

Program of Study

The program in economics is intended to equip students with the basic tools to understand the operation of a modern economy: the origin and role of prices and markets, the allocation of goods and services, and the factors that enter into the determination of income, employment, and the price level.

The program in economics can be divided into five component parts:

1. Fundamentals sequence: provides students with the basic skills required to be successful in the major.
2. Core curriculum: consists of three courses designed to introduce students to the "economic approach."
3. Empirical Methods sequence: provides students with the fundamental techniques of data analysis.
4. Economic Policy course: applies the tools developed in the core curriculum to issues of fiscal policy, monetary policy, and other policy discussions relevant to the current state of the economy.
5. Electives: allows students to tailor the economics major to their interests.

Note: The requirements described below apply to students who matriculated at the University of Chicago in the 2016–17 academic year or later. Any possible exceptions will be noted.

Program Requirements

Fundamentals

Students must begin the economics major by demonstrating competence in basic calculus and principles of economics. The fundamentals sequence consists of the following courses. The first two are required; the second two are strongly recommended:

MATH 13300 or MATH 15300 or MATH 16300	Elementary Functions and Calculus III Calculus III Honors Calculus III	100
MATH 19520 or MATH 20400 or MATH 20800	Mathematical Methods for Social Sciences Analysis in R^n II Honors Analysis in R^n II	100
ECON 19800	Introduction to Microeconomics	100
ECON 19900	Introduction to Macroeconomics	100

Students who wish to complete the major with more rigorous mathematics may substitute [MATH 20400](#) Analysis in R^n II for [MATH 19520](#) Mathematical Methods for Social Sciences.

Calculus

Students who have an interest in the major should take calculus at the highest level for which they qualify. Students may complete [MATH 19520](#) Mathematical Methods for Social Sciences prior to or concurrently with [ECON 20000](#) The Elements of Economic Analysis I. Students must not postpone completion of [MATH 19520](#) Mathematical Methods for Social Sciences beyond concurrent registration with [ECON 20000](#) The Elements of Economic Analysis I.

1. MATH 13000s: Students must complete [MATH 13300](#) Elementary Functions and Calculus III prior to enrolling in [ECON 20000](#) The Elements of Economic Analysis I. Students may find it useful to complete [MATH 19520](#) Mathematical Methods for Social Sciences prior to enrolling in the Elements of Economic Analysis sequence.

2. MATH 15000s: Students enrolling in the MATH 15000s sequence must complete [MATH 15300](#) Calculus III before enrolling in [ECON 20000](#) The Elements of Economic Analysis I. However, enrollment in [ECON 20000](#) The Elements of Economic Analysis I concurrently with [MATH 15300](#) Calculus III is allowed if (1) a grade of A- or higher is achieved in both [MATH 15100](#) Calculus I and [MATH 15200](#) Calculus II and (2) competency in microeconomics has been demonstrated (see [Core Curriculum](#) for details).

3. MATH 16000s and 16010s: Students enrolling in the MATH 16000s sequences must complete [MATH 16200](#) Honors Calculus II or [MATH 16210](#) Honors Calculus II (IBL) before enrolling in [ECON 20000](#) The Elements of Economic Analysis I. Enrollment in [ECON 20000](#) The Elements of Economic Analysis I requires completion or concurrent enrollment in [MATH 16300](#) Honors Calculus III/[MATH 16310](#) Honors Calculus III (IBL) and demonstrated competency in Microeconomics (see "Core Curriculum" section, below, for details).

Students may satisfy the third quarter of calculus requirement by placement (based on the Calculus Accreditation Examination administered by the College in the summer prior to matriculation). In this case, students should continue their mathematics training with the highest mathematics level for which they qualify.

Principles of Economics

Students are expected to begin their study of economics with [ECON 19800](#) Introduction to Microeconomics and [ECON 19900](#) Introduction to Macroeconomics. These courses provide a good overview of basic concepts. These two introductory courses are designed for students with limited or no prior course work in economics. While these two courses provide basic economics knowledge, they are not required in the major. Students who matriculated at the University of Chicago in 2016–17 or later may use [ECON 19900](#) Introduction to Macroeconomics to fulfill one of the economics elective requirements.

Students are strongly encouraged to complete [ECON 19800](#) Introduction to Microeconomics prior to [ECON 20000](#) The Elements of Economic Analysis I (or [ECON 20010](#) The Elements of Economic Analysis: Honors I) and [ECON 19900](#) Introduction to Macroeconomics prior to [ECON 20200](#) The Elements of Economic Analysis III (or [ECON 20210](#) The Elements of Economic Analysis: Honors III).

Core Curriculum

The core curriculum consists of three courses. Students may use the standard or honors sequence to satisfy this requirement. The honors sequence is designed for students interested in economics research and/or use of more sophisticated mathematical models.

Standard Core Sequence	300
ECON 20000	The Elements of Economic Analysis I
ECON 20100	The Elements of Economic Analysis II
ECON 20200	The Elements of Economic Analysis III
or Honors Core Sequence	300
ECON 20010	The Elements of Economic Analysis: Honors I
ECON 20110	The Elements of Economic Analysis: Honors II
ECON 20210	The Elements of Economic Analysis: Honors III

Most students begin the core curriculum in their second year. Those who wish to begin it during their first year must demonstrate competence with the fundamental skills needed in that sequence in the following ways:

- Students must either pass the economics placement test or complete [ECON 19800](#) Introduction to Microeconomics prior to starting [ECON 20000](#) The Elements of Economic Analysis I (or [ECON 20100](#) The Elements of Economic Analysis II). No standardized external exams (IB, AP, nor A-Levels) will substitute, and they rarely serve as sufficient preparation for the economics placement test. Note that the placement test will only be offered Monday evening of the first week of Autumn Quarter.
- Students must satisfy the calculus requirement as discussed in [Calculus](#).

Note: Students who are completing the previous major requirements and are on track to complete [ECON 20300](#) The Elements of Economic Analysis IV after Autumn Quarter 2017 should take [ECON 23950](#) Economic Policy Analysis in place of ECON 20300, regardless of matriculation date.

Empirical Methods

In the modern economy, quantitative methods are highly valued skills. Students must satisfy the empirical methods component of the economics major in one of two ways, either as a three-quarter sequence or a two-quarter sequence. *Note: The two-quarter sequence is only available to students who matriculated in 2016–17 or later. Those who matriculated in 2015–16 or earlier are required to take the standard three-quarter sequence.*

Option A: The three-quarter empirical methods sequence is comprised of a course in linear algebra, a course in statistics, and a course in econometrics, and is designed for students who complete the MATH 15000s sequence or higher. This three-quarter empirical methods sequence covers the broad ranges of scope that the disciplines provide, which will be useful for further quantitative training in the major.

Option B: The two-quarter empirical sequence, comprised of an economics statistical methods course and a course in econometrics, is provided as an alternative for students who want to focus only on the relevant materials in linear algebra and statistics that pertain to econometrics. [ECON 21010](#) Statistical Methods in Economics teaches the fundamental methods and materials from linear algebra and statistics that are utilized in many economic applications.

Details about each sequence are below. We strongly encourage students to choose the highest mathematical tracks for which they are qualified. Students unsure of which sequence to choose should consult with the Undergraduate Office in the Department of Economics as well as the Department of Mathematics and Department of Statistics.

