on to develop a complete macro model, which is then used to discuss some of the monetary, fiscal and exchange rate policy issues faced by developing and emerging market economies. The class is offered as an alternative to Econ 505 for those not intending to specialize in macroeconomics.

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)

Not offered current academic year

ECON 510 (S) Financial Development and Regulation

Cross-listings: ECON 352 ECON 510
This course focuses on the financial system and its role in economic development. The first part explores the functions of finance, how it contributes to growth and income inequality, examining what can be done to increase financial inclusion. It will examine experiences with financial sector repression and subsequent liberalization, and investigate the causes and impact of financial crises. Then it will study how to make finance effective and how to prevent or minimize crises, analyzing government’s role as regulator, supervisor, standard setter, contract enforcer, and owner. In this final part, attention will be devoted to the role of institutions (laws, norms, culture) and incentives in financial sector development.

Class Format: discussion
Requirements/Evaluation: midterm, participation in class discussion and debates, and a final research paper
Prerequisites: for undergraduates, POEC 253 or ECON 255; undergraduate enrollment limited and requires instructor's permission
Enrollment Limit: 25
Expected Class Size: 20-25
Grading: no pass/fail option, no fifth course option
Distributions: (D2)
This course is cross-listed and the prefixes carry the following divisional credit:
ECON 352 (D2) ECON 510 (D2)

ECON 513 (S) Empirical Methods in Macroeconomics (QFR)

Cross-listings: ECON 513 ECON 356

Primary Cross-listing
Macroeconomics and related fields in international finance and macro development have evolved specialized empirical techniques, known generally as macroeconometrics, which are designed to meet the practical challenges that the data and the empirical questions pose in these fields. The course will introduce the theory and application of these techniques, and students will learn how to implement these techniques using real world data to address practical questions drawn from the field of macro development. The course is also available to undergraduates with permission of the instructor. However, in lieu of Econ 356, undergraduates with good quantitative skills are encouraged to take Econ 371, which will cover a broader range of topics in greater depth.
Requirements/Evaluation: weekly homework assignments, term paper
Prerequisites: ECON 252, ECON 255 or equivalent Students may not earn credit for both Econ 356 and Econ 371
Enrollment Limit: 19
Enrollment Preferences: Economics majors and CDE fellows
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:
ECON 513 (D2) ECON 356 (D2)
Not offered current academic year

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

Cross-listings: ECON 514 ECON 389

Primary Cross-listing
Taxes are half of what government does. So if you are interested in what government policy can do to promote efficiency, equity, and economic development, you should be interested in tax policy. Governments must raise tax revenue to finance critical public goods, address other market failures and distributional issues, and to avoid problems with debt and inflation. Taxes typically take up anywhere from ten to fifty percent of a country’s income, they profoundly affect the incentives to undertake all varieties of economic activity, and the government expenditures that they finance have potentially large consequences for human welfare. So the stakes involved in improving tax policy are quite large. This class provides an in-depth exploration of tax policy, from a global and comparative perspective. Because most students in this class will be CDE fellows, we will emphasize tax
policy issues, examples, and evidence that are most pertinent to developing countries, but we will also learn something about tax systems in the U.S. and other industrialized nations. Topics addressed in this class include: how basic economic principles can be applied to help one think about 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 reforms of these taxes; theory and evidence in the debate over progressive taxes versus "flat" taxes; how various elements of tax design affect incentives to save and invest; how market failures and administrative problems may influence the optimality of different tax policies; the implications of global capital flows and corporate tax avoidance for the design of tax policy; tax holidays and other special tax incentives for investment; empirical evidence on the influence of taxes on economic growth, 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, 4 problem sets, two 8-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 514 (D2) ECON 389 (D2)

Not offered current academic year

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

Cross-listings: ECON 515 ECON 359

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)

Not offered current academic year

ECON 516 (S) International Trade and Development

Cross-listings: ECON 516 ECON 366

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.
ECON 516 (D2) ECON 366 (D2)
Not offered current academic year

ECON 519 (S) Population Economics
Cross-listings: ECON 380  ECON 519
Secondary Cross-listing
This course is an introduction to the economic analysis of demographic behavior and the economic consequences of demographic change. An important aim is to familiarize students with historical and contemporary trends in fertility, mortality, migration, and family composition, and the implications of these trends for the economy. The course demonstrates the application of microeconomic theory to demographic behavior, including fertility, marriage, and migration. Students are introduced to basic techniques of demographic measurement and mathematical demography. Selected topics include the economic consequences of population growth in developing countries, the economics of fertility and female labor force participation, the effects of an older age structure on the social security system, and the relationship between population growth and natural resources.

Class Format: Course will be remote and will include synchronous lecture/discussion, possibly combined with some asynchronous components.