Option A: Three-Quarter Empirical Methods Sequence

In order to satisfy the empirical methods component of the economics major using a three-quarter sequence, students must complete the following courses. They must be taken in consecutive quarters, beginning with Linear Algebra and concluding with Econometrics:

One of the following:	100
MATH 19620 or STAT 24300 or MATH 20250 or MATH 20700	Linear Algebra Numerical Linear Algebra Abstract Linear Algebra Honors Analysis in Rn I
One of the following:	100
STAT 23400 or STAT 24400 or STAT 24410	Statistical Models and Methods Statistical Theory and Methods I Statistical Theory and Methods Ia
One of the following:	100
ECON 21020 or ECON 21030	Econometrics Econometrics - Honors
Total Units	300

Students may not use AP Statistics credit to satisfy the statistics requirement. Students with AP credit will need to expand on their training with [STAT 23400](#) Statistical Models and Methods, [STAT 24400](#) Statistical Theory and Methods I, or [STAT 24410](#) Statistical Theory and Methods Ia. Students may not earn credit for both [STAT 22000](#) Statistical Methods and Applications (via course enrollment or AP exam) and [STAT 23400](#) Statistical Models and Methods.

Students who wish to pursue more advanced training in empirical methods may complete [STAT 24300](#) Numerical Linear Algebra or [MATH 20250](#) Abstract Linear Algebra or [MATH 20700](#) Honors Analysis in \mathbb{R}^n I; either [STAT 24400](#) Statistical Theory and Methods I or [STAT 24410](#) Statistical Theory and Methods Ia; and [ECON 21030](#) Econometrics - Honors.

Option B: Two-Quarter Empirical Methods Sequence

Option B is available only to students who matriculated at the University of Chicago in 2016–17 and later. In order to satisfy the empirical methods component of the economics major using a two-quarter sequence, students must complete the following:

ECON 21010	Statistical Methods in Economics	100
ECON 21020	Econometrics	100
Total Units		200

Students should not begin the empirical methods sequence earlier than concurrently with [ECON 20100](#) The Elements of Economic Analysis II and should take [ECON 21010](#) Statistical Methods in Economics and [ECON 21020](#) Econometrics in consecutive quarters. Students must complete the empirical methods sequence by the end of third year.

Students who complete the empirical methods component of the major with just two courses ([ECON 21010](#) Statistical Methods in Economics and [ECON 21020](#) Econometrics) must complete an additional economics elective, as discussed in [Electives](#).

Economic Policy

The economic policy requirement provides students the opportunity to apply methods and tools taught in the economics core sequence to analyze current issues centered around monetary and fiscal policy. Most students will complete the economic policy requirement with [ECON 23950](#) Economic Policy Analysis, but students interested in learning more formal approaches may use one of the other macroeconomics courses listed below to satisfy the requirement.

ECON 23950	Economic Policy Analysis	100
or ECON 23200	Topics in Macroeconomics	
or ECON 23220	Introduction to Advanced Macroeconomic Analysis	
or ECON 23330	Introduction to Dynamic Economic Modeling	

Students who complete more than one of the above courses may apply the additional courses to satisfy the economics elective requirements. [ECON 23950](#) Economic Policy Analysis may not count as an economics elective. Students may not earn credit for both [ECON 23950](#) Economic Policy Analysis and [ECON 20300](#) The Elements of Economic Analysis IV.

Note: Students on track to complete [ECON 20300](#) The Elements of Economic Analysis IV after Autumn Quarter 2017 should take [ECON 23950](#) Economic Policy Analysis in place of [ECON 20300](#), regardless of matriculation date.

Electives

All students in the economics major must complete a minimum of four additional economics courses to broaden their exposure to areas of applied economics or economic theory. Students who complete the empirical methods component with the two-quarter sequence must complete five economics electives. These courses must have a higher course number than [ECON 20200](#) The Elements of Economic Analysis III, with a couple of exceptions: Neither [ECON 21030](#) Econometrics - Honors nor [ECON 23950](#) Economic Policy Analysis can be used to satisfy the economics elective requirements; students who matriculated in 2016–17 or later may use [ECON 19900](#) Introduction to Macroeconomics to satisfy one of the economics elective requirements.

Only one of a student's electives may come from outside the University of Chicago Department of Economics. One of the following courses may count as an outside elective:

Computer Science	
CMSC 10600	Fundamentals of Computer Programming II
CMSC 12100	Computer Science with Applications I
CMSC 12200	Computer Science with Applications II
CMSC 15100	Introduction to Computer Science I
CMSC 15200	Introduction to Computer Science II
CMSC 16100	Honors Introduction to Computer Science I
CMSC 16200	Honors Introduction to Computer Science II
Statistics	
STAT 24500	Statistical Theory and Methods II
STAT 25100	Introduction to Mathematical Probability
STAT 25300	Introduction to Probability Models
STAT 26100	Time Dependent Data
Mathematics	
MATH 20500	Analysis in \mathbb{R}^n III
MATH 20900	Honors Analysis in \mathbb{R}^n III
MATH 27300	Basic Theory of Ordinary Differential Equations

Courses in other degree programs may be considered for elective credit through petition. To be considered, these courses must require the equivalent prerequisite course work of [ECON 20100](#) The Elements of Economic Analysis II. Graduate level economics courses will be counted for elective credit, but consultation with the Undergraduate Office in advance of course registration is required.

A University of Chicago Booth School of Business course may be considered for elective credit if the course requires the equivalent of [ECON 20100](#) The Elements of Economic Analysis II as a prerequisite and is numbered as a Chicago Booth 40000 or higher course. Additionally, the course needs to pertain to the application of economic theory to a course subject that is not offered by the Department of Economics. Courses such as accounting, investments, competitive strategy, and entrepreneurship will not be considered for economics elective credit. Consideration for elective credit must be done by petition before a student registers for the course. There will be no retroactive consideration for credit.

Summary of Requirements

TRACK A: Three-Quarter Empirical Methods Sequence

GENERAL EDUCATION

One of the following:	200
MATH 13100-13200	Elementary Functions and Calculus I-II
MATH 15100-15200	Calculus I-II *
MATH 16100-16200	Honors Calculus I-II
MATH 16110 & 16300	Honors Calculus I (IBL) and Honors Calculus III
Total Units	200

MAJOR		
One of the following:	100	
MATH 13300	Elementary Functions and Calculus III	
MATH 15300	Calculus III *	
MATH 16300	Honors Calculus III	
MATH 16310	Honors Calculus III (IBL)	
One of the following:	300	
ECON 20000-20100-20200	The Elements of Economic Analysis I-II-III	
ECON 20010-20110-20210	The Elements of Economic Analysis: Honors I-II-III	
MATH 19520 or MATH 20400 or MATH 20800	Mathematical Methods for Social Sciences ** Analysis in R^n II Honors Analysis in R^n II	100
MATH 19620 or MATH 20250 or STAT 24300 or MATH 20700	Linear Algebra Abstract Linear Algebra Numerical Linear Algebra Honors Analysis in R^n I	100
STAT 23400 or STAT 24400 or STAT 24410	Statistical Models and Methods Statistical Theory and Methods I Statistical Theory and Methods Ia	100
ECON 21020 or ECON 21030	Econometrics Econometrics - Honors	100
ECON 23950 or ECON 23200 or ECON 23220 or ECON 23330 or ECON 23410 or ECON 23620	Economic Policy Analysis Topics in Macroeconomics Introduction to Advanced Macroeconomic Analysis Introduction to Dynamic Economic Modeling Economic Growth Inequality: A Perspective from Macroeconomics	100
Four electives +		400
Total Units		1300

- * Credit may be granted by examination.
- ** Students are encouraged to take prior to or concurrently with ECON 20000 or ECON 20010.
- + These courses must include three economics courses numbered higher than ECON 20200 and must follow guidelines in the preceding Electives section. (Note: ECON 19900 may be used to fulfill one economics elective requirement for students who matriculated in 2016–17 or later.)

TRACK B: Two-Quarter Empirical Methods Sequence

Available only to students who matriculated in 2016-17 or later.

GENERAL EDUCATION		
One of the following:		200
MATH 13100-13200	Elementary Functions and Calculus I-II	
MATH 15100-15200	Calculus I-II *	
MATH 16100-16200	Honors Calculus I-II	
MATH 16110 & 16210	Honors Calculus I (IBL) and Honors Calculus II (IBL)	
Total Units		200

MAJOR		
One of the following:		100
MATH 13300	Elementary Functions and Calculus III	
MATH 15300	Calculus III *	
MATH 16300	Honors Calculus III	
MATH 16310	Honors Calculus III (IBL)	
One of the following:		300
ECON 20000-20100-20200	The Elements of Economic Analysis I-II-III	
ECON 20010-20110-20210	The Elements of Economic Analysis: Honors I-II-III	
MATH 19520 or MATH 20400 or MATH 20800	Mathematical Methods for Social Sciences ** Analysis in Rn II Honors Analysis in Rn II	100
ECON 21010	Statistical Methods in Economics	100
ECON 21020	Econometrics	100
ECON 23950 or ECON 23200 or ECON 23220	Economic Policy Analysis Topics in Macroeconomics Introduction to Advanced Macroeconomic	100

or ECON 23330	Analysis
or ECON 23410	Introduction to Dynamic Economic Modeling
or ECON 23620	Economic Growth
	Inequality: A Perspective from Macroeconomics
Five electives ⁺	500
Total Units	1300

* Credit may be granted by examination.

** Students are encouraged to take prior to or concurrently with ECON 20000 or ECON 20010.

+ These courses must include four economics courses numbered higher than ECON 20200 and must follow guidelines in the preceding Electives section. For students who matriculated in 2016-17 or later, ECON 19900 may be used to fulfill one economics elective requirement.

Sample Programs

The following is a recommended sample plan of study (excluding four elective courses) for those students entering with the MATH 13000s sequence:

First Year		
Autumn Quarter	Winter Quarter	Spring Quarter
MATH 13100	MATH 13200	MATH 13300
		ECON 19800
Second Year		
Autumn Quarter	Winter Quarter	Spring Quarter
ECON 20000	ECON 20100	ECON 20200
MATH 19520	ECON 19900	
Third Year		
Autumn Quarter	Winter Quarter	Spring Quarter
ECON 23950	STAT 23400	ECON 21020
MATH 19620		

The following is a recommended plan of study (excluding four economics elective courses) for those students entering with the MATH 15000s or MATH 16000s sequence:

First Year		
Autumn Quarter	Winter Quarter	Spring Quarter
MATH 15100	MATH 15200	MATH 15300
		ECON 19800
Second Year		
Autumn Quarter	Winter Quarter	Spring Quarter
ECON 20000	ECON 20100	ECON 20200

MATH 19520	MATH 19620	STAT 23400
	ECON 19900	
Third Year		
Autumn Quarter		
ECON 23950		
ECON 21020		

The following is a recommended plan of study (excluding five elective courses) for those students completing the two-quarter empirical methods sequence. Note that this plan of study can be used in conjunction with any calculus sequence:

First Year		
Autumn Quarter	Winter Quarter	Spring Quarter
MATH 13100	MATH 13200	MATH 13300
		ECON 19800
Second Year		
Autumn Quarter	Winter Quarter	Spring Quarter
ECON 20000	ECON 20100	ECON 20200
MATH 19520	ECON 19900	ECON 21010
Third Year		
Autumn Quarter		
ECON 23950		
ECON 21020		

Students wanting to appropriately plan their economics major with the courses [MATH 20400](#) Analysis in Rn II, [STAT 24400](#) Statistical Theory and Methods I, or [STAT 24410](#) Statistical Theory and Methods Ia should consult with the Undergraduate Program Office in the Department of Economics.

Grading

Beginning in autumn 2010, successful completion of the economics major requires both a major GPA of 2.0 or higher *and* a minimum grade of C- in all courses counted for the major program. In addition, students majoring in economics must receive quality grades in all courses required as part of the major. Non-majors may take economics courses on a P/F basis; only grades of C- or higher constitute passing work.

Honors

To be considered for honors, students must meet the following requirements: (1) a GPA of 3.5 or higher in the major and a GPA of 3.2 or higher overall, (2) participation in the honors workshop and sole authorship of an independent research paper on a topic in economics, and (3) a faculty sponsor's letter evaluating this independent research paper. For award of honors, the project must receive a grade of A or A-. At the beginning of the student's fourth year, the economics honors committee must have a letter from an economics faculty sponsor expressing willingness to oversee the student's writing of an independent research paper and recommending the student be admitted into the honors workshop program. Honors papers should be outgrowths of economics electives or research assistant work for the faculty sponsor.

Participation in the [ECON 29800](#) Undergraduate Honors Workshop is mandatory throughout the year. Upon completion of the paper in the Spring Quarter, the student will then be retroactively registered for the course in the fourth-year quarter of the student's choosing. Plan for this retroactive registration with your College adviser.

The research paper, a transcript, and a recommendation letter from the faculty sponsor evaluating the independent research paper must be submitted to the undergraduate economics program office for consideration by the economics honors committee no later than the end of fifth week of the quarter in which the student plans to graduate. Students wishing to qualify for honors should (1) engage in preparatory course work in the area of interest no later than Spring Quarter of their third year and (2) consult with the program advisers no later than Winter Quarter of their third year.

This program may accept a BA paper or project used to satisfy the same requirement in another major if certain conditions are met and with the consent of the other program chair. Approval from both program chairs is required. Students should consult with the chairs by the earliest BA proposal deadline (or by the end of third year, when neither program publishes a deadline). A consent form, to be signed by both chairs, is available from the College adviser. It must be completed and returned to the College adviser by the end of Autumn Quarter of the student's year of graduation.

Preparation for PhD Programs in Economics

Students preparing to pursue a PhD program in economics should complete advanced course work in mathematics, statistics, and computer science. The real analysis sequence offered by the Mathematics Department, [MATH 20300-20400-20500](#) Analysis in Rn I-II-III (or its honors variant [MATH 20700-20800-20900](#) Honors Analysis in Rn I-II-III) contains material that is particularly important for economics graduate school. Students who used [MATH 13300](#) Elementary Functions and Calculus III or [MATH 15300](#) Calculus III to fulfill the calculus requirement will need to take [MATH 15910](#) Introduction to Proofs in Analysis to transition into the real analysis sequence. Completion of this course work allows students to participate in higher level electives that may also be helpful for their chosen path of study in graduate school.