Requirements/Evaluation: at least one exam, a research paper and a class presentation
Prerequisites: ECON 251; POEC 253 or ECON 255 or permission of instructor
Enrollment Limit: 20
Enrollment Preferences: If overenrolled, students will be asked to submit a brief statement of interest.
Expected Class Size: 20
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 380 (D2) ECON 519 (D2)

Spring 2021
LEC Section: H1    TF 1:30 pm - 2:45 pm     Lucie Schmidt

ECON 521 (S) Incentives and Development Policy
Cross-listings: ECON 521  ECON 372
Primary Cross-listing
Why isn't the whole world developed? This course (and instructor) is of the opinion that the difficulty of getting incentives right is the key source of inefficiency. The course therefore studies how limited enforcement and asymmetric information constrain development, and about innovative development designs that attempt to overcome these constraints. The course readings will be a mix of field studies, empirical evidence and theoretical tools from game theory. Incentive and corruption problems in health, education, the regulation of banks and natural monopolies, privatization, budgeting, debt forgiveness, foreign aid, microfinance, climate treaties and ethnic violence will be studied using a unified framework. Note: this course was developed to address issues that arise in the countries represented at the CDE.

Requirements/Evaluation: two hour-long tests and a final policy project
Prerequisites: undergraduate enrollment limited and requires instructor's permission
Enrollment Limit: 19
Enrollment Preferences: intended for CDE Fellows
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 521 (D2) ECON 372 (D2)
Not offered current academic year

ECON 522 (F) Economics of Climate Change (QFR)
Cross-listings: ECON 522 ENVI 387 ECON 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. What is the socially optimal amount of climate change? Why have countries had such a hard time agreeing on GHG emissions reductions, and how might we overcome such difficulties? We will consider the growing body of evidence from attempts to regulate GHGs, including China's cap-and-trade programs, the EU ETS, and US state policies. Throughout the course we will discuss the limits of the economic approach, pointing out normative questions on which economic theory provides little guidance.

Class Format: Lectures, office hours and TA sessions will take place on Zoom.
Requirements/Evaluation: problem sets, midterm, group presentation, final exam
Prerequisites: ECON 251, familiarity with statistics
Enrollment Limit: 20
Enrollment Preferences: Junior/Senior Economics majors and CDE fellows
Expected Class Size: 20
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 522 (D2) ENVI 387 (D2) ECON 387 (D2)
Quantative/Formal Reasoning Notes: The course involves simple calculus-based theory and applied statistics.

Fall 2020
LEC Section: R1 MR 1:30 pm - 2:45 pm Matthew Gibson

ECON 523 (S) Program Evaluation for International Development
Cross-listings: ECON 523 ECON 379
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.

Class Format: This course will be taught remotely in the Spring of 2021.
Requirements/Evaluation: problem sets, short writing assignments, and one collaborative project
**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)

Spring 2021

SEM Section: R1    TR 11:30 am - 12:45 pm     Pamela Jakiela

**ECON 524 (S) Advanced Methods for Causal Inference**

**Cross-listings**: ECON 524 ECON 474

**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 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

**Enrollment Limit**: 15

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

**Expected Class Size**: 15

**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 2021

SEM Section: R1    MW 11:45 am - 1:00 pm     Owen Ozier

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

**Cross-listings**: ECON 532 ECON 375

**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 other students

**Prerequisites:** ECON 251 or ECON 252

**Enrollment Limit:** 10

**Enrollment Preferences:** Junior and senior 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 532 (D2) ECON 375 (D2)

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ECON 534 (S) Long Term Fiscal Challenges

This tutorial will address the conceptual and theoretical issues that confront policy makers when they face policy challenges that are likely to emerge only over the medium- to long-term and that have important budgetary implications. It will explore the strategies and approaches that a number of countries have attempted to develop to bring the long-term into their current policy and budgetary planning processes. Students will be exposed to different long-term challenges that have important budgetary implications, including aging populations, health care, climate change, energy and infrastructure, artificial intelligence, and water. The course will consider the specific policy challenges that arise for each and the ways in which different countries are addressing them.

**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:** permission of instructor for undergraduates

**Enrollment Limit:** 10

**Enrollment Preferences:** CDE students and undergraduates with permission of the instructor

**Expected Class Size:** 10

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

**Distributions:** (D2)

Not offered current academic year

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ECON 535 (S) International Financial Institutions

This tutorial will explore the role of official international financial institutions in the global economic and financial system, their relations with members, proposals for how they might be reformed, and issues that they face. The focus will be principally on the International Monetary Fund, and to a lesser extent the World Bank, the Bank for International Settlements and Financial Stability Board. Topics and readings will focus on such issues as: the roles and governance reform of the IMF and World Bank; lessons from their performance in international crises; initiatives of the Fund and Bank; the global adjustment process; financial system stability; governance reform; lending programs; the management of international reserves; and provision of advice to members. Participants will meet in pairs with the faculty member. Each week, one student will prepare a policy paper and submit the paper to the professor and to the other student in advance of the meeting. During the meeting, the student who has written the paper will present an argument, evidence, and conclusions. The other student will provide a critique of the paper based on concepts and evidence from the readings and his own research and experience. The professor will participate in the discussion after each participant has presented and ask questions that highlight or illustrate critical points.
Requirements/Evaluation: each participant will write and present 5 or 6 policy papers and a like number of critiques