Completion of either [STAT 24400](#) Statistical Theory and Methods I or [STAT 24410](#) Statistical Theory and Methods Ia and either [MATH 20250](#) Abstract Linear Algebra or [STAT 24300](#) Numerical Linear Algebra will allow students to continue their training in statistics and econometrics at an advanced level.

Increasingly, graduate programs expect students to have sophisticated programming skills. Completion of [CMSC 15100-15200](#) Introduction to Computer Science I-II is strongly encouraged.

In addition, students who are interested in pursuing graduate study are encouraged to take appropriate courses from other departments in the social sciences to obtain a well-rounded perspective of their areas of interest.

Students are encouraged to seek research assistant jobs and may self-subscribe to the [Research Assistant Jobs](#) listhost to receive updates on job postings.

It is important that such students consult early in the second year with one of the directors of the undergraduate program to design a plan of course work and research. Contact juliew@uchicago.edu for appointments.

Economics Courses

ECON 14810. Evolution and Economics of Human Behavior. 100 Units.

This course explores how evolutionary biology and behavioral economics explain many different aspects of human behavior. Specific topics include evolutionary theory, natural and sexual selection, game theory, cost-benefit analyses of behavior from an evolutionary and a behavioral economics perspective, aggression, power and dominance, cooperation and competition, biological markets, parental investment, life history and risk-taking, love and mating, physical attractiveness and the market, emotion

and motivation, sex and consumer behavior, cognitive biases in decision-making, and personality and psychopathology.

Instructor(s): D. Maestriperi Terms Offered: Autumn

Prerequisite(s): This course does not meet the requirements for the Biological Sciences Major.

Note(s): CHDV Distribution: A; 1*

Equivalent Course(s): CHDV 37950, PSYC 27950, PSYC 37950, BIOS 29265, CHDV 27950

ECON 19800. Introduction to Microeconomics. 100 Units.

By way of economic theory, applications, and contemporary issues, this course treats (1) the behavior and decision making on the part of individuals, business firms, and governments; and (2) the function of costs, prices, incentives, and markets in the American economy. We discuss contemporary topics (e.g., distribution of income, the environment, education, sports, health care).

Instructor(s): A. Sanderson, J. List Terms Offered: Autumn, Spring

ECON 19900. Introduction to Macroeconomics. 100 Units.

By way of theory and public policy applications, this course covers current major domestic and international macroeconomic issues in the U.S. economy, including the determination of income and output, inflation, unemployment, and economic growth; money, banking, and the Federal Reserve System; federal spending, taxation, and deficits; and international trade, exchange rates, and the balance of payments.

Instructor(s): A. Sanderson Terms Offered: Autumn, Winter

ECON 20000-20100-20200-20300. The Elements of Economic Analysis I-II-III-IV.

ECON 20000. The Elements of Economic Analysis I. 100 Units.

This course develops the economic theory of consumer choice. This theory characterizes optimal choices for consumers given their incomes and preferences, as well as the relative prices of different goods. This course develops tools for analyzing how these optimal choices change when relative prices and consumer incomes change. Finally, this course presents several measures of consumer welfare. Students learn how to evaluate the impact of taxes and subsidies using these measures. Completion of ECON 19800 is strongly recommended of students without a prior microeconomics course.

Terms Offered: Autumn, Spring

Prerequisite(s): MATH 13300 (with prior completion of or at least concurrent with MATH 19520), MATH 15300, or 16300. First-year students must also pass the economics placement exam or complete ECON 19800.

ECON 20100. The Elements of Economic Analysis II. 100 Units.

This course is a continuation of ECON 20000. The first part of this course discusses markets with one or a few suppliers. The second part focuses on demand and supply for factors of production and the distribution of income in the economy. This course also includes some elementary general equilibrium theory and welfare economics.

Instructor(s): Staff Terms Offered: Autumn, Winter

Prerequisite(s): ECON 20000 or 2010

ECON 20200. The Elements of Economic Analysis III. 100 Units.

As an introduction to macroeconomic theory and policy, this course covers the determination of aggregate demand (i.e., consumption, investment, the demand for money); aggregate supply; and the interaction between aggregate demand and supply. We also discuss economic growth, business cycle, inflation and money. Completion of ECON 19900 is strongly recommended of students without a prior macroeconomics course.

Instructor(s): Staff Terms Offered: Spring, Winter

Prerequisite(s): ECON 20100 or 20110

ECON 20300. The Elements of Economic Analysis IV. 100 Units.

This is a course in money and banking, monetary theories, the determinants of the supply and demand for money, the operation of the banking system, monetary policies, financial markets, and portfolio choice.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): ECON 20200 or 20210

ECON 20010-20110-20210. The Elements of Economic Analysis: Honors I-II-III.

The Elements of Economic Analysis: Honors I-II-III

ECON 20010. The Elements of Economic Analysis: Honors I. 100 Units.

The scope of the honors section is the same as the standard section, but it covers material at greater depth and using more sophisticated mathematical methods. This course develops the economic theory of consumer choice. This theory characterizes optimal choices for consumers given their incomes and preferences, as well as the relative prices of different goods. This course develops tools for analyzing how these optimal choices change when relative prices and consumer incomes change. Finally, this course presents several measures of consumer welfare. Students learn how to evaluate the impact of taxes and subsidies using these measures. Completion of ECON 19800 is strongly recommended of students without a prior microeconomics course.

Instructor(s): Staff Terms Offered: Autumn, Spring

Prerequisite(s): MATH 13300 (with prior completion of or at least concurrent with MATH 19520), MATH 15300, or 16300. First-year students must also pass the economics placement exam or complete ECON 19800.

ECON 20110. The Elements of Economic Analysis: Honors II. 100 Units.

The scope of the honors section is the same as the standard section, but it covers material at greater depth and using more sophisticated mathematical methods. This course is a continuation of ECON 20000/20010. The first part of this course discusses markets with one or a few suppliers. The second part focuses on demand and supply for factors of production and the distribution of income in the economy. This course also includes some elementary general equilibrium theory of welfare economics.

Instructor(s): Staff Terms Offered: Autumn, Winter

Prerequisite(s): ECON 20000 or 20010

ECON 20210. The Elements of Economic Analysis: Honors III. 100 Units.

The scope of the honors section is the same as the standard section, but it covers material at greater depth and using more sophisticated mathematical methods. As an introduction to macroeconomic theory and policy, this course covers the determination of aggregate demand (i.e., consumption, investment, the demand for money); aggregate supply; and the interaction between aggregate demand and supply. We also discuss economic growth, business cycle, inflation and money. Completion of ECON 19900 is strongly recommended of students without a prior macroeconomics course.

Instructor(s): Staff Terms Offered: Spring, Winter

Prerequisite(s): ECON 20100 or 20110

ECON 20310. The Elements of Economic Analysis: Honors IV. 100 Units.

The scope of the honors section is the same as the standard section, but it covers material at greater depth and using more sophisticated mathematical methods. This is a course in money and banking, monetary theories, the determinants of the supply and demand for money, the operation of the banking system, monetary policies, financial markets, and portfolio choice.

Instructor(s): Staff Terms Offered: Autumn

Prerequisite(s): ECON 20200 or 20210

ECON 20700. Game Theory and Economic Applications. 100 Units.

ECON 20700 or 20710 or 20770 may be used as an economics elective, but only one of the three. This course introduces the basic ideas and applications of game theory. Topics include models of games in extensive and strategic form, equilibria with randomization, signaling and beliefs, reputation in repeated games, bargaining games, investment hold-up problems, and mediation and incentive constraints.

Instructor(s): Staff Terms Offered: Spring
Prerequisite(s): ECON 20100

ECON 20710. Game Theory: A Formal Approach. 100 Units.

ECON 20700 or 20710 or 20770 may be used as an economics elective, but only one of the three. This course is a rigorous introduction to game theory with an emphasis on formal methods. Definitions of a game, preferences, chance moves, and Nash Equilibrium and its extensions are provided. Applications are given to classical games (such as chess), bargaining, and economic models. This course is intended for students who are planning to study economics at the graduate level and for students with an interest in a mathematical approach to basic issues in the social sciences.

Instructor(s): H. Sonnenschein Terms Offered: TBD
Prerequisite(s): ECON 20100 and MATH 20300, or consent of instructor

ECON 20740. Analysis of Collective Decision-Making. 100 Units.

This course develops the theory of collective choice by groups of individuals who may have diverse preferences. We study how, and to what extent, preferences can be aggregated and the extent to which voting systems and elections succeed in aggregating information and preferences. Finally we examine how the design of institutions impacts policy outcomes and why the electoral system may produce suboptimal results.

Instructor(s): R. Van Weelden Terms Offered: Spring
Prerequisite(s): Econ 20100

ECON 20770. Decision and Strategy. 100 Units.

This course provides a formal introduction to game theory with applications in economics. We will study models of how individuals make decisions, and how those decisions are shaped by strategic concerns and uncertainty about the world. The topics will include the theory of individual choice, games of complete and incomplete information, and equilibrium concepts such as Nash equilibrium. The applications will include oligopoly, auctions, and bargaining. The course is appropriate for advanced undergraduates who are interested in a rigorous mathematical approach to understanding human behavior.

Instructor(s): B. Brooks Terms Offered: Spring
Prerequisite(s): ECON 20100 and MATH 20300, or consent of instructor

ECON 20800. Theory of Auctions. 100 Units.

In part, this course covers the analysis of the standard auction formats (i.e., Dutch, English, sealed-bid) and describes conditions under which they are revenue maximizing. We introduce both independent private-value models and interdependent-value models with affiliated signals. Multi-unit auctions are also analyzed with an emphasis on Vickrey's auction and its extension to the interdependent-value setting.

Instructor(s): P. Reny Terms Offered: Winter
Prerequisite(s): ECON 20100, MATH 20300, and STAT 24400

ECON 21010. Statistical Methods in Economics. 100 Units.

This course provides a solid foundation in probability and statistics for economists. We emphasize topics needed for further study of econometrics in ECON 21020. Topics include elements of probability theory, sampling theory, estimation, hypothesis testing, and an introduction to linear algebra.

Instructor(s): Staff Terms Offered: Autumn, Winter
Prerequisite(s): At least concurrent registration with Econ 20100

ECON 21020. Econometrics. 100 Units.

Required of students who are majoring in economics; those students are encouraged to meet this requirement by the end of their third year. This course covers the single and multiple linear regression model, the associated distribution theory, and testing procedures; corrections for heteroskedasticity,

autocorrelation, and simultaneous equations; and other extensions as time permits. Students also apply the techniques to a variety of data sets using PCs.

Instructor(s): Staff Terms Offered: Autumn, Spring, Winter

Prerequisite(s): ECON 20100, ECON 21010, or STAT 23400 and MATH 19620 (or MATH 20000 or STAT 24300 or MATH 20250)

ECON 21030. Econometrics - Honors. 100 Units.

The topics are essentially the same as those covered in ECON 21020, but this foundations course in econometrics gives a more systematic introduction to the application of statistical theory to economic applications. This course is intended for students who are planning to study economics at the graduate level.

Instructor(s): Staff Terms Offered: Spring, Winter

Prerequisite(s): ECON 20100, and STAT 24400, 24410 or 24500, and MATH 20250 or STAT 24300; or consent of instructor

ECON 21100. Microeconometrics. 100 Units.

This course provides students with a basic understanding of how econometrics, economic theory, and knowledge of institutions can be used to draw credible inferences on economic relationships. Topics include multivariate linear regression, causal inference, omitted variables bias, fixed and random effects models, simultaneous equation models, the propensity score, and discrete choice models. Students have the opportunity to apply these techniques to empirical questions in industrial organization, as well as in environmental, labor, and public economics.

Instructor(s): Staff Terms Offered: TBD

Prerequisite(s): ECON 21020 or ECON 21030

ECON 21110. Applied Microeconometrics. 100 Units.

This course will cover a broad set of applications in labor economics, public economics, industrial organization, economics of education, environmental economics, and development economics. There will be a strong focus on how economic theory, institutional details, and experiments can be used to draw causal inferences on economic relationships. There will be emphasis on applying a number of commonly used microeconomic methods to economic data; including the linear regression model, fixed and random effects models, instrumental variables, and discrete choice models. When interpreting the empirical results, we will also discuss the importance of omitted variables bias and measurement error.

Instructor(s): J. Joensen Terms Offered: Spring

Prerequisite(s): ECON 20900 or ECON 21000

ECON 21150. Topics In Applied Econometrics. 100 Units.

This course aims to familiarize students with a set of key tools in modern econometric analysis, focusing particularly on applications involving panel data. Topics covered include static and dynamic panel models, fixed and random effects, measurement error in panel contexts, instrumental variables regression, and generalized method of moments, with emphasis on applying these techniques to real-world data to answer concrete economic questions.

Instructor(s): Staff Terms Offered: TBD

Prerequisite(s): ECON 21020 or ECON 21030

ECON 21200. Time Series Econometrics. 100 Units.

This course examines time series models and the testing of such models against observed evolution of economic quantities. Topics include autocorrelation and heteroskedasticity in time series applications of the general linear model. Students see the applications of these time series models in macroeconomics and finance.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): ECON 21020 or ECON 21030

ECON 21410. Computational Methods in Economics. 100 Units.

This course introduces the empirical and computational techniques necessary for numerical estimation and simulation in economics. Through examples in economics, the course covers topics such as optimization, function approximation, and monte carlo techniques. Emphasis will be placed on developing effective programming and research practices. The course is structured through a series of applications in such topics as segregation, occupational choice, and repeated games. The course will be taught in R and STATA. Though helpful, no previous experience with R or STATA is required.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): ECON 20100 and ECON 21020 or ECON 21030

ECON 21800. Experimental Economics. 100 Units.

This course provides the necessary tools to be an avid consumer of the experimental literature and instructs students on how to become a producer of that literature. Topics include a summary of recent experimental findings and details on how to gather and analyze data using experimental methods.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): ECON 20100 and ECON 21020 or ECON 21030

Equivalent Course(s): ECON 41100

ECON 22020. Economic Change in China, circa 1800–2000. 100 Units.