Prerequisites: intended for CDE Fellows; undergraduate enrollment limited, and only with permission of instructor

Enrollment Limit: 10

Expected Class Size: 10

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

Distributions: (D2)

Not offered current academic year

ECON 536  (S)  Financial Crises: Causes and Cures

Cross-listings: ECON 390  ECON 536

Secondary Cross-listing

Financial crises have been with us for as long as banking has existed. Why are crises such a regular fixture of societies, and what can be done to prevent them, or at least reduce their cost? Topics examined include bubbles and swindles, especially when these spillover to the broader macroeconomy; the role of information in banking in normal times and in bank runs; boom-bust cycles in asset markets; international contagion; crisis resolution techniques; and the extensive history of attempts to improve regulation so as to reduce the frequency and cost of crises. Crises in developing and developed economies from the South Sea Bubble to the Euro Crisis will be examined, and the role of political economy factors in their run-up and resolution will be featured.

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

Prerequisites: ECON 252 and 255

Enrollment Limit: 10

Enrollment Preferences: 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 390 (D2) ECON 536 (D2)

Not offered current academic year

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 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 deteriorates 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

Prerequisites: ECON 252 and ECON 255

Enrollment Limit: 10

Enrollment Preferences: Economics majors

Expected Class Size: 10

Grading: no pass/fail option, no fifth course option
**ECON 540 (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)
Not offered current academic year

**ECON 545 (S) Growth Diagnostics (QFR)**

**Cross-listings:** ECON 545 ECON 345

**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, two short (5-page) papers, two 15-page team papers comprising a country growth diagnostic, and a team 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 545 (D2) ECON 345 (D2)

**Quantative/Formal Reasoning Notes:** The course material will be draw 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.

Not offered current academic year

**ECON 548 (F) Human Capital and Development**

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 problem sets, two in-class exams, and short presentations by students.

Prerequisites: ECON 255, POEC 253, STAT 346, or permission of the instructor

Enrollment Limit: 20

Enrollment Preferences: Economics majors

Expected Class Size: 20

Grading:

Distributions: (D2)

Not offered current academic year

ECON 570 Data Science for Economic Analysis

The goal of data science is to use empirical information from a broad range of sources to improve our understanding of the world around us. Economists increasingly rely on the tools of data science to access novel sources of data and information, characterize the economic environment, and conduct empirical analysis. This course provides hands-on introduction to data science tools most relevant for economic analysis including data visualization, exploratory data analysis, and statistical learning. The objective of the course is to help students: (i) formulate economic research questions that can be explored using data science tools, (ii) identify sources of data and prepare data for analysis, (iii) produce persuasive visualizations, and (iv) analyze data using both classical statistics and machine learning.

Class Format: The course includes traditional lectures, interactive activities in both Stata and R, and in-class presentations by students. Some prior knowledge of either Stata or R is helpful, but not required.

Requirements/Evaluation: Grades are based on in-class participation and performance on two take-home exams as well as problem sets and data visualization/analysis projects.

Prerequisites: ECON 255 or STAT 201, STAT 202, or STAT 346 or permission of instructor

Enrollment Limit: 25

Enrollment Preferences: Economics majors

Expected Class Size: 25

Grading:

Distributions: (D2)

Not offered current academic year

Winter Study -----------------------------------------------

ECON 21 (W) Fieldwork in International Development

This course involves an internship, volunteer work, or a research project in a developing economy and an academic analysis of the relevant development issues. The instructors will work with interested students to help arrange a placement and to help secure funding through Williams Financial Aid or other sources. Such arrangements must be made well in advance of Winter Study. Spanish speakers are especially encouraged to apply as there will likely be a few fieldwork possibilities in coffee-growing areas of Latin America. Students will read relevant background articles distributed at the end of fall term and must agree to keep a journal, maintain contact with the instructors, and write a final paper on development issues raised by their specific internship. A group meeting of all students will occur after Winter Study to reflect on individual experiences. Students are also encouraged to attend development talks at the Center for Development Economics throughout the academic year. Requirements: 90 hours of fieldwork; satisfactory evaluation from the institutional sponsor; 10-page final paper or equivalent; participation in final meeting. Interested students should send a resume and letter of interest to Paula Consolini by November 1. Each student’s internship provider should send a confirmation letter by December 1 verifying the placement and describing the nature of the work to be performed by the intern. Paula Consolini is Director of the Center for Learning in Action.

Requirements/Evaluation: 10-page paper

Prerequisites: none

Enrollment Limit: 8

Enrollment Preferences: Resume and Letter of Interest will be used to select students if over-enrolled
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 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.

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