An overview of Chinese economic development since the end of the eighteenth century, with attention to its social, political, and environmental ramifications. Topics in the first part of the course include the Qing property-rights system and its implications for rural society; merchant organization; internal trade; migration; and the imperial political economy. This section of the course concludes with explanations of the economic and other crises that caused late-nineteenth- and early-twentieth- century China to be called the "land of famine." Part two covers changes in China's relationship to the outside world, the beginnings of industrialization, and the complex patterns of regional growth and stagnation up through the victory of the Communist Party in 1949. Part three looks at both Maoist (1949–1976) and post-Maoist development, emphasizing the economic consequences of institutional changes, industrialization and urbanization (especially since 1978), and the evolving tensions with a so-called "socialist market economy." Mostly lecture, with some class time for discussions, plus an online discussion board; midterm, final, and two short papers (5–7 pages each).

Instructor(s): K. Pomeranz Terms Offered: Autumn

Prerequisite(s): Some acquaintance with economics or with modern Chinese history may be helpful, but neither is required.

Equivalent Course(s): EALC 24621, HIST 24611

ECON 22600. Innovators. 100 Units.

Economists believe that innovation is a primary source of economic growth. Yet although most innovations are made by individuals or small groups, until recently economists have not studied how those exceptional people produce their discoveries. Recent research has shown that there are two very different types of innovators, who have different goals and follow different processes. This course surveys this research, examining the careers and innovations of important practitioners in a range of modern arts, including painters, novelists, sculptors, poets, movie directors, photographers, songwriters, and architects, as well as entrepreneurs and scientists. The material covered in this course adds a new dimension to our understanding of creativity and of how innovators in many different activities produce new forms of art and science.

Instructor(s): D. Galenson Terms Offered: Autumn

Prerequisite(s): ECON 20100

Equivalent Course(s): ECON 42900

ECON 22650. Creativity. 100 Units.

This seminar examines recent research on how creative people innovate in a wide range of intellectual activities. The main project for the course is a term paper that analyzes the creative life cycle of one or more innovators of the student's choice, using both quantitative and qualitative evidence. Students present their research in progress for discussion. The seminar is designed to give students all the tools

needed to do this research, including choosing a subject, finding and using an appropriate data set, and negotiating the relevant scholarship.

Instructor(s): D. Galenson Terms Offered: Winter
Prerequisite(s): ECON 19800 or consent of instructor
Equivalent Course(s): ECON 42800

ECON 23000. Money and Banking. 100 Units.

This course covers economic theories and topical issues in money and banking. We discuss such "traditional" topics as the quantity theory, the Phillips curve, and the money creation process. We also investigate models of bank runs and financial crises, the tradeoff between rules and discretion, and the New Macroeconomic Synthesis of New Classical. Other topics include New Keynesian approaches to modeling money and monetary policy, practical and institutional issues in European and U.S. monetary policy, and the 2008 financial crisis.

Instructor(s): K. Yoshida Terms Offered: Spring
Prerequisite(s): ECON 20200 (or ECON 20210) and ECON 21020 (or ECON 21030)

ECON 23200. Topics in Macroeconomics. 100 Units.

This course focuses on the use of dynamic general equilibrium models to study questions in macroeconomics. Topics include long-run growth and dynamic fiscal policy (Ricardian equivalence, tax smoothing, capital taxation), labor market search, industry investment, and asset pricing. On the technical side, we cover basic optimal control (Hamiltonians) and dynamic programming (Bellman equations).

Instructor(s): N. Stokey Terms Offered: TBD
Prerequisite(s): ECON 20200 (or ECON 20210) and MATH 20300

ECON 23220. Introduction to Advanced Macroeconomic Analysis. 100 Units.

This course introduces students to advanced methods for macroeconomic analysis. In the first part, we discuss time series methods such as impulse response analysis, vector autoregression, co-integration, shock identification, and business cycle detrending. In the second part, we examine and analyze a simple, yet powerful stochastic dynamic real business cycle model. In that context, the students will learn about dynamic programming, rational expectations, intertemporal optimization, asset pricing, the Frisch elasticity of labor supply, log-linearization, and computational tools to solve for the recursive law of motion of dynamic stochastic general equilibrium models. Finally, we touch upon some further models, such as the overlapping generations model and/or the continuous-time neoclassical growth model. The course is useful for students interested to deepen their knowledge in macroeconomics, in order to read, understand, and replicate some of the recent research in the field; as preparation for careers involving macroeconomic analysis, time series analysis, or asset pricing; or as preparation for graduate school. Decent knowledge of linear algebra and calculus is required. All advanced material will be taught in class.

Instructor(s): H. Uhlig Terms Offered: Winter
Prerequisite(s): ECON 20200 (or ECON 20210) and ECON 21020 (or ECON 21030)

ECON 23330. Introduction to Dynamic Economic Modeling. 100 Units.

This course provides an introduction to dynamic economic models, with applications to macroeconomics, labor economics, financial economics, and other subfields of economics. The core methodology will be consistent over time, but the applications will vary from year to year. The course will analyze decentralized equilibrium and social planner's problems in dynamic environments. It will focus on developing techniques for analyzing such models graphically, analytically, and computationally. Students should be familiar with constrained optimization (e.g. Lagrangians), linear algebra, and difference equations, as well as microeconomics, macroeconomics, and econometrics at an intermediate level.

Instructor(s): R. Shimer Terms Offered: Winter
Prerequisite(s): ECON 20200 (or ECON 20210) and ECON 21020 (or ECON 21030)

ECON 23410. Economic Growth. 100 Units.

The process of economic growth and the sources of differences in economic performance across nations are some of the most interesting, important and challenging areas in modern social science. You cannot travel or read the news without wondering why differences in standards of living among countries are so large. The primary purpose of this course is to introduce undergraduate students to these major issues and to the theoretical tools necessary for studying them. The course therefore strives to provide students with a solid background in dynamic economic analysis, as well as empirical examples and data analysis. We will cover models at an abstract and advanced level. You must have the degree of mathematical maturity associated with the concepts of functions, derivatives, integrals, Taylor series, optimization, ordinary differential equations. Some basic knowledge on regression analysis is also required.

Instructor(s): U. Akcigit Terms Offered: Winter

Prerequisite(s): ECON 20200 (or ECON 20210) and ECON 21020 (or ECON 21030)

ECON 23620. Inequality: A Perspective from Macroeconomics. 100 Units.

This is an advanced undergraduate course on inequality from a macroeconomic perspective. We will learn how to measure, model, and evaluate the distributional consequences of economic policies and institutions. There is a heavy empirical component: We will study the key features of the distributions of consumption, income, wealth, and leisure, and how these distributions evolve over time and over the lifecycle. There is a heavy theoretical component: We will learn about the benchmark macroeconomic models that can be used to generate predictions about these distributions. There is a heavy computational component: We will learn how to solve heterogeneous agent models on a computer and compare model predictions with the data. Students should be familiar with a programming language such as Matlab, Python, Julia, Fortran, or C and with a statistical package such as Stata or R.

Instructor(s): G. Kaplan Terms Offered: Autumn

Prerequisite(s): ECON 20200 (or ECON 20210) and ECON 21020 (or ECON 21030)

ECON 23950. Economic Policy Analysis. 100 Units.

Building on the tools and methods that are developed in the core courses, this course analyzes fiscal and monetary policy and other topical issues. We use both theoretical and empirical approaches to understand the real-world problems.

Instructor(s): Staff Terms Offered: Spring

Prerequisite(s): ECON 20200; ECON 21020 or 21030 strongly recommended.

ECON 24000. Labor Economics. 100 Units.

Topics include the theory of time allocation, the payoffs to education as an investment, detecting wage discrimination, unions, and wage patterns. Most of the examples are taken from U.S. labor data, although we discuss immigration patterns and their effects on U.S. labor markets. Some attention is also given to the changing characteristics of the workplace.

Instructor(s): Staff Terms Offered: TBD

Prerequisite(s): ECON 20100 and ECON 21020 (or ECON 21030)

ECON 24030. Understanding Labor Markets: Theory, Empirics, and Policies. 100 Units.

The goal of the course is to understand both theoretically and empirically how individuals choose how much to work, how firms choose how to create jobs, and how these two interact in equilibrium and are affected by labor policies. We will study labor supply decisions of individuals and families, and how they respond to changes in wages, benefits, taxation, and macro conditions. Such decisions will be analyzed in both perfect and imperfect labor markets. Next we will look at how firms choose their inputs, including labor and capital, and at firm dynamics in the presence of adjustment costs both in theory and in the data. The final part of the course will combine firms' and workers' decisions in equilibrium. We will study how wages are formed and how workers get allocated to jobs. We will look at the effect of minimum wage, extension of unemployment benefits, and firing cost both within the models and using micro data evidence. Students should expect to come out of this course with a much better understanding of the forces at play in the labor market and their implications for policies.

Instructor(s): T. Lamadon Terms Offered: Winter
Prerequisite(s): ECON 20100 and ECON 21020 or ECON 21030

ECON 24450. Inequality and the Social Safety Net. 100 Units.

This course will introduce students to key economic and conceptual issues surrounding inequality and the social safety net. We will study the theoretical underpinnings and empirical analysis of the social safety net, focusing on the effects of social insurance and public assistance programs on individual and societal outcomes. After studying models of the insurance-incentive tradeoff, we will apply these models and econometric strategies to the empirical analysis of social safety net programs. We will study how social safety net programs interact with labor markets, specifically human capital investment and work decisions, and how they affect long-term outcomes such as income, health, well-being, and inequality. Students will learn how to analyze the tradeoffs involved in social safety net programs and will learn the current state of evidence on these programs.

Instructor(s): M. Deshpande Terms Offered: Spring
Prerequisite(s): ECON 20100 and ECON 21020 or ECON 21030

ECON 24720. Inequality: Origins, Dimensions, and Policy. 100 Units.

For the last three decades, incomes in the United States and across the globe have grown more unequal. That fact has attracted worldwide attention from scholars, governments, religious figures, and public intellectuals. In this interdisciplinary course, participating faculty members drawn from across the University and invited guest speakers will trace and examine the sources and challenges of inequality and mobility in many of its dimensions, from economic, political, legal, biological, philosophical, public policy, and other perspectives.

Instructor(s): A. Sanderson and Staff Terms Offered: Winter
Prerequisite(s): Third- or fourth-year standing
Equivalent Course(s): PBPL 28920, BPRO 28900

ECON 25000. Finance. 100 Units.

This course develops the tools to quantify the risk and return of financial instruments. These are applied to standard financial problems faced by firms and investors. Topics include arbitrage pricing, the capital asset pricing model, and the theory of efficient markets and option pricing.

Instructor(s): Staff Terms Offered: Autumn, Spring, Winter
Prerequisite(s): ECON 23950 and ECON 21020 or ECON 21030

ECON 25100. Financial Economics; Speculative Markets. 100 Units.

This course focuses on the description, pricing, and hedging of basic derivative claims on financial assets. We study the characteristics, uses, and payoffs of a variety of contracts where the underlying claims include commodities, foreign currencies, bonds, stocks, or stock indices. We examine contracts such as options, swaps, and futures contracts. We use a unified approach (the technique of portfolio replication) to study pricing of these claims. Students also gain an understanding of strategies for hedging of the risks inherent in holding these derivative claims.

Instructor(s): F. Alvarez Terms Offered: Spring
Prerequisite(s): ECON 20100 and STAT 23400 (or ECON 21010)

ECON 26020. Public Sector Economics. 100 Units.

This course addresses the measurement, explanation, and consequences of government activity including tax systems, expenditure programs, and regulatory arrangements. Topics include cross-country comparisons of government behavior, market analyses of public policy, the incidence of government activity, and effects of economic activity on politics and public policy.

Instructor(s): C. Mulligan Terms Offered: Not offered in 2017-18
Prerequisite(s): ECON 23950 AND ECON 21020 (or ECON 21030); or consent of instructor

ECON 26500. Environmental Economics. 100 Units.

This course applies theoretical and empirical economic tools to environmental issues. We discuss broad concepts such as externalities, public goods, property rights, market failure, and social cost-benefit analysis. These concepts are applied to areas that include nonrenewable resources, air and water pollution, solid waste management, and hazardous substances. We emphasize analyzing the optimal role for public policy.

Instructor(s): G. Tolley, S. Shaikh Terms Offered: Autumn

Prerequisite(s): ECON 20100

Equivalent Course(s): ENST 26500

ECON 26530. Environment, Agriculture, and Food: Economic and Policy Analysis. 100 Units.

The connections between environment, agriculture, and food are inherent in our social, cultural, and economic networks. Land use, natural resource management, energy balances, and environmental impacts are all important components in the evolution of agricultural systems. Therefore it is important to develop ways in which to understand these connections in order to design effective agricultural programs and policies. This course is designed to provide students with guidance on the models and tools needed to conduct an economic research study on the intersecting topics of environment, agriculture, and food. Students learn how to develop original research ideas using a quantitative and applied economic policy analysis for professional and scholarly audiences. Students collect, synthesize, and analyze data using economic and statistical tools. Students provide outcomes and recommendations based on scholarly, objective, and policy relevant research rather than on advocacy or opinions, and produce a final professional-quality report for a workshop presentation and publication. This small seminar course is open by instructor consent to undergraduate and graduate students who meet the prerequisites. For consideration, please submit a one-page proposal of research to pge@uchicago.edu.

Instructor(s): S. Shaikh Terms Offered: Winter

Prerequisite(s): ECON 20000 or ECON 20100 or PBPL 20000 or PBPL 22200 (or equivalent), STAT 22000 or STAT 23400 or PBPL 26400 (or equivalent); for ECON Enrollment: ECON 20000 and ECON 20100, STAT 23400

Equivalent Course(s): PBPL 26530,PPHA 32510,ENST 26530

ECON 26540. Environment, Agriculture, and Food: Advanced Economic and Policy Analysis. 100 Units.

This course is an extension of ENST 26530 but also stands alone as a complete course itself. Students don't need to take ENST 26530 to enroll in this course. This small seminar course is open by instructor consent to undergraduate and graduate students who meet the prerequisites. For consideration, please submit a one-page proposal of research to pge@uchicago.edu.

Instructor(s): S. Shaikh Terms Offered: Not offered 2017-18

Prerequisite(s): ECON 20000 or ECON 20100 or PBPL 20000 or PBPL 22200 (or equivalent), STAT 22000 or STAT 23400 or PBPL 26400 (or equivalent); for ECON Enrollment: ECON 20000 and ECON 20100, STAT 23400

Equivalent Course(s): PBPL 26531,PPHA 32520,ENST 26531

ECON 26700. Economics of Education. 100 Units.

This course explores economic models of the demand for and supply of different forms of schooling. The course examines the markets for primary, secondary, and post-secondary schooling. The course examines numerous public policy questions, such as the role of government in funding or subsidizing education, the design of public accountability systems, the design of systems that deliver publicly funded (and possibly provided) education, and the relationship between education markets and housing markets.

Instructor(s): D. Neal Terms Offered: TBD

Prerequisite(s): ECON 21020 or ECON 21030

Equivalent Course(s): PBPL 26700

ECON 26730. Global Energy & Climate Challenge: Economics, Science & Policy. 100 Units.

The global energy and climate challenge is one of the most important and urgent problems society faces. Progress requires identifying approaches to ensure people have access to the inexpensive and reliable energy critical for human development, without causing disruptive climate change or unduly

compromising health and the environment. The course pairs technical and economic analysis to develop an understanding of policy challenges in this area. Lecture topics will include the past, present, and future of energy supply and demand, global climate change, air pollution and its health consequences, selected energy technologies such as solar photovoltaics, nuclear power, unconventional oil and gas, and an analysis of theoretical and practical policy solutions in developed and emerging economies.

Instructor(s): M. Greenstone, J. Deutch Terms Offered: Autumn

Prerequisite(s): PQ: Third- or fourth-year standing in the College.

Equivalent Course(s): ENST 28220,PBPL 29200,BPRO 29200

ECON 26800. Energy and Energy Policy. 100 Units.

This course shows how scientific constraints affect economic and other policy decisions regarding energy, what energy-based issues confront our society, how we may address them through both policy and scientific study, and how the policy and scientific aspects can and should interact. We address specific technologies, both those now in use and those under development, and the policy questions associated with each, as well as with more overarching aspects of energy policy that may affect several, perhaps many, technologies.

Instructor(s): S. Berry, G. Tolley Terms Offered: Autumn

Prerequisite(s): PQ: Third- or fourth-year standing. For ECON majors who want ECON credit for this course (ECON 26800): PQ is ECON 20100.

Equivalent Course(s): CHSS 37502,ENST 29000,PBPL 29000,PPHA 39201,PSMS 39000,BPRO 29000

ECON 27000. International Economics. 100 Units.

This course covers international economics with an emphasis on international trade. The basic theories of international trade are introduced and used to analyze welfare and distributional effects of international trade, government policies, and technology diffusion. In addition, this course also discusses the main empirical patterns of international trade and international investment.

Instructor(s): F. Tintelnot Terms Offered: Spring

Prerequisite(s): ECON 20100

Equivalent Course(s): PBPL 27000

ECON 27700. Health Economics and Public Policy. 100 Units.

This course analyzes the economics of health and medical care in the United States with particular attention to the role of government. The first part of the course examines the demand for health and medical care and the structure and the consequences of public and private insurance. The second part of the course examines the supply of medical care, including professional training, specialization and compensation, hospital competition, and finance and the determinants and consequences of technological change in medicine. The course concludes with an examination of recent proposals and initiatives for health care reform.

Instructor(s): D. Meltzer Terms Offered: Spring

Prerequisite(s): PBPL 20000 or ECON 20000 and one undergraduate course in quantitative research methods (Statistics or Econometrics) or the equivalent or consent of the instructor

Equivalent Course(s): PPHA 38300,CCTS 38300,PBHS 38300,PBPL 28300

ECON 28000. Industrial Organization. 100 Units.

This course extends the analysis from ECON 20100, with a focus on understanding the way firms make decisions and the effects of those decisions on market outcomes and welfare. The course examines the structure and behavior of firms within industries. Topics include oligopolistic behavior, the problems of regulating highly concentrated industries, and the implementation of U.S. antitrust policy.

Instructor(s): M. Dinerstein Terms Offered: Winter

Prerequisite(s): ECON 20100

ECON 28060. The Economics of Organizations: An Experimental Perspective. 100 Units.

This course offers an introduction to the experimental methodology while at the same time providing the students with up-to-date insights and findings on how to run an organization and how to manage a workforce. Students will learn the basics of the experimental methodology, learn about the most ground-breaking findings in experimental economics related to the functioning of firms, and know the relevant papers and findings in organizational and personnel economics with a particular emphasis on the question of how to set incentives for workers.

Instructor(s): S. Neckermann Terms Offered: Autumn

Prerequisite(s): ECON 20100 and STAT 23400; Econ 21000 strongly recommended.

ECON 28100. The Economics of Sports. 100 Units.

This is a course in microeconomics that applies traditional product and factor market theory and quantitative analysis to contemporary economic issues in professional and college athletics. Topics include the sports business; market structures and outcomes; the market for franchises; barriers to entry, rival leagues, and expansion; cooperative, competitive, and collusive behavior among participants; labor markets, productivity, and compensation of players; racial discrimination; public policies and antitrust legislation; and financing of stadiums.

Instructor(s): A. Sanderson Terms Offered: Spring

Prerequisite(s): ECON 20100; ECON 21020 or ECON 21030 strongly recommended

ECON 28600. Economic Analysis of Law. 100 Units.

This course involves the application of the choice theory of economics to the opportunities obtainable within different legal environments. The likelihood that a person will choose to return a lost wallet, keep a promise, drive more carefully, or heed the terms in a will is partly a function of the applicable laws and regulations. Alternative rules, under the standard Law and Economics approach, are compared in terms of the economic efficiency of their subsequent outcomes. This efficiency lens of Law and Economics is applied to rules concerning property, torts, contracts, and criminal behavior.

Instructor(s): J. Leitzel Terms Offered: Autumn

Prerequisite(s): ECON 20100

Equivalent Course(s): PBPL 28605

ECON 28700. The Economics of Crime. 100 Units.

This course uses theoretical and empirical economic tools to analyze a wide range of issues related to criminal behavior. Topics include the police, prisons, gang behavior, guns, drugs, capital punishment, labor markets and the macroeconomy, and income inequality. We emphasize the analysis of the optimal role for public policy.

Instructor(s): S. Levitt Terms Offered: TBD

Prerequisite(s): ECON 20100 required; ECON 21020, STAT 23400 or ECON 21010 strongly recommended

Equivalent Course(s): PBPL 23200

ECON 29700. Undergraduate Reading and Research. 100 Units.

Students are required to submit the College Reading and Research Course Form.

Instructor(s): J. Wong Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Consent of directors of the undergraduate program

ECON 29800. Undergraduate Honors Workshop. 100 Units.

For details, see the preceding Honors section.

Instructor(s): G. Tsiang, V. Lima Terms Offered: Autumn, Winter, Spring

Prerequisite(s): Faculty sponsorship and consent of honors workshop supervisors